

Troubleshooting Guide

- mechanical -



Xperia™ Z1
LT39t, L39u, C6916

CONTENTS

1	Problem Areas	5
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.....	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	Loudspeaker-L39t/L39u Specific.....	15
1.6.2	Loudspeaker-C6916 Specific.....	17
1.7	Earphone	19
1.7.1	Ear Speaker.....	19
1.8	Microphone.....	20
1.8.1	Primary Microphone.....	20
1.8.2	Secondary Microphone.....	21
1.9	Vibrator	24
1.9.1	Vibrator not generating alerts	24
1.10	Camera.....	26
1.10.1	Main Camera	26
1.10.2	Video Call Camera defects.....	27
1.11	Flash LED	28
1.11.1	Flash LED not flashing.....	28
1.12	Bluetooth and WLAN	30
1.12.1	Bluetooth or WLAN connection failure.....	30
1.13	NFC	31
1.13.1	NFC malfunctions.....	31
1.14	GPS	32
1.14.1	GPS malfunctions.....	32
1.15	Compass.....	33
1.15.1	Compass fails	33
1.16	Accelerometer	34
1.16.1	Accelerometer test fails	34
1.17	Gyroscope	35
1.17.1	Gyroscope test fails	35
1.18	Ambient Light Sensor	36

1.18.1	Light Sensor malfunctions	36
1.19	Proximity Switch	38
1.19.1	Proximity switch malfunctions.....	38
1.20	Pressure Sensor.....	40
1.20.1	Pressure Sensor test fails.....	40
1.21	Water Resistance	41
1.21.1	Water Resistance fails-L39t/L39u Specific	41
1.21.2	Water Resistance fails-C6916 Specific	47
1.22	Real Time Clock	53
1.22.1	Real time clock test fails	53
1.23	Total call time	54
1.23.1	Total call time fails	54
1.24	External Memory-C6916 Specific	55
1.24.1	Memory Card not detected	55
1.25	Security.....	56
1.25.1	Security fails	56
1.26	FM Radio.....	57
1.26.1	No/Poor FM Radio reception	57
1.27	Battery Health test	58
1.27.1	Battery Health test fails.....	58
1.28	Flip Slider Counter	59
1.28.1	Flip Slider Counter fails	59
1.29	Verify Certificates.....	60
1.29.1	Verify Certificates fails	60
1.30	IrDA Test	61
1.30.1	IrDA test fails	61
1.31	TV-Out Test.....	62
1.31.1	TV-Out test fails	62
1.32	Network & Signal.....	63
1.32.1	No/Poor signal-L39t/L39u Specific.....	63
1.32.2	No/Poor signal-C6916 Specific.....	70
1.33	SIM	74
1.33.1	SIM not detected.....	74
1.33.2	Incorrect UIM or SIM indicated	74
1.34	Charging	75
1.34.1	Battery will not charge by USB connector	75
1.34.2	Battery will not charge by charge pad.....	75
1.35	HandsFree by Wire.....	78
1.35.1	Connection to portable Handsfree fails.....	78
1.36	Data Communication	79
1.36.1	Data transfer via System Connector fails.....	79
2	Revision History	80

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

Always finally connect the Battery FPC BtB connector before the Sub Antenna Assy is reassembled.

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

Note: Gyroscope and Accelerometer Calibration always must be performed for Board Swap; 1279-7188 Test Instruction – mechanical.

If there are no special indications of 'L39t/L39u Specific' or 'C6916 Specific', L39t, L39u and C6916 share the same trouble shooting guide as common sections, whose pictures are used with L39t.

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 1279-7188 Test Instruction - mechanical chapter 2.3.7 (Charging via USB and Easy Charger), Diagnostic Battery / Charging status.

Check:

Inspect the on/off key.

Action:

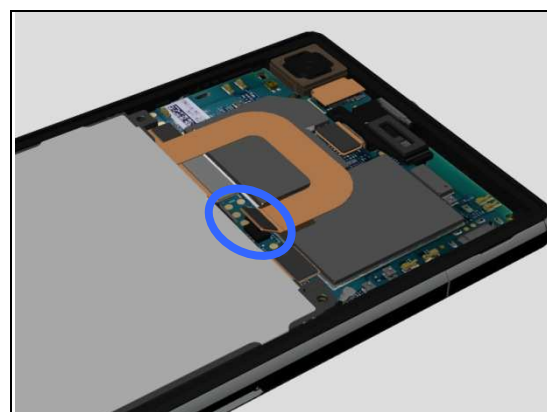
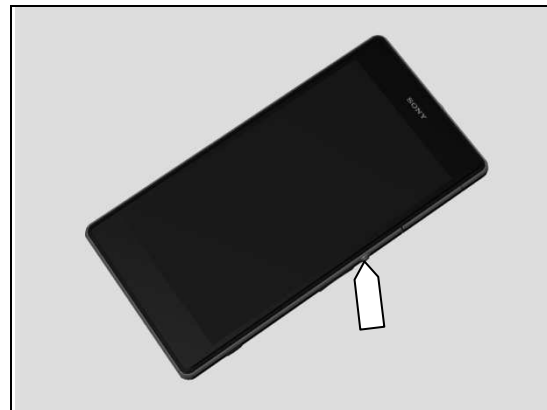
Refer to section 1.2.3 'On/Off Key'.

Check:

Inspect the BtB connector of the Battery to Main PBA.

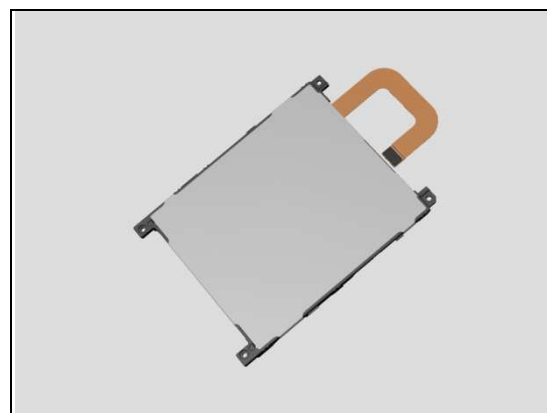
Action:

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, the Battery FPC or the Battery is damaged – replace the Battery.
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.



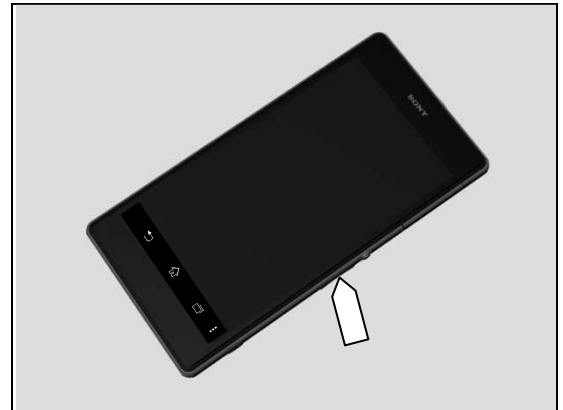
1.2.2 Volume Key

Check:

Inspect the external area of the Key Volume.

Action:

If dirty – clean it.



Check:

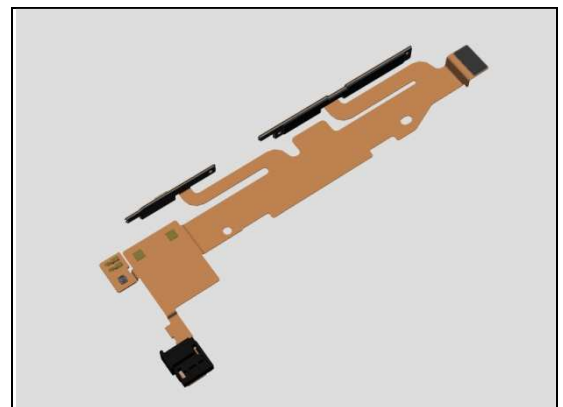
Inspect the BtB connector of FPC Assy Relay/Side Key to Main PBA.

Action:

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



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



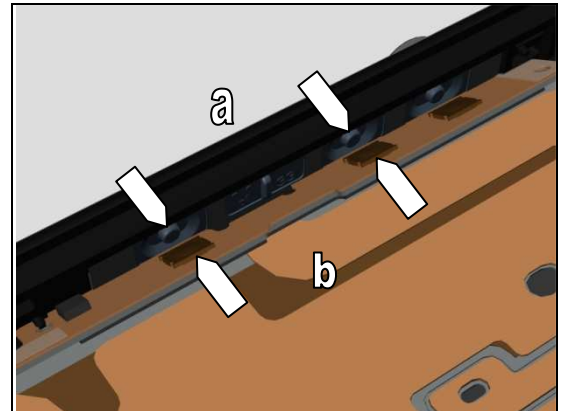
Problem Areas: Keys

Check:

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

Action:

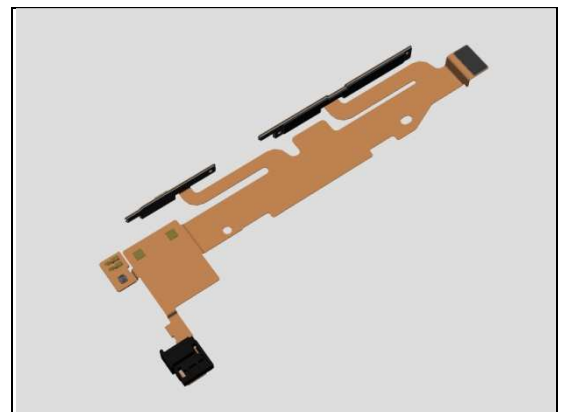
1. If dirty – clean them.



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



3. If the volume key switch is damaged – replace the FPC Assy Relay/Side Key.



1.2.3 On/Off Key

Check:

Inspect the external area of the Power Key.

Action:

If dirty – clean it.



Problem Areas: Keys

Check:

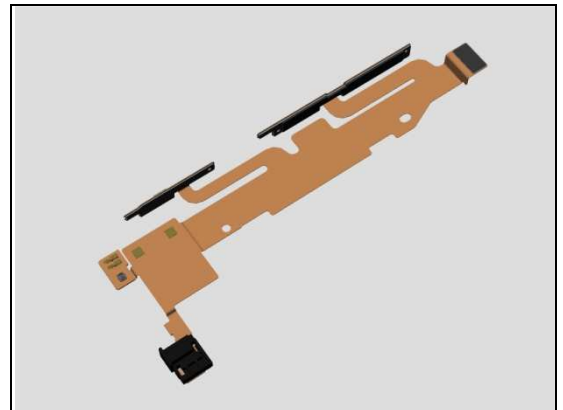
Inspect the BtB connector of FPC Assy Relay/Side Key to Main PBA.

Action:

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



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

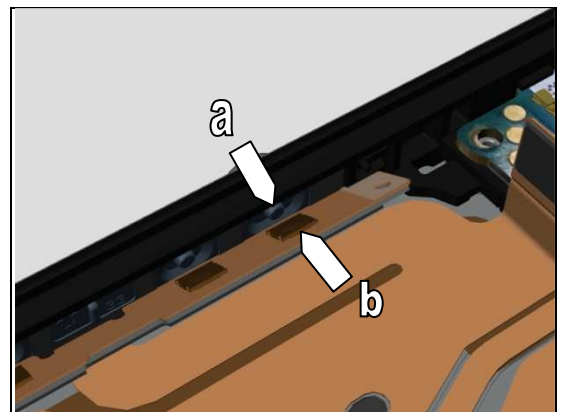


Check:

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

Action:

1. If dirty – clean them.



2. If the rubber of the power key is damaged – replace the Display Frame Assy.



Problem Areas: Keys

3. If the power key switch is damaged – replace the FPC Assy Relay/Side Key.

1.2.4 Camera Key

Check:

Inspect the external area of the Camera Key.

Action:

If dirty – clean it.

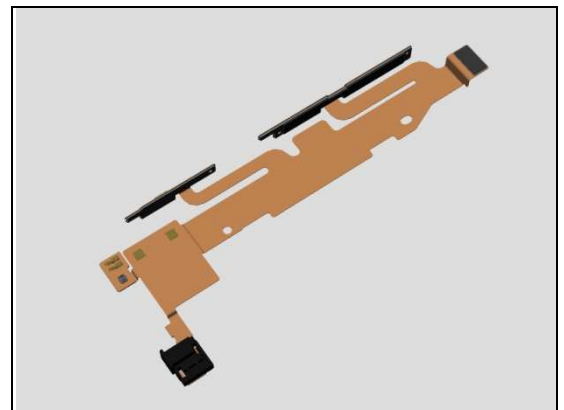
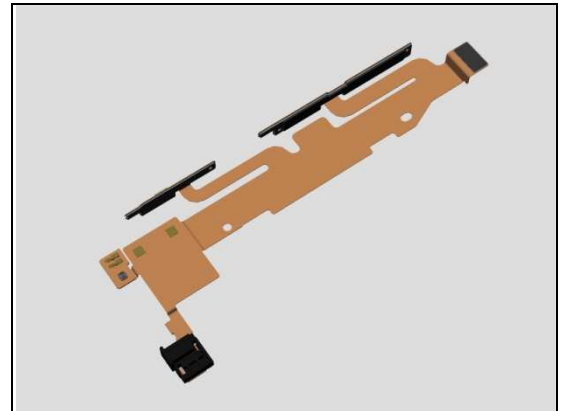
Check:

Inspect the BtB connector of FPC Assy Relay/Side Key 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 FPC Assy Relay/Side Key is damaged – replace the FPC Assy Relay/Side Key.
4. Replace Main PBA.



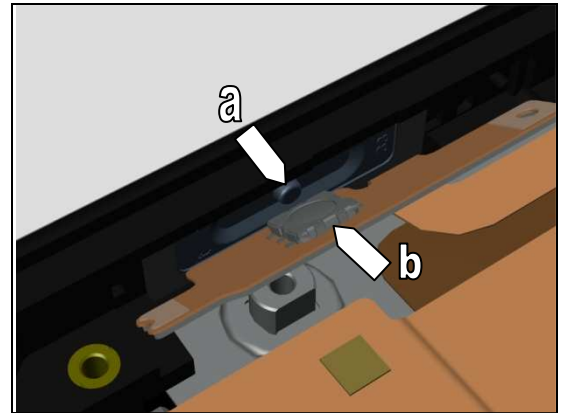
Problem Areas: Keys

Check:

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

Action:

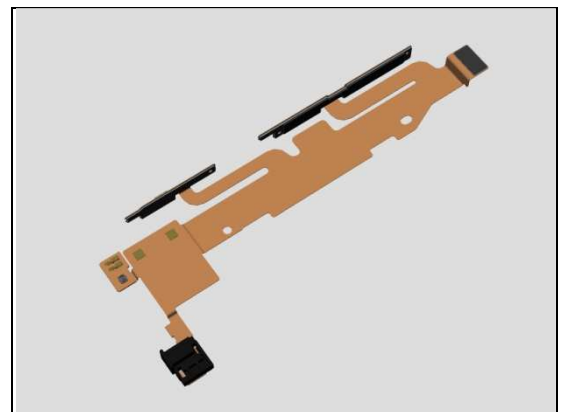
1. If dirty – clean them.



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



2. If the camera key switch is damaged – replace the FPC Assy Relay/Side Key.



Problem Areas

1.3 Touch Screen

1.3.1 Touch Screen malfunction

Check:

Inspect the touch screen of the Display Frame Assy.

Action:

1. If dirty – clean it.



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

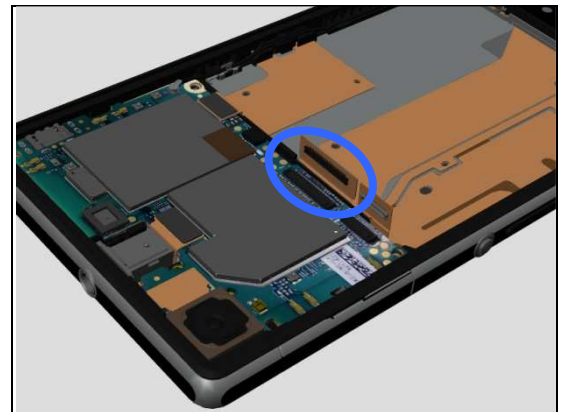


Check:

Inspect the BtB connector of Display Frame Assy FPC 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 Display Frame Assy FPC or FPC is damaged – replace the Display Frame 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'.

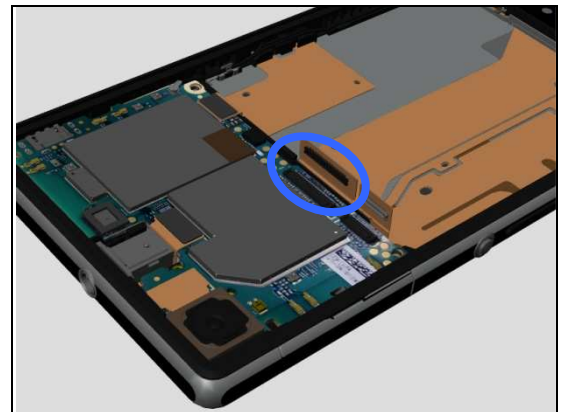


Check:

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



Problem Areas

1.5 LED/Illumination

1.5.1 LED/Illumination

Check:

Inspect external port of LED on the Display Frame Assy.

