

# SAMSUNG

## Mobile Device SM-A536B/E Common

# ***SERVICE*** *Manual*

## Contents

### - Level 3 -

Notice: All functionality, features, specifications, and other product information provided in this document, including but not limited to, benefits, design, pricing, components, performance, availability, and capabilities of the product are subject to change without notice. Samsung reserves the right to alter this document or the product described herein at anytime, without obligation to provide notification of such changes.

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# 1. SVC Tech Information

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## 1-1. Calibration Items

- ‘O’ mark items must be calibrated after repairing/replacing each part.

TSP Cal.	X	Force Touch Cal.	X	Optical Finger print Cal.	O
Speaker Cal.	X	Digital Hall IC Cal.	X	TOF Camera Cal.	X
Water Resistance	X	Ranging Sensor Cal	X	UWB Cal	X
Multi Camera Cal.	X	mmWave RF Cal. (Only for USA/Japan)	X		

## 1-2. Part list which must be changed after reassembly

Back glass Area replacement		Quantity	SVC Code
Tape Waterproof-BACK GLASS		1	GH02-23641A

## 1-3. JIG

- New : Pressing Pad(TOP) : GH81-22238A
- Common : AOD, Pressing Jig Body, Pressing Pad BTM : GH81-19344A (Common)  
Optical Finger print cal jig (Goodix / Charter 2.0)

# 1. SVC Tech Information

## 1-4. WRT Test Information

- JIG Type : WRT JIG (GH81-20371A) & Blue MLC (GH81-19956A)



- Sealing point  
: upper mic, lower mic



- WRT Test Pint : Air vent hole (Cam deco)



# 1. SVC Tech Information

## 1-5. AOD Setting Information

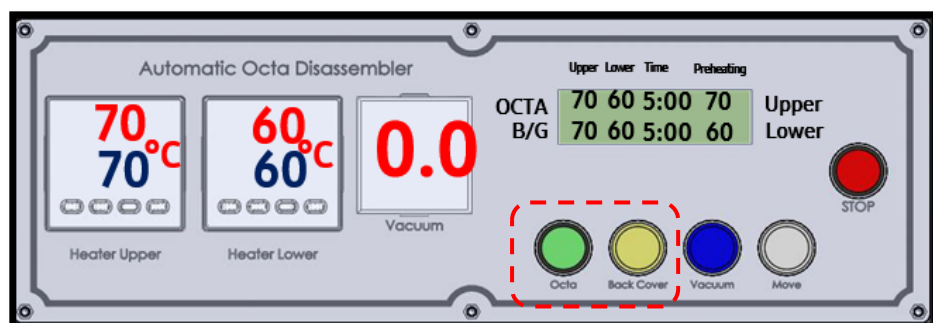
- Temperature & Time

: Set the AOD to the following temperature to remove the Back Cover

→ Heat the upper to 70°C and lower to 60°C for five (5) minutes

→ Recommend to use 'Quick mode' for disassembling the back-cover. It doesn't need pre-heating.

\* Quick Mode: Push OCTA button + Back-glass button simultaneously.



- Suction pad type & location

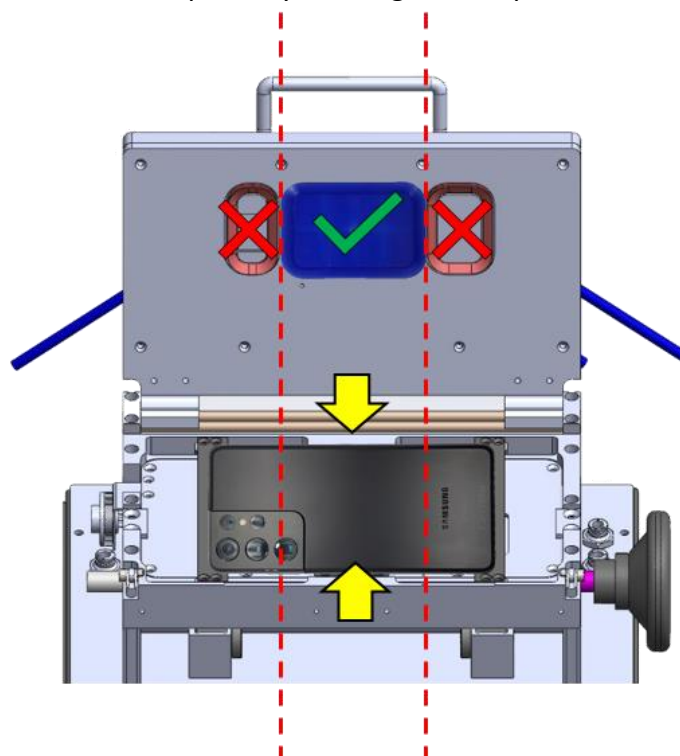
• Change the Center Suction Seal

: To prevent damage to Camera windows, replace the Orange Center Seal with the 77mm Blue Seal (GH81-18490A)

• Device Placement

: Place the device face down with the Camera positioned towards the lower left side of lower plate. Align the device with the suction lines so that the Center Seal is aligned directly on the center of the Back Cover.

Once aligned, lock the device in place by twisting the Torque Wheel, then lower the upper plate.



## 2. SVC Model Information

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### 2-1. RAM & Storage size by region

Model name	Region	A53 5G	SKU CODE Rule	RAM	ROM	Remark
				(GB)	(GB)	
SM-A536B	EUR	EUR	SM-A536BXXNXXX	6	128	DS
			SM-A536BXXLXXX	8	256	
SM-A536E	Global	CIS	SM-A536EXXDXXX	6	128	DS
			SM-A536EXXHXXX	8	256	
		SEA	SM-A536EXXDXXX	6	128	DS
			SM-A536EXXAXXX			SS
			SM-A536EXXGXXX	8	128	DS
			SM-A536EXXEXXX			SS
			SM-A536EXXHXXX	8	256	DS
			SM-A536EXXFXXX			SS
		SWA	SM-A536EXXDXXX	6	128	DS
			SM-A536EXXGXXX	8	128	DS
		MEA	SM-A536EXXDXXX	6	128	DS
			SM-A536EXXAXXX			SS
			SM-A536EXXGXXX	8	128	DS
			SM-A536EXXEXXX			SS
			SM-A536EXXHXXX	8	256	DS
		LA	SM-A536EXXDXXX	6	128	DS
			SM-A536EXXAXXX			SS
			SM-A536EXXGXXX	8	128	DS
			SM-A536EXXEXXX			SS
			SM-A536EXXSXXX			DS
			SM-A536EXXQXXX			SS
			SM-A536EXXHXXX	8	256	DS
			SM-A536EXXFXXX			SS

# 2. SVC Model Information

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## 2-2. Disassembly & Reassembly (Important management points)



When detaching UB, avoid damage to UB FPCB.



Back-Glass



Front



display

Be careful not to reach the Wide camera, Ultrawide camera, front camera, macro camera, bokeh camera, camera window, Front display, etc during repair



C to C FPCB

Be careful to connect C to C FPCB when assembling main PBA and sub PBA (many defects occur due to misconnect)

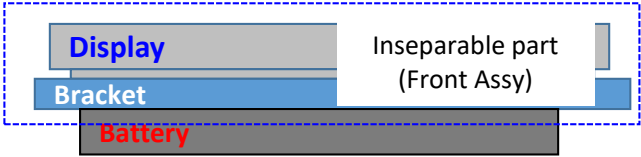


Be careful with coaxial cable shaping during assembly. If the coaxial cable is assembled with wrong position, the WIFI performance may be fail

## 2-3. Disassembly & Reassembly (Battery replacement)

Do not reuse the battery after it has been removed. It must be replaced with a new battery.

**\* Reusing a removed battery could lead to potential safety hazards**

Type	Structure
 <p>Display Bracket Battery</p> <p>Inseparable part (Front Assy)</p>	<p>Display and Bracket are inseparable</p> <p>Battery replacement is required when Front Ass'y components are defected</p>

# 3. Product Function

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## 3-1. Main Function

Item	Description
OS	Android V12.0 (R)
SM-A536B Network	<b>2G</b> GSM : GSM850 / GSM900 / DCS1800 / PCS1900 <b>3G</b> WCDMA : B1 / B2 / B4 / B5 / B8 <b>4G</b> - FDD : B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B17 / B20 / B26 / B28 / B32 / B66 - TDD : B38 / B40 / B41 <b>5G</b> - FDD : N1/ N3 / N7 / N8 / N20 / N28 - TDD : N38 / N40 / N41 / N78
SM-A536E Network	<b>2G</b> GSM : GSM850 / GSM900 / DCS1800 / PCS1900 <b>3G</b> WCDMA : B1 / B2 / B4 / B5 / B8 <b>4G</b> - FDD : B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B17 / B20 / B26 / B28 / B66 - TDD : B38 / B40 / B41 <b>5G</b> - FDD : N1 / N3 / N5 / N7 / N8 / N28 / N66 - TDD : N40 / N41 / N78
Battery	5,000 mAh
Processor	Exynos E8825 2x CA78 2.4GHz, 6x CA55 2.0GHz
Connectivity	WiFi802.11 a/b/g/n/ac SISO BT5.0, USB2.0, GPS(w/ Glonass/Beidu/Galileo) NFC : eSE (A536B) NFC : UICC (A536E)
Camera	Rear - Wide : 64MP A/F, OIS, F1.8 - Ultra Wide : 12MP, F2.2 - Macro : 5MP, F2.4 - Bokeh : 5MP, F2.4  Front - Front CAM : 32MP, FF, F2.2
Display	6.5", 20:9, FHD+, OCTA, HID, 120Hz
RAM	6 / 8 GB
ROM	128 / 256 GB
Sensor	Accelerometer, Compass, Gyro Sensor, RGB Light Sensor, Hall Sensor, Grip Finger Print Sensor



