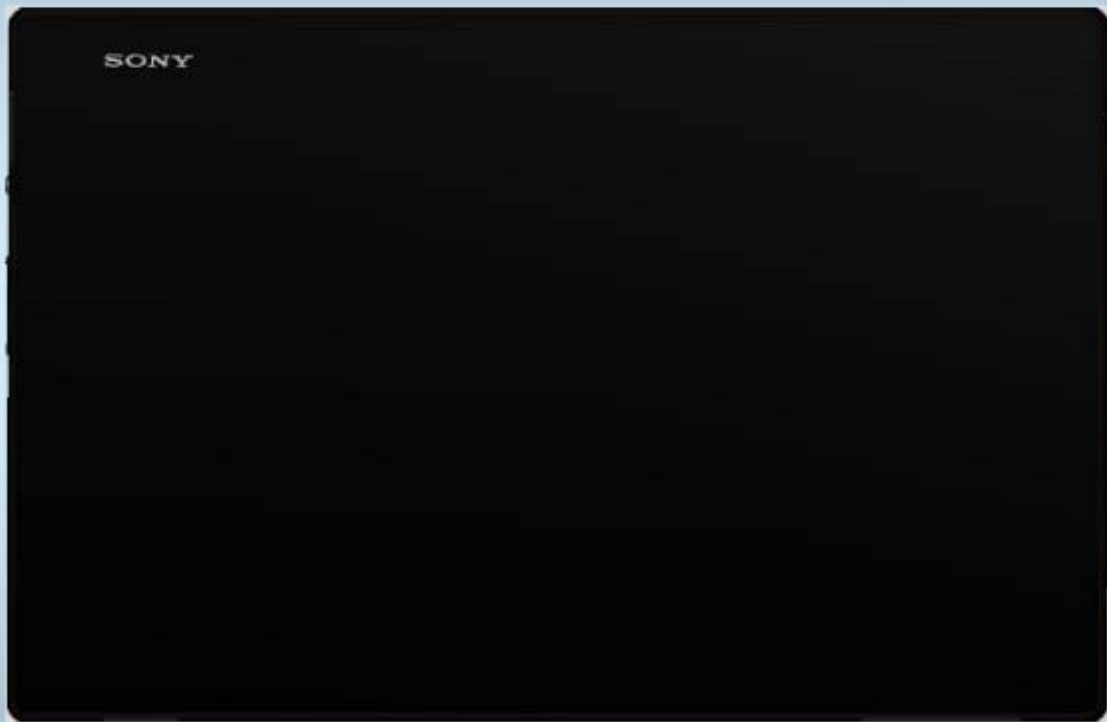


Troubleshooting Guide

- mechanical -



Xperia™ Tablet Z
SGP311, SGP312, SGP321, SGP341,
SGP351

CONTENTS

1	Problem Areas	4
1.1	Power.....	4
1.1.1	Will not power on or will switch off randomly.....	4
1.2	Keys.....	5
1.2.1	Menu, Home and Multitask Keys	5
1.2.2	Volume Key	5
1.2.3	On/Off Key	7
1.3	Touch Screen.....	9
1.3.1	Touch Screen malfunction.....	9
1.4	Display.....	11
1.4.1	Graphics & Illumination	11
1.5	LED/Illumination	12
1.5.1	LED/Illumination	12
1.6	Speaker	13
1.6.1	Loudspeaker (Right channel)	13
1.6.2	Loudspeaker (left channel)	16
1.7	Earphone.....	18
	Ear Speaker	18
1.8	Microphone	19
1.8.1	Microphone	19
1.8.2	Secondary Microphone	21
1.9	Vibrator.....	22
1.9.1	Vibrator not generating alerts	22
1.10	Camera	23
1.10.1	Camera defects.....	23
1.10.2	Video Call Camera defects.....	24
1.11	Flash LED.....	26
1.11.1	Flash LED not flashing.....	26
1.12	Bluetooth and WLAN	27
1.12.1	Bluetooth or WLAN connection failure	27
1.13	NFC	28
1.13.1	NFC malfunctions	28
1.14	GPS.....	30
1.14.1	GPS malfunctions.....	30
1.15	Compass	31
1.15.1	Compass fails	31
1.16	Accelerometer	32
1.16.1	Accelerometer test fails	32
1.17	Gyroscope.....	33
1.17.1	Gyroscope test fails	33
1.18	Ambient Light Sensor	34
1.18.1	Light Sensor malfunctions	34

1.19 Proximity Switch	36
1.19.1 Proximity switch malfunctions.....	36
1.20 Pressure Sensor	37
1.20.1 Pressure Sensor test fails.....	37
1.21 Water Resistance	38
1.21.1 Water Resistance fails.....	38
1.22 Real Time Clock.....	41
1.22.1 Real time clock test fails	41
1.23 Total call time	42
1.23.1 Total call time fails.....	42
1.24 External Memory	43
1.24.1 Memory Card not detected	43
1.25 Security	45
1.25.1 Security fails	45
1.26 FM Radio	46
1.26.1 No/Poor FM Radio reception	46
1.27 Battery Health test.....	47
1.27.1 Battery Health test fails.....	47
1.28 Flip Slider Counter	48
1.28.1 Flip Slider Counter fails	48
1.29 Verify Certificates	49
1.29.1 Verify Certificates fails	49
1.30 IrDA Test	50
1.30.1 IrDA test fails	50
1.31 TV-Out Test	51
1.31.1 TV-Out test fails	51
1.32 Network & Signal.....	52
1.32.1 No/Poor signal (N/A for SGP311 and SGP312).....	52
1.32.2 No/Poor signal (N/A for SGP321, SGP341 and SGP351)	54
1.33 SIM	56
1.33.1 SIM not detected.....	56
1.34 Charging.....	59
1.34.1 Battery will not charge by USB connector	59
1.34.2 Battery will not charge by Charge Pad	60
1.35 HandsFree by Wire.....	62
1.35.1 Connection to portable Handsfree fails.....	62
1.36 Data Communication	63
1.36.1 Data transfer via System Connector fails.....	63
1.37 Hall element	64
1.37.1 Hall element test fails	64
2 Revision History	65

1 Problem Areas

1.1 Power

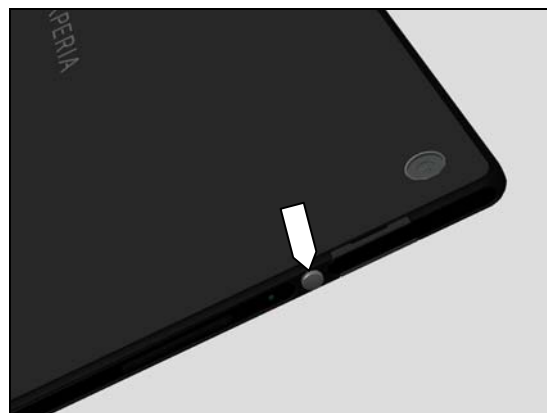
1.1.1 Will not power on or will switch off randomly

Check:

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

Action:

Do a Force shut down, press power key and volume up key for 10 seconds and then power on the unit again.



2. If NO Notification LED blink is detected, check that the battery is charging when connected to a charger.

Follow Test Instruction (Charging via USB), Diagnostic Battery / Charging status.



Check:

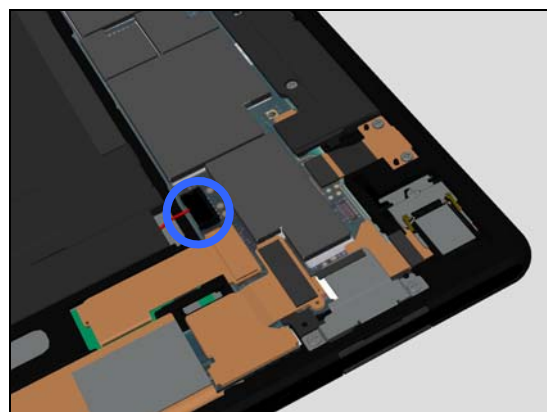
Inspect the BtB connector of Battery to Main PBA.

Action:

1. Remove and reconnect Battery, test charging and then test powering on the unit.

2. If dirty or oxidized – clean it.

3. If the BtB contact on Battery or Battery is damaged – replace Battery.

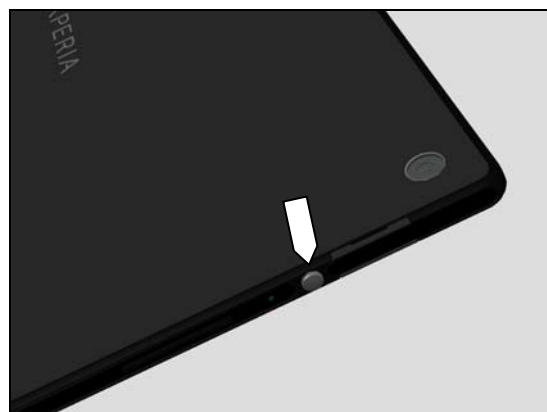


Check:

Inspect the on/off key.

Action:

Refer to section 1.2.3 'On/Off Key'.



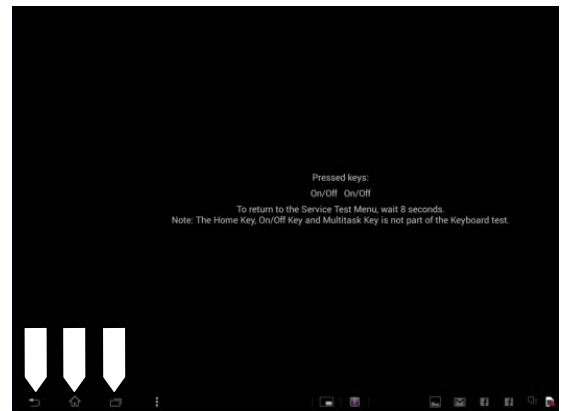
Problem Areas

1.2 Keys

1.2.1 Menu, Home and Multitask Keys

Action:

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



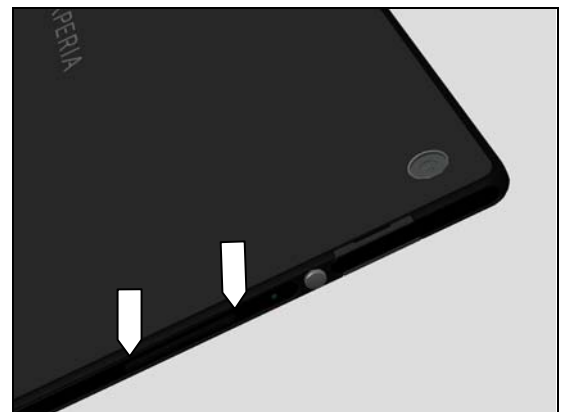
1.2.2 Volume Key

Check:

Inspect the external area of the volume key.

Action:

If dirty – clean it.

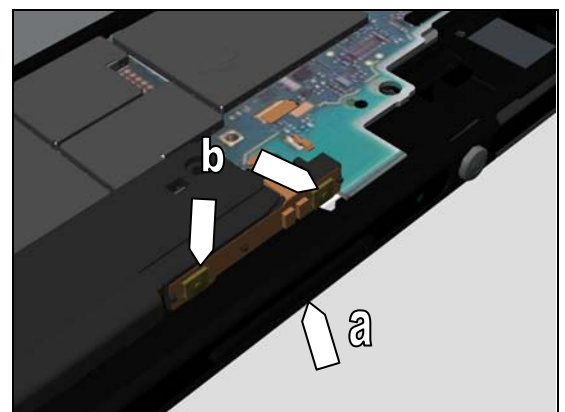


Check:

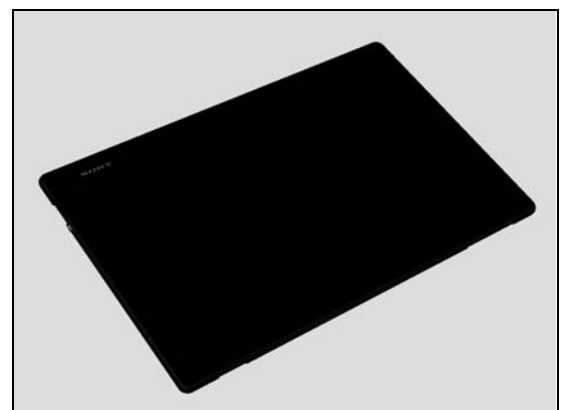
Inspect the volume key (a) and volume key switch (b).

Action:

1. If dirty – clean them.

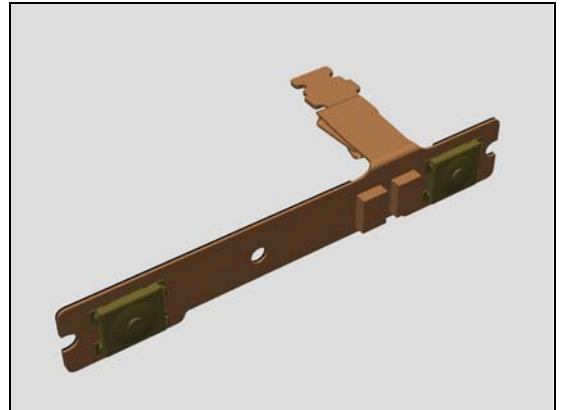


2. If the volume key is damaged – replace the Front Assembly.



Problem Areas

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

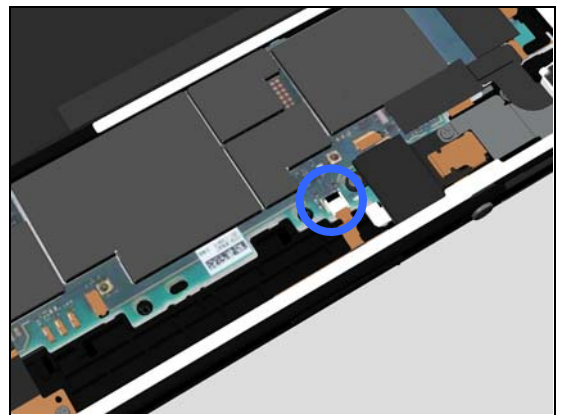


Check:

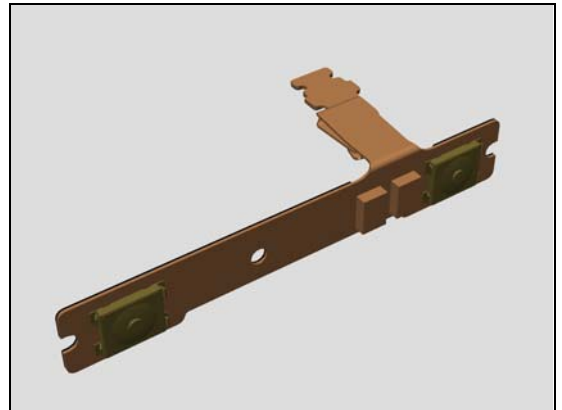
Inspect the ZIF connector of the FPC Key PBA to Main PBA.

Action:

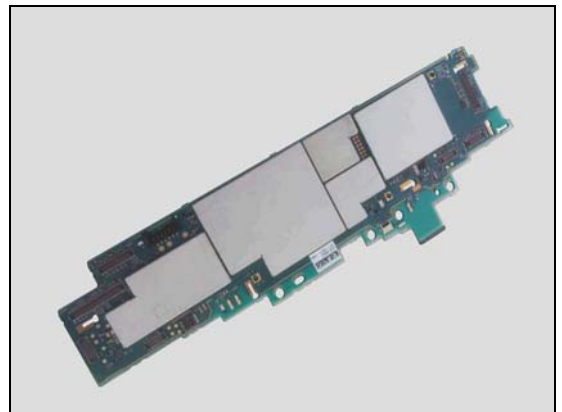
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the FPC of the FPC Key PBA is damaged – replace the FPC Key PBA.