Action:

1. If dirty – clean it.

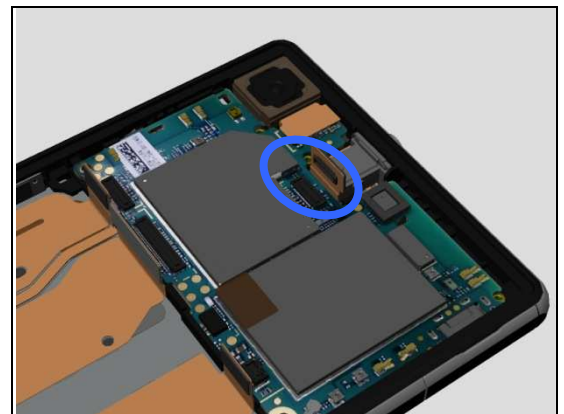


Check:

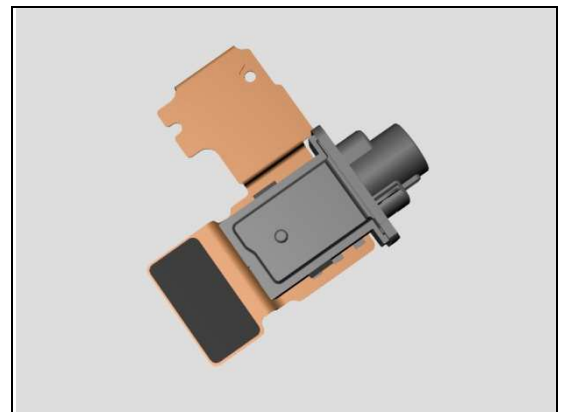
Inspect the BtB connector of FPC Assy Audio Jack to Main PBA.

Action:

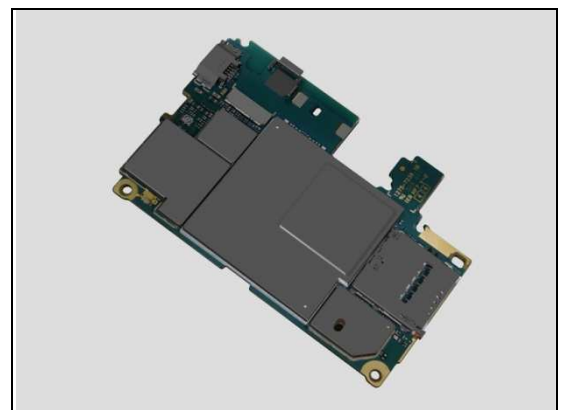
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector of FPC Assy Audio Jack or FPC is damaged – replace the FPC Assy Audio Jack.



4. Replace Main PBA.



Problem Areas

1.6 Speaker

1.6.1 Loudspeaker-L39t/L39u Specific

Check:

Inspect the Speaker Panel on the Display Frame Assy.

Action:

1. If the Speaker Panel is clogged – clean it.

2. If the Speaker Panel is damaged – replace the Speaker Panel.

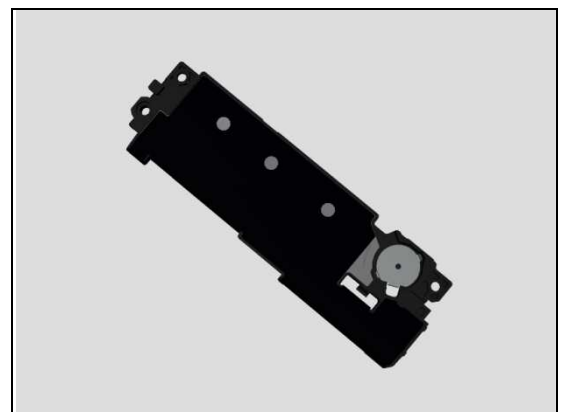
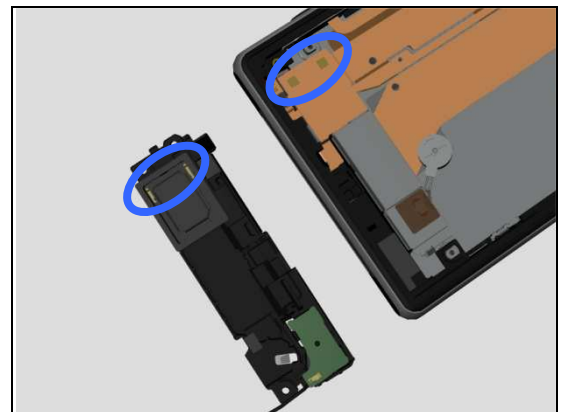
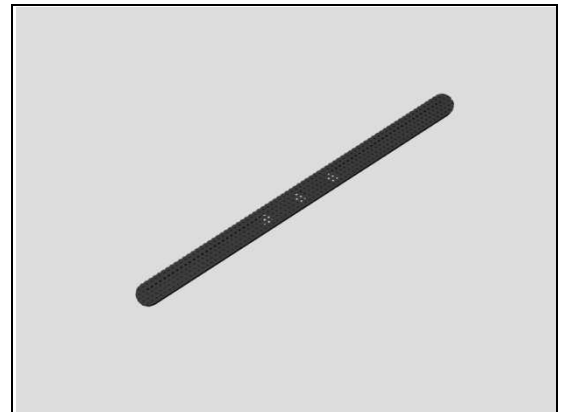
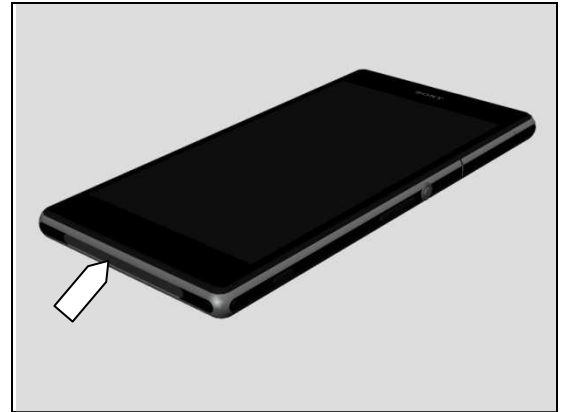
Check:

Inspect the contact pads of Loudspeaker and the contact pads on the FPC Assy Relay/Side Key.

Action:

1. If dirty – clean them.

2. If the contact pads of Loudspeaker or the Loudspeaker are damaged – replace the Main Antenna Speaker Sub Assy.



Problem Areas: Speaker

3. If the contact pads of FPC Assy Relay/Side Key are damaged - replace the FPC Assy Relay/Side Key.

Check:

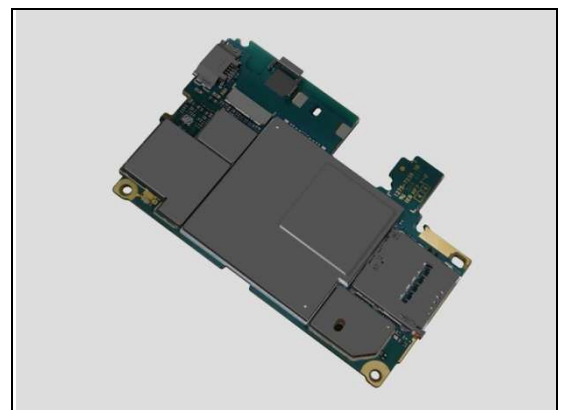
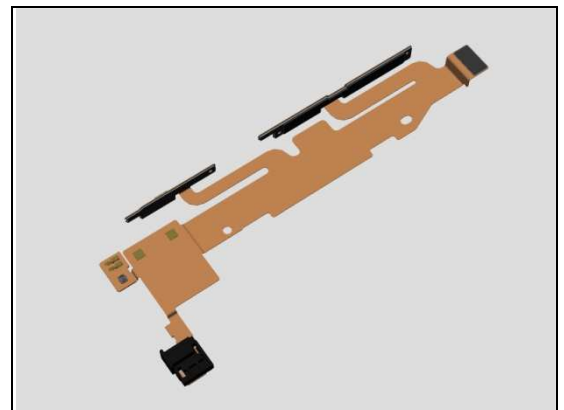
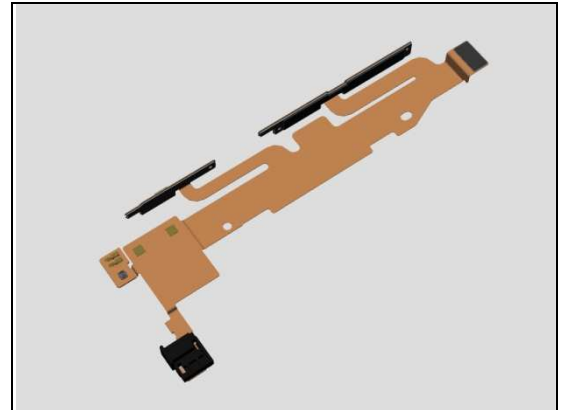
Inspect the BtB connector of FPC Assy Relay/Side Key to Main PBA.

Action:

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

3. If the BtB connector of FPC Assy Relay/Side Key or FPC is damaged – replace the FPC Assy Relay/Side Key.

4. Replace Main PBA.



Problem Areas: Speaker

1.6.2 Loudspeaker-C6916 Specific

Check:

Inspect the Speaker Panel on the Display Frame Assy.

Action:

1. If the Speaker Panel is clogged – clean it.

2. If the Speaker Panel is damaged – replace the Speaker Panel.

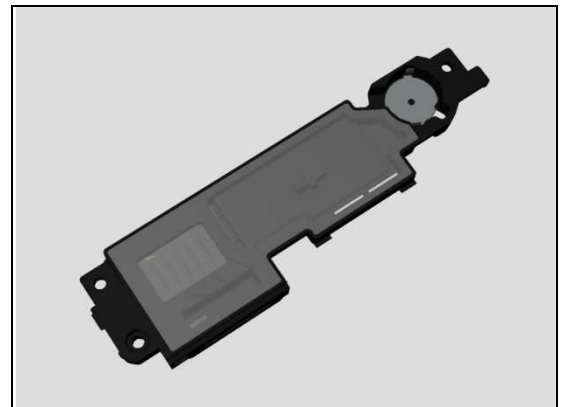
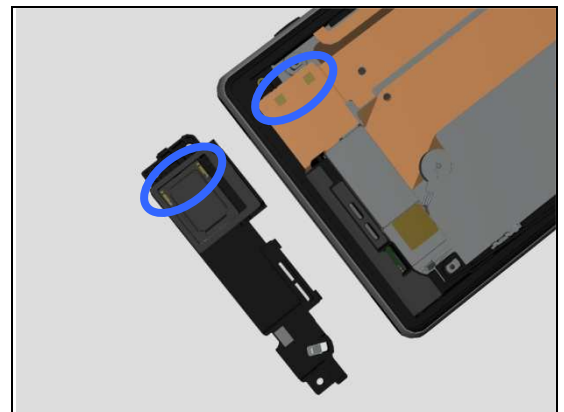
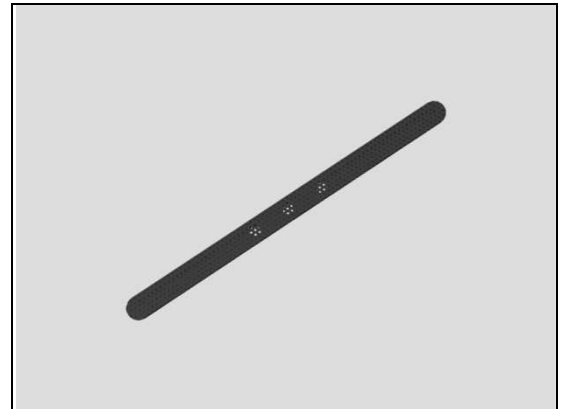
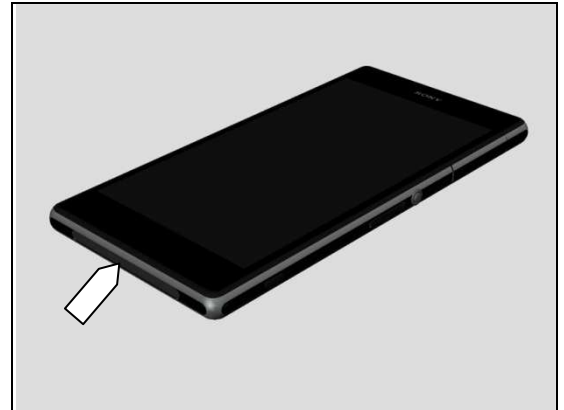
Check:

Inspect the contact pads of Loudspeaker and the contact pads on the FPC Assy Relay/Side Key.

Action:

1. If dirty – clean them.

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



Problem Areas: Speaker

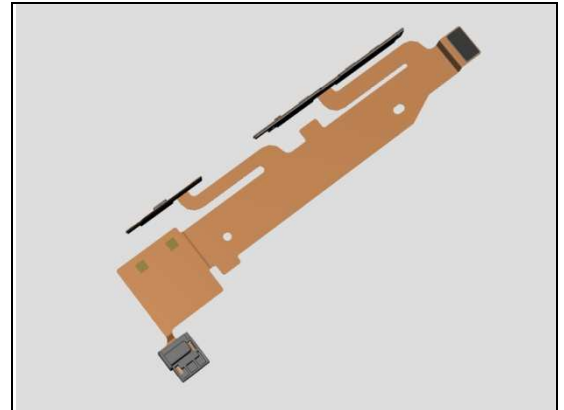
3. If the contact pads of FPC Assy Relay/Side Key are damaged - replace the FPC Assy Relay/Side Key.

Check:

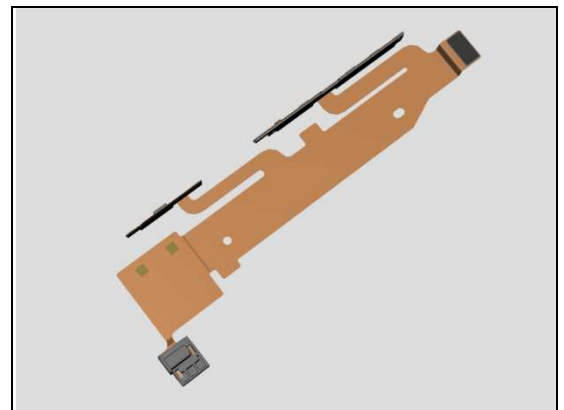
Inspect the BtB connector of FPC Assy Relay/Side Key to Main PBA.

Action:

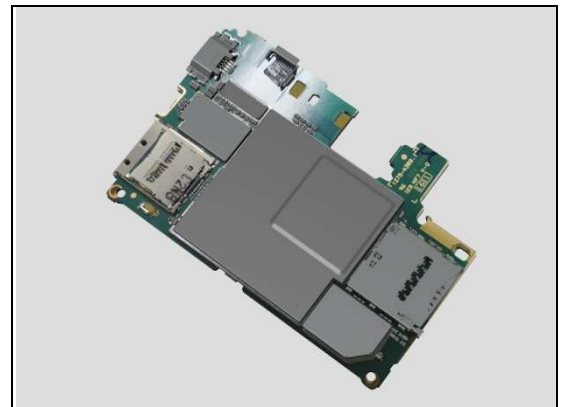
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector of FPC Assy Relay/Side Key or FPC is damaged – replace the FPC Assy Relay/Side Key.



4. Replace Main PBA.



Problem Areas

1.7 Earphone

1.7.1 Ear Speaker

Check:

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

Action:

1. If clogged – clean it.

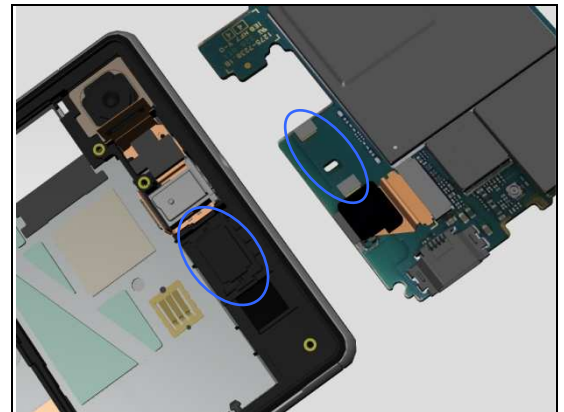


Check:

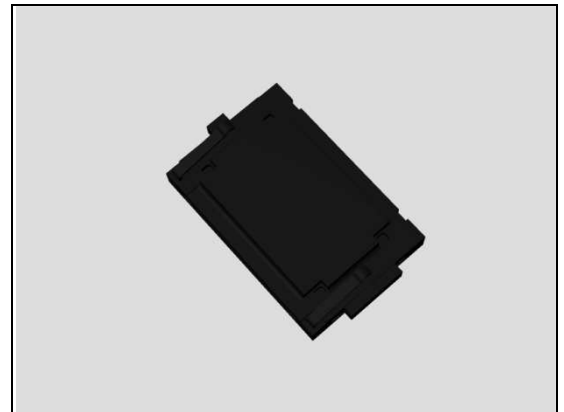
Inspect the contact pads of Ear Speaker and the Ear Speaker Conductive Films on the Main PBA.

Action:

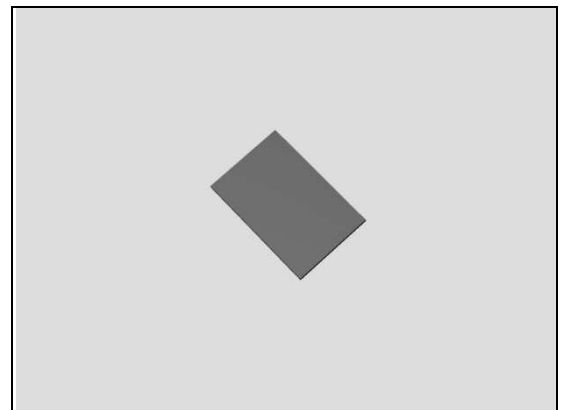
1. If dirty – clean them.



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



3. If Conductive Film Ear Speaker is damaged – replace Conductive Film Ear Speaker.
4. Replace Main PBA.



Problem Areas

1.8 Microphone

1.8.1 Primary Microphone

Check:

Inspect the Speaker Panel on the Display Frame Assy.

Action:

1. If clogged – clean it.

2. If the Speaker Panel is damaged – replace the Speaker Panel.

Check:

Inspect the microphone on the FPC Assy Relay/Side Key.