# 4. Exploded View and Parts List

## 4-1. Electronical Part List

: Refer to '[01-SM-A536B\\_Common\\_Main Part List](#)' file which uploaded separately

## 4-2. Cellular phone Exploded View

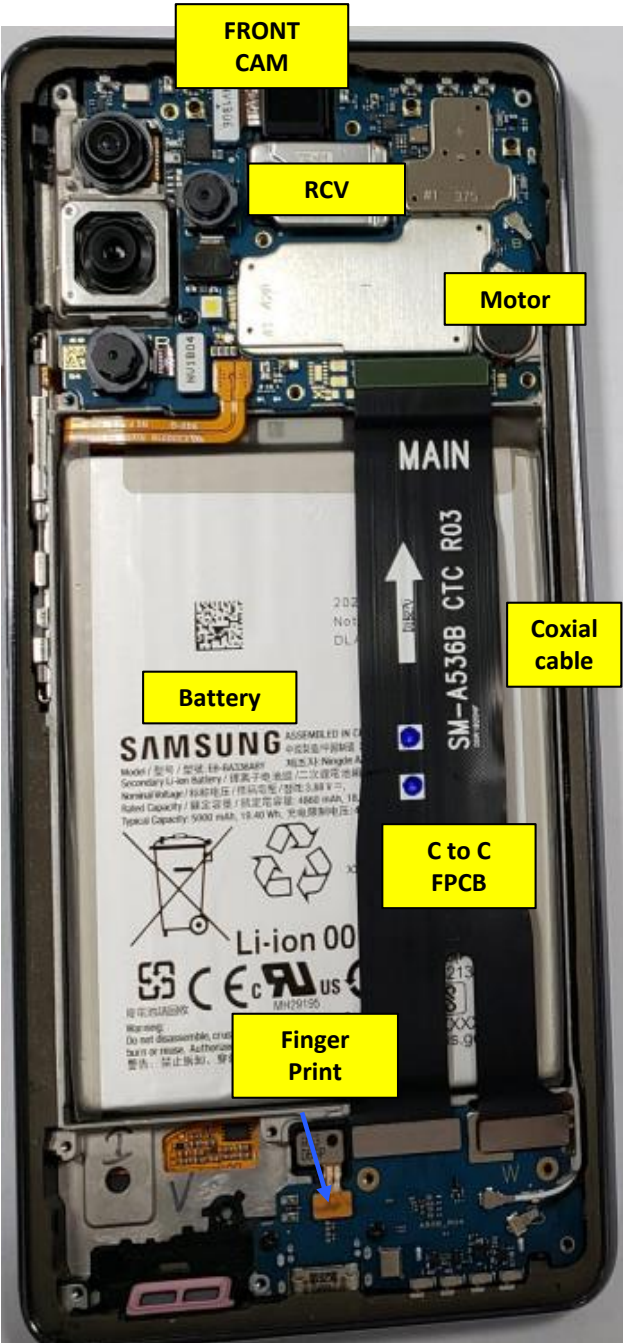
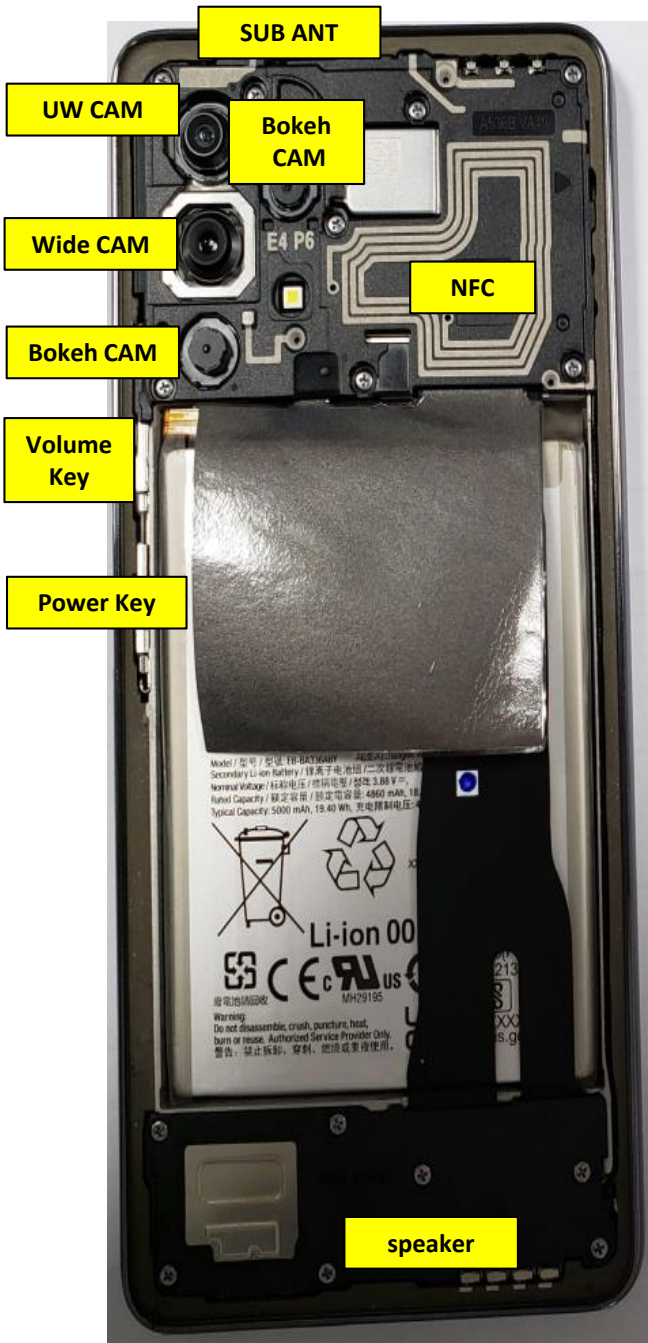
: Refer to '[02-SM-A536B\\_Common\\_Exploded View](#)' file which uploaded separately