4. Replace Main PBA.



Problem Areas

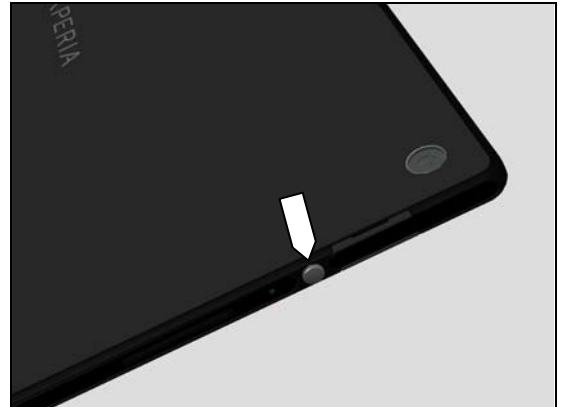
1.2.3 On/Off Key

Check:

Inspect the external area of the on/off key.

Action:

If dirty – clean it.

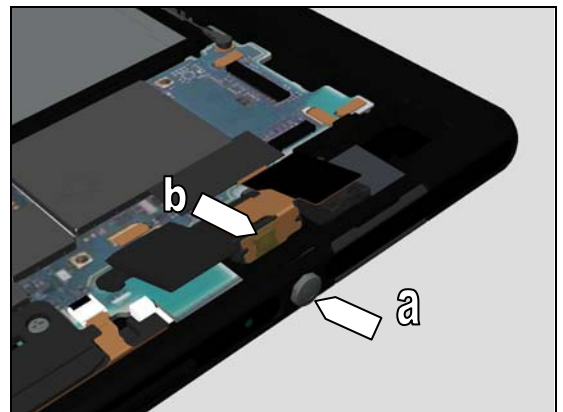


Check:

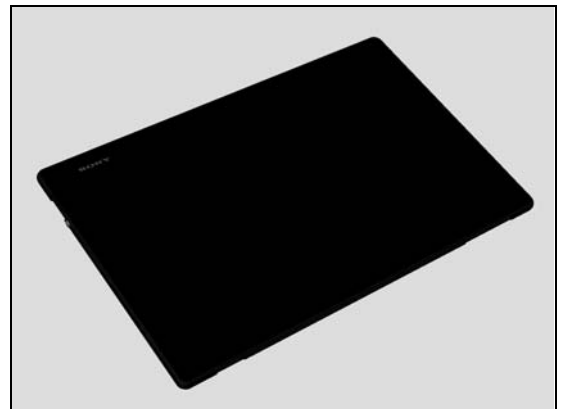
Inspect the on/off key (a) and on/off key switch (b).

Action:

1. If dirty – clean them.



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



3. If the on/off key switch is damaged – replace the FPC Audio Jack.



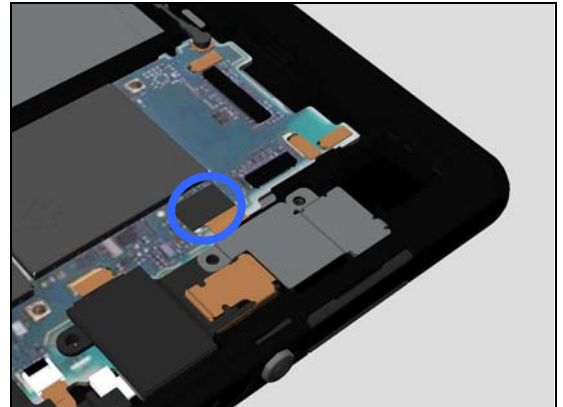
Problem Areas

Check:

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

Action:

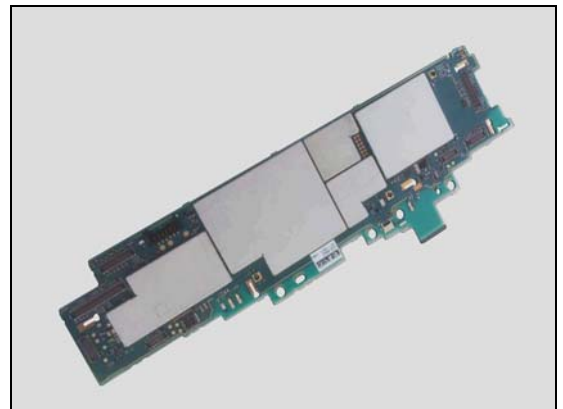
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



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



4. Replace Main PBA.



Problem Areas

1.3 Touch Screen

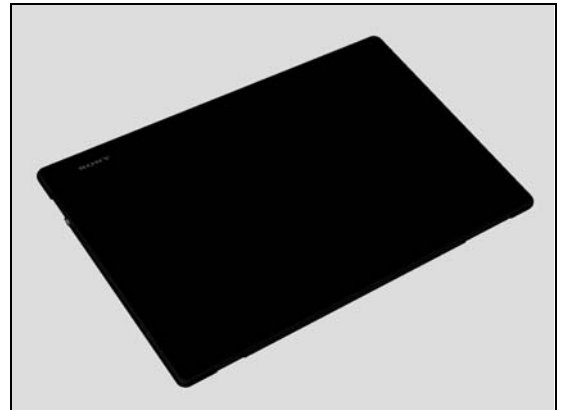
1.3.1 Touch Screen malfunction

Check:

Inspect the touch screen of the Front Assembly.

Action:

1. If dirty – clean it.
2. If scratched or damaged – replace the Front Assembly.

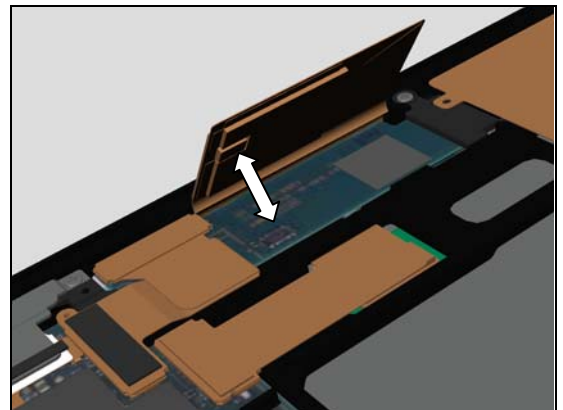


Check:

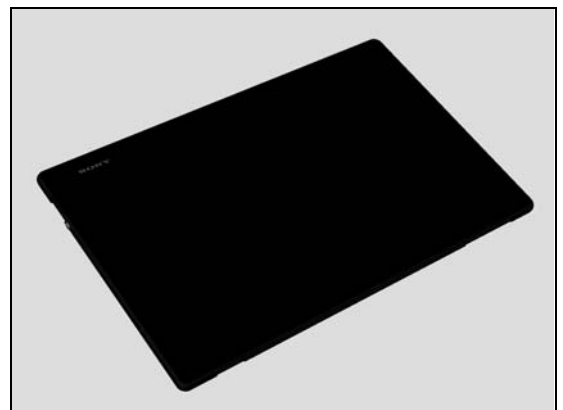
Inspect the BtB connector of Front Assembly to PBA Complete Sub.

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 FPC or connector of Front Assembly is damaged – replace Front Assembly.

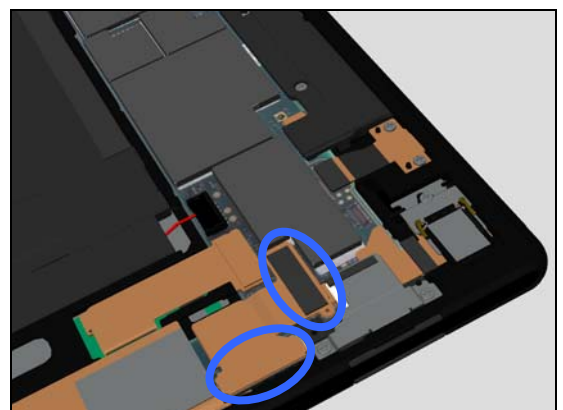


Check:

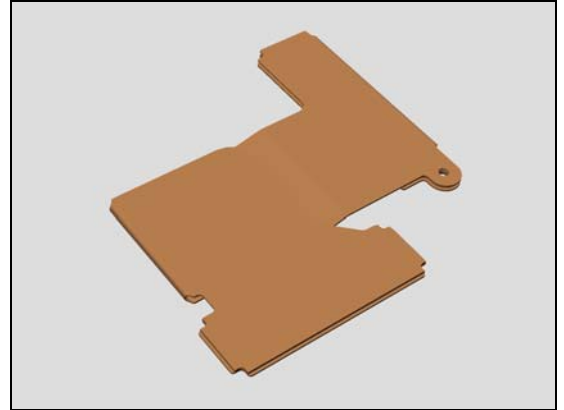
Inspect the BtB connector of FPC Assembly Relay SUB PBA to Main PBA and PBA Complete Sub.

Action:

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



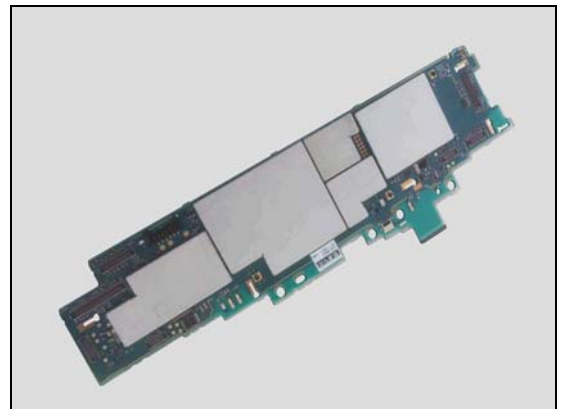
3. If the FPC Assembly Relay SUB PBA is damaged – replace the FPC Assembly Relay SUB PBA.



4. Replace PBA Complete Sub.



5. Replace Main PBA



Problem Areas

1.4 Display

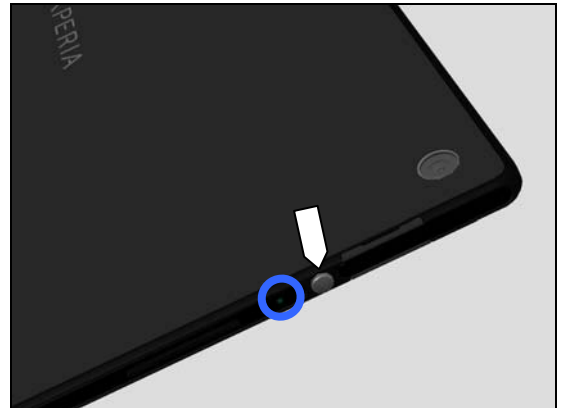
1.4.1 Graphics & Illumination

Check:

Check whether the Notification LED blinks after the on/off key has been pressed.

Action:

If the Notification LED blink described above is not detected, refer to section 1.1 'Power'.

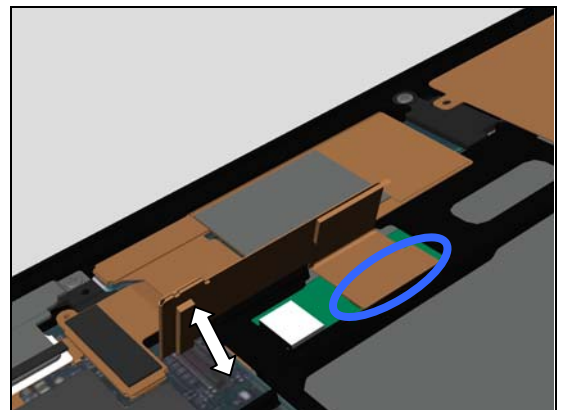


Check:

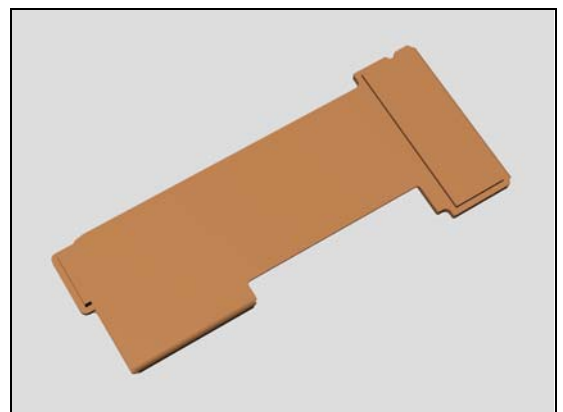
Inspect the BtB connector of FPC Assembly Relay LCD PBA to Main PBA and Front Assembly.

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 FPC Assembly Relay LCD PBA is damaged – replace the FPC Assembly Relay LCD PBA.



4. Replace Front Assembly.
5. Replace Main PBA

Problem Areas

1.5 LED/Illumination

1.5.1 LED/Illumination

Check:

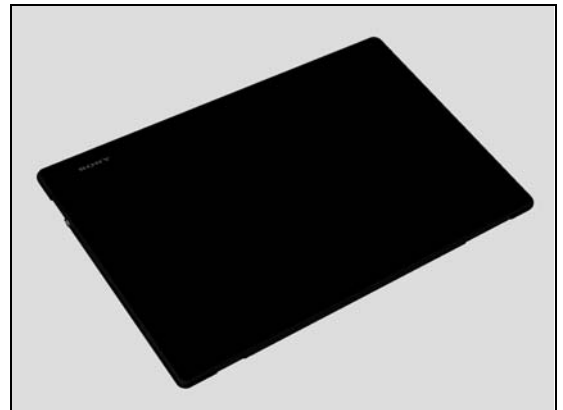
Inspect the external window area of the RGB LED on the Front Assembly.

Action:

1. If dirty – clean it.



2. If the external window area is damaged – replace the Front Assembly.

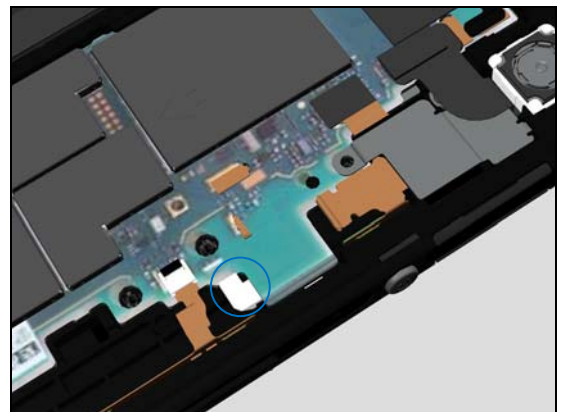


Check:

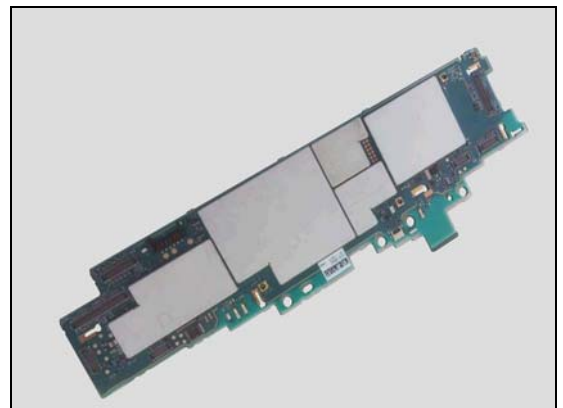
Inspect the RGB LED light guide on the Front Assembly.