Action:

1. If clogged – clean it.

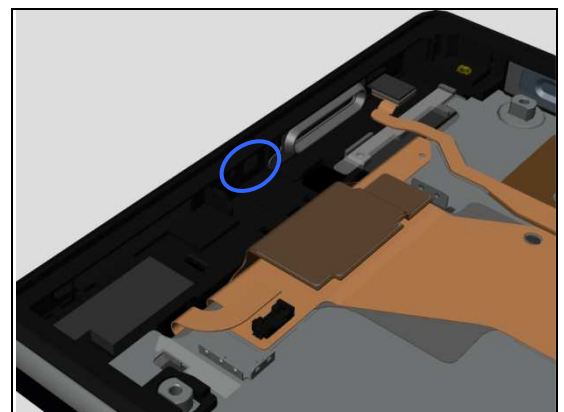
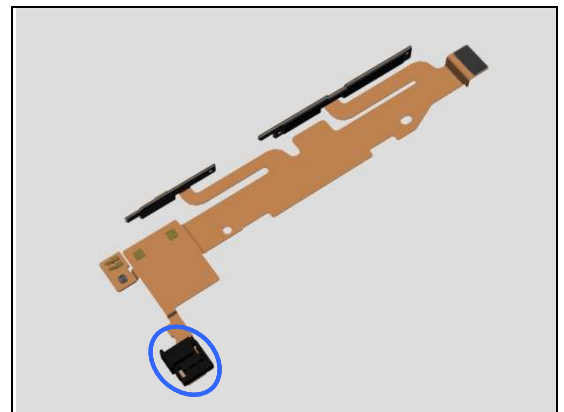
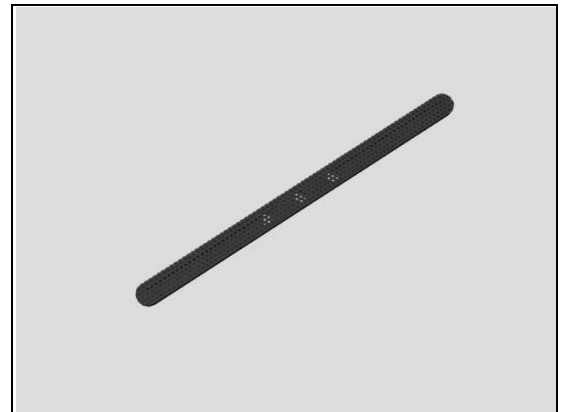
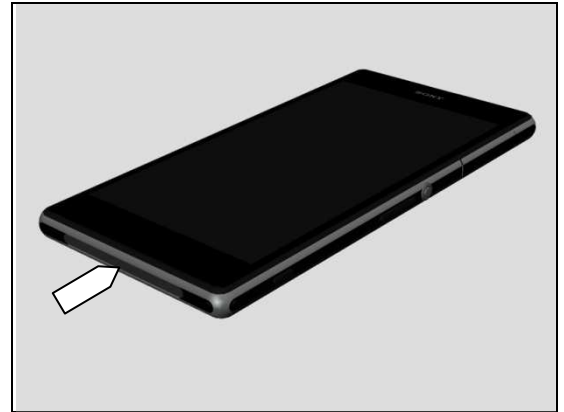
2. If the microphone is damaged – replace the FPC Assy Relay/Side Key.

Check:

Inspect the 1st Mic Cushion on Display Frame Assy.

Action:

1. If dirty – clean them.



Problem Areas: Microphone

2. If the 1st Mic Cushion is damaged – replace Display Frame Assy.

Check:

Inspect the BtB connector of FPC Assy Relay/Side Key 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 Assy Relay/Side Key or FPC is damaged – replace the FPC Assy Relay/Side Key.
4. Replace Main PBA.

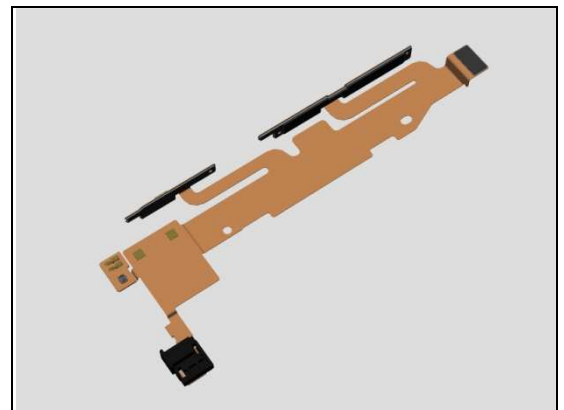
1.8.2 Secondary Microphone

Check:

Inspect the external port of secondary microphone on the Window Back Sub Assy.

Action:

1. If clogged – clean it.



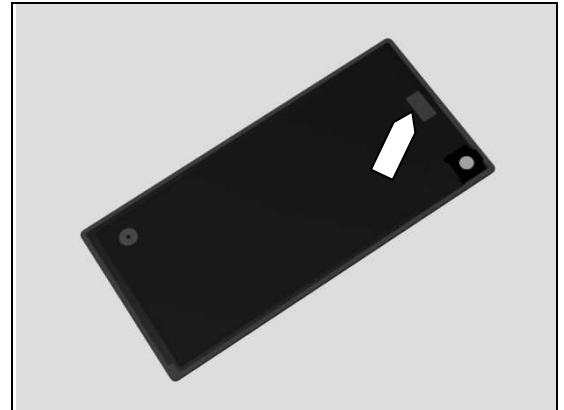
Problem Areas: Microphone

Check:

Inspect the Sheet WP 2nd Mic on the Window Back Sub Assy.

Action:

1. If dirty – clean them.



2. If the Sheet WP 2nd Mic is damaged – replace the Window Back Sub Assy.

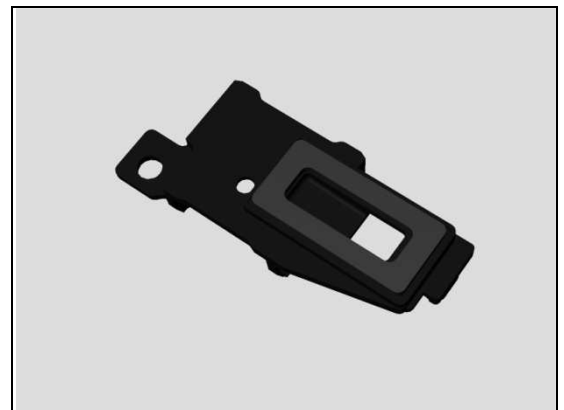


Check:

Inspect the Holder FPC Assy Audio Jack.

Action:

1. If the Holder FPC Assy Audio Jack is damaged – replace it.

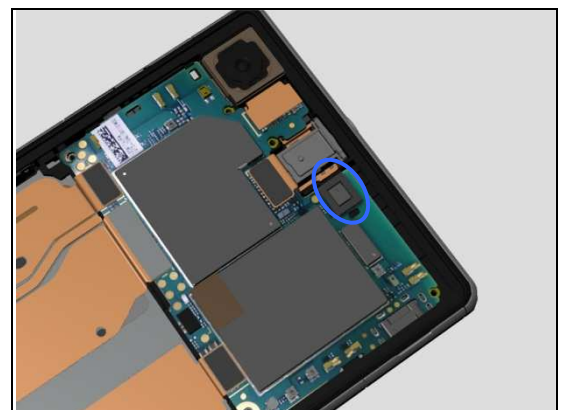


Check:

Inspect the Gasket 2nd MIC on the main PBA.

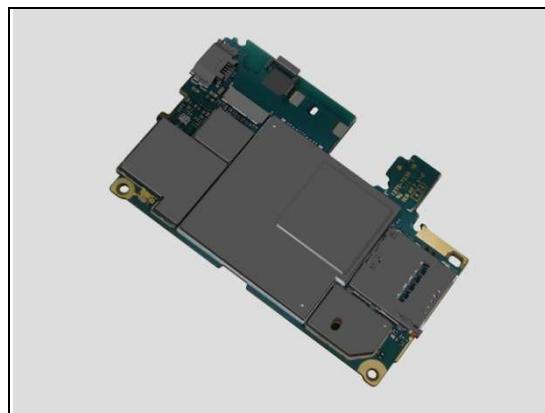
Action:

1. If the Gasket 2nd MIC is damaged – replace it.



Problem Areas: Microphone

2. Replace Main PBA.



Problem Areas

1.9 Vibrator

1.9.1 Vibrator not generating alerts

Check:

Inspect the BtB connector of Vibrator to Display Frame Assy FPC.

Action:

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

3. If the connector or cables of vibrator or vibrator itself is damaged – replace the Vibrator.

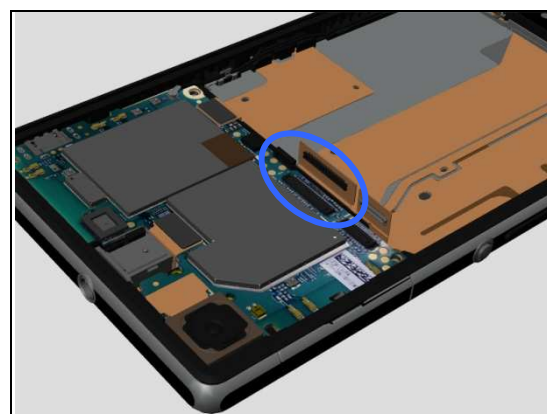
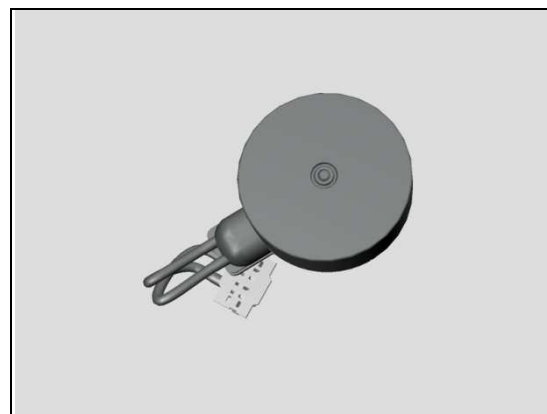
4. If the connector of vibrator on Display Frame Assy FPC is damaged – replace the Display Frame Assy.

Check:

Inspect the BtB connector of Display Frame Assy FPC to Main PBA.

Action:

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



Problem Areas: Vibrator

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



Problem Areas

1.10 Camera

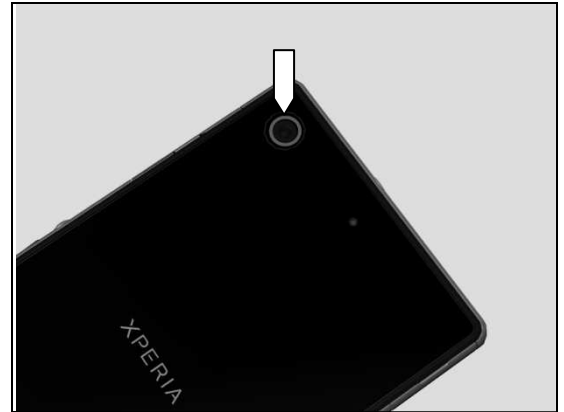
1.10.1 Main Camera

Check:

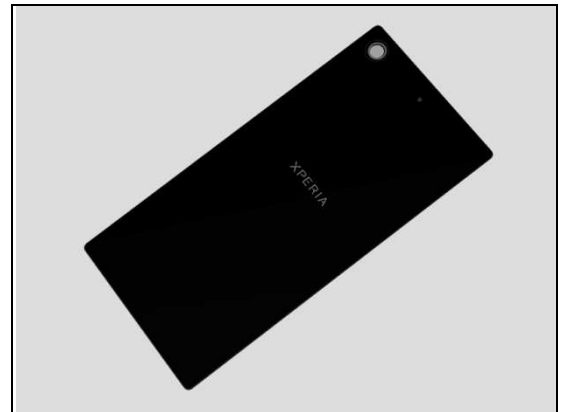
Inspect the external area of camera window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Window Back Sub Assy.



Check:

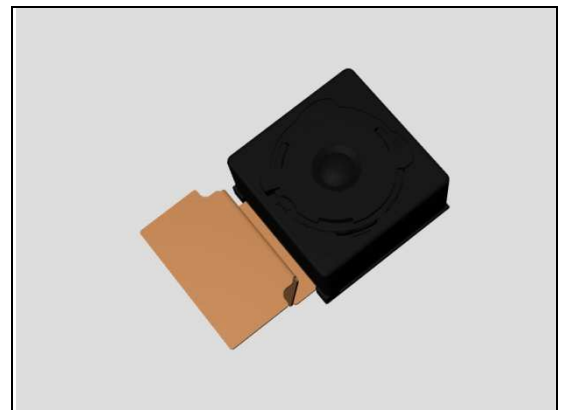
Inspect the BtB connector of Camera to Main PBA.

Action:

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



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



Problem Areas: Camera

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 Display Frame Assy.

Check:

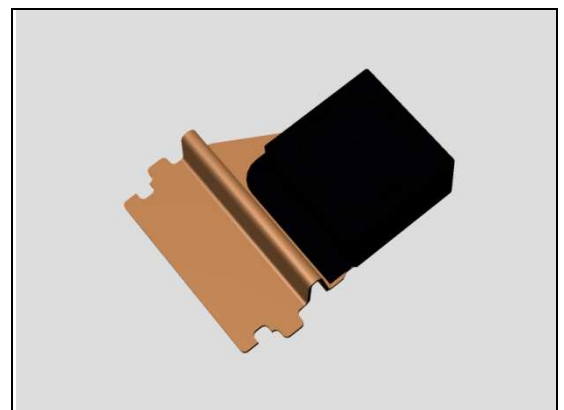
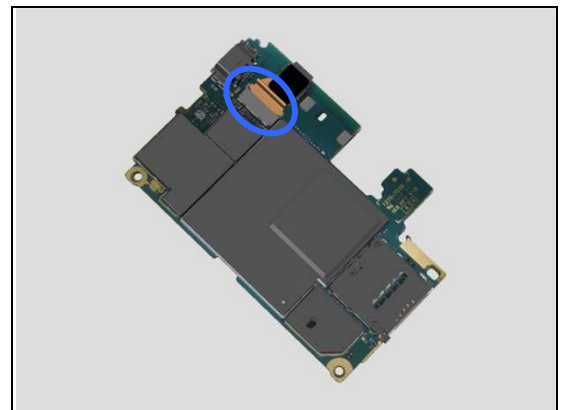
Inspect the ZIF connector of Chat Camera to the Main PBA.

Action:

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

3. If the FPC or the Chat Camera is damaged – replace the Chat Camera.

4. Replace Main PBA.



Problem Areas

1.11 Flash LED

1.11.1 Flash LED not flashing

Check:

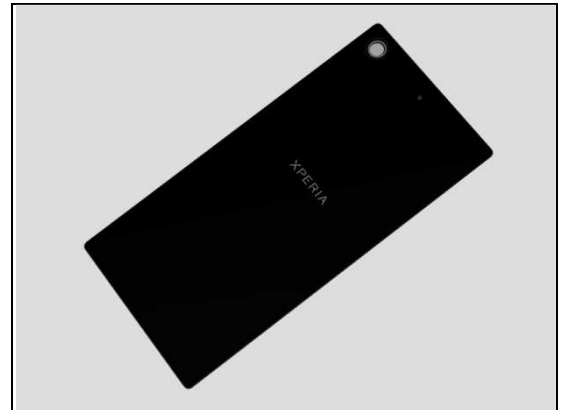
Inspect the external area of the flash LED window.

Action:

1. If dirty – clean it.



2. If scratched or damaged – replace the Window Back Sub Assy.



Check:

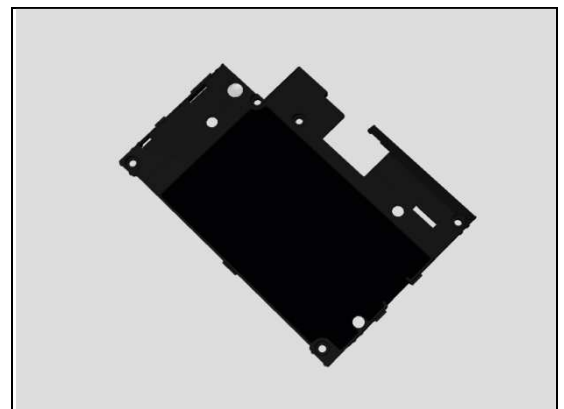
Inspect the Flash LED Light Guide on the Sub Antenna Assy.

Action:

1. If dirty – clean it.



2. if scratched or damaged – replace the Sub Antenna Assy.