## 4-3. Cellular phone Parts list

: Refer to SVC PPL

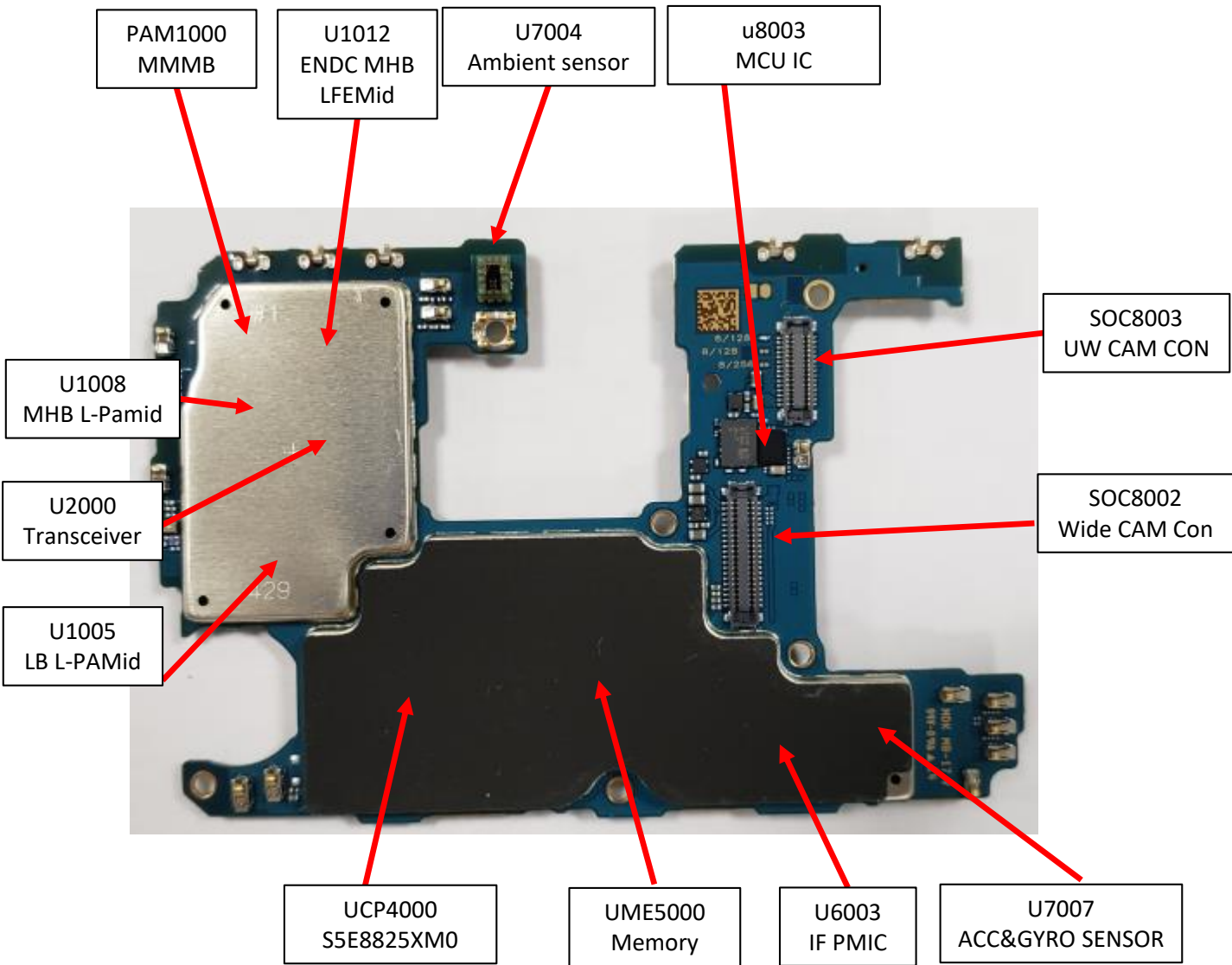
# 5. Components Layout

## 5-1. Components Layout



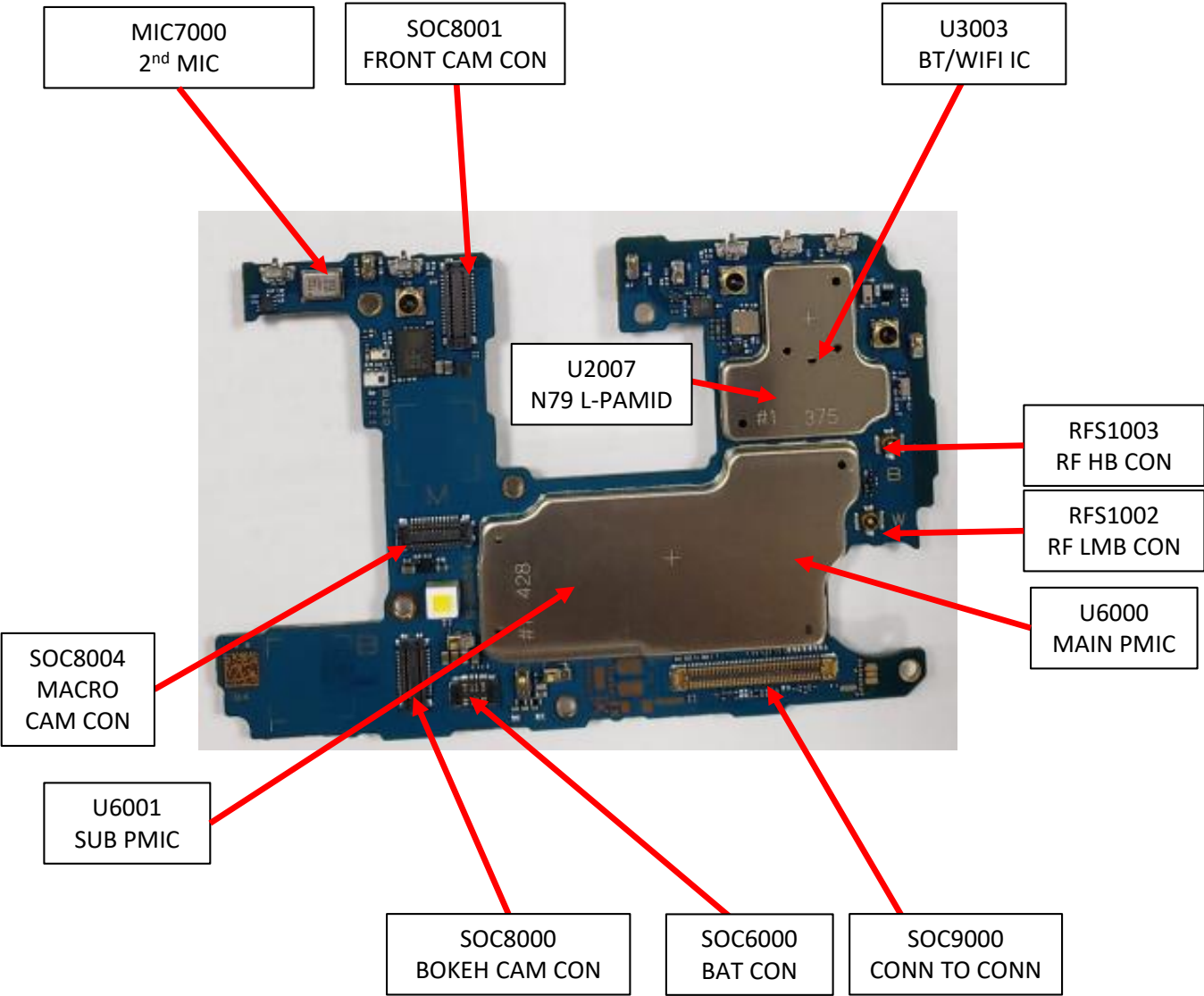
# 5. Components Layout

## 5-1. Components Layout



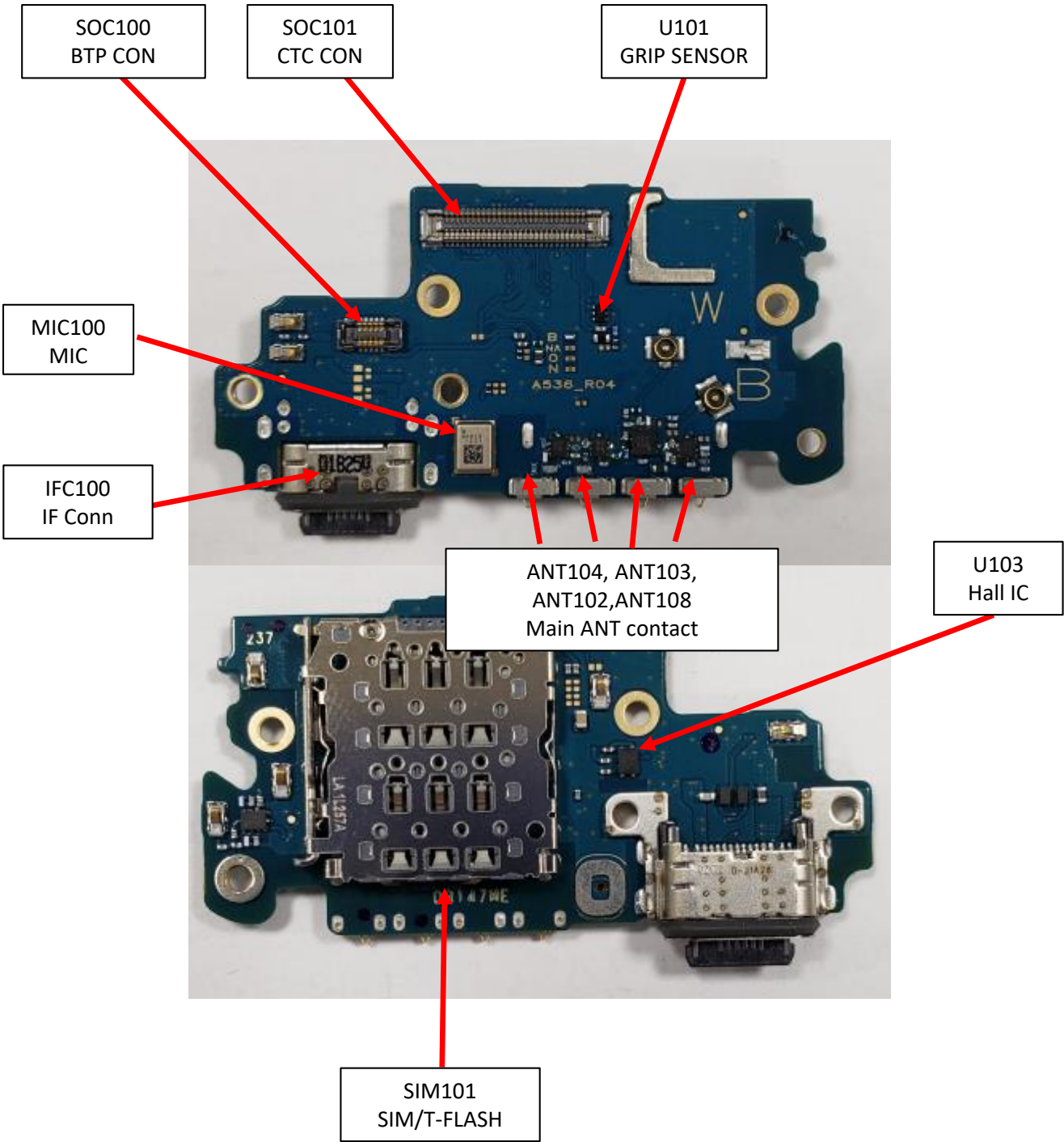
# 5. Components Layout

## 5-1. Components Layout



# 5. Components Layout

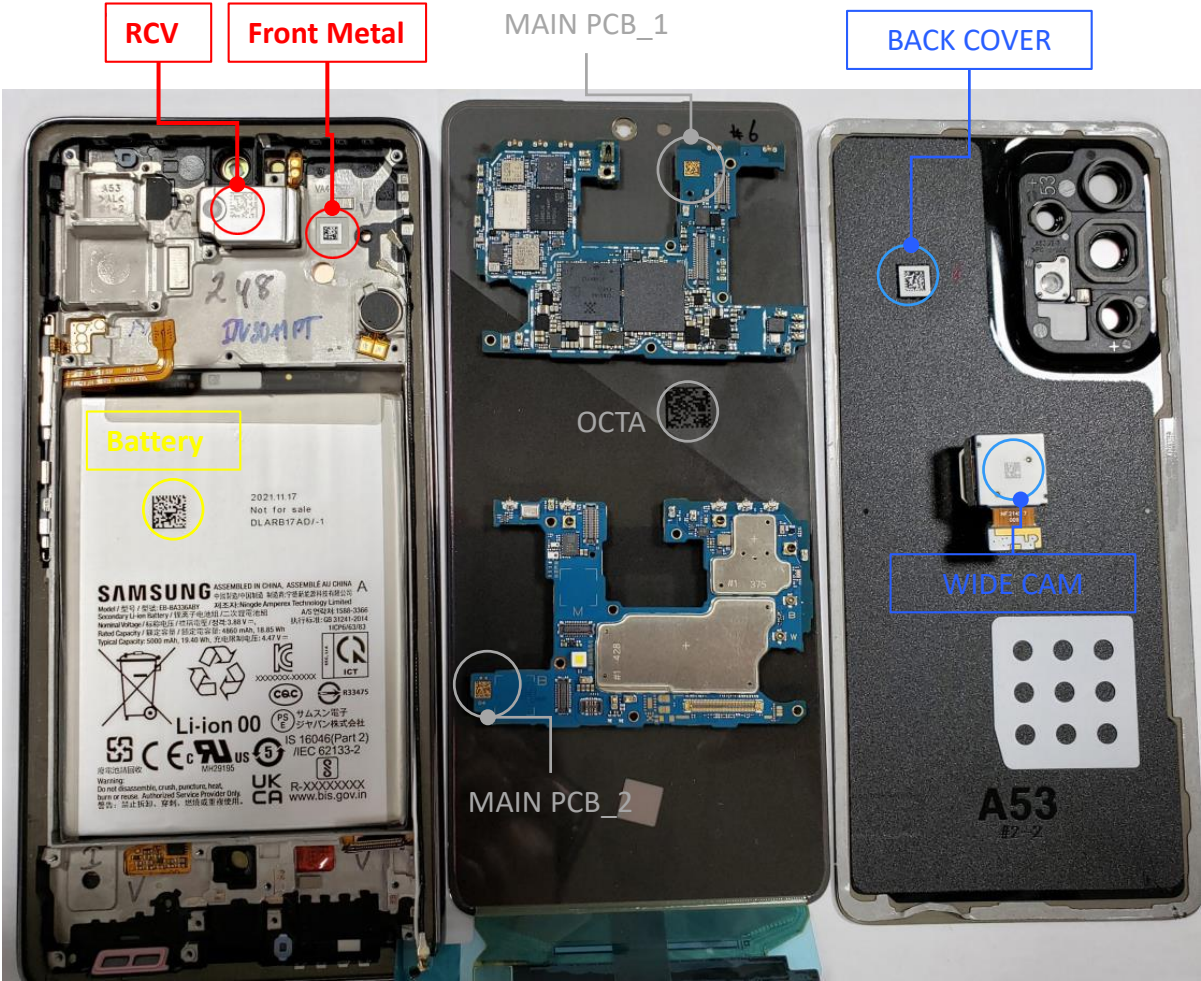
## 5-1. Components Layout





# 5. Components Layout

5-2. 2D barcode Location ※ The available QR Code may vary depending on the country/purpose.



# 6. Trouble Shooting (L3)

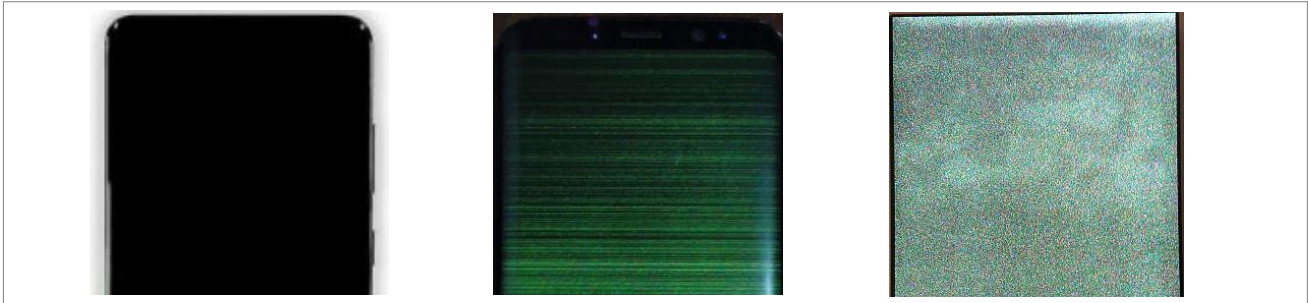
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- 6-1. Display
- 6-2. Touch
- 6-3. Power, Charging
- 6-4. Camera
- 6-5. Audio
- 6-6. Sensor
- 6-7. Connectivity (WiFi, GPS, NFC)
- 6-8. No SVC
- 6-9. USIM

# 6-1. Display

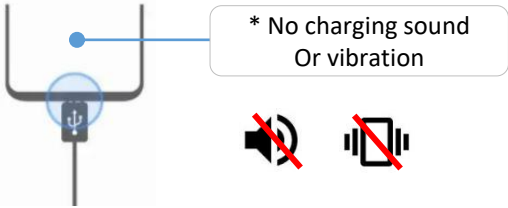
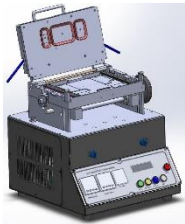
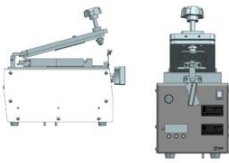



## 6-1-1. Main Display Black Display

- 1) Symptom
- Description : No display after power on. Temporary no display or dimmed display



- 2) Defect Decision Conditions
- Noised images on the screen after turning on
  - Check booting sound and no vibration .

- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<p>1. Check the charging notification sound or vibration when connected to charger.</p> <ul style="list-style-type: none"><li>- Should be no sound and no vibration.</li><li>- The device keep 'No display' status.</li></ul>
<div><p>[AOD Jig]</p></div> <div><p>[AOD mini]</p></div>	<p>2. Disassemble the device.</p> <ul style="list-style-type: none"><li>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</li></ul>