Action:

1. If dirty – clean it.



4. If the RGB LED of Main PBA is damaged – replace main PBA.



Problem Areas

1.6 Speaker

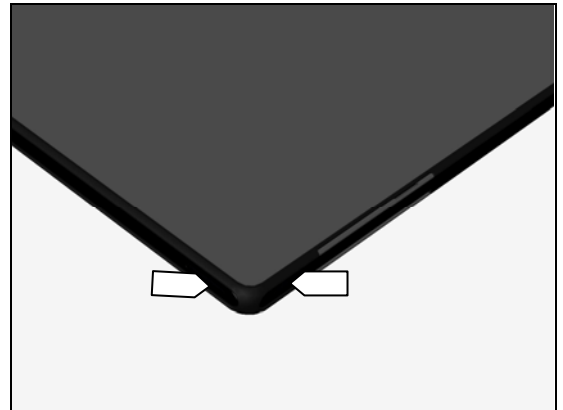
1.6.1 Loudspeaker (Right channel)

Check:

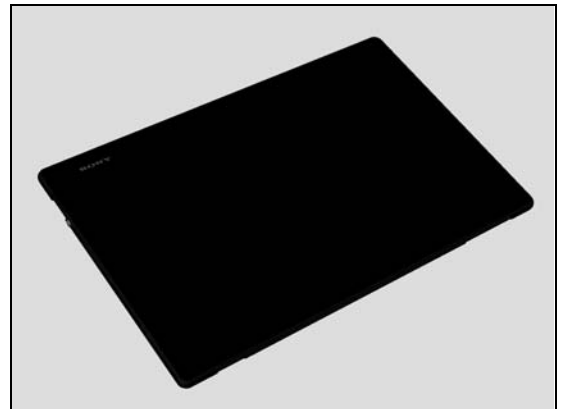
Inspect the Loudspeaker external port Right on the Front Assembly.

Action:

1. If the Loudspeaker external port are clogged – clean them.



2. If the Loudspeaker external port are damaged – replace the Front Assembly.

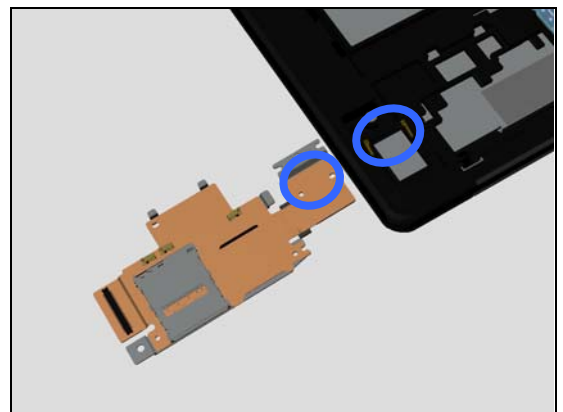


Check:

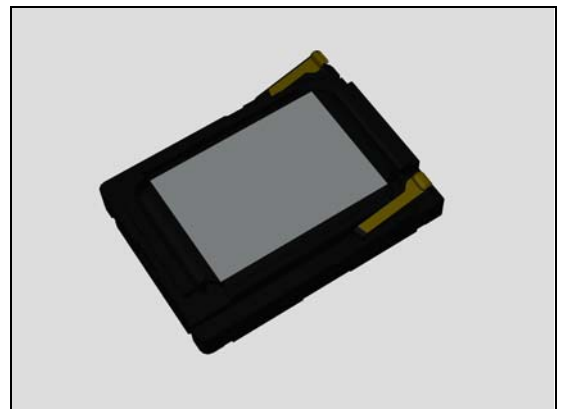
Inspect the contact pins of Loudspeaker and the contact pads on the FPC Assembly SIM.

Action:

1. If dirty – clean them.



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



Problem Areas

3. If the FPC Assembly SIM is damaged – replace it.

Check:

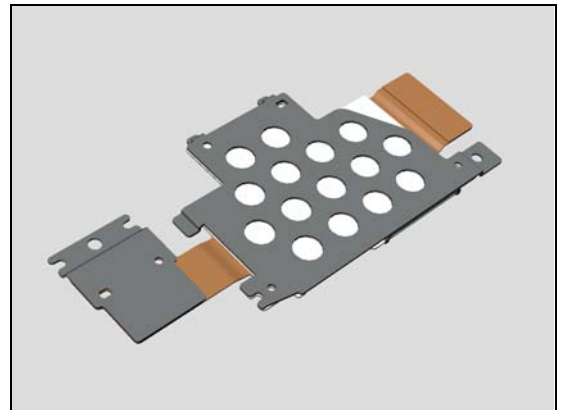
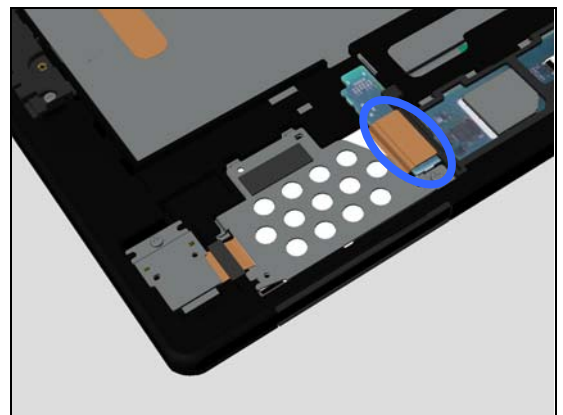
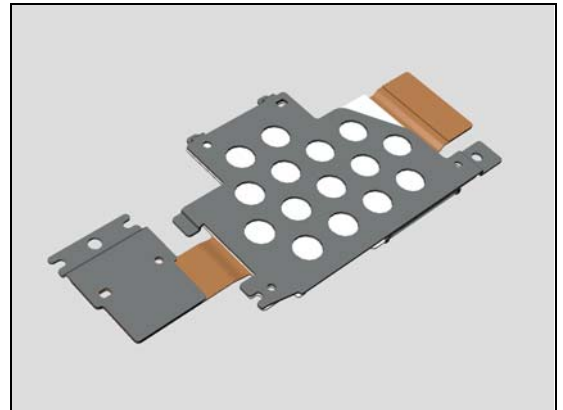
Inspect the BtB connector of FPC Assembly SIM to PBA Complete SUB.

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 connector of FPC Assembly SIM is damaged – replace it.

4. If the connector of PBA Complete SUB is damaged – replace the PBA Complete SUB.



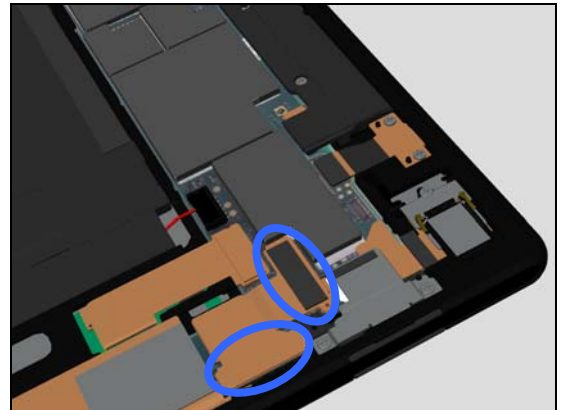
Problem Areas

Check:

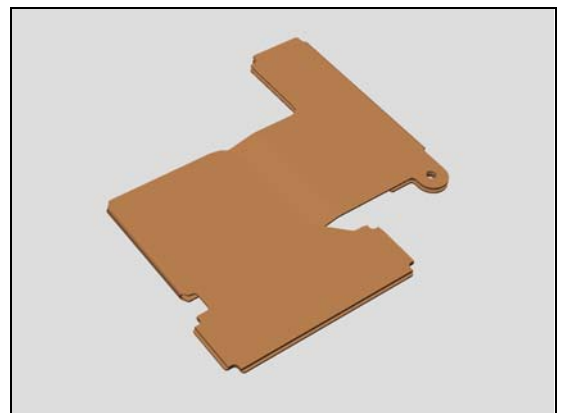
Inspect the BtB connector of FPC Assembly Relay SUB PBA to PBA Complete SUB and main PBA

Action:

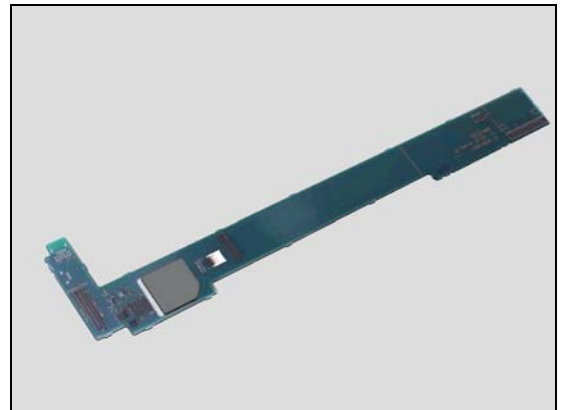
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



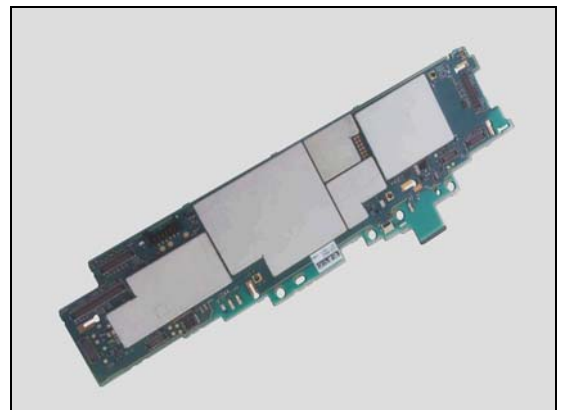
3. The connector of FPC Assembly Relay SUB PBA is damaged – replace FPC Assembly Relay SUB PBA



4. If the connector of PBA Complete SUB is damaged – replace the PBA Complete SUB.



5. Replace main PBA.



Problem Areas

1.6.2 Loudspeaker (Left channel)

Check:

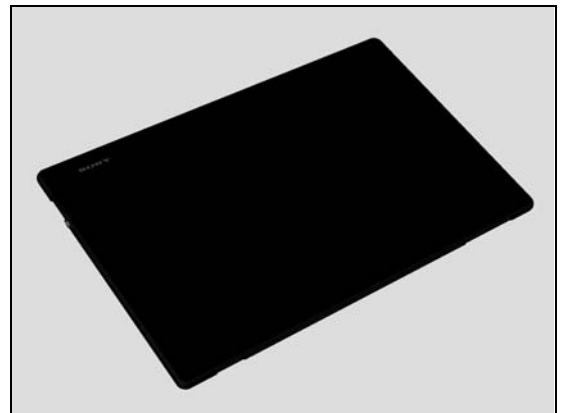
Inspect the Loudspeaker external port Left on the Front Assembly.

Action:

1. If the Loudspeaker external port are clogged – clean them.



2. If the Loudspeaker external port are damaged – replace the Front Assembly.

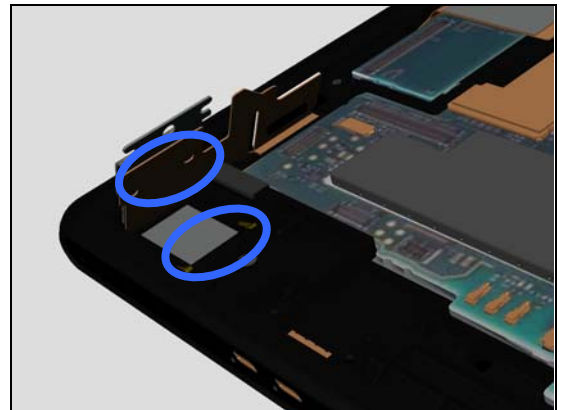


Check:

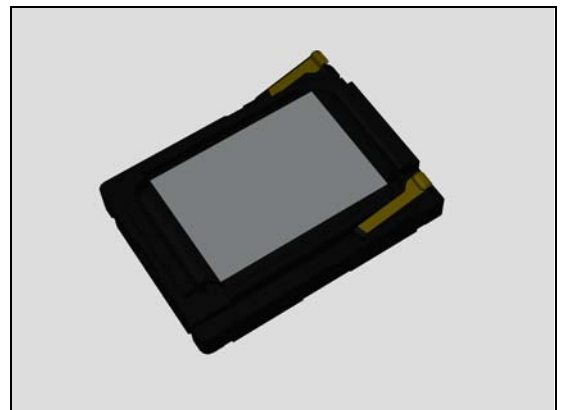
Inspect the contact pins of Loudspeaker and the contact pads on the FPC Assembly USB PBA.

Action:

1. If dirty – clean them.



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



Problem Areas

Check:

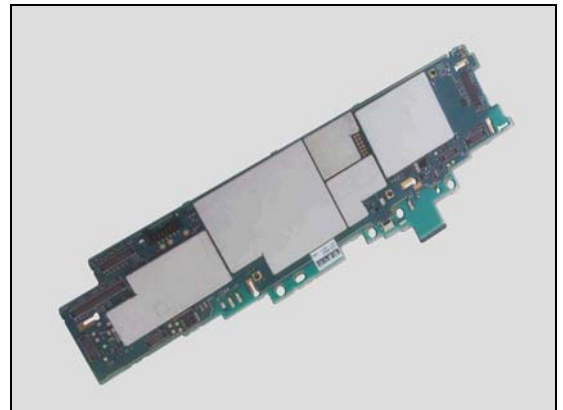
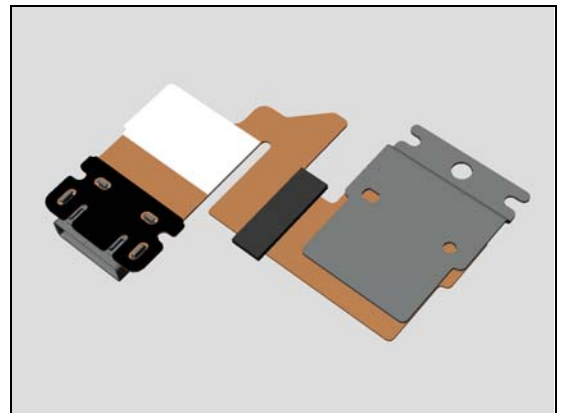
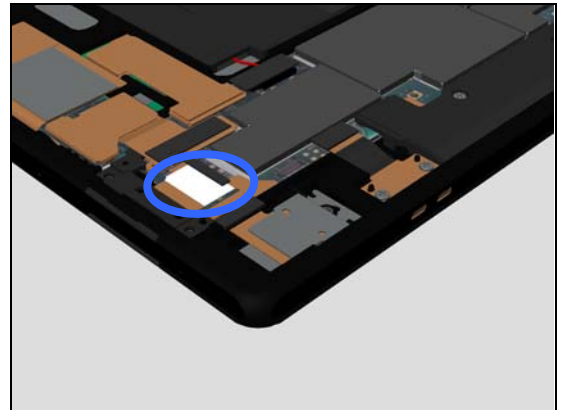
Inspect the connector of FPC Assembly USB PBA to main PBA.

Action:

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

2. If the connector of FPC Assembly USB PBA is damaged – replace the FPC Assembly USB PBA.

3. Replace main PBA.



Problem Areas

1.7 Earphone

Ear Speaker

N/A. No earphone functionality in the product.

Problem Areas

1.8 Microphone

1.8.1 Microphone

Check:

Inspect the microphone's external port on the Front Assembly.