Problem Areas: Flash LED

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

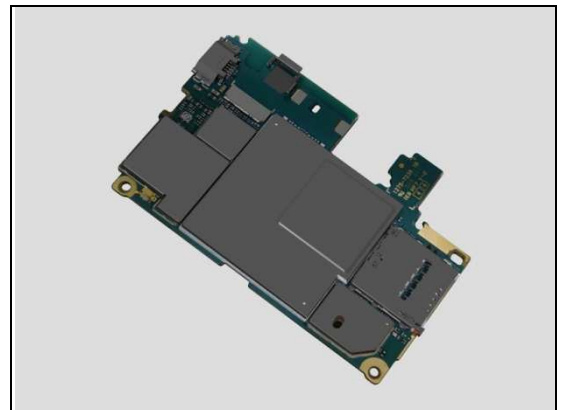
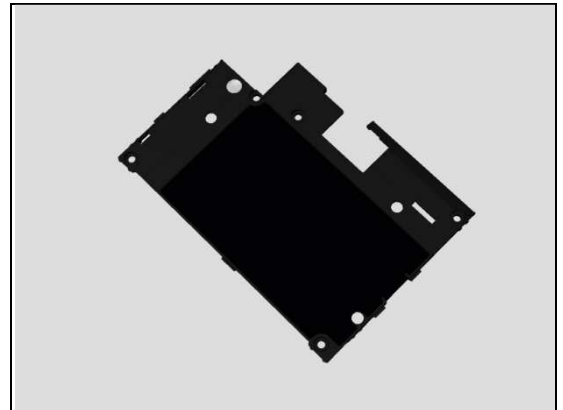
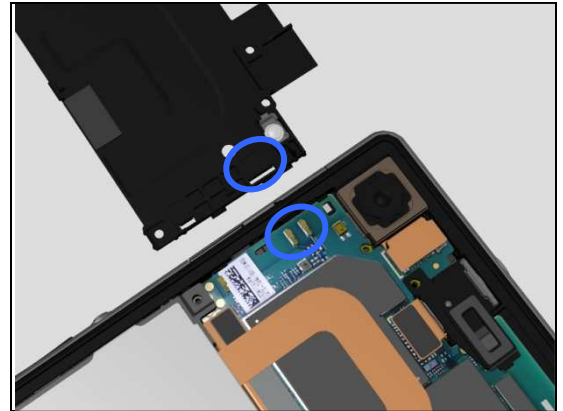
1.12.1 Bluetooth or WLAN connection failure

Check:

Inspect the BT + WLAN Flex Antenna contact pads on Sub Antenna 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 Sub Antenna Assy or BT + WLAN Flex Antenna film is damaged – replace the Sub Antenna Assy.
3. If the contact pins on main PBA is damaged – replace Main PBA.



Problem Areas

1.13 NFC

1.13.1 NFC malfunctions

Check:

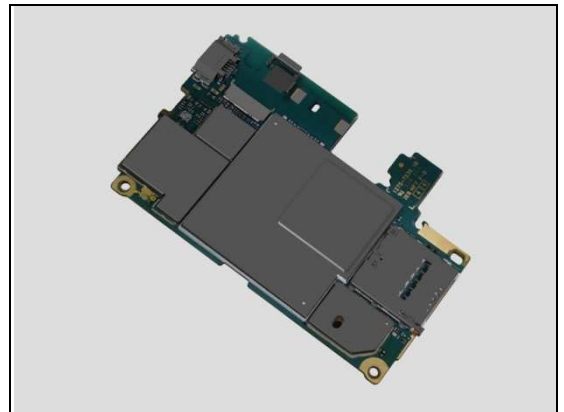
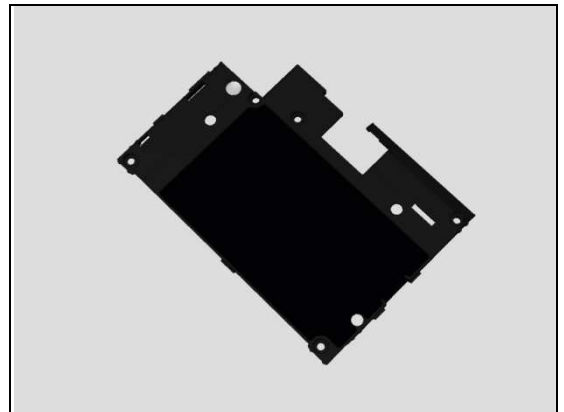
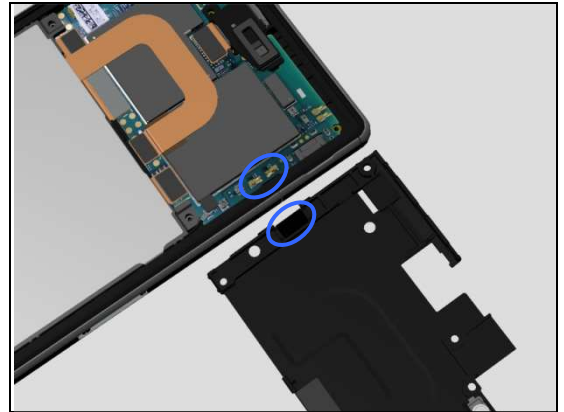
Inspect the NFC antenna contact pads on Sub Antenna Assy and the contact pins on Main PBA.

Action:

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

2. If the NFC antenna contact pads or NFC antenna film is damaged – replace the Sub Antenna Assy.

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



Problem Areas

1.14 GPS

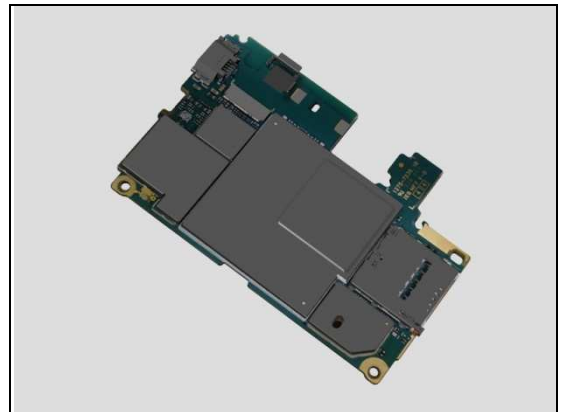
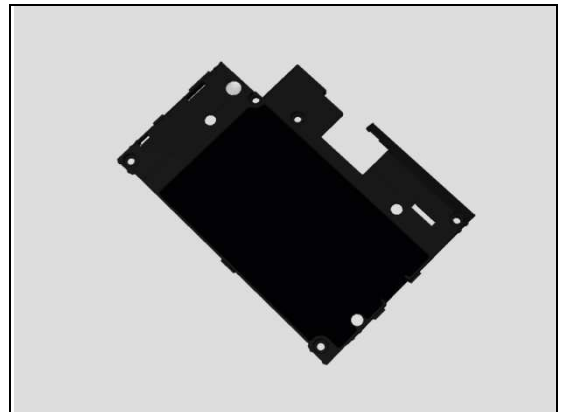
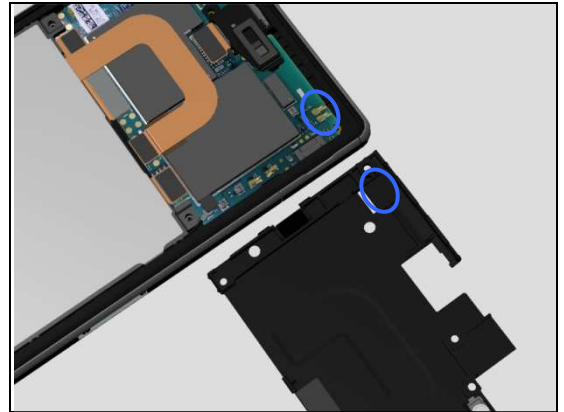
1.14.1 GPS malfunctions

Check:

Inspect the Diversity/GPS antenna contact pads on Sub Antenna Assy and the contact pins on Main PBA.

Action:

1. If dirty or oxidized – clean the pads and pins.
2. If the Diversity/GPS antenna contact pads or Diversity/GPS antenna film is damaged – replace the Sub Antenna Assy.
3. If the contact pins on main PBA is damaged – replace Main PBA.



Problem Areas

1.15 Compass

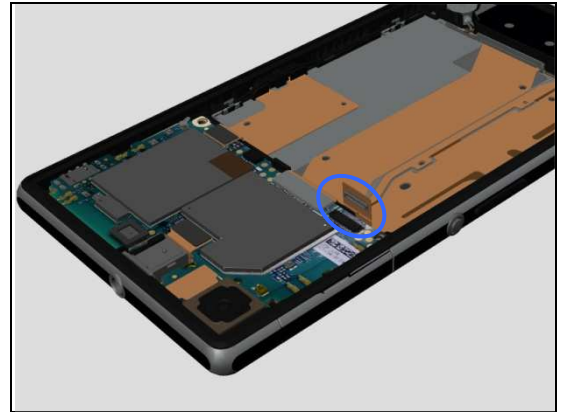
1.15.1 Compass fails

Check:

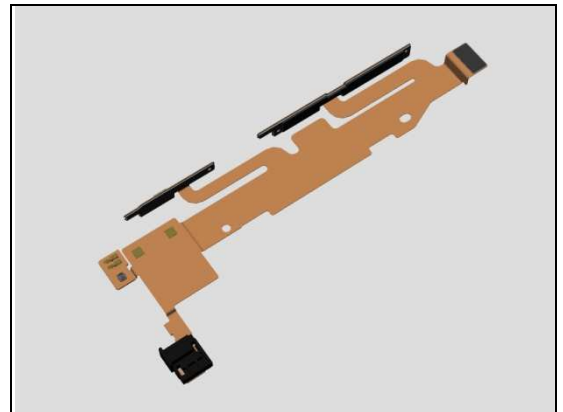
Inspect the BtB connector of FPC Assy Relay/Side Key to Main PBA.

Action:

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

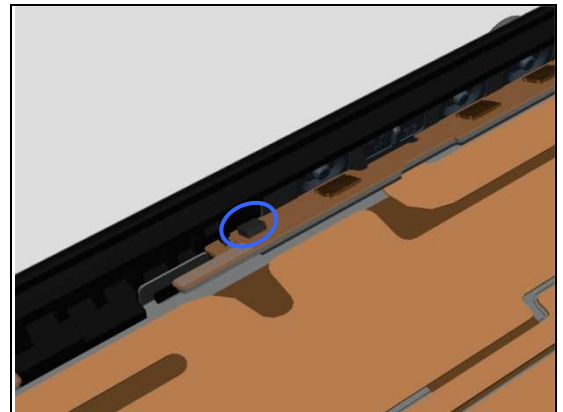


3. If the BtB connector of FPC Assy Relay/Side Key or FPC is damaged – replace the FPC Assy Relay/Side Key.



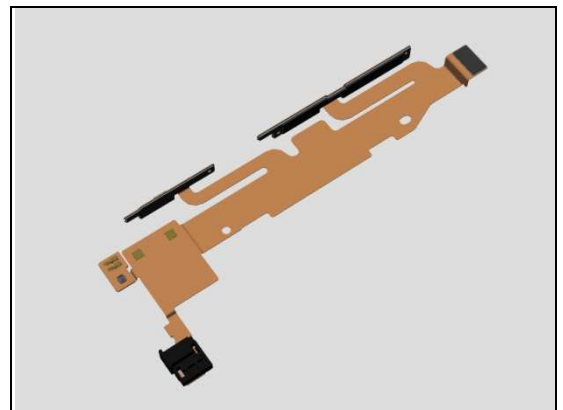
Check:

Inspect the compass chip on the FPC Assy Relay/Side Key.



Action:

1. If the compass chip is damaged – replace the FPC Assy Relay/Side Key.
2. 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 Display Frame Assy.

Action:

1. If dirty – clean it.



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

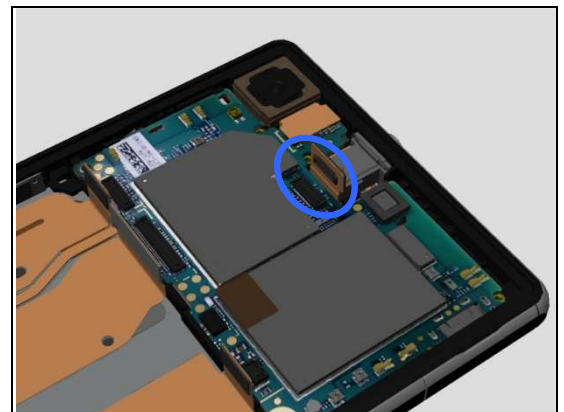


Check:

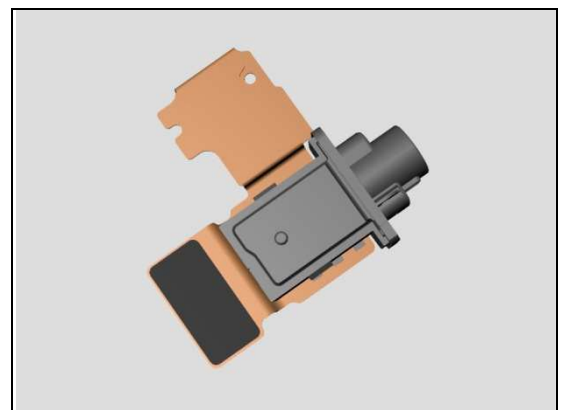
Inspect the BtB connector of FPC Assy Audio Jack to Main PBA.

Action:

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



3. If the BtB connector or FPC of FPC Assy Audio Jack is damaged – replace the FPC Assy Audio Jack.



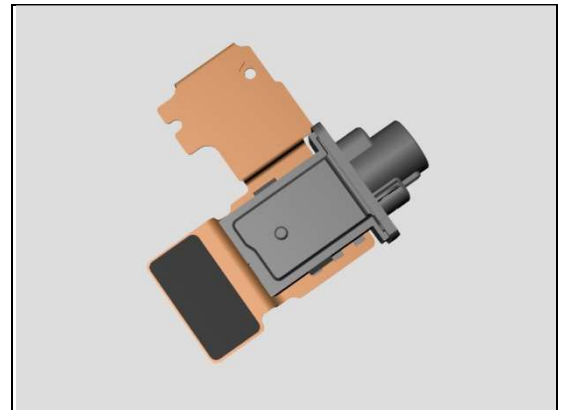
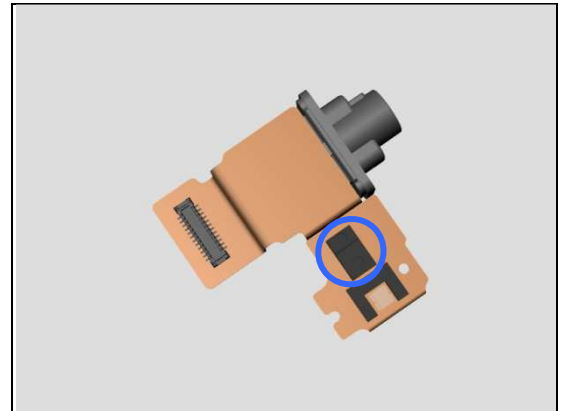
Problem Areas: Ambient Light Sensor

Check:

Inspect the sensor on the FPC Assy Audio Jack.

Action:

1. If dirty or clogged – clean it.
2. If damaged – replace the FPC Assy Audio Jack.
3. Replace Main PBA.



Problem Areas

1.19 Proximity Switch

1.19.1 Proximity switch malfunctions

Check:

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

Action:

1. If dirty – clean it.



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

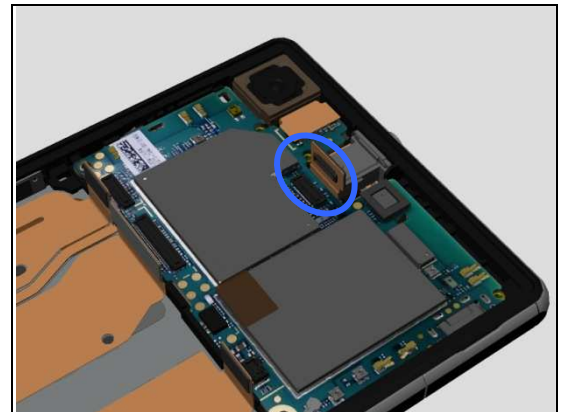


Check:

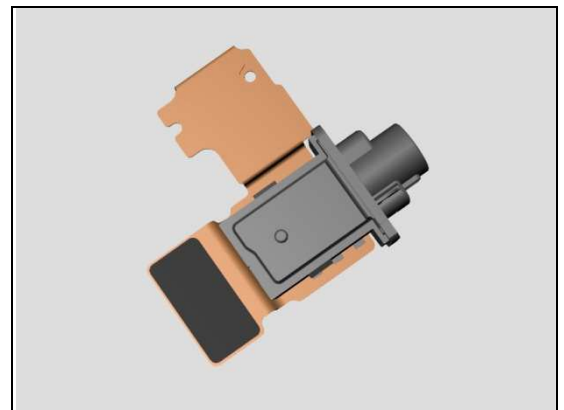
Inspect the BtB connector of FPC Assy Audio Jack to Main PBA.

Action:

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



3. If the BtB connector or FPC of FPC Assy Audio Jack is damaged – replace the FPC Assy Audio Jack.



Problem Areas: Proximity Switch

Check:

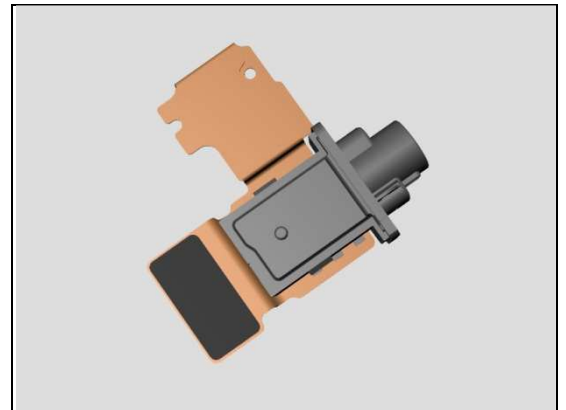
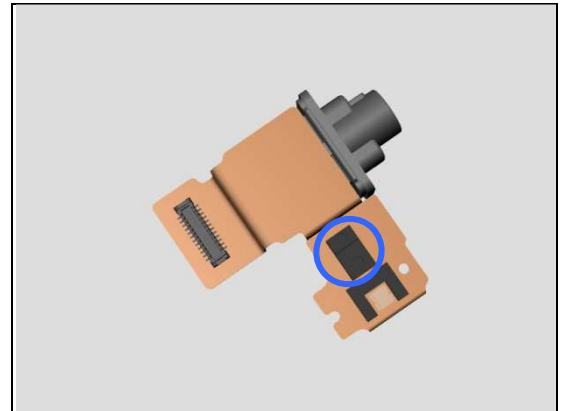
Inspect the sensors on the FPC Assy Audio Jack.

Action:

1. If dirty or clogged – clean it.

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

3. Replace Main PBA.



Problem Areas

1.20 Pressure Sensor

1.20.1 Pressure Sensor test fails

N/A. No Pressure sensor in the phone.