<div><p>Water indicator tripped</p></div> <div><p>USB charging port burnt</p></div> <div><p>Cracked case</p></div>	<p>3. Check the disassembled device for OOW.</p> <ul style="list-style-type: none"><li>- Water damage.</li><li>- Part burnt. (Charging port, PBA, Battery and others)</li><li>- Broken traces and others.</li></ul>



# 6-1. Display

## 6-1-1. Main Display Black Display (L3)

Image	Description
	<p><b>[Attention]</b></p> <p>4. Disconnect Battery Connector (Ref. SOC6000) at first.</p>
	<p>5. Check the 'MAIN PBA ↔ CTOC FPCB' connector(Ref. SOC9000) and connect it again when it connected improperly. After that, connect battery connector again and check the display.</p>
	<p>6. Check 'Capacitors' nearby 'SOC9000' on the PBA as below.</p> <ul style="list-style-type: none"><li>- VDD_L23M_LCD_1P8=1.8V (C9031)</li><li>- VDD_LCD_ELAVDD_7P9=7.9V (C9030)</li><li>- VDD_LCD_ELVDD_4P6=4.6V (9029)</li><li>- VDD_LCD_ELVSS_-4P4=-4.4V (C9028)</li></ul> <p>If each power level is low, change the capacitor. If the device is not working normally after changing the capacitor, change the SUB PBA with new one and check the device.</p>
	<p>7. Change the Master PBA with new one and check the device.</p>
 <div data-bbox="429 1508 664 1591"><ul style="list-style-type: none"><li>• Exchange the Front Assy</li></ul></div>	<p>8. If not, finally, change the Front Assy with new one and check the device.</p>

# 6-1. Display

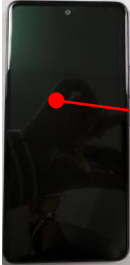
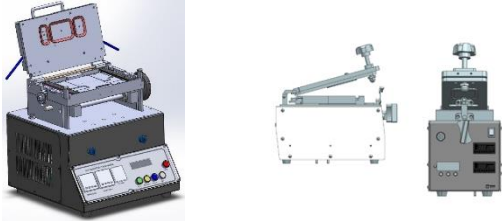

## 6-1-2. Main Display Bit defect (Horizontal line) (L3)

- 1) Symptom
- Description : Bit defect(Horizontal line) after power on.



- 2) Defect Decision Conditions
- Even if the screen changes or the device reboots, the bit failure phenomenon remains.