Action:

1. If clogged – clean it.

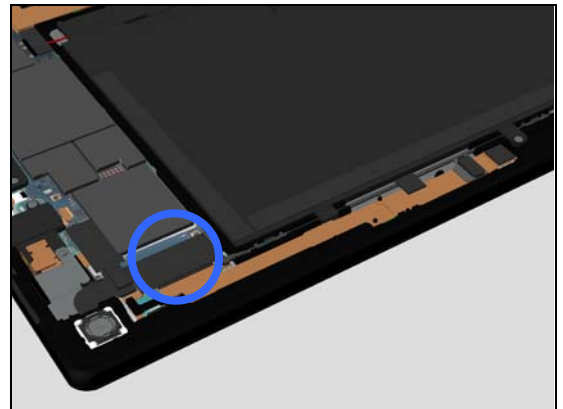


Check:

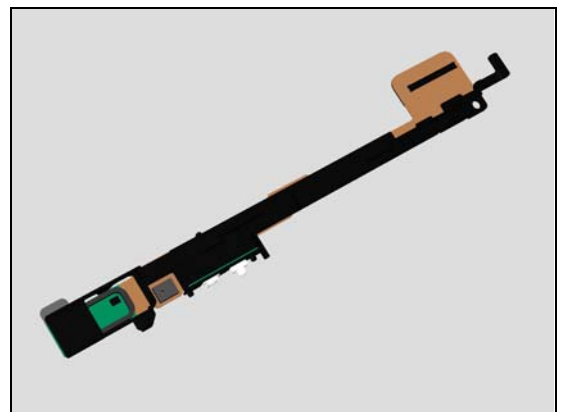
Inspect the BtB connector of FPC Assembly Top PBA to Main PBA.

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 connector of FPC Assembly Top PBA is damaged – replace FPC Assembly Top PBA.

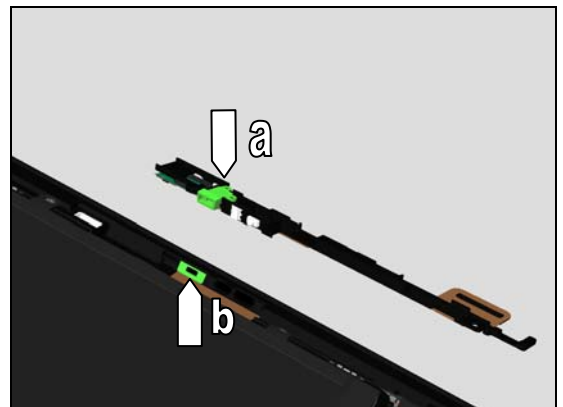


Check:

Inspect the Carrier holder Mic (a) and the microphone cushion (b) on the Front Assembly.

Action:

1. If dirty or clogged – clean them.



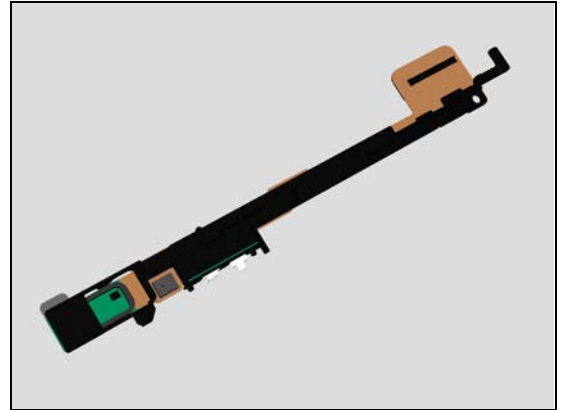
Problem Areas

Check:

Inspect the microphone on the FPC Assembly Top PBA.

Action:

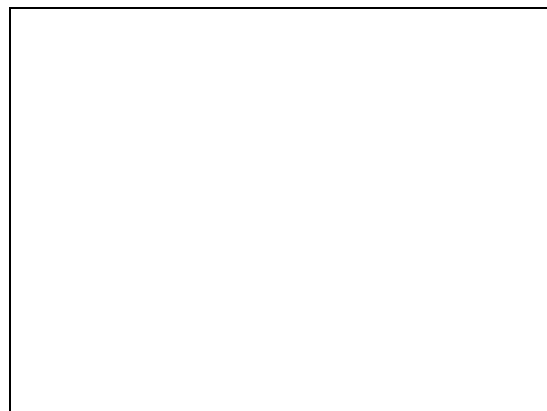
1. If dirty – clean it.
2. If the microphone is damaged – replace FPC Assembly Top PBA.
3. Replace PBA.



Problem Areas

1.8.2 Secondary Microphone

N/A. No secondary microphone in the product.



Problem Areas

1.9 Vibrator

1.9.1 Vibrator not generating alerts

N/A. No vibrator in the product.

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 Back Panel Assy.



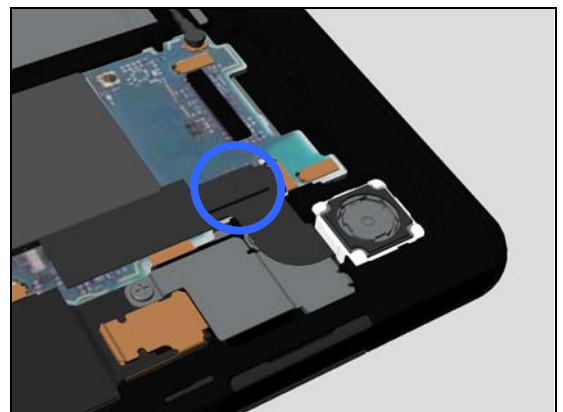
Check:

Inspect the BtB connector of Main Camera to Main PBA.

Action:

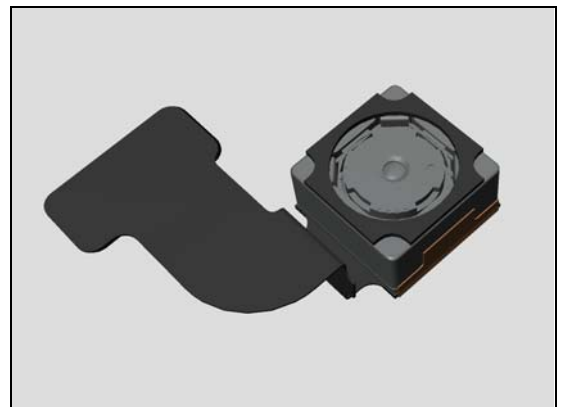
1. If not properly connected – disconnect and reconnect it.

2. If dirty or oxidized – clean 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.



Problem Areas

1.10.2 Video Call Camera defects

Check:

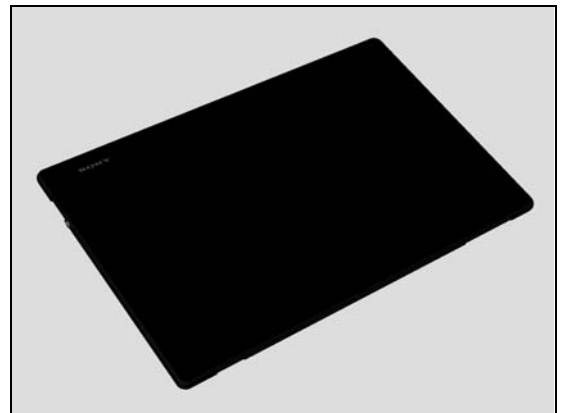
Inspect the external area of the video camera window.

Action:

1. If dirty – clean it.



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



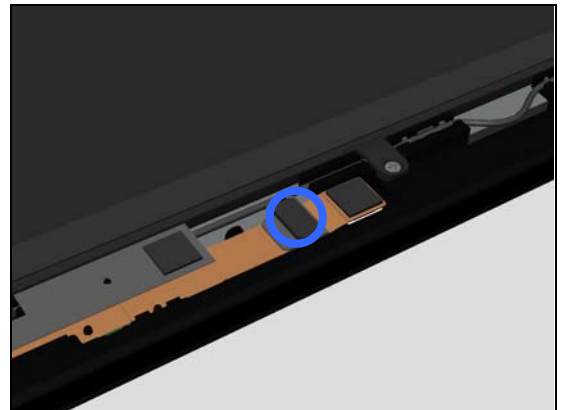
Check:

Inspect the BtB connector of chat camera to the FPC Assembly Top PBA.

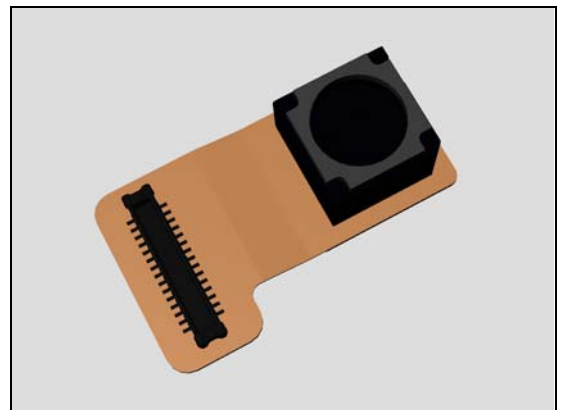
Action:

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

2. If dirty or oxidized – clean the both sides of the BtB connector.



2. If the BtB connector or chat camera is damaged – replace the chat camera.



Problem Areas

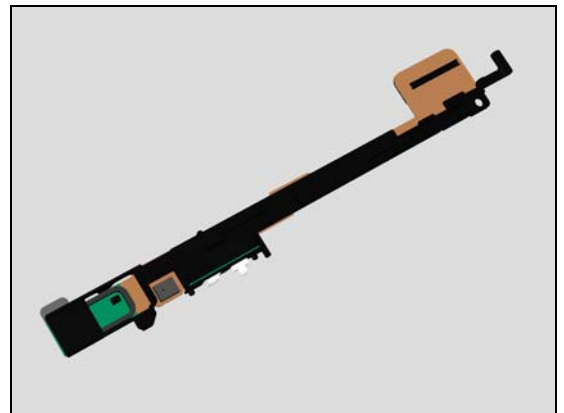
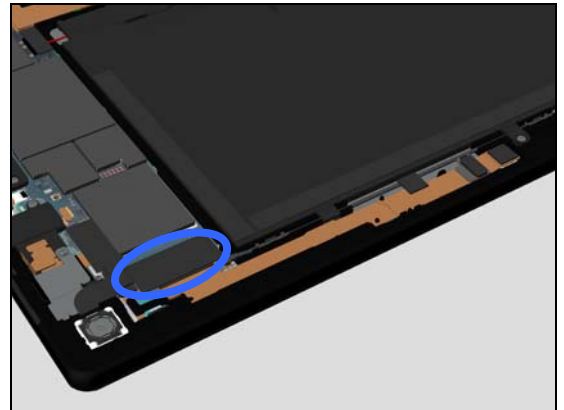
Check:

Inspect the BtB connector of the FPC Assembly Top PBA 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 connector of FPC Assembly Top PBA is damaged – replace FPC Assembly Top PBA.
4. Replace main PBA.



Problem Areas

1.11 Flash LED

1.11.1 Flash LED not flashing

N/A. No Flash LED in the product.

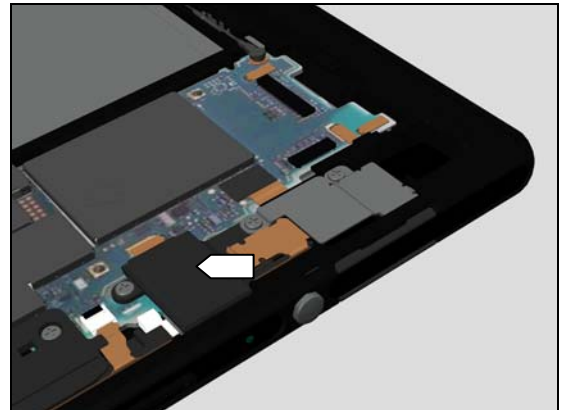
Problem Areas

1.12 Bluetooth and WLAN

1.12.1 Bluetooth or WLAN connection failure

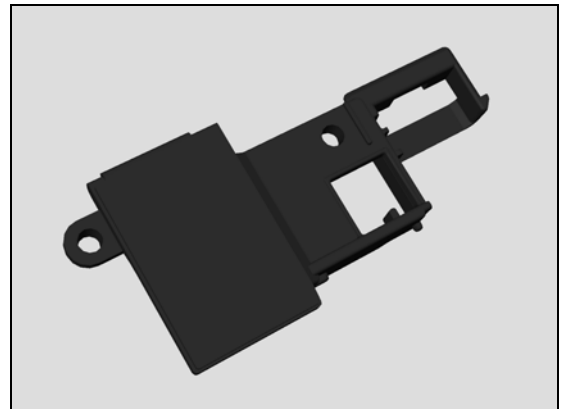
Check:

Inspect the GPS antenna (Bluetooth and WLAN antenna are included in GPS antenna).



Action:

If the GPS antenna is damaged – replace the GPS antenna.

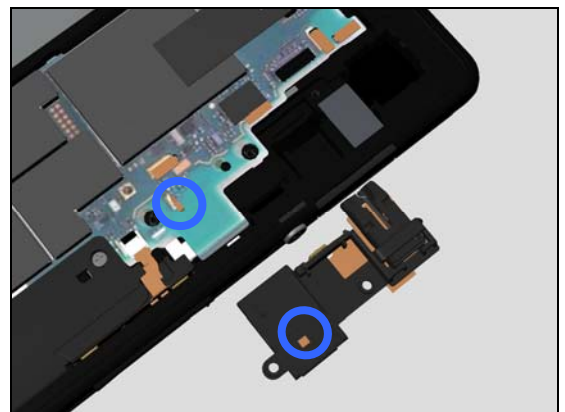


Check:

Inspect the GPS antenna contact pad and the contact pin on Main PBA.

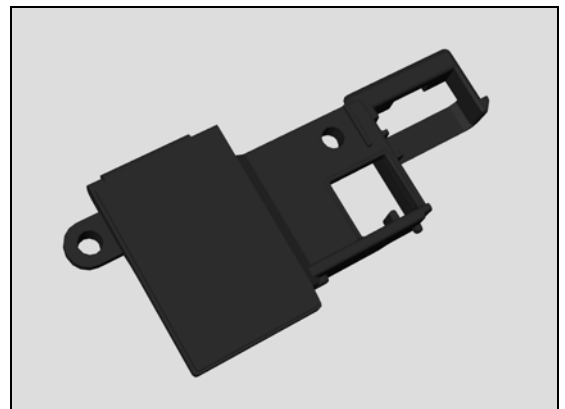
Action:

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



2. If the contact pad is damaged – replace the GPS antenna.

3. Replace Main PBA.



Problem Areas

1.13 NFC

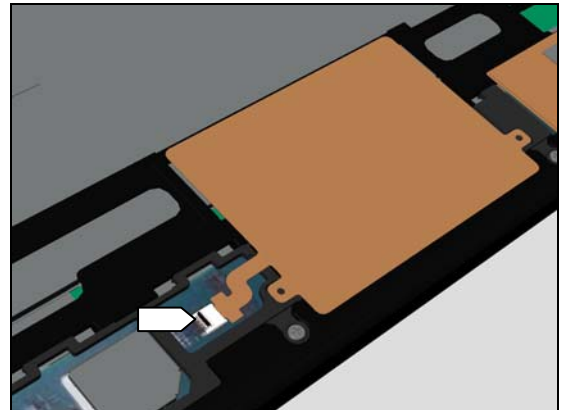
1.13.1 NFC malfunctions

Check:

Inspect the ZIF connector of NFC antenna to the FPC Assembly Relay SUB PBA.