Problem Areas

1.21 Water Resistance

1.21.1 Water Resistance fails- L39t/L39u Specific

Check:

Inspect the Cap SIM.

Action:

1. If dirty – clean it.
2. If not properly assembled – disassemble and reassemble.

3. If the Cap SIM is damaged – replace it.

Run the Water Resistance Test again!



Check:

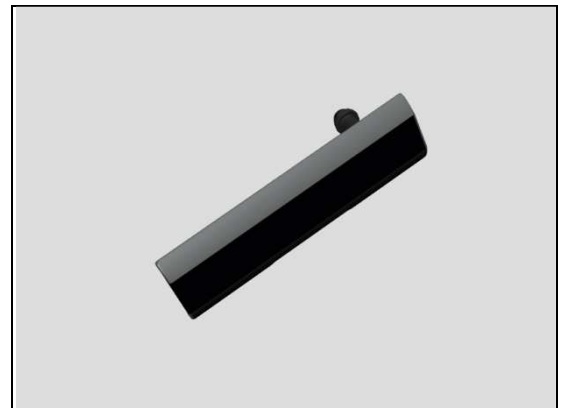
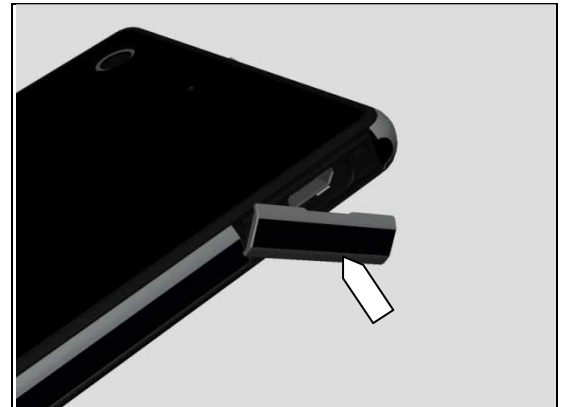
Inspect the Cap USB.

Action:

1. If dirty – clean it.
2. If not properly assembled – disassemble and reassemble.

3. If the Cap USB is damaged – replace it.

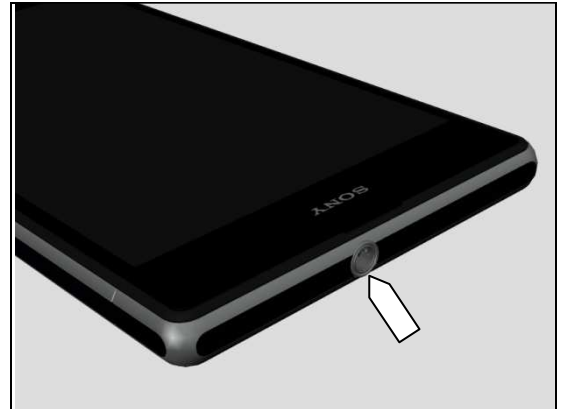
Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

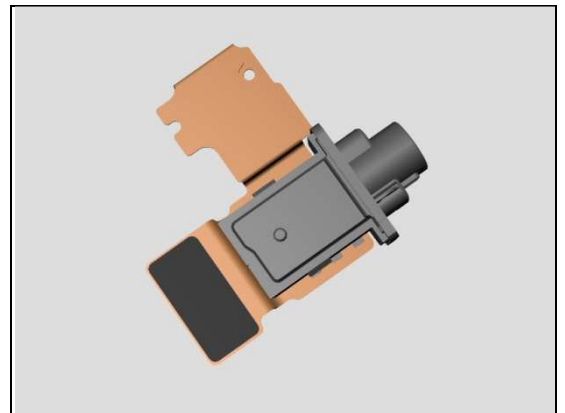
Inspect the FPC Assy Audio Jack.



Action:

If not properly assembled or damaged – replace it.

Run the Water Resistance Test again!



Check:

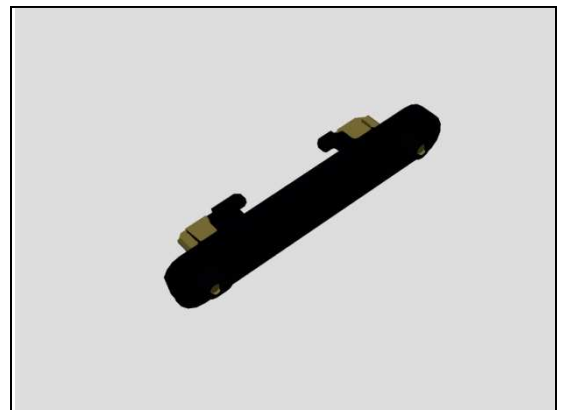
Inspect the Magnetic charger connector.



Action:

If not properly assembled or damaged – replace it.

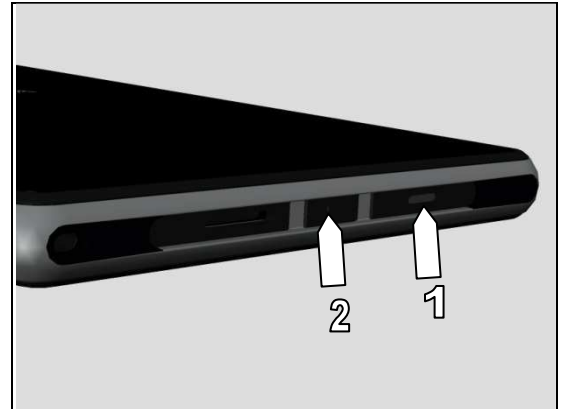
Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

Inspect the film for water resistance check (1) and 1st Mic Cushion (2).



Action:

If damaged – replace the Display Frame Assy.

Run the Water Resistance Test again!



Check:

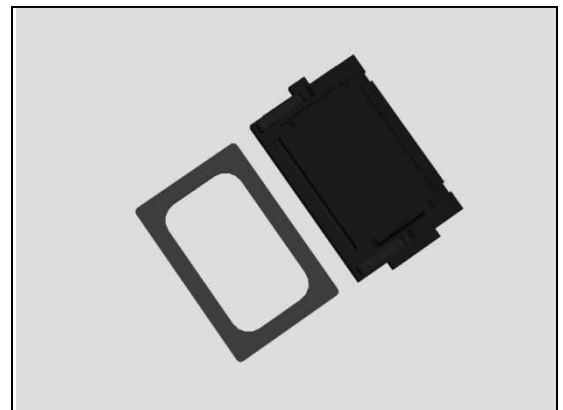
Inspect the Ear Speaker.



Action:

If damaged – replace the Ear Speaker and Adhesive Earspeaker.

Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

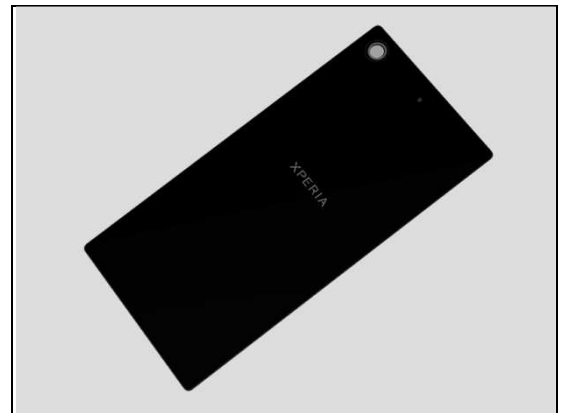
Inspect the secondary microphone.



Action:

If damaged – replace the Window Back Sub Assy.

Run the Water Resistance Test again!

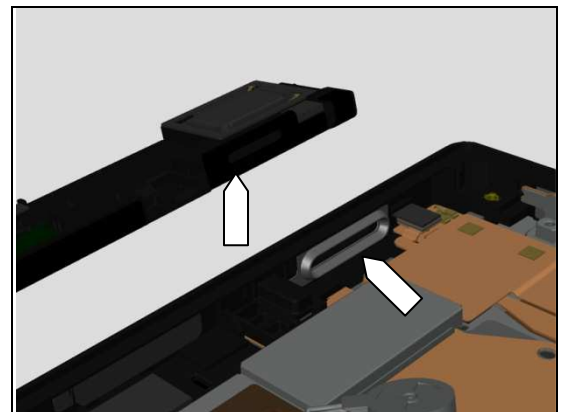


Check:

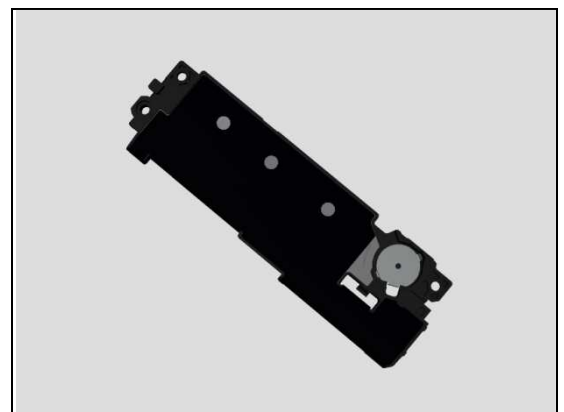
Inspect the Main Antenna Speaker Sub Assy and loudspeaker sealing rubber.

Action:

1. If dirty – clean it.
2. If Main Antenna Speaker Sub Assy is not properly assembled – disassemble and reassemble.



3. If the Main Antenna Speaker Sub Assy is damaged – replace it.



Problem Areas: Water Resistance

4. If the loudspeaker sealing rubber is damaged – replace the Display Frame Assy.

Run the Water Resistance Test again!

Check:

Inspect the edge of Display Frame Assy for damage and gap.

Action:

1. If the edge of Display Frame Assy has gap – replace it.
2. If the Display Frame Assy is damaged – replace it.

Run the Water Resistance Test again!

Check:

Inspect the edge of Window Back Sub Assy for damage and gap.

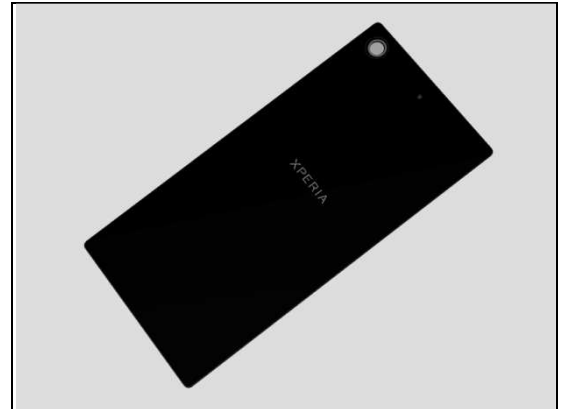


Problem Areas: Water Resistance

Action:

1. If the edge of Window Back Sub Assy has gap – reassembly it.
2. If damaged – replace it.

Run the Water Resistance Test again!



Problem Areas: Water Resistance

1.21.2 Water Resistance fails-C6916 Specific

Check:

Inspect the Cap SIM.

Action:

1. If dirty – clean it.
2. If not properly assembled – disassemble and reassemble.



3. If the Cap SIM is damaged – replace it.

Run the Water Resistance Test again!

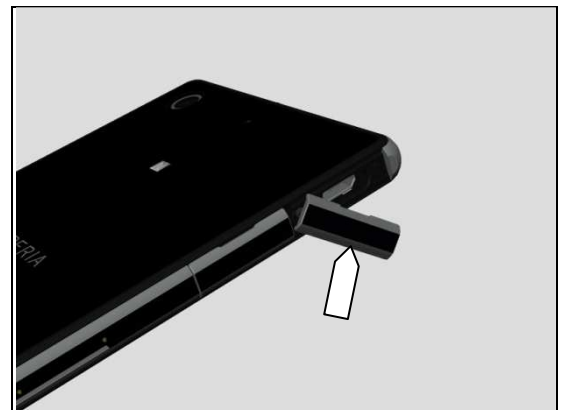


Check:

Inspect the Cap USB.

Action:

1. If dirty – clean it.
2. If not properly assembled – disassemble and reassemble.



3. If the Cap USB is damaged – replace it.

Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

Inspect the Cap SD.

Action:

1. If dirty – clean it.
2. If not properly assembled – disassemble and reassemble.

3. If the Cap SD is damaged – replace it.

Run the Water Resistance Test again!



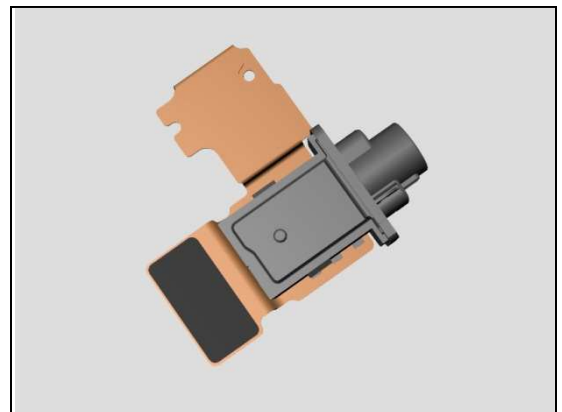
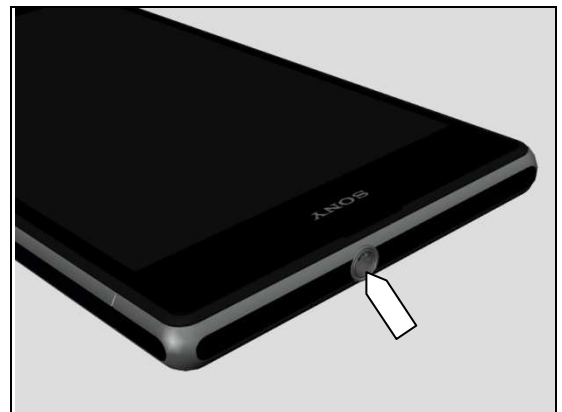
Check:

Inspect the FPC Assy Audio Jack.

Action:

If not properly assembled or damaged – replace it.

Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

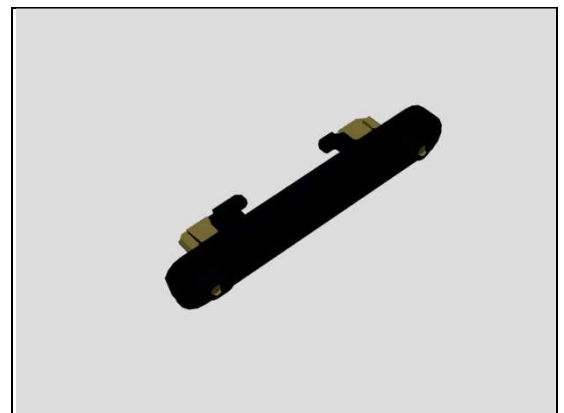
Inspect the Magnetic charger connector.



Action:

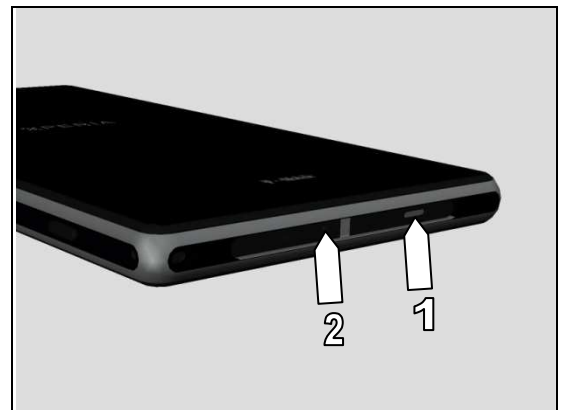
If not properly assembled or damaged – replace it.

Run the Water Resistance Test again!



Check:

Inspect the film for water resistance check (1) and 1st Mic Cushion (2).



Action:

If damaged – replace the Display Frame Assy.

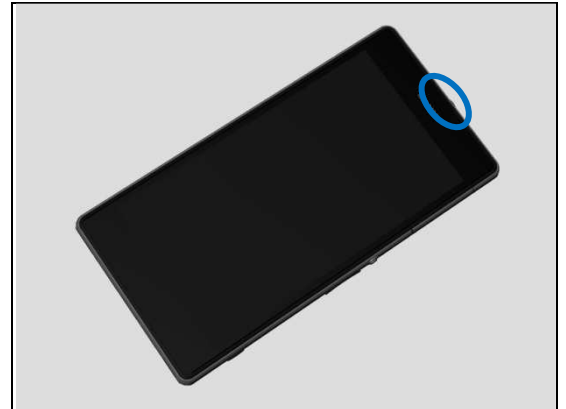
Run the Water Resistance Test again!



Problem Areas: Water Resistance

Check:

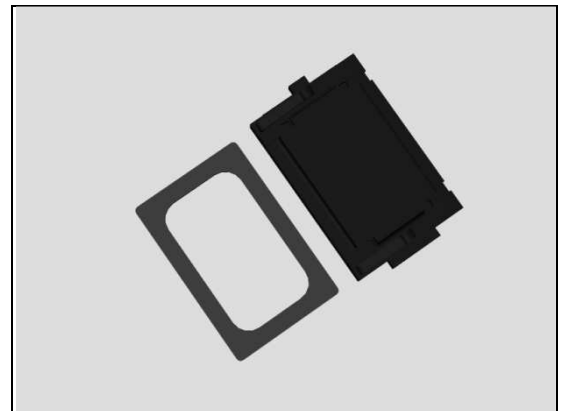
Inspect the Ear Speaker.



Action:

If damaged – replace the Ear Speaker and Adhesive Earspeaker.

Run the Water Resistance Test again!



Check:

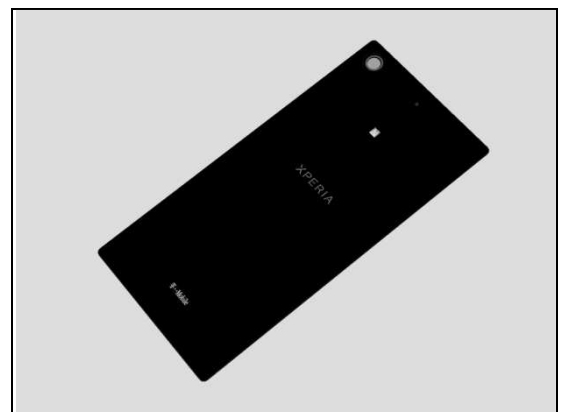
Inspect the secondary microphone.