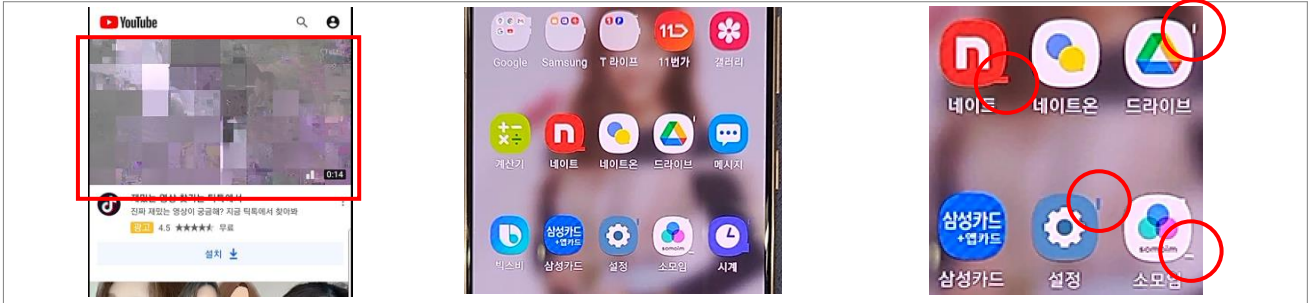
- 3) Repair Guide
- **Caution : First of all, check if there is any damage of external impact on the device.**

Image	Description
 <div>* Checking external damage of the device</div>	<p>1. Check if there is any damage of external impact on the device. (especially, Front Window)</p>
 <div>[AOD Jig] [AOD mini]</div>	<p>2. Disassemble the device. - Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</p>
 <div>• Exchange the Front Assy</div>	<p>3. Exchange the front assy(including display module) with new one and check the device.</p>

## 6-1-3. Main Display Screen overlap / shaking / flicker (L3)

1) Symptom

- Description : Screen overlap / shaking / blinking after power on. Temporary symptom or continuous maintenance.

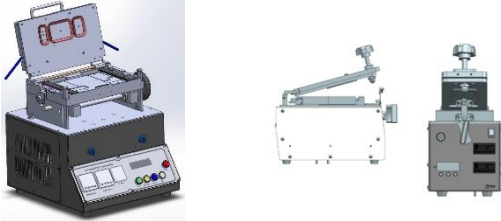

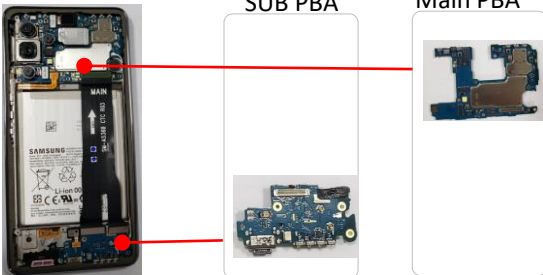


2) Defect Decision Conditions

- You can see that symptom when something is changed or something is played on the screen of device. (ex : contents of Youtube[Mosaic Pattern], swap menu block on screen [ICON Crack])


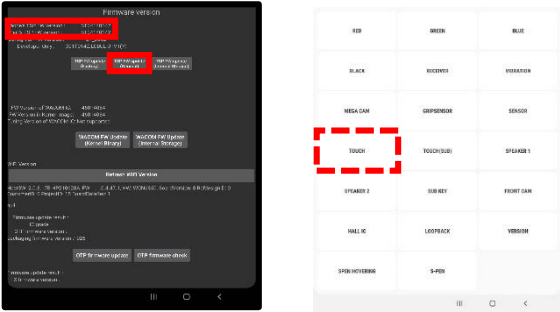
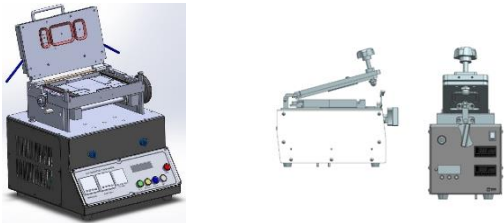
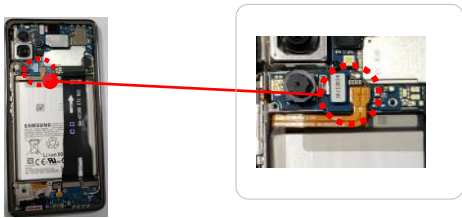
3) Repair Guide

- **Caution : Disconnect battery connector first when it shows.**

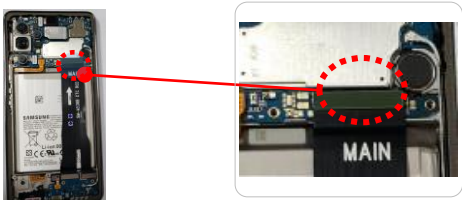
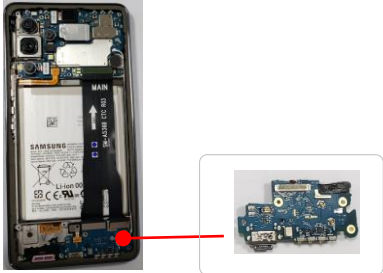

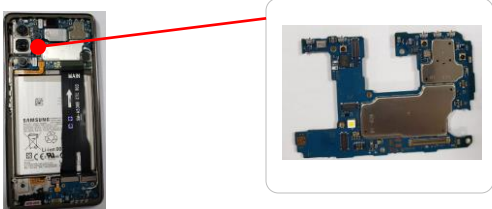
Image		Description
 <div>[AOD Jig]</div> <div>[AOD mini]</div>		1. Disassemble the device. - Refer to ' <b>Disassembly and assembly video guide for Galaxy A53 5G</b> ' from the GSPN.
 <div>• Exchange the Front Assy</div>		2. Exchange the front assy(including display module) with new one and check the device.
 <div>SUB PBA</div> <div>Main PBA</div>		3. If not, finally, exchange the SUB PBA and Main PBA sequentially with new one and check the device.

6-2-1. Touch Malfunction

- 1) Symptom
- Description : Abnormal touch(Ghost touch), No Touch and others
- 2) Defect Decision Conditions
- Abnormal touch(Ghost touch), No Touch and others
- 3) Repair Guide
- Caution : First of all, check if there is any damage of external impact on the device.

Image	Description
	1. Check if there is any damage of external impact on the device. (especially, Front Window)
	2. If possible, Input key string <b>*#2663#</b> , click TSP FW update(General). After that, check the <b>*#0*#</b> tsp test.  If the touch test is not work normally, check the next step.
 <div>[AOD Jig]</div> <div>[AOD mini]</div>	3. Disassemble the device. - Refer to ' <b>Disassembly and assembly video guide for Galaxy A53 5G</b> ' from the GSPN.
	<b>[Attention]</b>  4. Disconnect Battery Connector (Ref. SOC6000) at first.

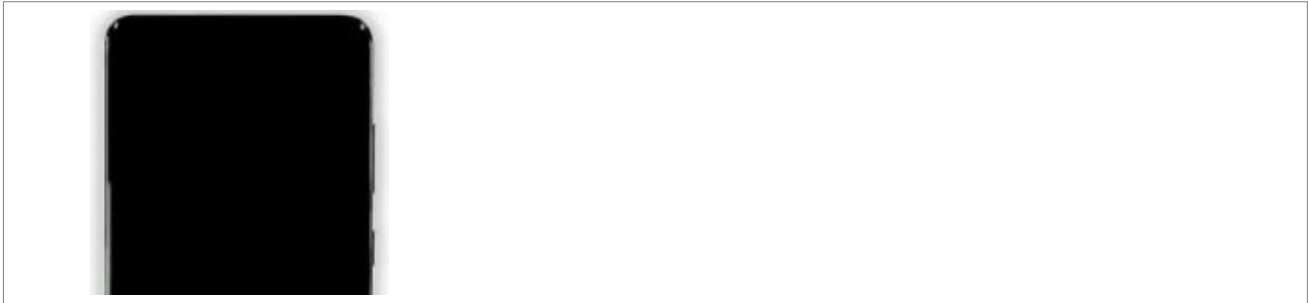
## 6-2-1. Touch Malfunction

Image	Description
	<p>5. Check the 'MAIN PBA ↔ CTOC FPCB' connector and connect it again when it connected improperly. After that, connect battery connector again and check the display.</p>
	<p>6. Change the SUB PBA with new one and check the device.</p>
 <div data-bbox="389 917 654 1060"><ul style="list-style-type: none"><li>• Exchange the Front Assy</li></ul></div>	<p>7. Change the Front Assy. with new one and check the device.</p>
	<p>8. If not, finally, change the MAIN PBA with new one and check the device.</p>

# 6-3. Power, Charging

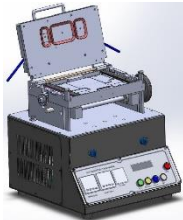
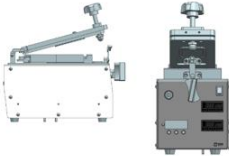
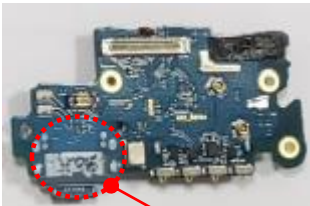

## 6-3-1. No Power

- 1) Symptom
  - Description : No display & vibration after press power key.



- 2) Defect Decision Conditions
  - The phone no any display & vibration after booting.