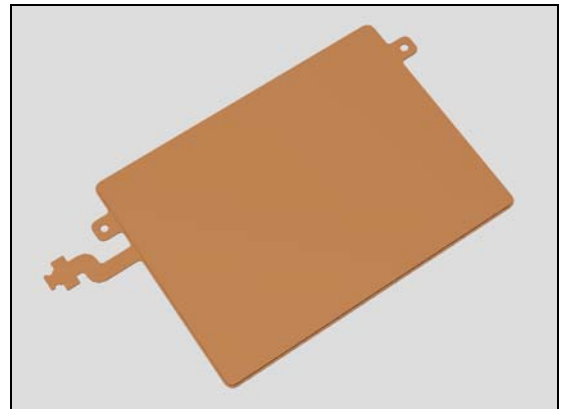
Action:

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



Action:

If the antenna is damaged – replace the NFC antenna.



Check:

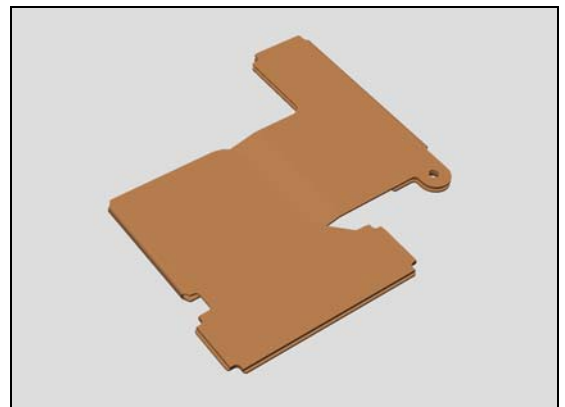
Inspect the BtB connector of FPC Assembly Relay SUB PBA to the PBA Complete Sub.

Action:

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

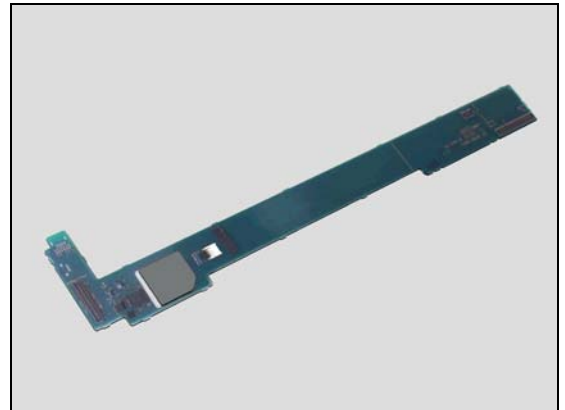


3. If the BtB connector or the FPC Assembly Relay SUB PBA is damaged – replace the FPC Assembly Relay SUB PBA.



Problem Areas

4. Replace PBA Complete Sub.



Check:

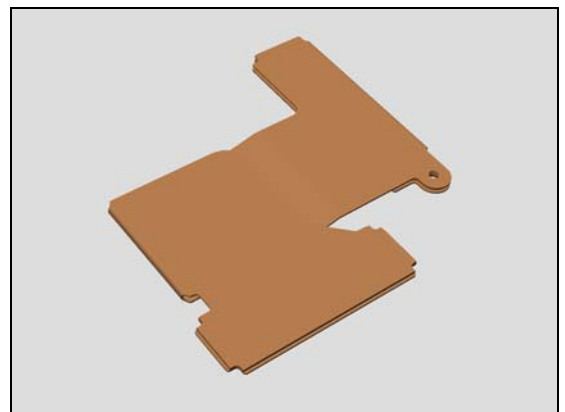
Inspect the BtB connector of FPC Assembly Relay SUB PBA to the Main PBA.

Action:

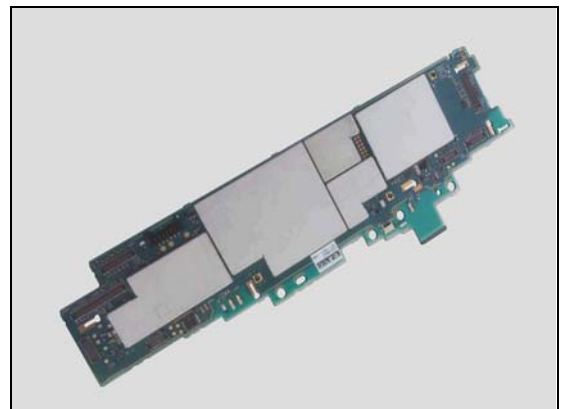
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean it.



3. If the BtB connector or the FPC Assembly Relay SUB PBA is damaged – replace the FPC Assembly Relay SUB PBA.



4. Replace Main PBA.



Problem Areas

1.14 GPS

1.14.1 GPS malfunctions

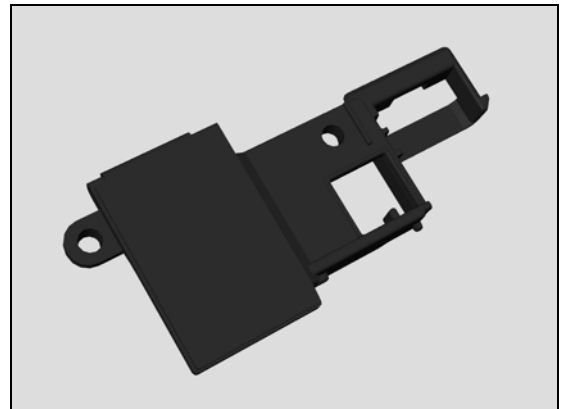
Check:

Inspect the GPS antenna.



Action:

If the GPS antenna is damaged – replace the GPS antenna.

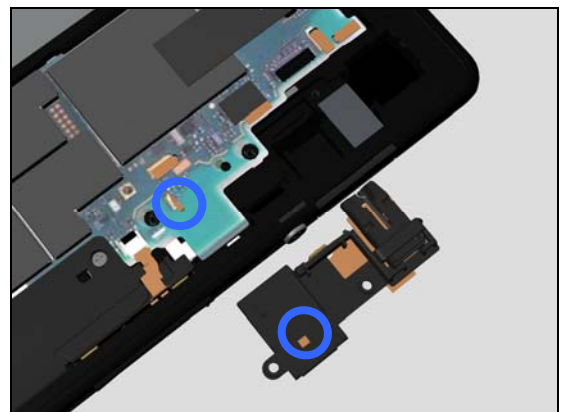


Check:

Inspect the GPS antenna contact pad on GPS antenna and the contact pin on Main PBA.

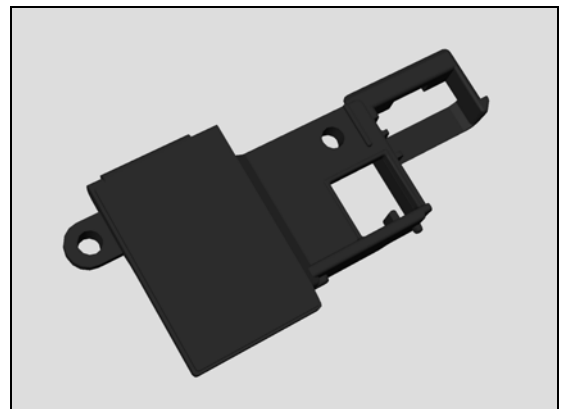
Action:

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



2. If the contact pad is damaged – replace the GPS antenna.

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:

1. Do an calibration according to chapter 3.2 in 1274-7274
Test Instruction – mechanical
2. Replace Main PBA.

Problem Areas

1.17 Gyroscope

1.17.1 Gyroscope test fails

Action:

1. Do an calibration according to chapter 3.1 in 1274-7274
Test Instruction – mechanical
2. Replace Main PBA.

Problem Areas

1.18 Ambient Light Sensor

1.18.1 Light Sensor malfunctions

Check:

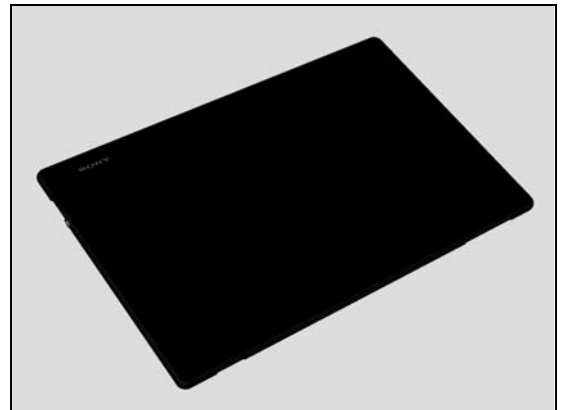
Inspect the external window area of light sensor on the Front Assembly.

Action:

1. If dirty – clean it.



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



Check:

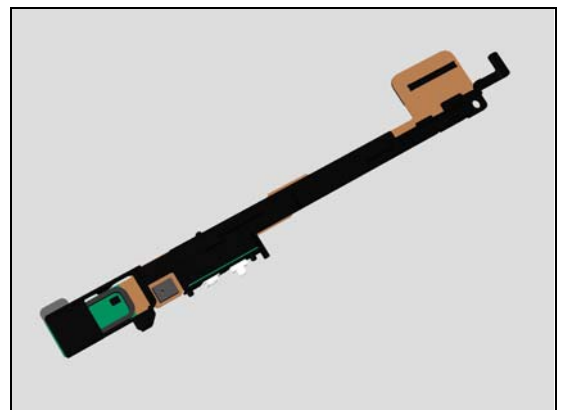
Inspect the light sensor on the FPC Assembly Top PBA.

Action:

1. If dirty – clean it.



2. If damaged – replace the FPC Assembly Top PBA.



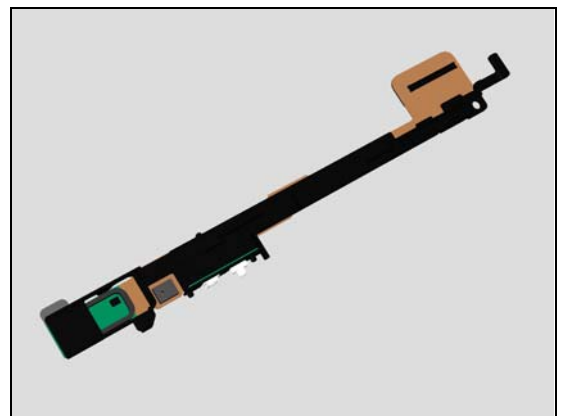
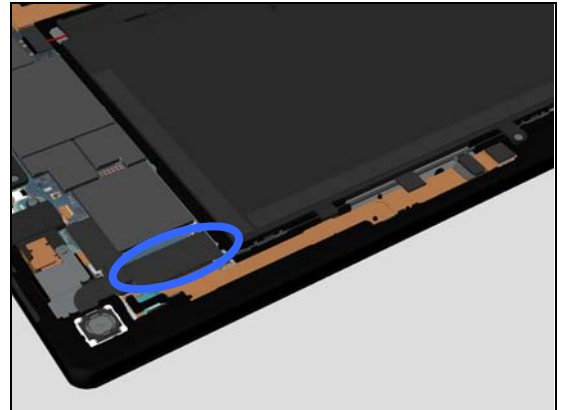
Problem Areas

Check:

Inspect the BtB connector of FPC Assembly Top PBA 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 connector of FPC Assembly Top PBA is damaged – replace FPC Assembly Top PBA.
4. Replace Main PBA.



Problem Areas

1.19 Proximity Switch

1.19.1 Proximity switch malfunctions

N/A. No proximity functionality in the product.

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 Water Resistance

1.21.1 Water Resistance fails

Follow the chapter 1.1 in 1274-7274 Test Instruction – mechanical for the sealing process

Inspect all the loudspeaker's external ports (both sides)

Action:

1. If dirty – clean it.
2. If scratched or damaged – replace the Front Assembly.

Run the Water Resistance Test again!

Check:

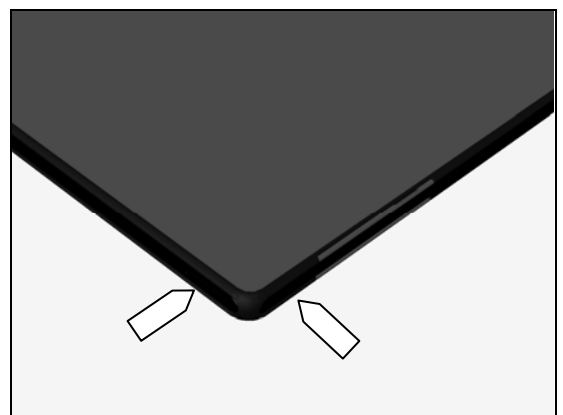
Inspect the Cap Audio Jack Assy.

Action:

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

3. If the Cap Audio Jack Assy is damaged – replace it.

Run the Water Resistance Test again!



Problem Areas

Check:

Inspect the Cap SIM Assembly.

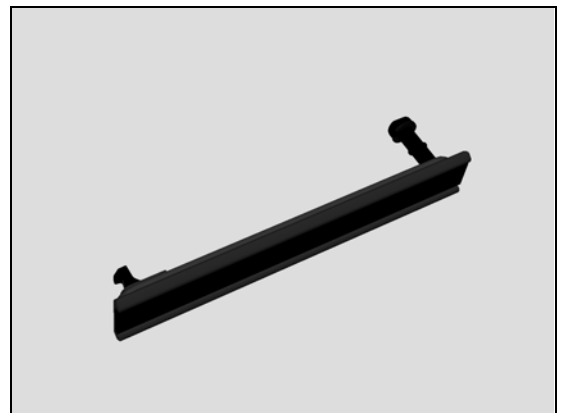
Action:

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



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

Run the Water Resistance Test again!



Check:

Inspect the Cap USB Assembly.

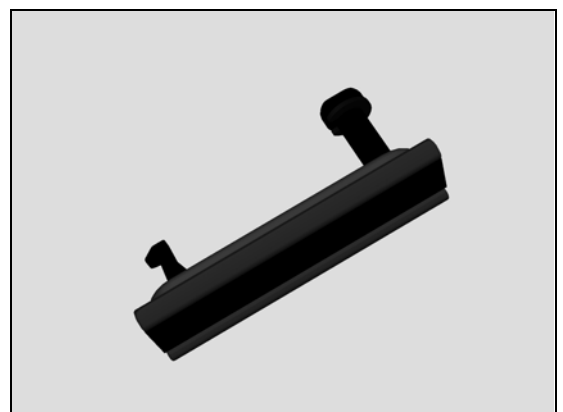
Action:

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



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

Run the Water Resistance Test again!



Problem Areas

Check:

Inspect the Back Panel Assy

Action:

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

3. If the Back Panel Assy is 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

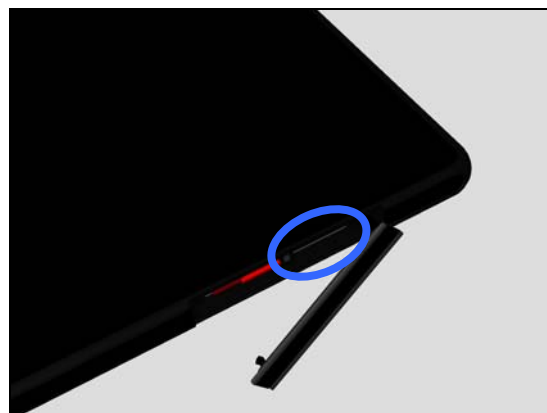
1.24.1 Memory Card not detected

Check:

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

Action:

If dirty or clogged – clean the external port.