Action:

If damaged – replace the Window Back Sub Assy.

Run the Water Resistance Test again!



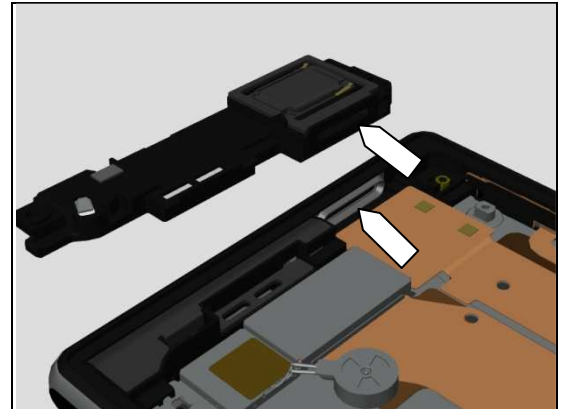
Problem Areas: Water Resistance

Check:

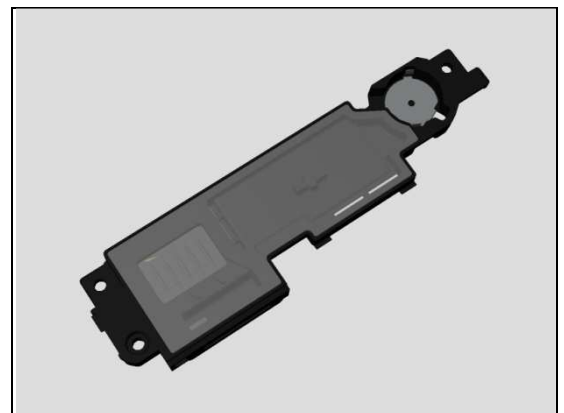
Inspect the Speaker Sub Assy and loudspeaker sealing rubber.

Action:

1. If dirty – clean it.
2. If Speaker Sub Assy is not properly assembled – disassemble and reassemble.



3. If the Speaker Sub Assy is damaged – replace it.



4. If the loudspeaker sealing rubber is damaged – replace the Display Frame Assy.

Run the Water Resistance Test again!



Check:

Inspect the edge of Display Frame Assy for damage and gap.



Problem Areas: Water Resistance

Action:

1. If the edge of Display Frame Assy has gap – replace it.
2. If the Display Frame Assy is damaged – replace it.

Run the Water Resistance Test again!



Check:

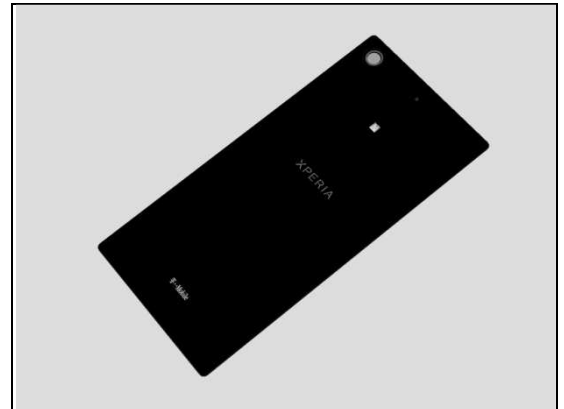
Inspect the edge of Window Back Sub Assy for damage and gap.



Action:

1. If the edge of Window Back Sub Assy has gap – reassembly it.
2. If damaged – replace it.

Run the Water Resistance Test again!



Problem Areas

1.22 Real Time Clock

1.22.1 Real time clock test fails

Action:

Replace Main PBA.

Problem Areas

1.23 Total call time

1.23.1 Total call time fails

Action:

Replace Main PBA.

Problem Areas

1.24 External Memory-C6916 Specific

1.24.1 Memory Card not detected

Check:

Inspect that if a memory card is properly inserted.

Action:

If not properly inserted – insert the memory card correctly.

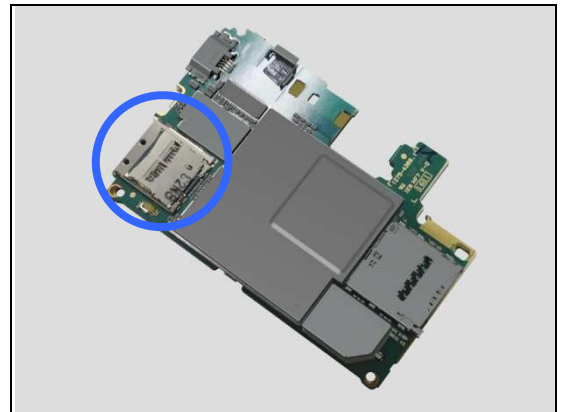


Check:

Inspect the memory card holder on Main PBA.

Action:

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



Problem Areas

1.25 Security

1.25.1 Security fails

Action:

Replace Main PBA.

Problem Areas

1.26 FM Radio

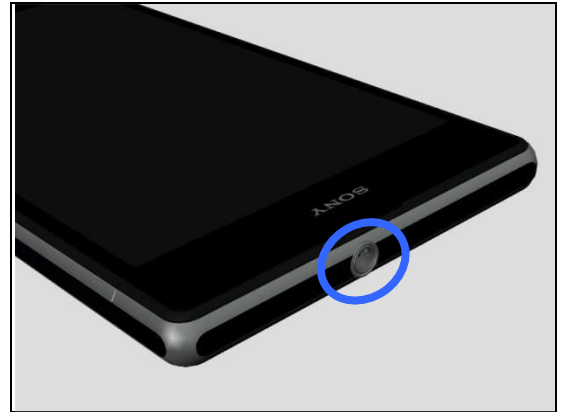
1.26.1 No/Poor FM Radio reception

Check:

Inspect the external port of the Audio Jack.

Action:

1. If dirty or oxidized – clean it.

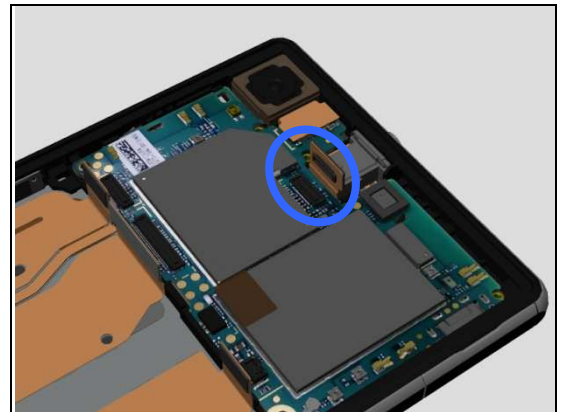


Check:

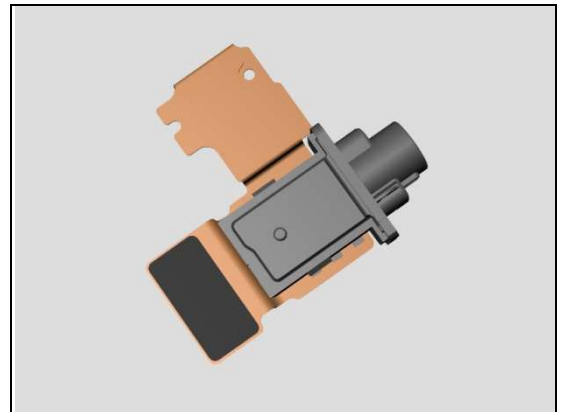
Inspect the BtB connector of FPC Assy Audio Jack to Main PBA.

Action:

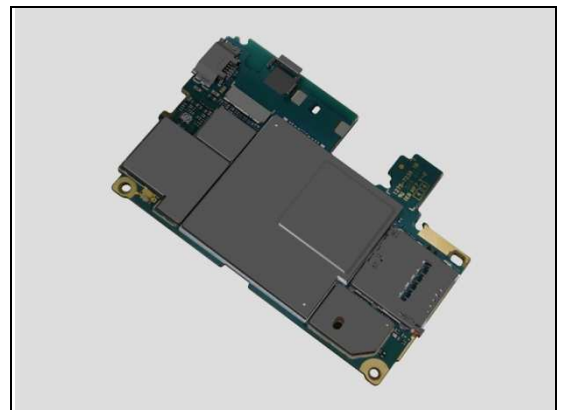
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector or FPC of FPC Assy Audio Jack is damaged – replace the FPC Assy Audio Jack.



4. Replace Main PBA.



Problem Areas

1.27 Battery Health test

1.27.1 Battery Health test fails

N/A.

Problem Areas

1.28 Flip Slider Counter

1.28.1 Flip Slider Counter fails

N/A. Not slider phone.

Problem Areas

1.29 Verify Certificates

1.29.1 Verify Certificates fails

Action:

N/A.

Problem Areas

1.30 IrDA Test

1.30.1 IrDA test fails

N/A. No IrDA functionality in the phone.

Problem Areas

1.31 TV-Out Test

1.31.1 TV-Out test fails

Check:

Inspect the USB connector.

Action:

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



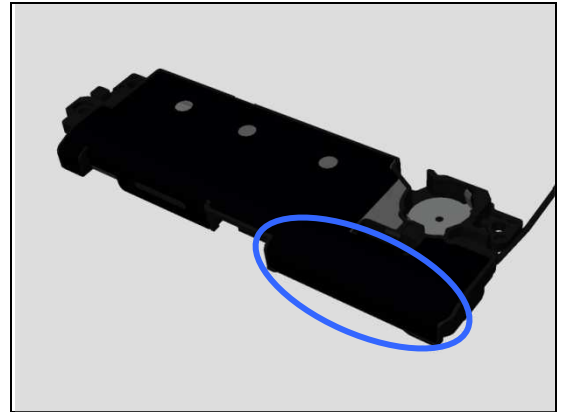
Problem Areas

1.32 Network & Signal

1.32.1 No/Poor signal-L39t/L39u Specific

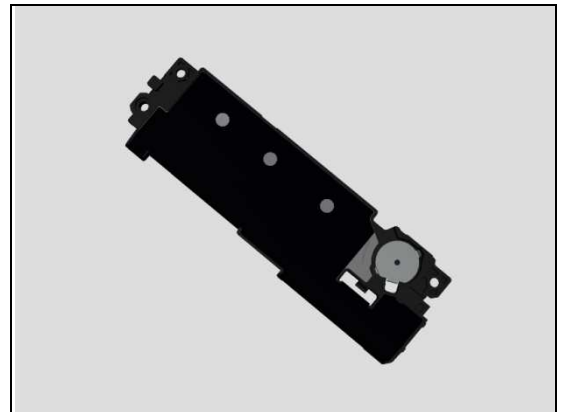
Check:

Inspect the main antenna film on the Main Antenna Speaker Sub Assy.



Action:

If damaged – replace the Main Antenna Speaker Sub Assy.

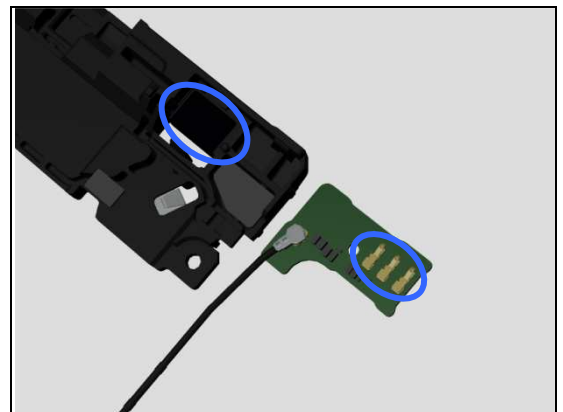


Check:

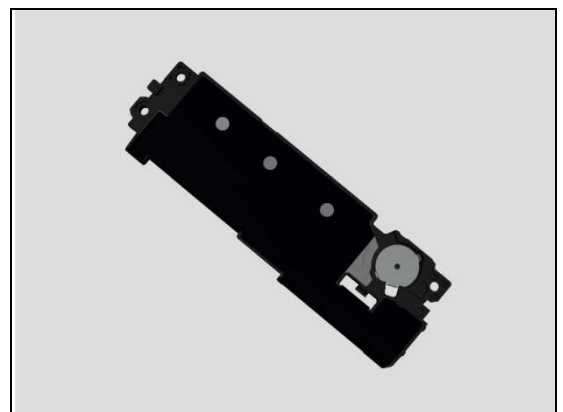
Inspect the contact pads on the Main Antenna Speaker Sub Assy and the contact pins on PBA Sub.

Action:

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



2. If the contact pads are damaged – replace the Main Antenna Speaker Sub Assy.



Problem Areas: Network & Signal

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

Check:

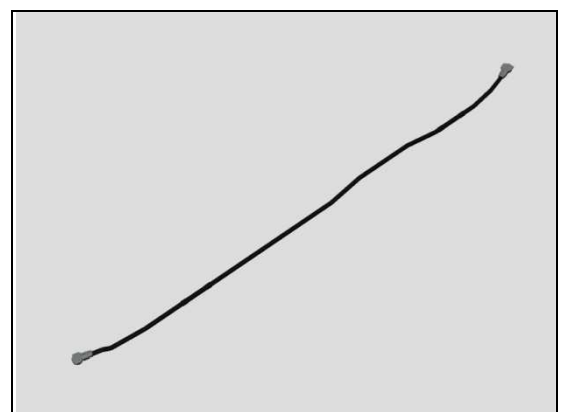
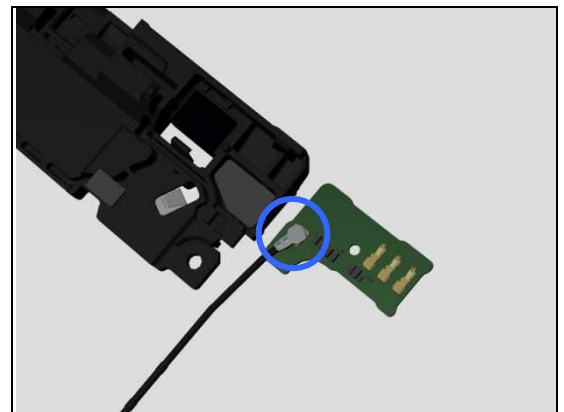
Inspect the RF connector of RF Cable to the PBA Sub.

Action:

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

3. If the connector on the PBA Sub is damaged – replace PBA Sub.

4. If the RF cable is damaged – replace the RF cable.



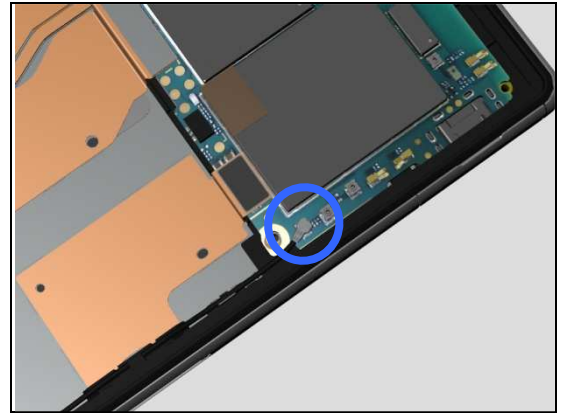
Problem Areas: Network & Signal

Check:

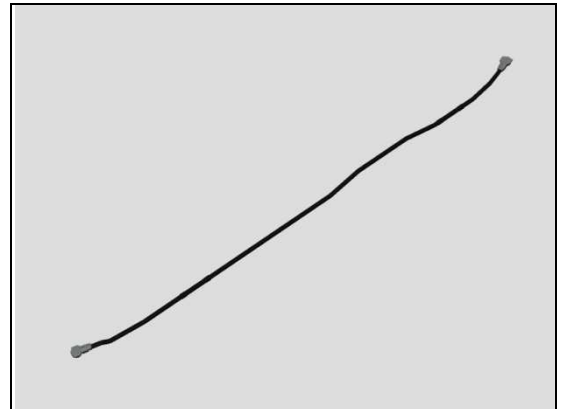
Inspect the RF connector of RF Cable to the Main PBA.

Action:

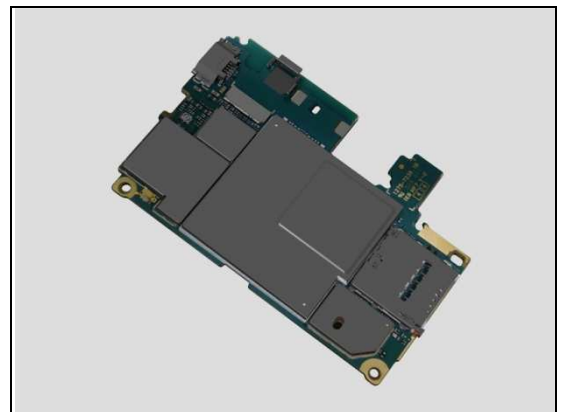
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the RF cable is damaged – replace the RF cable.



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

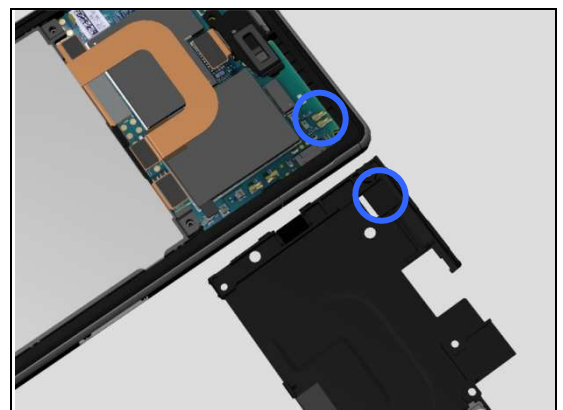


Check:

Inspect the Diversity/GPS antenna contact pads on Sub Antenna Assy and the contact pins on Main PBA.