- 3) Repair Guide
  - **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<ul style="list-style-type: none"><li>1. Check the charging notification sound or vibration when connected to charger.<ul style="list-style-type: none"><li>- Should be no sound and no vibration.</li><li>- The device keep 'No Power' status.</li></ul></li></ul>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<ul style="list-style-type: none"><li>2. Disassemble the device.<ul style="list-style-type: none"><li>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</li></ul></li></ul>
<div> USB charging port burnt</div> <div> Water indicator tripped</div>	<ul style="list-style-type: none"><li>3. Check the disassembled device for OOW.<ul style="list-style-type: none"><li>- Water damage.</li><li>- Part burnt. (Charging port, PBA, Battery and others)</li><li>- Broken traces and others.</li></ul></li></ul>

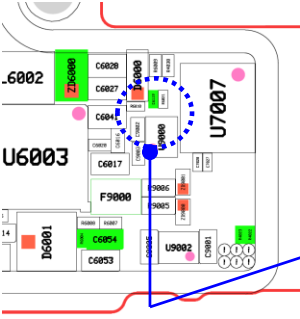
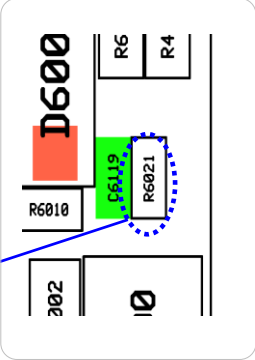

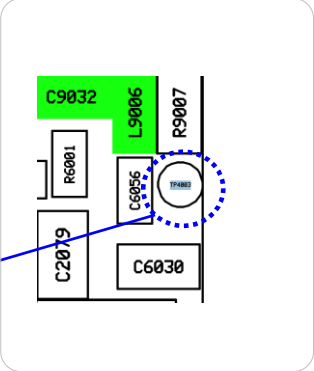


# 6-3. Power, Charging

## 6-3-1. No Power

Image	Description
	<p>1. Check battery voltage(C6028) at first. (It's normal over 3.5v) If battery voltage is under 3.5v, charge the phone with charger.</p>
	<p>2. Check the 'PBA ↔ Battery' connector(SOC6000) and connect it again when it connected improperly. After that, check to turn on the phone.</p>
	<p>3. Check the 'PBA ↔ Power key ' contact and key FPCB it After that, check to turn on the phone.</p>
	<p>4. Check the 'PBA ↔ LCD ' connector(SOC9000) and connect it again when it connected improperly. After that, check to turn on the phone.</p>
 <div data-bbox="349 1554 616 1696"><ul style="list-style-type: none"><li>• Exchange the Front Assy</li></ul></div>	<p>5. Exchange the display module with new one and check the device.</p>



## 6-3-1. No Power

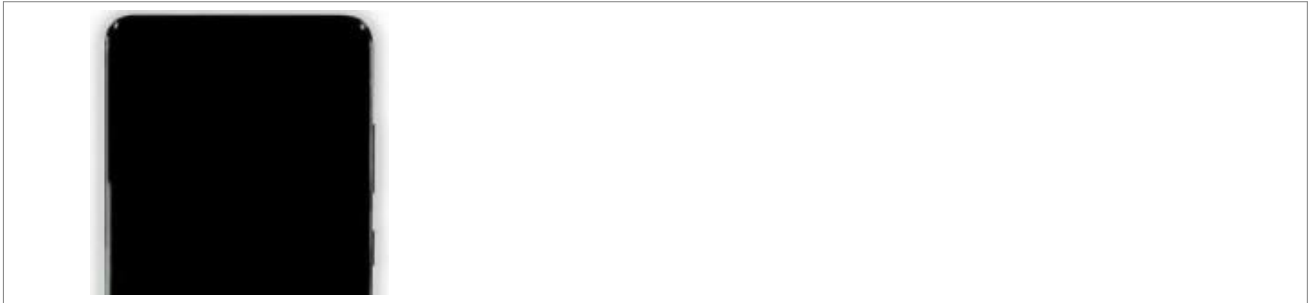
Image	Description
 	<p>1. Check 'Power Key signal' nearby 'U7007' on the PBA as below.</p> <p>-&gt; check R6021 voltage <b>when power key is pressed</b>.</p> <p>R6021 voltage = 3.5V ~ 4.4V</p> <p>-&gt; power key is OK.</p> <p>R6021 voltage = 0V</p> <p>-&gt; power key is abnormal. Change the power key FPCB.</p>
 	<p>2. Check the PS_HOLD signal(TP4003) when power key is pressed during 2~3 seconds.</p> <p>- Check its 'PS_HOLD signal' is changed from 0v to 1.8v.</p> <p>- If its signal is changed, PMIC is OK.</p>
 	<p>3. If PS_HOLD signal is 0v after press power key, exchange the PBA.</p>



# 6-3. Power, Charging


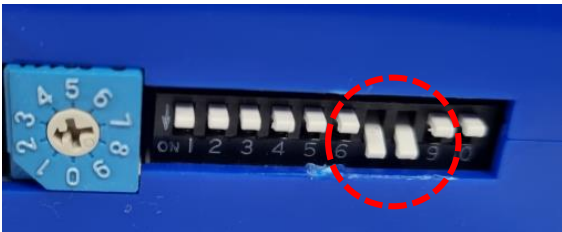
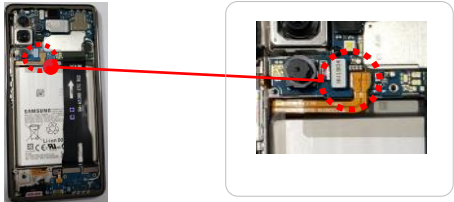
## 6-3-2. Reboot during Power on (L3)

- 1) Symptom
  - Description : reboot during power on



- 2) Defect Decision Conditions
  - The phone is rebooting during power on.

- 3) Repair Guide
  - **Caution : Disconnect battery connector first when it shows.**

Image	Description
	1. Check power on current with Power Supply and ANYWAY JIG.
	1-1. Push down Anyway Jig switch 7,8 1-2. Power supply set to 5v 1-3. During booting, check current.
	2. If current is under 4A, check the battery connector connection and battery condition.

# 6-3. Power, Charging


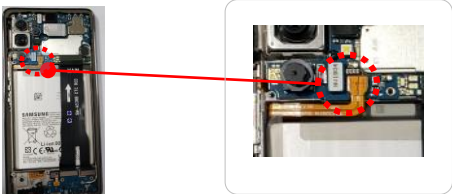
## 6-3-3. Sudden Discharge in the idle state (L3)

- 1) Symptom
- Description : Battery level decreases rapidly in the idle state.
- 2) Defect Decision Conditions
- Description : : Battery level decreases rapidly in the idle state by abnormal current consumption.
- 3) Repair Guide

Image	Description
	<div>1. Check Power-off leakage current.</div> <div>1-1. Push down Anyway Jig switch 6,7,8</div> <div>1-2. Check Power-off leakage current.</div>
	<div>2-1. Check sleep current.</div> <div>. Push down Anyway Jig switch 7,8</div> <div>. After booting, Check sleep current.</div> <div>2-2. Check <math>-1\text{mA} \leq \text{Power-off leakage} \leq 2\text{mA}</math></div> <div>2-3. Check sleep current <math>\leq 13.5\text{mA}</math></div>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<div>3-1. If there is Power-off leakage problem.</div> <div>3-2. Disassemble the device.</div> <div>- Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</div>


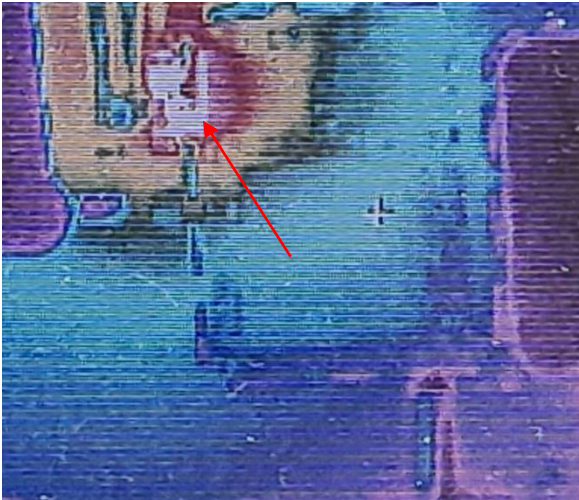
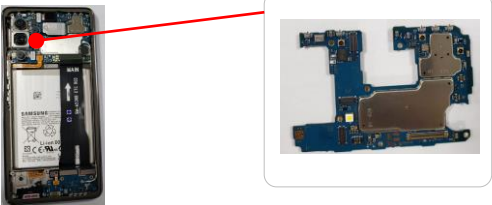
# 6-3. Power, Charging

## 6-3-3. Sudden Discharge in the idle state (L3)

Image	Description
	<p>4-1. If there is a thermal camera, check if there is a hot part and replace the hot part.</p> <p>4-2. If there isn't a thermal camera OR you can't find a hot part, detach the following parts one by one and recheck the leakage current. (Camera module, VT CAM, BAT CON, Sub PFCB, UB FPCB)</p> <p>4-3. If leakage current goes down by detaching the part, replace the detached part by normal one.</p>
	<p>5. If leakage current doesn't go down OR the hot part can't be replaced, replace the PBA.</p>

# 6-3. Power, Charging

## 6-3-3. Sudden Discharge in the idle state (L3)

Image	Description
	6-1. If there is a thermal camera, check if there is a hot part on PCB in the idle state and replace the hot part.
	(Thermal camera sample image) Search where the hotspot appears.
	6-2. If there isn't a thermal camera OR you can't find a hot part OR the hot part can't be replaced, replace the PBA.

# 6-3. Power, Charging

## 6-3-4. No charging (Wire charging) (L3)

- 1) Symptom
- Description : No charging after inserted TA.