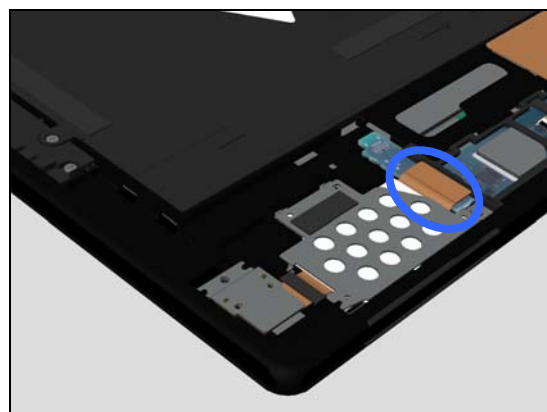


Check:

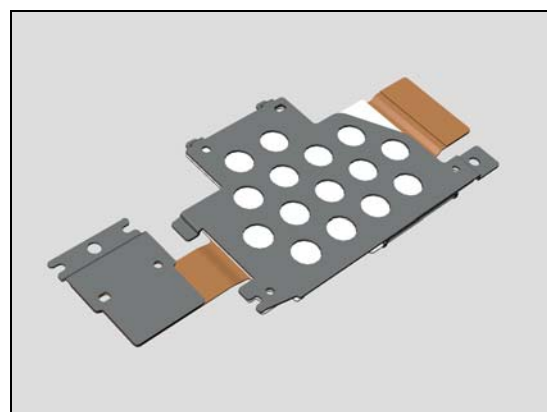
Inspect the BtB connector of FPC Assembly to Main PBA.

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 SIM holder of FPC Assembly SIM is damaged – replace the FPC Assembly SIM.

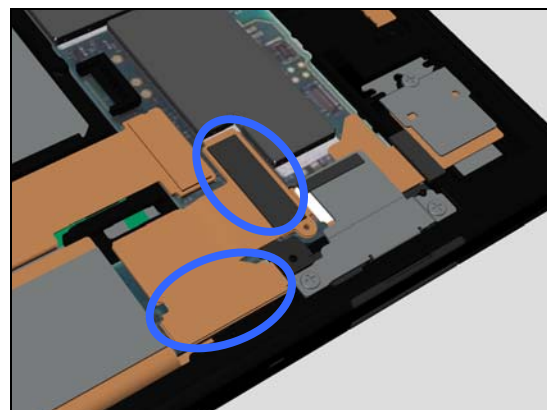


Check:

Inspect the BtB connector of FPC Assembly Relay SUB PBA to Main PBA and PBA Complete Sub.

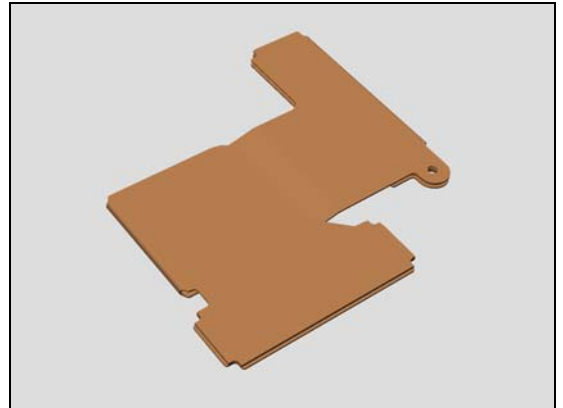
Action:

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

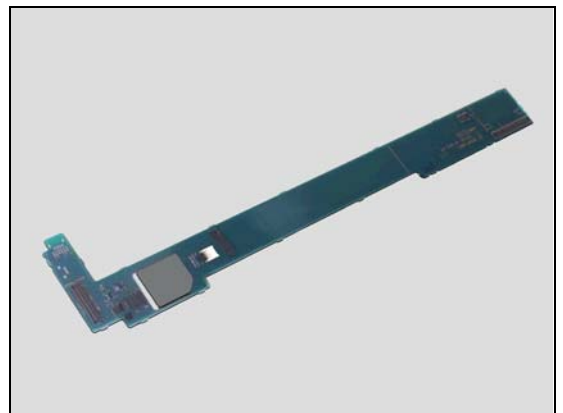


Problem Areas

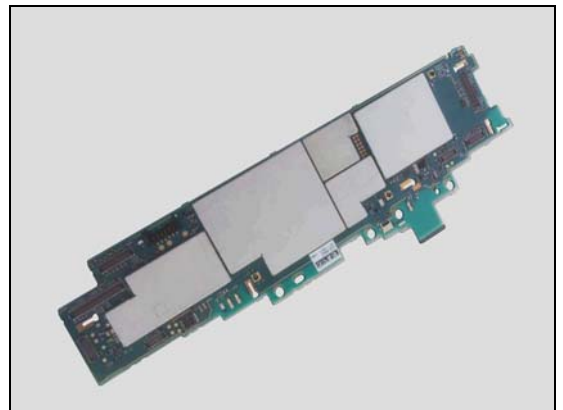
3. If the BtB connector of FPC Assembly Relay SUB PBA is damaged – replace the FPC Assembly Relay SUB PBA.



4. Replace PBA Complete Sub



5. 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:

If dirty or oxidized – clean it.

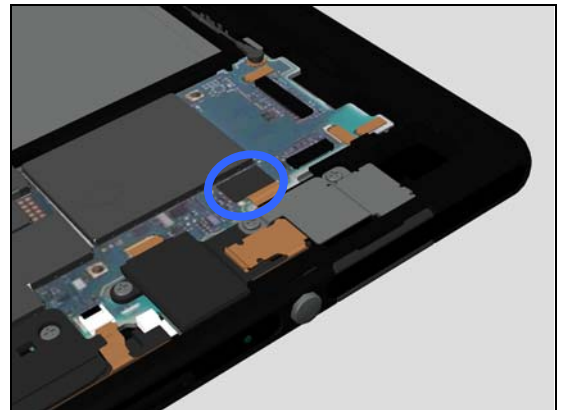


Check:

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

Action:

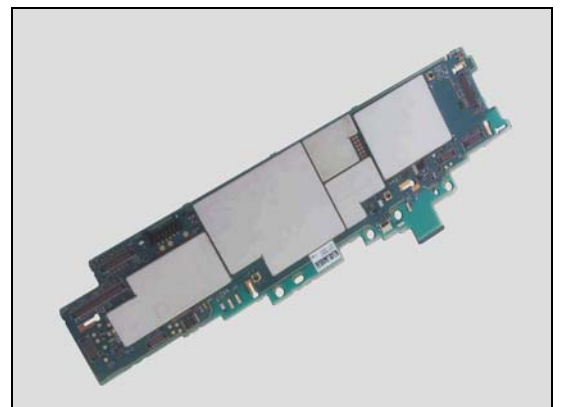
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



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



4. Replace Main PBA.



Problem Areas

1.27 Battery Health test

1.27.1 Battery Health test fails

Action:

Replace the battery.

Problem Areas

1.28 Flip Slider Counter

1.28.1 Flip Slider Counter fails

Action:

N/A. No slider functionality in the product.

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

Check:

Inspect the external window area of USB connector.

Action:

1. If dirty – clean it.



Check:

Inspect the IR LED and IR photo diode on the FPC Assembly Top PBA.

Action:

1. If dirty – clean it.

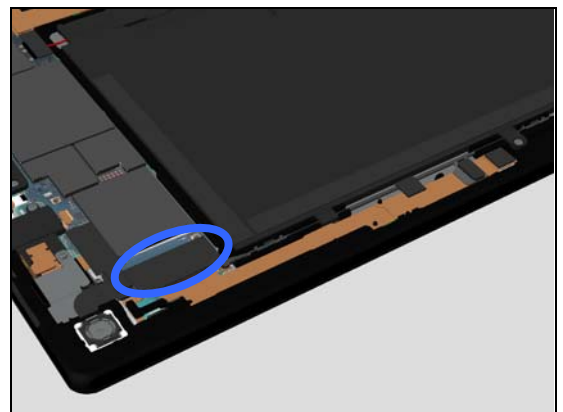


Check:

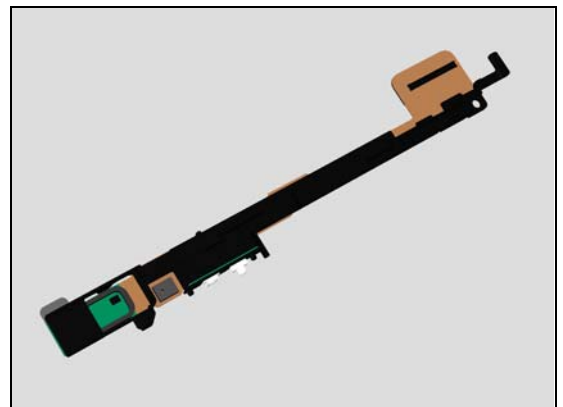
Inspect the BtB connector of the FPC Assembly Top PBA To Main PBA.

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 Assembly USB PBA is damaged – replace the FPC Assembly USB PBA.
4. Replace Main PBA.



Problem Areas

1.31 TV-Out Test

1.31.1 TV-Out test fails

Check:

Inspect the external port of USB connector.

Action:

1. If dirty or oxidized – clean the connector.

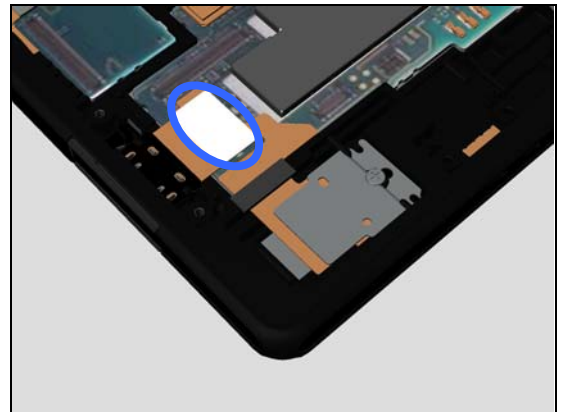


Check:

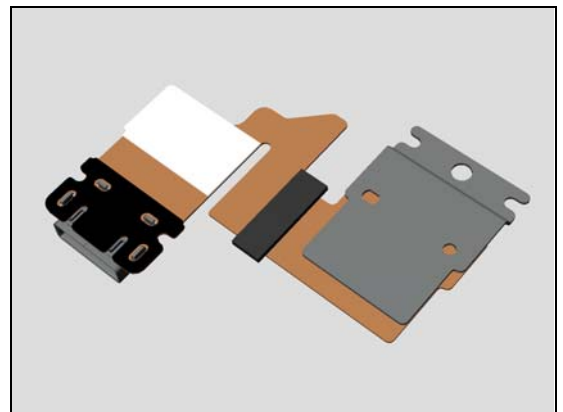
Inspect the BtB connector of the FPC Assembly USB PBA To Main PBA.

Action:

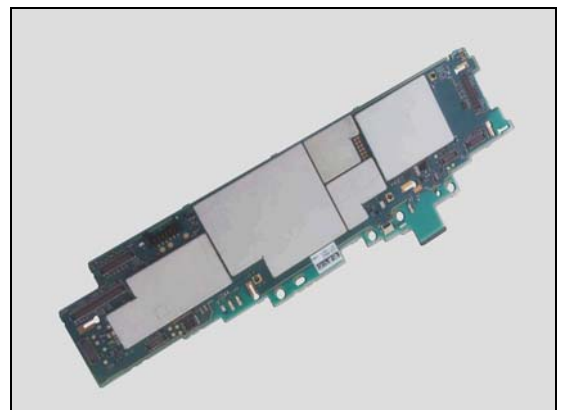
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



3. If the BtB connector or FPC of the FPC Assembly USB PBA is damaged – replace the FPC Assembly USB PBA.



4. Replace Main PBA.



Problem Areas

1.32 Network & Signal

1.32.1 No/Poor signal (N/A for SGP311 and SGP312)

Check:

Inspect the contact pins on PBA Antenna LTE and Plate Antenna Main.

Action:

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

2. If the Plate Antenna Main is damaged – replace it.

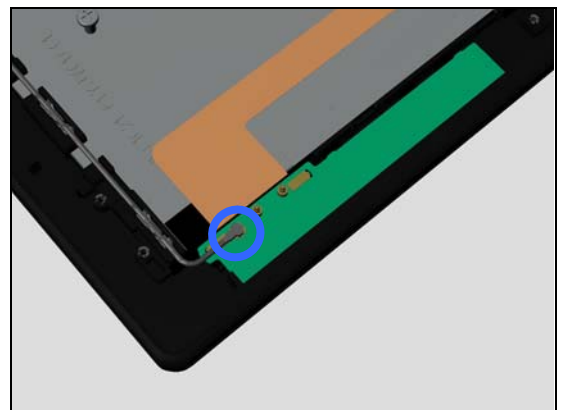
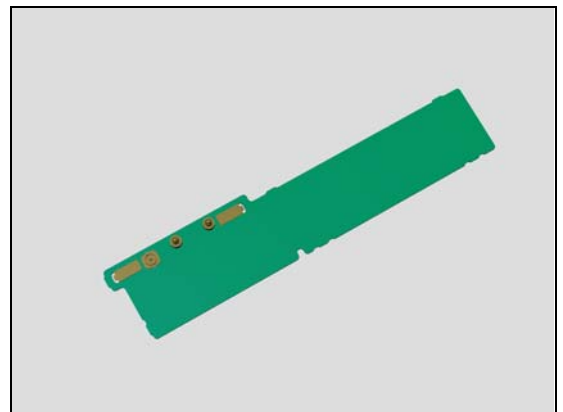
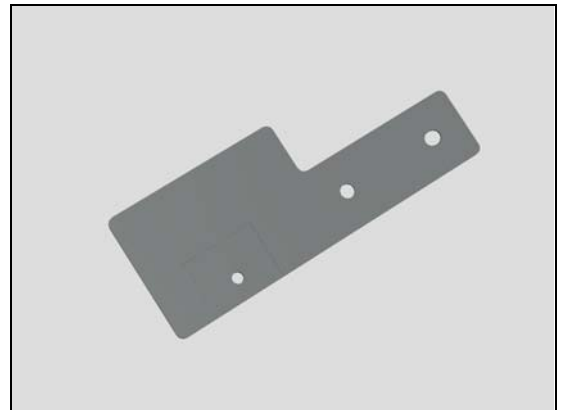
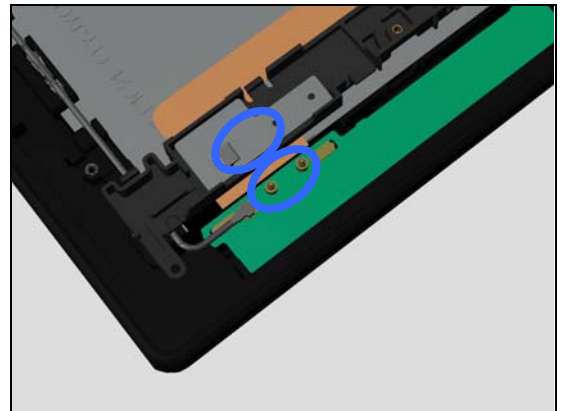
3. If the contact pins on PBA Antenna LTE are damaged – replace PBA Antenna LTE.

Check:

Inspect the connector of RF Cable to PBA Antenna LTE.