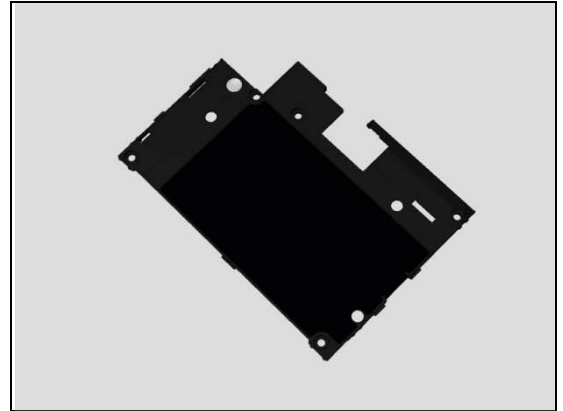
Action:

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

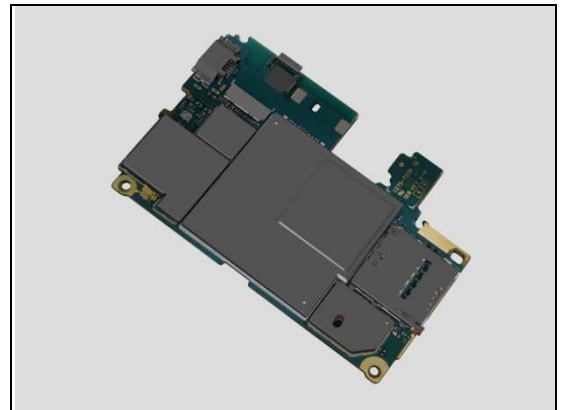


Problem Areas: Network & Signal

2. If the Diversity/GPS antenna contact pads or Diversity/GPS antenna film is damaged – replace the Sub Antenna Assy.

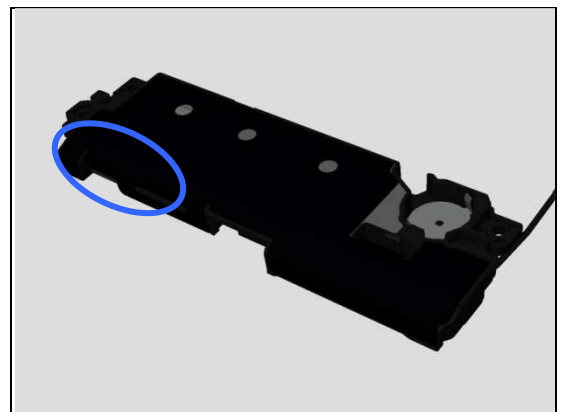


3. If the contact pins on main PBA is damaged – replace Main PBA.



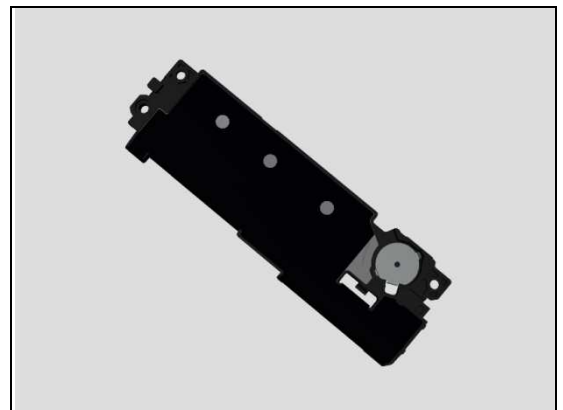
Check:

Inspect the 2nd GSM antenna film on the Main Antenna Speaker Sub Assy.



Action:

If damaged – replace the Main Antenna Speaker Sub Assy.



Problem Areas: Network & Signal

Check:

Inspect the contact pad on the Main Antenna Speaker Sub Assy and contact pin on the FPC Assy Relay/Side Key.

Action:

1. If dirty or oxidized – clean the pin and pad.

2. If the contact pad is damaged – replace the Main Antenna Speaker Sub Assy.

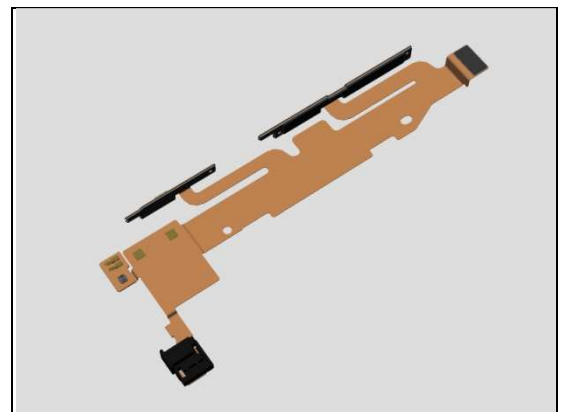
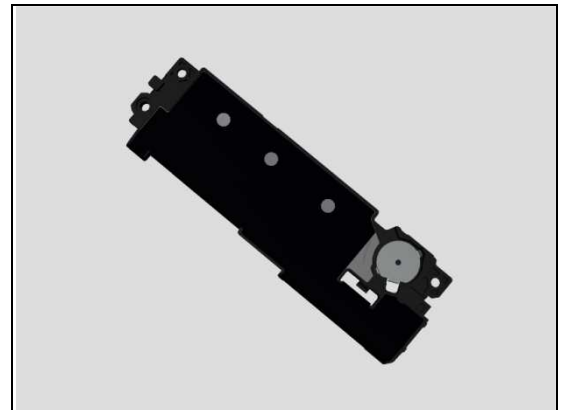
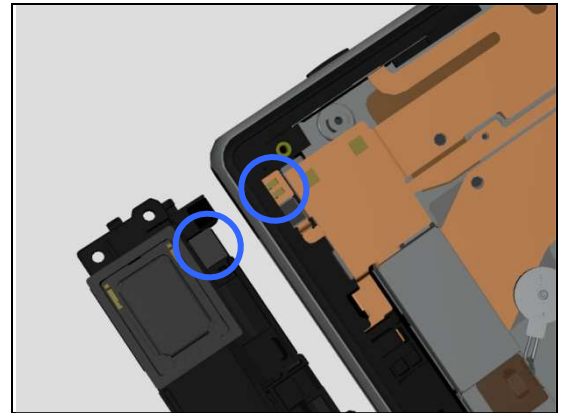
3. If the contact pin is damaged – replace the FPC Assy Relay/Side Key.

Check:

Inspect the RF connector of FPC Assy 2nd Antenna to the FPC Assy Relay/Side Key.

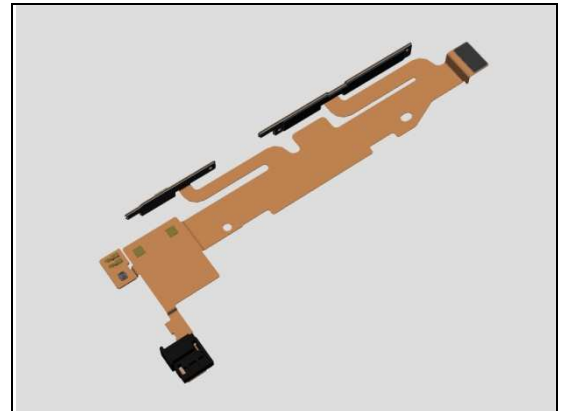
Action:

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

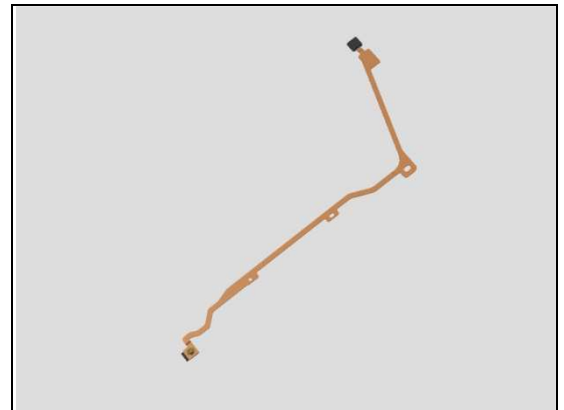


Problem Areas: Network & Signal

3. If the connector on the FPC Assy Relay/Side Key is damaged – replace FPC Assy Relay/Side Key.



4. If the FPC Assy 2nd Antenna is damaged – replace the FPC Assy 2nd Antenna.

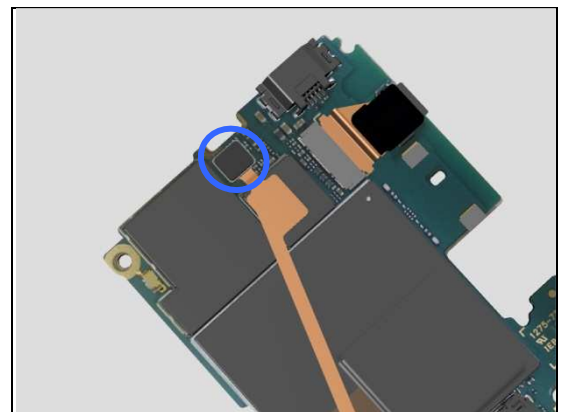


Check:

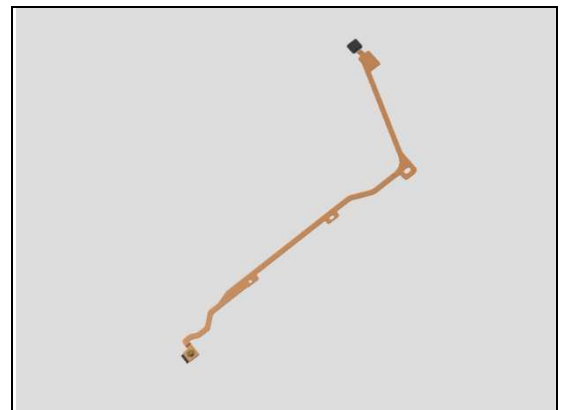
Inspect the RF connector of FPC Assy 2nd Antenna to the main PBA.

Action:

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

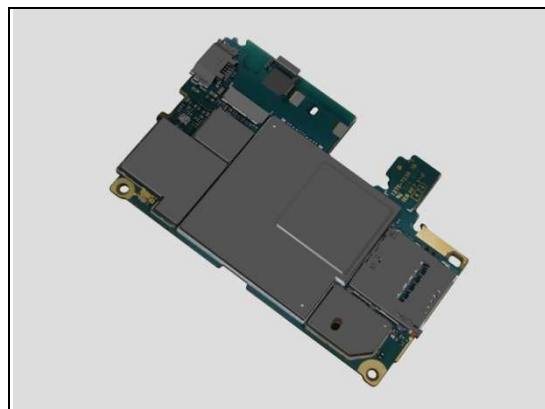


3. If the FPC Assy 2nd Antenna is damaged – replace it.



Problem Areas: Network & Signal

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



Problem Areas: Network & Signal

1.32.2 No/Poor signal-C6916 Specific

Check:

Inspect the main antenna film on the Main Antenna Assy.

Action:

If damaged – replace the Main Antenna Assy.

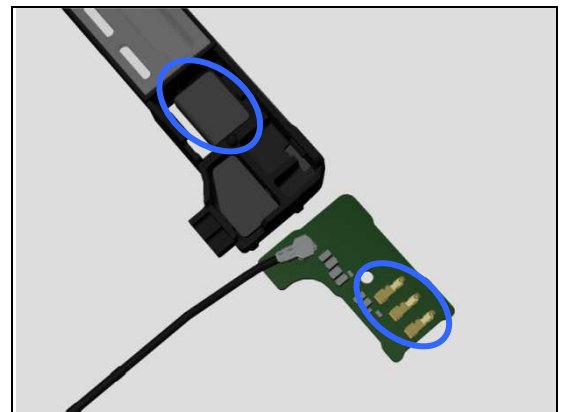
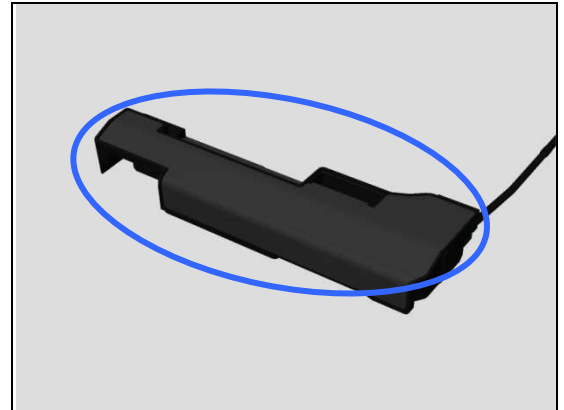
Check:

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

Action:

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

2. If the contact pads are damaged – replace the Main Antenna Assy.



Problem Areas: Network & Signal

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

Check:

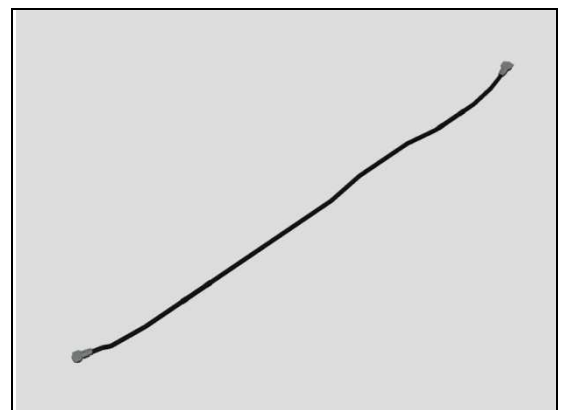
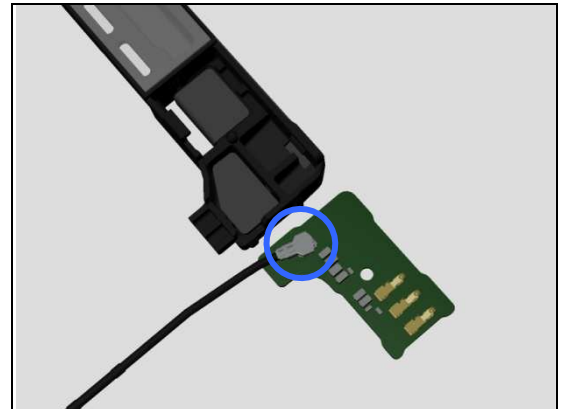
Inspect the RF connector of RF Cable to the PBA Sub.

Action:

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

3. If the connector on the PBA Sub is damaged – replace PBA Sub.

4. If the RF cable is damaged – replace the RF cable.



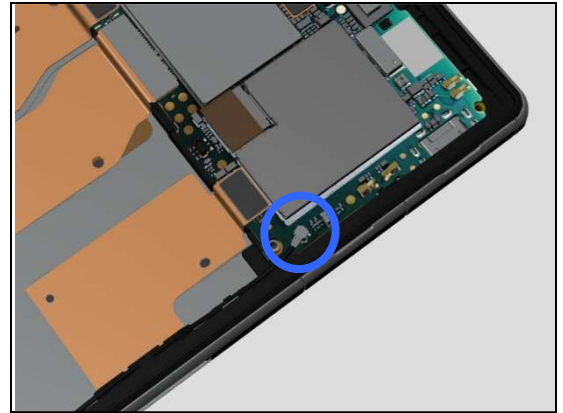
Problem Areas: Network & Signal

Check:

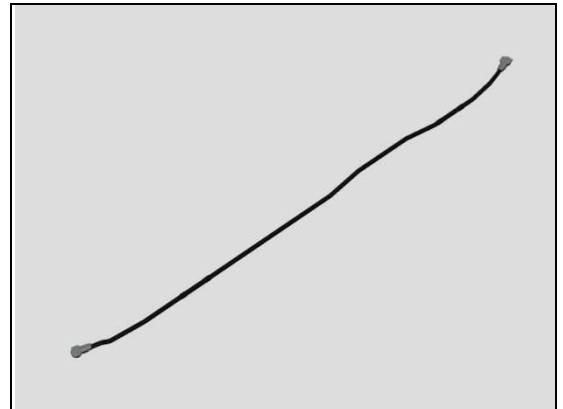
Inspect the RF connector of RF Cable to the Main PBA.

Action:

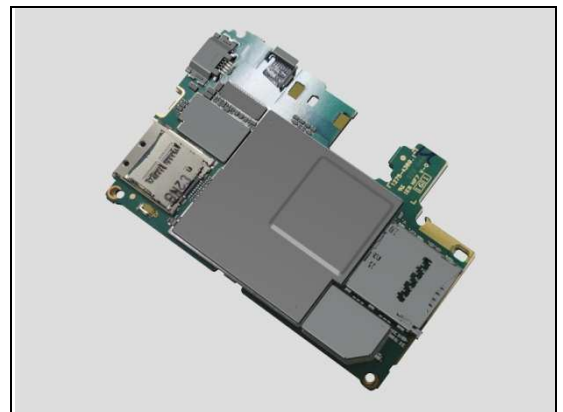
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the RF cable is damaged – replace the RF cable.



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

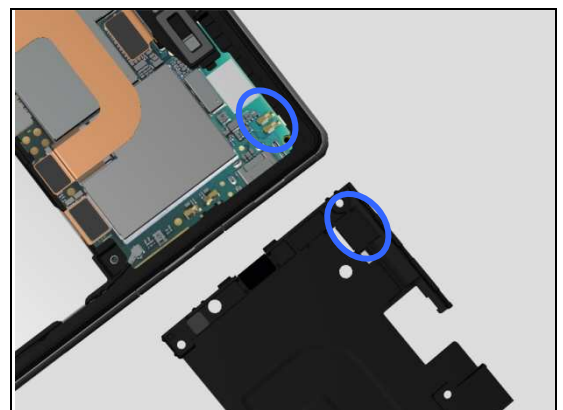


Check:

Inspect the Diversity/GPS antenna contact pads on Sub Antenna Assy and the contact pins on Main PBA.