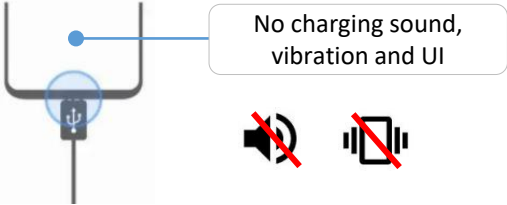
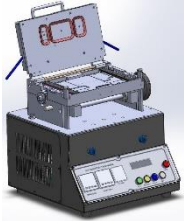
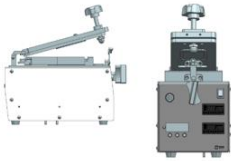
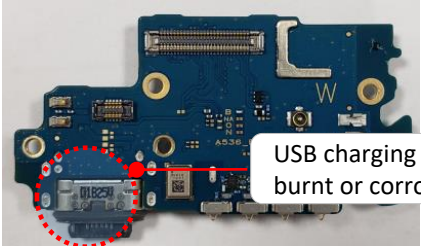
No charging Condition

cf. Normal Condition



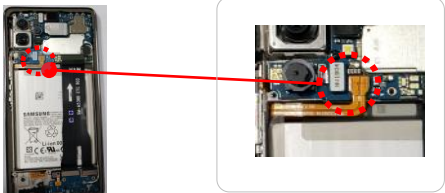
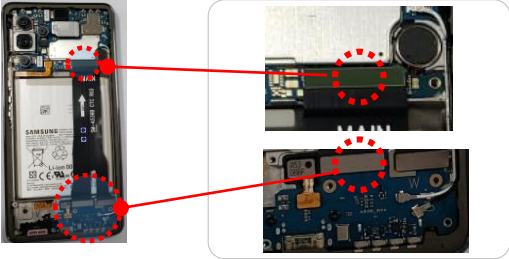
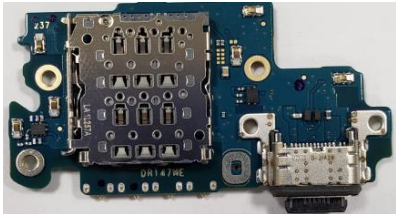

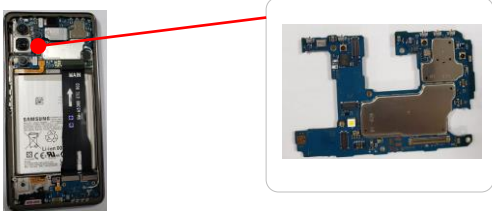
- 2) Defect Decision Conditions
- No charging notification sound, vibration and UI when inserted TA.

- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<div>1. Check the charging notification sound or vibration when connected to charger.</div> <div>- Should be no sound, no vibration and no UI.</div> <div>- Save the log and analyze it.</div>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<div>2. Disassemble the device.</div> <div>- Refer to '<b>Disassembly and assembly video guide for A53 5G</b>' from the GSPN.</div>
	<div>3. Check the disassembled device for OOW.</div> <div>- Water damage.</div> <div>- Part burnt. (Charging port, PBA, Battery and others)</div> <div>- Damaged USB port pin.</div> <div>- Broken traces and others.</div>

# 6-3. Power, Charging

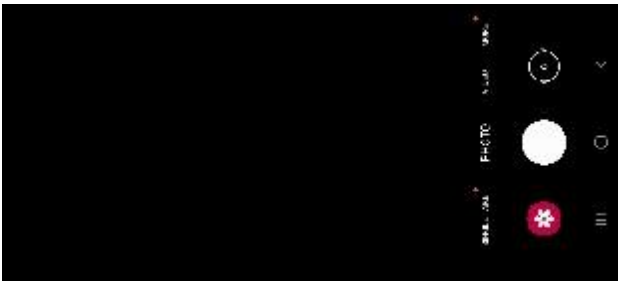
## 6-3-4. No charging (Wire charging) (L3)

Image	Description
	<p><b>[Attention]</b></p> <p>4. Disconnect Battery Connector at first.</p>
	<p>5. Check the 'IF SUB PBA, MAIN PCB ↔ C to C connector' and connect it again when it connected improperly. After that, connect battery connector again and check wire charging when inserted TA.</p>
	<p>6. Exchange the IF SUB PBA with new one and check the device.</p>
	<p>8. If not, exchange the C to C connector with new one and check the device.</p>
	<p>9. If the device is not working normally after replacing the 'capacitors' and 'Charger IC', replace the MAIN PBA</p>



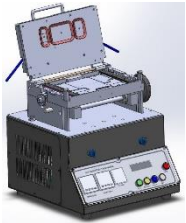
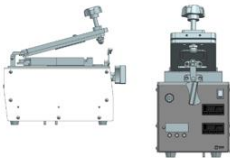

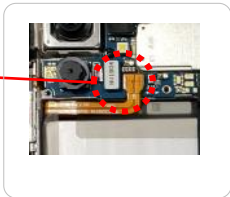
## 6-4-1. Entry Fail(FRONT Camera)

- 1) Symptom
- Description : Black display and can't turn on the FRONT camera

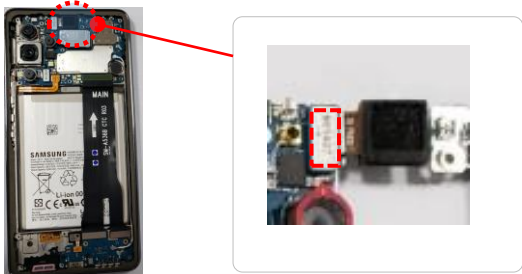
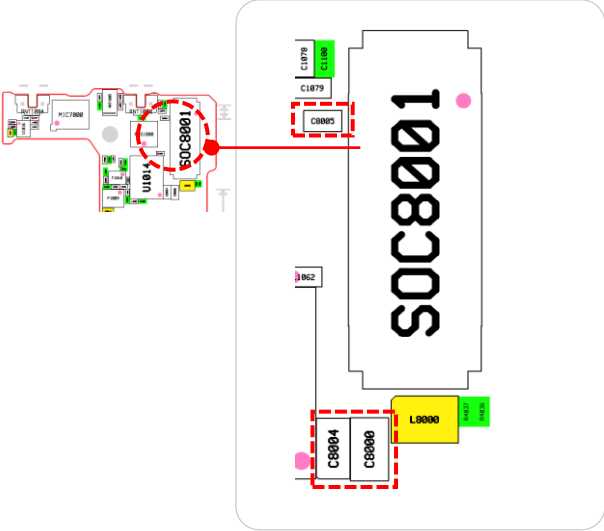
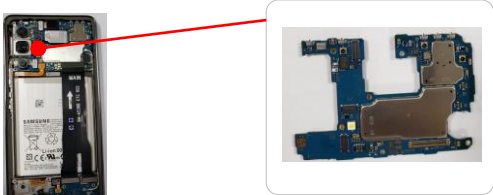


- 2) Defect Decision Conditions
- Black display instead of preview image or return to home screen

- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
	1. Execute Front Cam test of *#0*#.
<div> [AOD Jig]</div> <div> [AOD mini]</div>	2. Disassemble the device. - Refer to ' <b>Disassembly and assembly video guide for A53 5G</b> ' from the GSPN.
<div></div> <div></div>	<b>[Attention]</b>  3. Disconnect Battery Connector (SOC6000) at first.

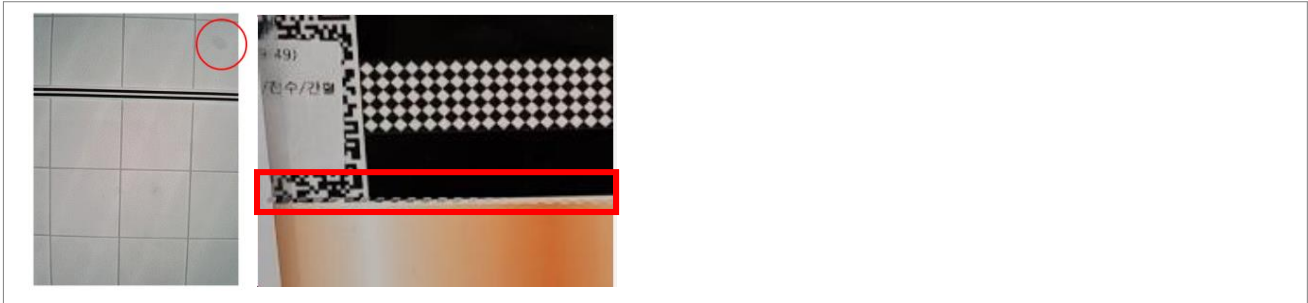
6-4-1. Entry Fail(FRONT Camera)

Image	Description
	<p>4. Check if the connector is disengaged at first.</p> <p>If connector is okay, replace the camera module with new one and check the device. (SO8001)</p>
	<p>5. Check 'Capacitors' on the PBA as below.</p> <ul style="list-style-type: none"><li>- FCAM_AVDD_2P9=2.9V (C8000)</li><li>- CAM_VDDIO_1P8=1.8V (C8005)</li><li>- FCAM_DVDD_1P05=1.05V (C8004)</li></ul>
	<p>6. If camera is still working abnormally, exchange the PBA.</p>



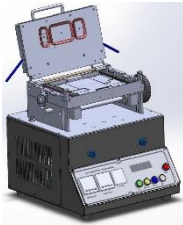
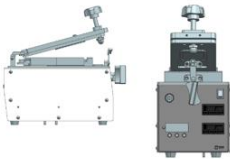