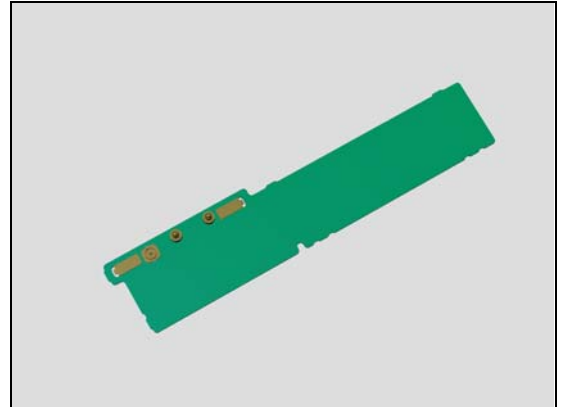
Action:

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



Problem Areas

2. If the connector on PBA Antenna LTE is damaged – replace it.

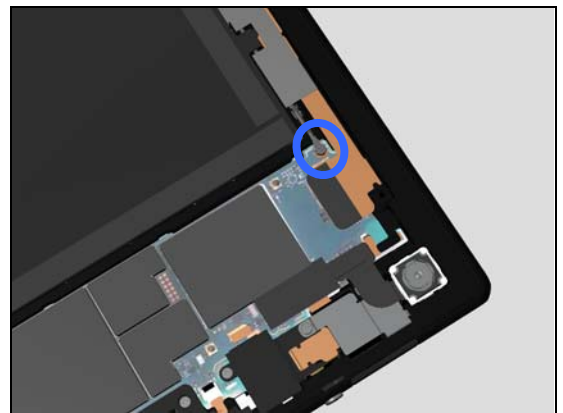


Check:

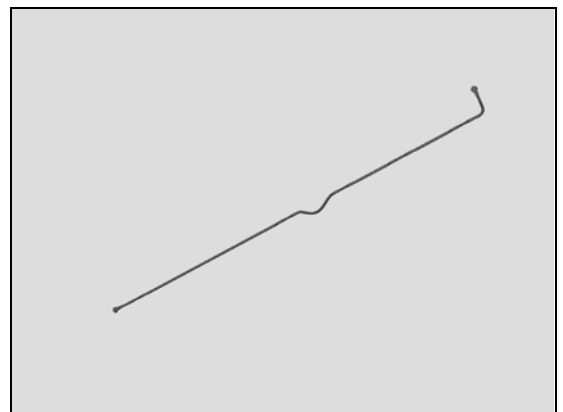
Inspect the connector of RF Cable to Main PBA.

Action:

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



2. If the RF Cable or either of the both connectors is damaged – replace the RF Cable.
3. Replace Main PBA.

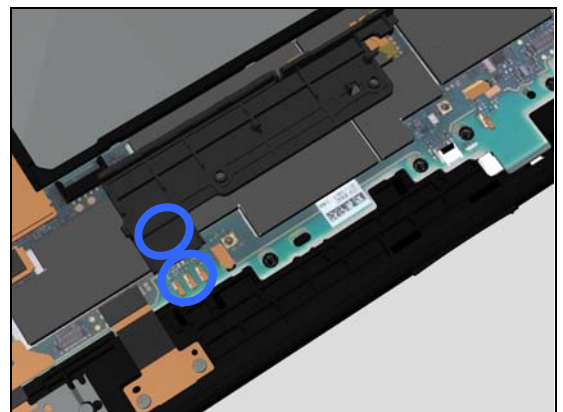


Check:

Inspect the contact pins on Main PBA and contact pads on Diversity antenna.

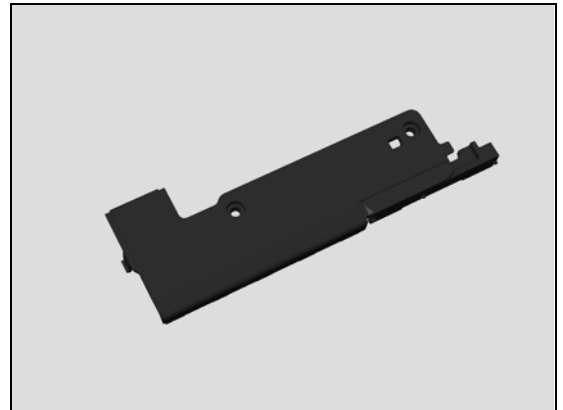
Action:

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

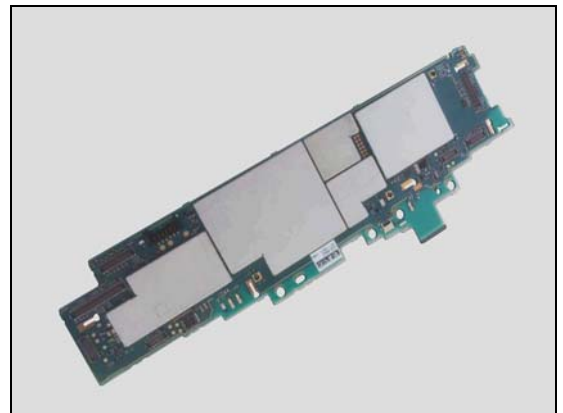


Problem Areas

2. If the contact pads are damaged – replace the Diversity antenna.



3. Replace Main PBA.



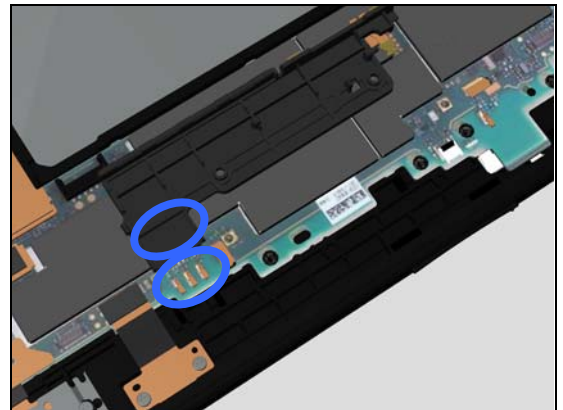
1.32.2 No/Poor signal (N/A for SGP321, SGP341 and SGP351)

Check:

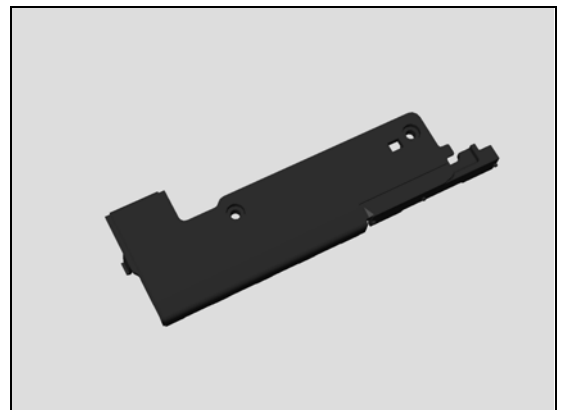
Inspect the contact pins on Main PBA and contact pads on Diversity antenna.

Action:

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

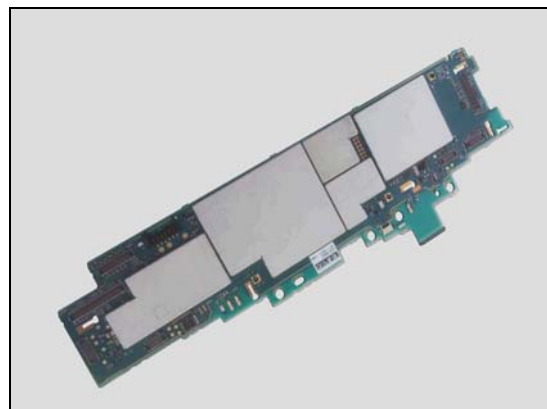


2. If the contact pads are damaged – replace the Diversity antenna.



Problem Areas

3. 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.

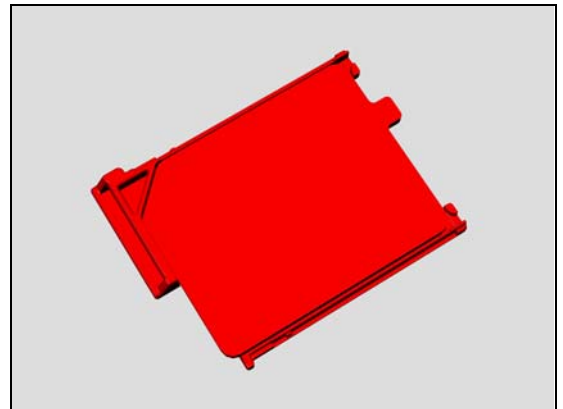


Check:

Inspect the Card Connector Tray.

Action:

1. If dirty – clean it.
2. If damaged – replace it.



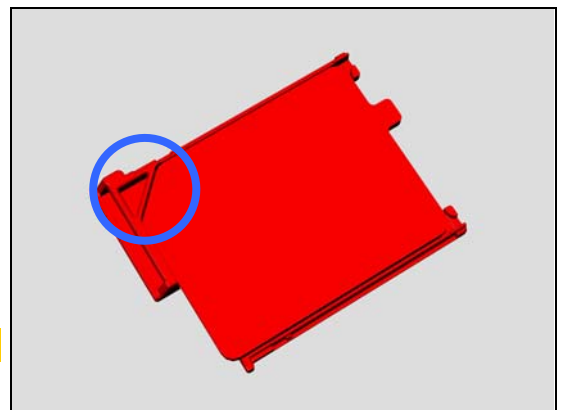
Check:

Check whether the SIM card is correctly assembled onto the Card Connector Tray and into its holder.

Action:

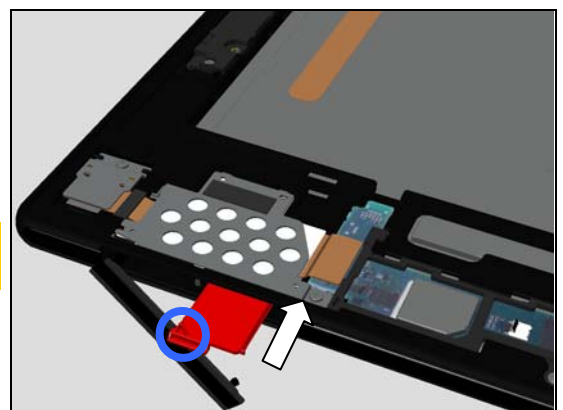
1. If not properly assembled – disassemble and reassemble it.

Note the orientation of the SIM card to be assembled!



2. Insert the Card Connector Tray into the holder.

Note the orientation of the Card Connector Tray to be assembled!



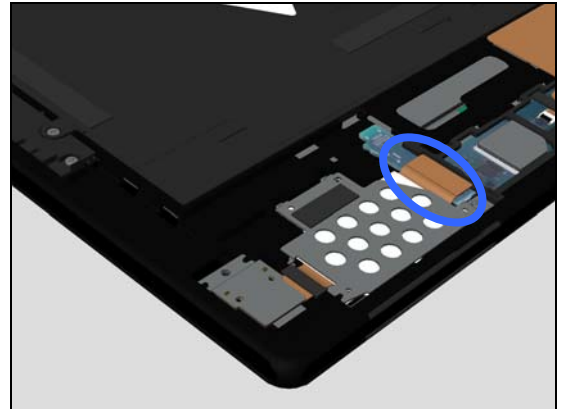
Problem Areas

Check:

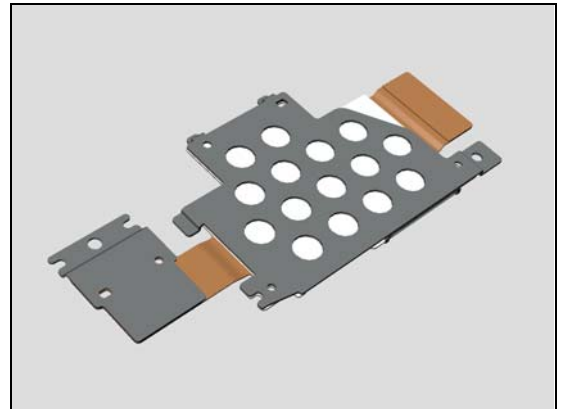
Inspect the BtB connector of FPC Assembly SIM to Main PBA.

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 SIM holder of FPC Assembly SIM is damaged – replace the FPC Assembly SIM.

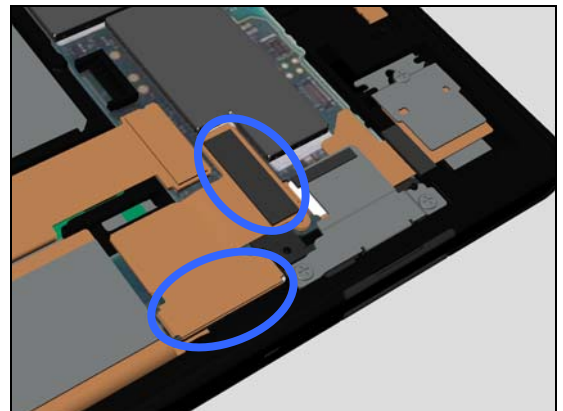


Check:

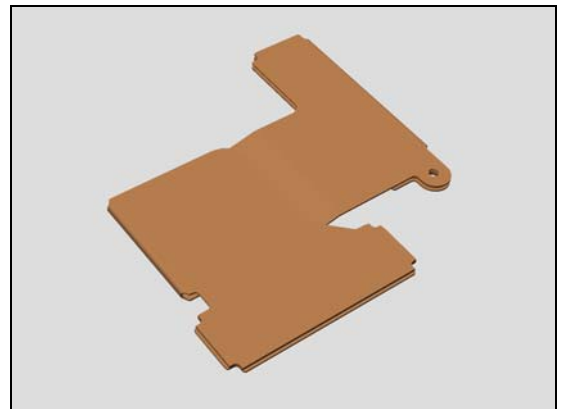
Inspect the BtB connector of FPC Assembly Relay SUB PBA to Main PBA and PBA Complete Sub.

Action:

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

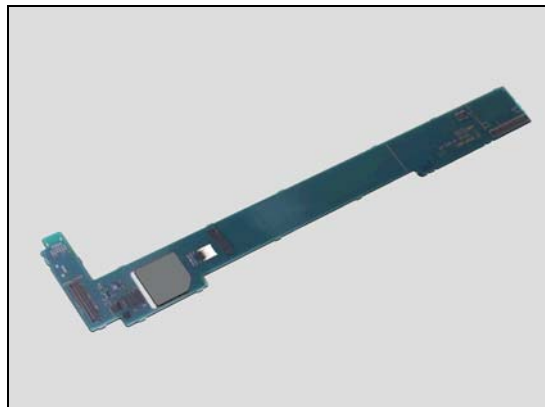


3. If the BtB connector of FPC Assembly Relay SUB PBA is damaged – replace the FPC Assembly Relay SUB PBA.

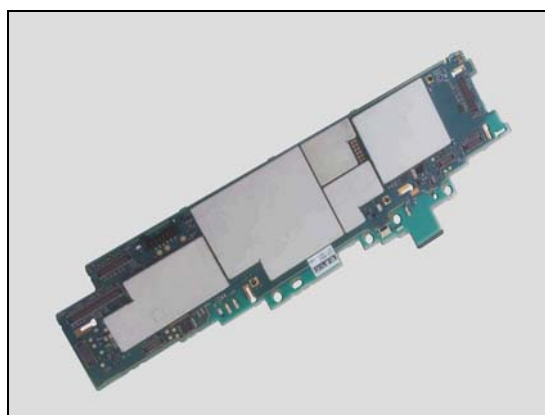


Problem Areas

4. Replace PBA Complete Sub



5. Replace Main PBA.



Problem Areas

1.34 Charging

1.34.1 Battery will not charge by USB connector

Check:

Inspect the external port of USB connector.