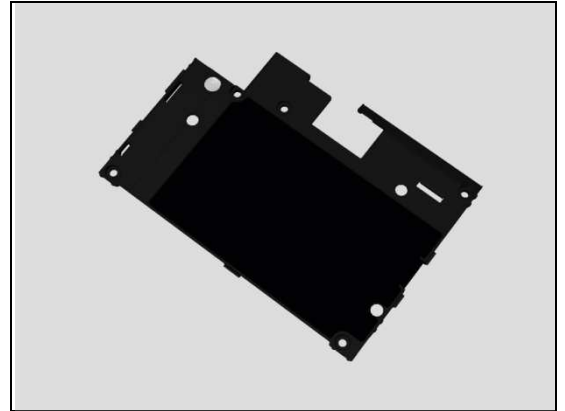
Action:

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

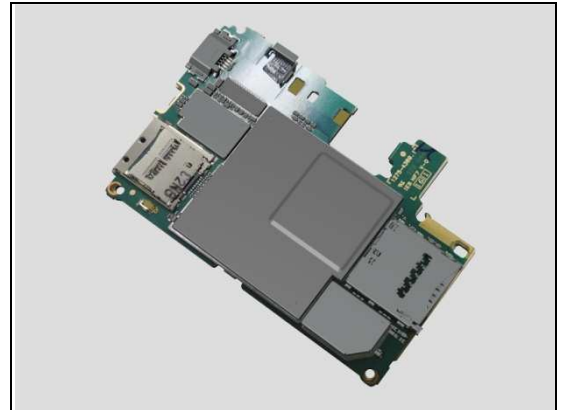


Problem Areas: Network & Signal

2. If the Diversity/GPS antenna contact pads or Diversity/GPS antenna film is damaged – replace the Sub Antenna Assy.



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



Problem Areas

1.33 SIM

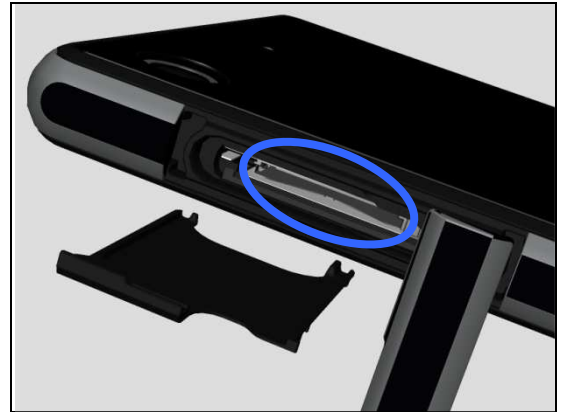
1.33.1 SIM not detected

Check:

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

Action:

If dirty or clogged – clean the external port.

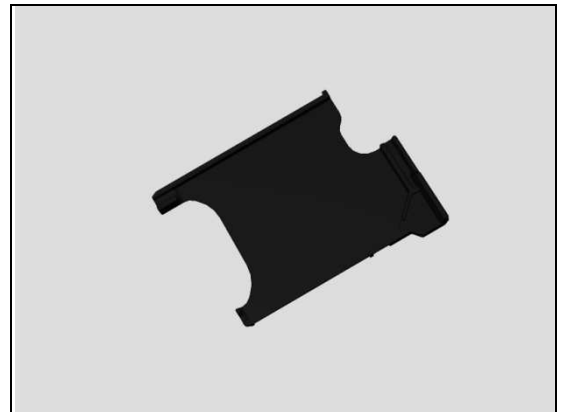


Check:

Inspect the SIM Tray.

Action:

1. If the SIM Tray is damaged – Replace it.

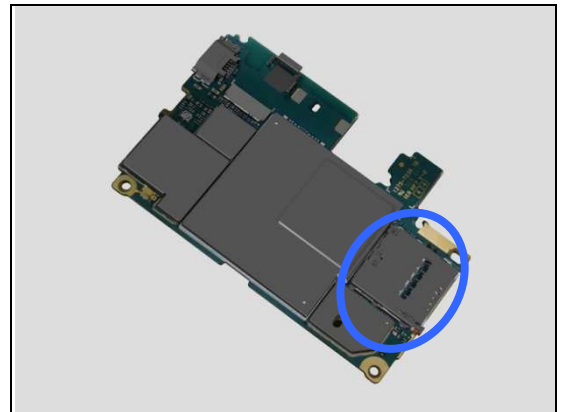


Check:

Inspect the SIM card holder on Main PBA.

Action:

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



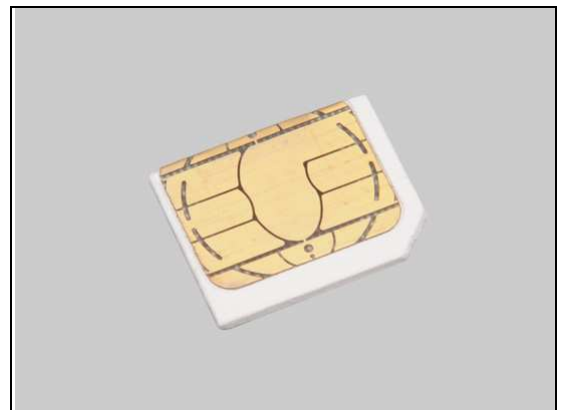
1.33.2 Incorrect UIM or SIM indicated

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

1.34 Charging

1.34.1 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.

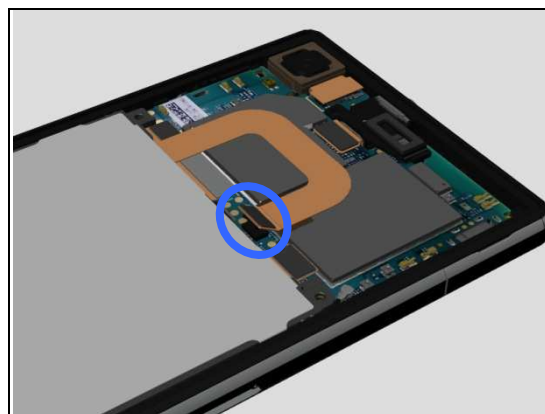


Check:

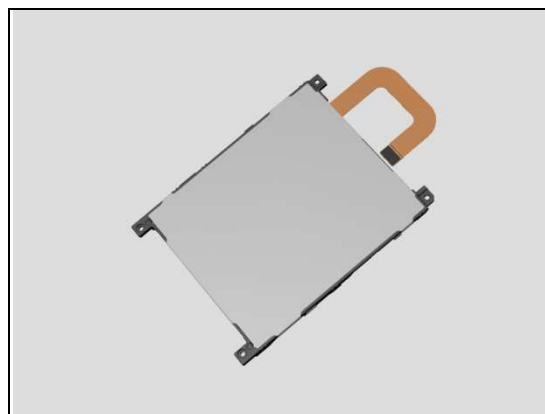
Inspect the BtB Connector of the Battery to Main PBA.

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, the Battery FPC or Battery is damaged – replace the Battery.
4. Replace Main PBA.



1.34.2 Battery will not charge by charge pad

Check:

Inspect the external port of the Magnetic Charger Connector.

Action:

If dirty or oxidized – clean it.



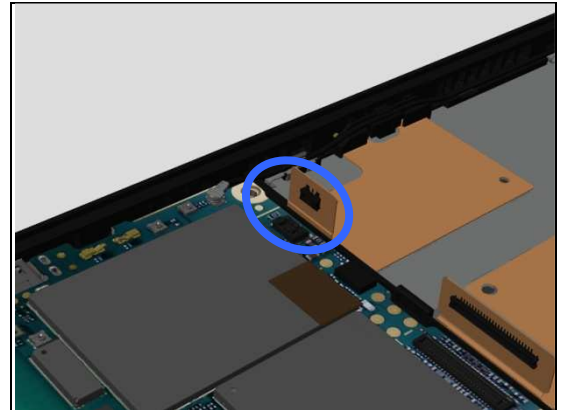
Problem Areas: Charging

Check:

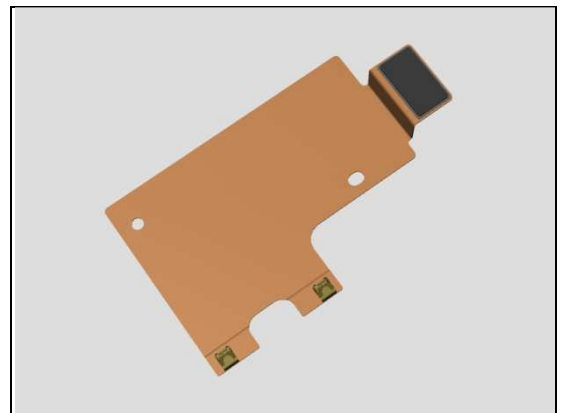
Inspect the BtB connector of the FPC Assy Charger Pad to Main PBA.

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 FPC Assy Charger Pad is damaged – replace the FPC Assy Charger Pad.

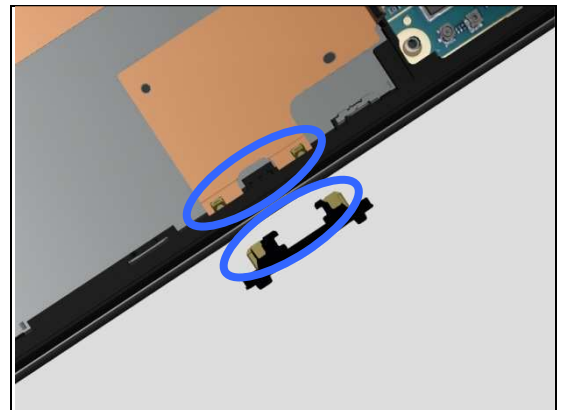


Check:

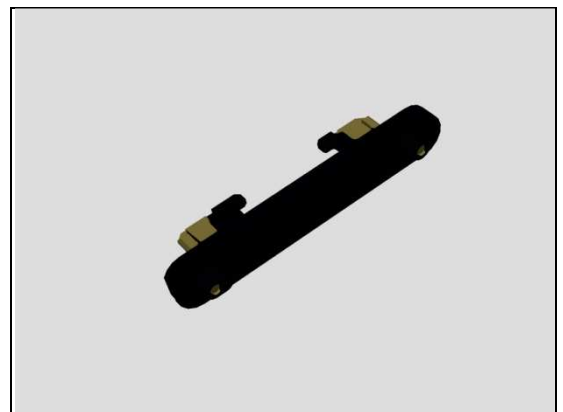
Inspect the contact pins on FPC Assy Charger Pad and pads on Magnetic Charger Connector.

Action:

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

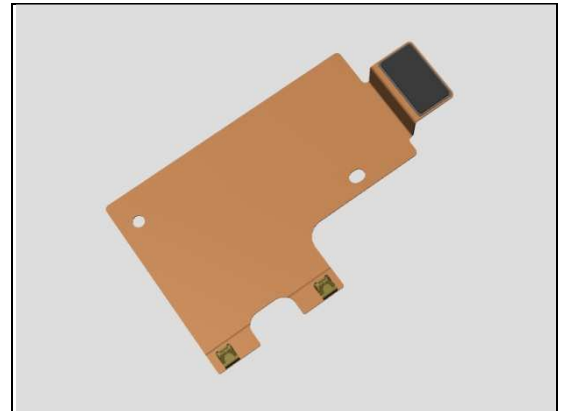


2. If the contact pads of Magnetic charger connector are damaged – replace the Magnetic charger connector.



Problem Areas: Charging

3. If the contact pins of the FPC Assy Charger Pad are damaged – replace the FPC Assy Charger Pad.

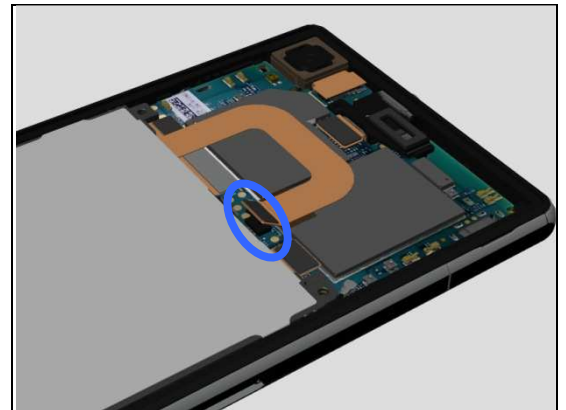


Check:

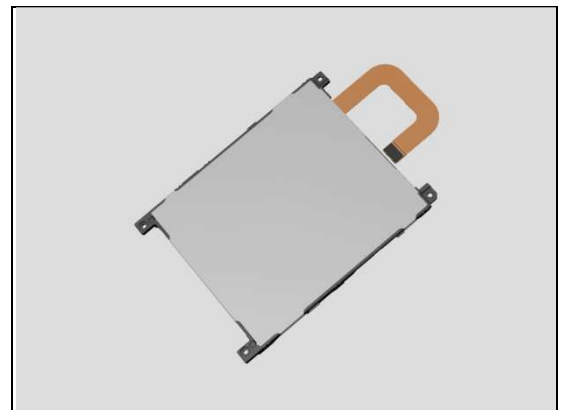
Inspect the BtB Connector of the Battery to Main PBA.

Action:

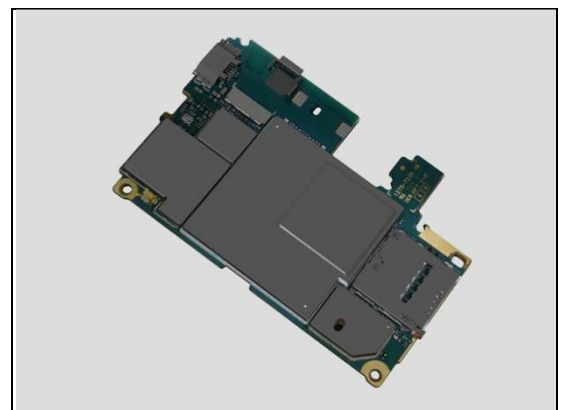
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



3. If the BtB connector, the Battery FPC or the Battery is damaged – replace the Battery.



4. Replace Main PBA.



Problem Areas

1.35 HandsFree by Wire

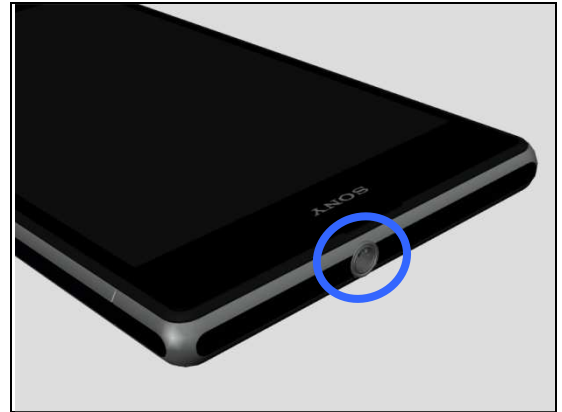
1.35.1 Connection to portable Handsfree fails

Check:

Inspect the external port of the Audio Jack.

Action:

1. If dirty or oxidized – clean it.

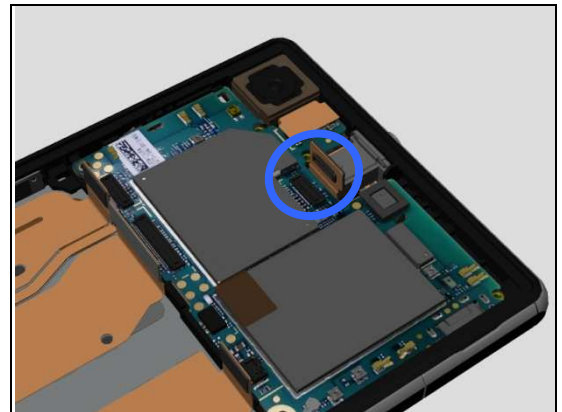


Check:

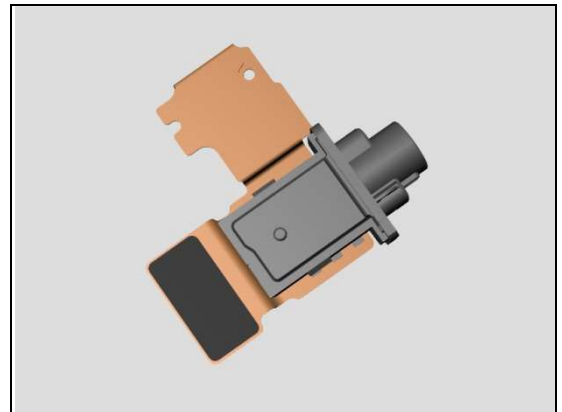
Inspect the BtB connector of FPC Assy Audio Jack to Main PBA.

Action:

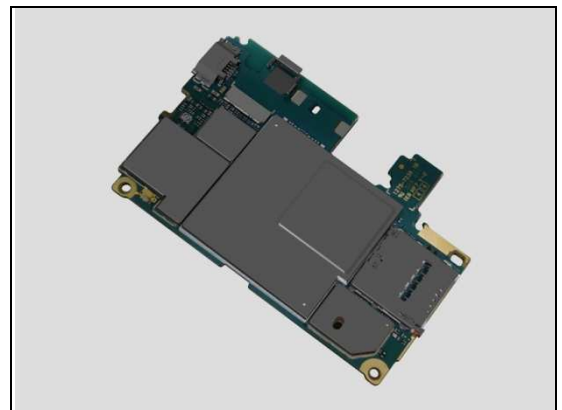
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector of FPC Assy Audio Jack or FPC is damaged – replace the FPC Assy Audio Jack.



4. Replace Main PBA.



Problem Areas

1.36 Data Communication

1.36.1 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-Dec-06	Initial release
2	2014-Jan-15	Added L39u
3	2014-Jan-16	Added C6916