Action:

1. If dirty or oxidized – clean the connector.



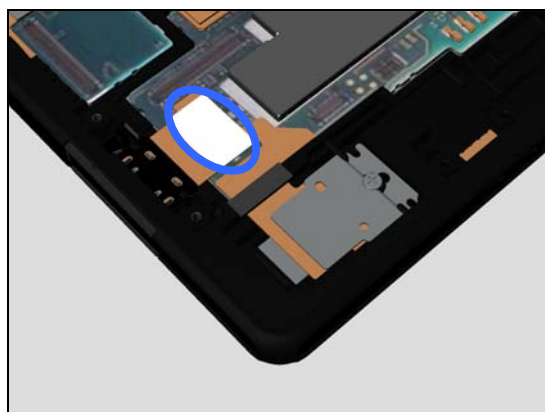
Check:

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

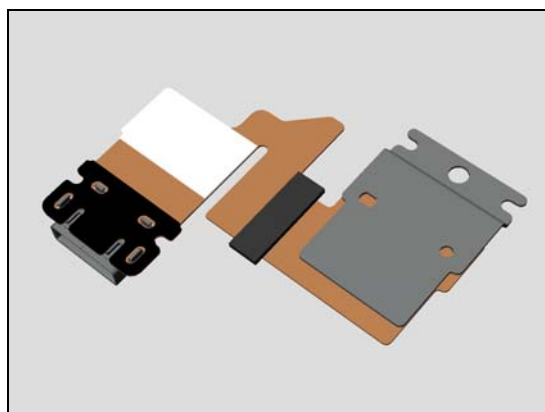
Action:

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

Follow Test Instruction (Charging via USB), Diagnostic Battery / Charging status.



3. If the BtB connector or FPC of the FPC Assembly USB PBA is damaged – replace the FPC Assembly USB PBA.

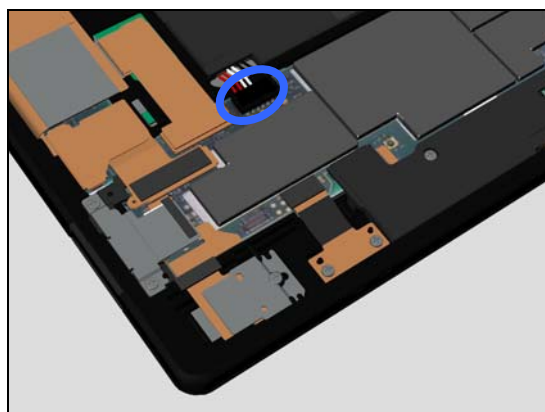


Check:

Inspect the connector of the Battery to main PBA.

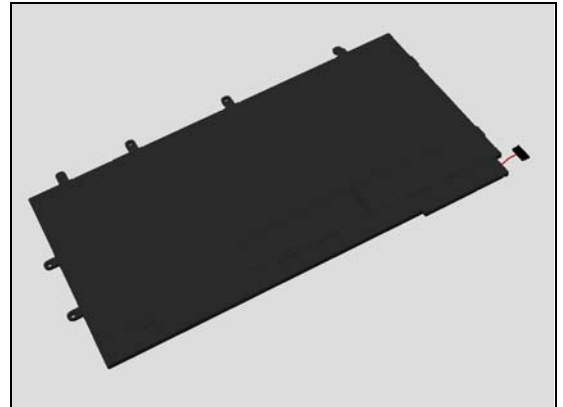
Action:

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



Problem Areas

3. If the battery is damaged – replace Battery.
4. Replace Main PBA.



1.34.2 Battery will not charge by Charge Pad

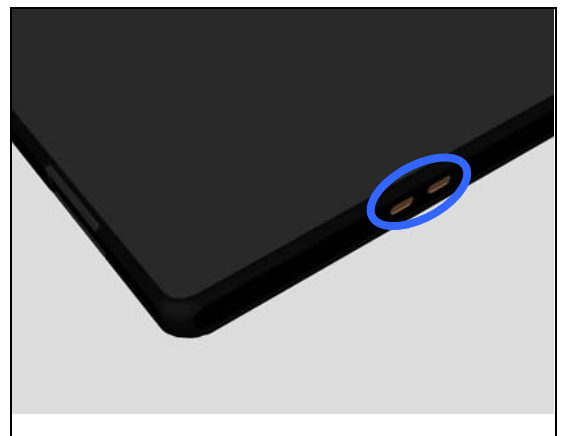
Check:

Inspect the external port of the Charge Pad.

Follow Test Instruction (Charging via USB), Diagnostic Battery / Charging status.

Action:

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

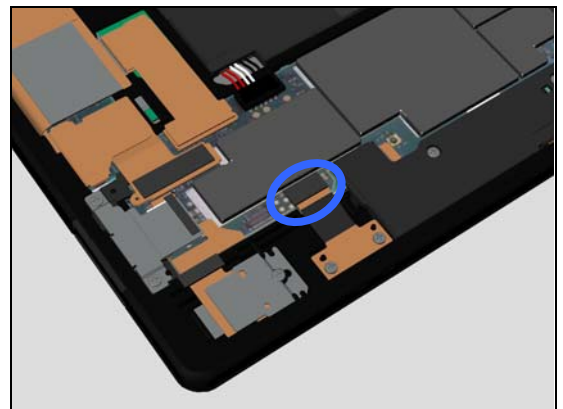


Check:

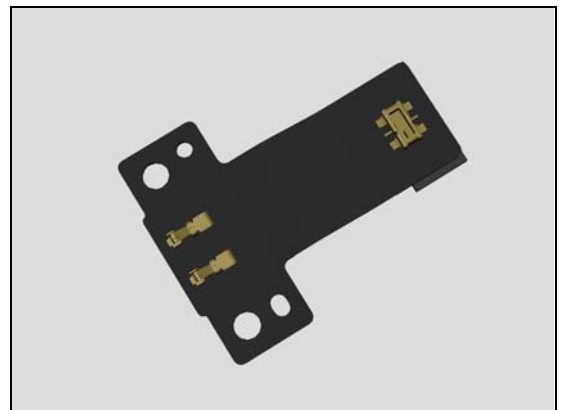
Inspect the BtB connector of FPC Assembly Charge PBA to main PBA.

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 FPC Assembly Charge PBA is damaged – replace it.



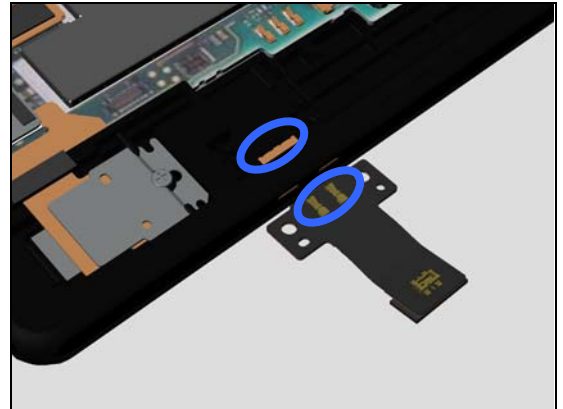
Problem Areas

Check:

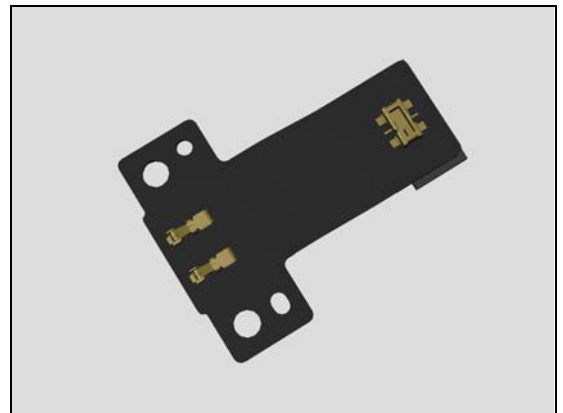
Inspect the contact pads on Front Assembly and pins on FPC Assembly Charge PBA.

Action:

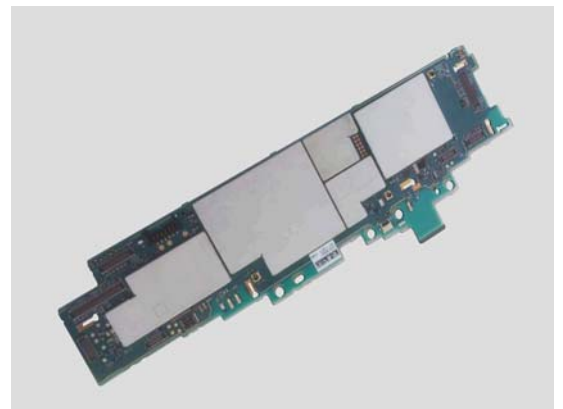
1. If dirty or oxidized – clean the pins and pads.



2. If the pins of FPC Assembly Charge PBA are damaged – replace the FPC Assembly Charge PBA.



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:

If dirty or oxidized – clean the connector.

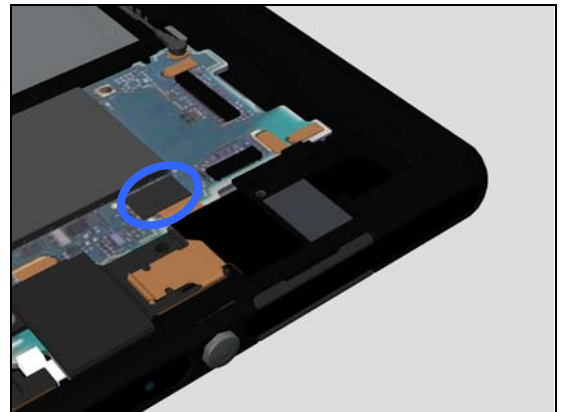


Check:

Inspect the BtB connector of FPC Audio Jack to main PBA.

Action:

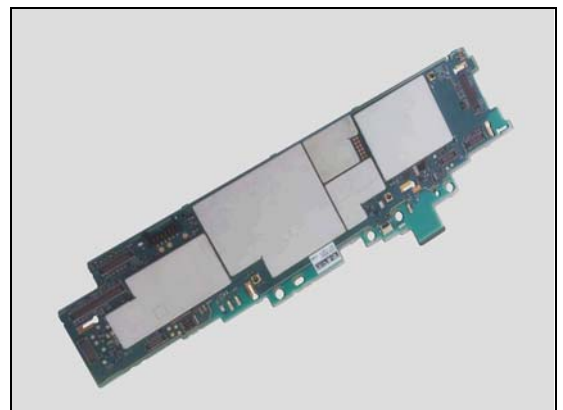
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



3. If the Audio Jack is damaged – replace the FPC 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.

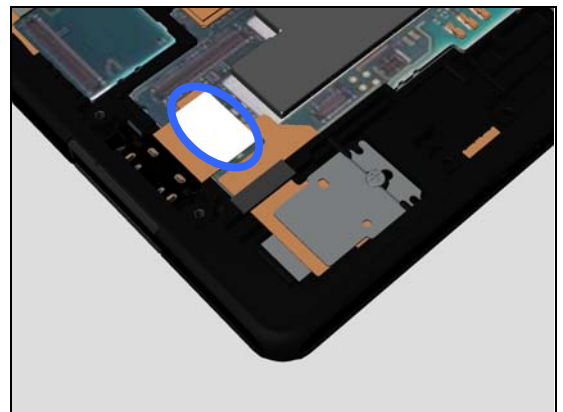


Check:

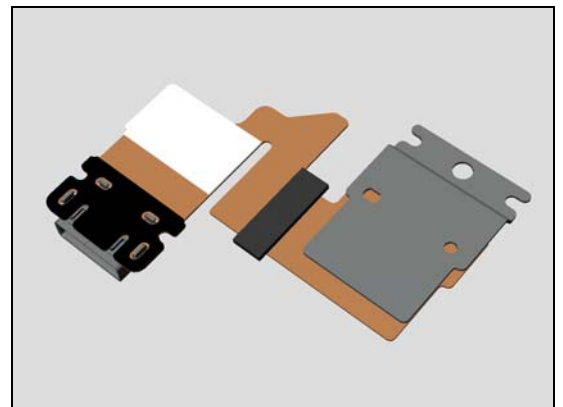
Inspect the BtB connector of the FPC Assembly USB PBA To Main PBA.

Action:

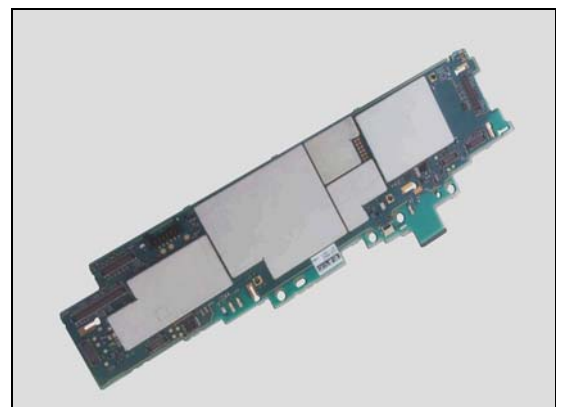
1. If not properly connected – disconnect and reconnect it.
2. If dirty or oxidized – clean the both sides of the BtB connector.



3. If the BtB connector or FPC of the FPC Assembly USB PBA is damaged – replace the FPC Assembly USB PBA.



4. Replace Main PBA.



Problem Areas

1.37 Hall element

1.37.1 Hall element test fails

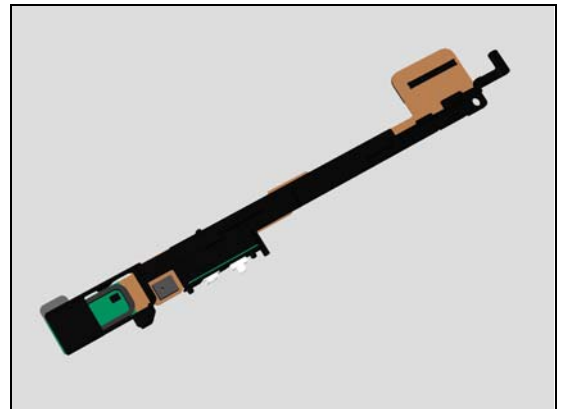
Check:

Inspect the hall sensor on the FPC Assembly Top PBA.



Action:

If the hall sensor is damaged – replace the FPC Assembly Top PBA.

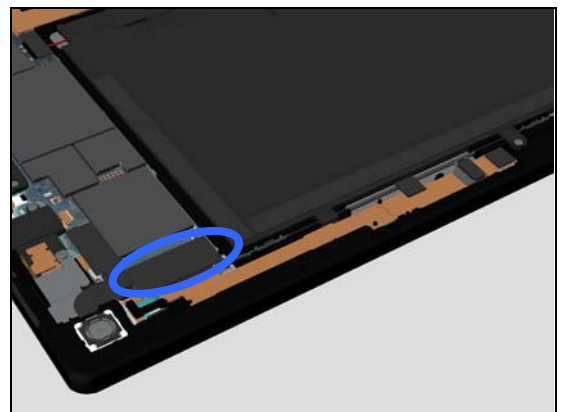


Check:

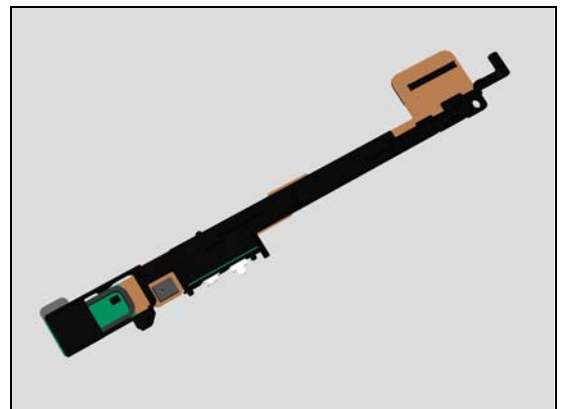
Inspect the BtB connector of FPC Assembly Top PBA to main PBA.

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 connector of FPC Assembly Top PBA is damaged – replace FPC Assembly Top PBA.
4. Replace Main PBA.



2 Revision History

Rev.	Date	Changes / Comments
1	2013-May-08	Initial release