## 6-4-2. Abnormal Preview(FRONT CAMERA)

- 1) Symptom
- Description : Abnormal display of FRONT camera



- 2) Defect Decision Conditions
- Blemishes or dots on image

- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

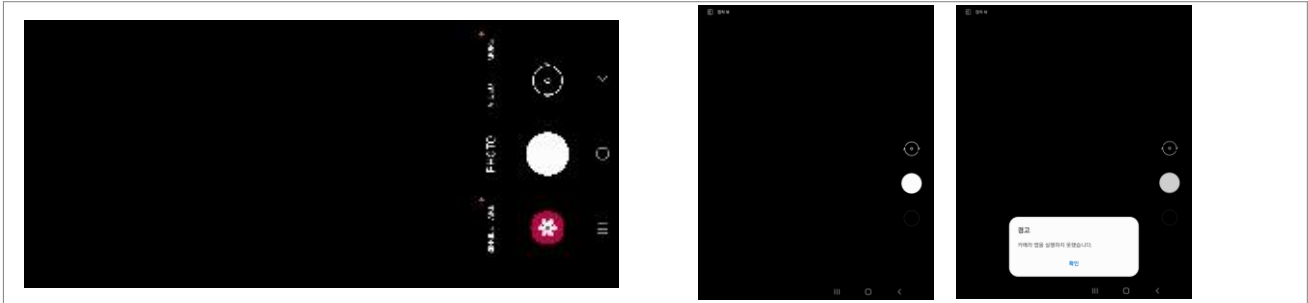
Image	Description
	<div>1. Check the camera hole.</div> <div>- Should be clean and no particle.</div>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<div>2. Disassemble the device.</div> <div>- Refer to '<b>Disassembly and assembly video guide for A53 5G</b>' from the GSPN.</div>
<div></div> <div></div>	<div>[Attention]</div> <div>3. Disconnect Battery Connector (SOC6000) at first.</div>

## 6-4-2. Abnormal Preview(FRONT Camera)

Image		Description
		4. Replace the camera module with new one and check the device. (SOC8001)

## 6-4-3. Entry Fail(Rear Camera)

- 1) Symptom
- Description : Black display and can't turn on the rear camera



- 2) Defect Decision Conditions
- Black display instead of preview image or return to home screen

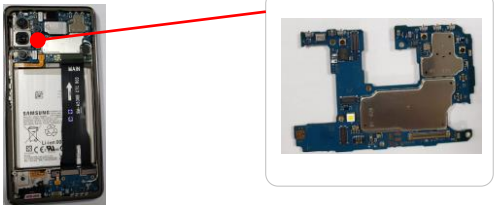
- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

Image	Description
	<div>1. Execute Mega cam test of *#0*# to figure out which camera has defect.</div> <div>- Rear : Wide camera</div> <div>Rear2 : Bokeh camera</div> <div>Rear3 : Ultra wide camera</div> <div>Rear3 : Macro camera</div>
<div><div>[AOD Jig]</div></div> <div><div>[AOD mini]</div></div>	<div>2. Disassemble the device.</div> <div>- Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</div>
<div></div>	<div>[Attention]</div> <div>3. Disconnect Battery Connector (SOC6000) at first.</div>

### 6-4-3. Entry Fail(Rear Camera)

Image	Description
	<p>4. Check if the connector is disengaged at first.</p> <p>If connector is okay, replace the camera module with new one and check the device.</p> <ul style="list-style-type: none"> <li>- upper : ULTRA WIDE CAMERA</li> <li>- MIDDLE : WIDE CAMEAR</li> <li>- LOWER : BOKEH CAMERA</li> <li>- RIGHT : MACRO CAMERA</li> </ul>
	<p>5. If Wide Cam is defective check 'Capacitors' on the PBA as below.</p> <ul style="list-style-type: none"> <li>- RCAM1_AVDD_2P9=2.9V (C8007)</li> <li>- RCAM1_AVDD_1P8=1.8V (C8008)</li> <li>- CAM_OIS_VDD_2P8=2.8V (C8009)</li> <li>- CAM_VDDIO_1P8=1.8V (C8010)</li> <li>- RCAM1_AFDVDD_2P8=2.8V (C8011)</li> <li>- RCAM1_DVDD_1P1=1.1V (C8012)</li> </ul>
	<p>6. If Ultra Wide Cam is defective check 'Capacitors' on the PBA as below.</p> <ul style="list-style-type: none"> <li>- RCAM3_AVDD_2P8=2.8V (C8016)</li> <li>- CAM_VDDIO_1P8=1.8V (C8018)</li> <li>- VDD_L23S_RCAM3_DVDD_1P2=1.2V (C8017)</li> </ul>
	<p>7. If BOKEH, MACRO Cam is defective check 'Capacitors' on the PBA as below.</p> <ul style="list-style-type: none"> <li>- RCAM2_RCAM4_AVDD_2P8=2.8V (C8001)</li> <li>- RCAM2_RCAM4_DVDD_1P2=1.2V (C8003)</li> </ul>

## 6-4-3. Entry Fail(Rear Camera)

Image	Description
	<p>8. If camera is still working abnormally, exchange the PBA.</p>

## 6-4-4. Abnormal AF(Rear Camera)

- 1) Symptom
- Description : Out of focus for rear camera




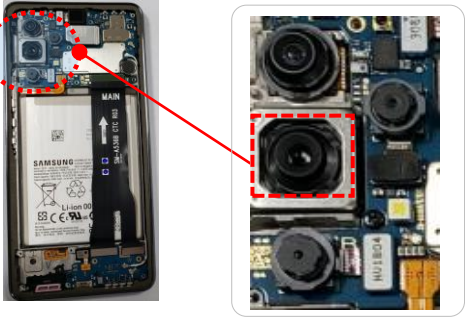
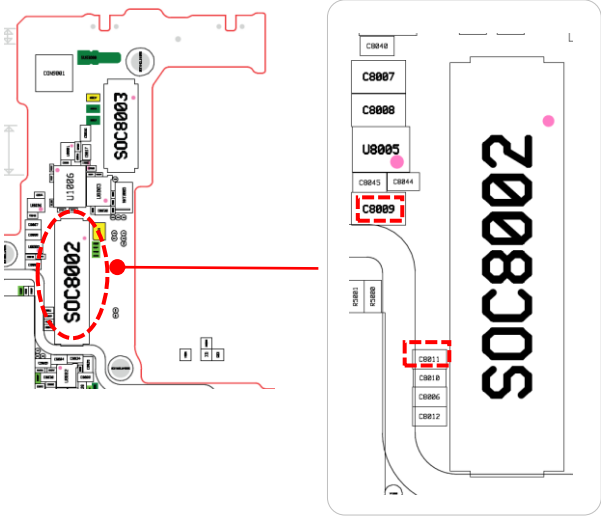
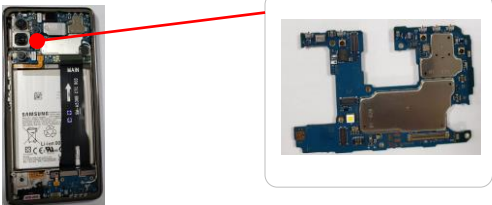
- 2) Defect Decision Conditions
- The image of rear camera is out of focus.

- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

Image	Description
	<div>1. Check the camera deco glass. - Should be clean and no particle.</div>
<div></div>	<div>2. Execute Mega cam test of *#0*# to figure out which camera has defect. - Rear : Wide camera</div>
<div></div> <div>[AOD Jig]                      [AOD mini]</div>	<div>3. Disassemble the device. - Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</div>

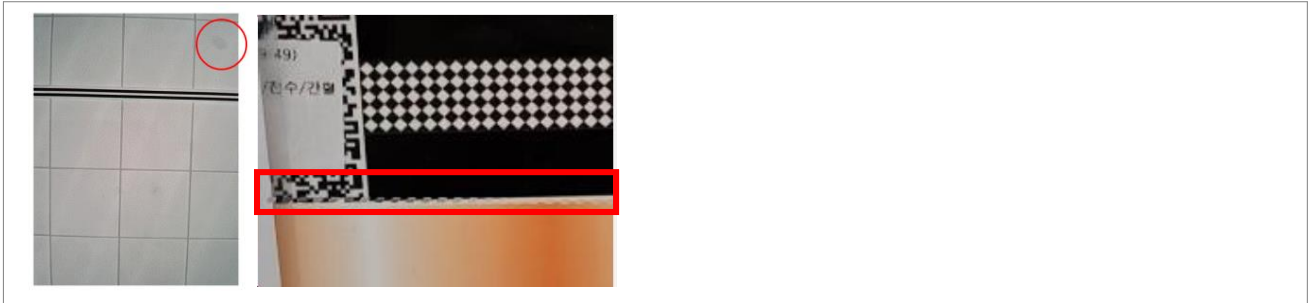


## 6-4-4. Abnormal AF(Rear Camera)

Image	Description
	<p><b>[Attention]</b></p> <p>4. Disconnect Battery Connector (SOC6000) at first.</p>
	<p>5. Replace the camera module with new one and check the device.</p> <ul style="list-style-type: none"><li>- wide camera</li></ul>
	<p>6. Check the 'Capacitors' nearby 'SOC8002' on the PBA as below.</p> <ul style="list-style-type: none"><li>- CAM_OIS_VDD_2P8=2.8V (C8009)</li><li>- RCAM1_AFVDD_2P8=2.8V (C8011)</li></ul>
	<p>7. If camera is still working abnormally, exchange the PBA.</p>

## 6-4-5. Abnormal Preview(Rear Camera)

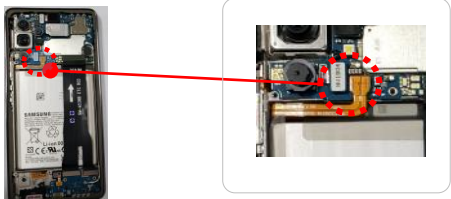
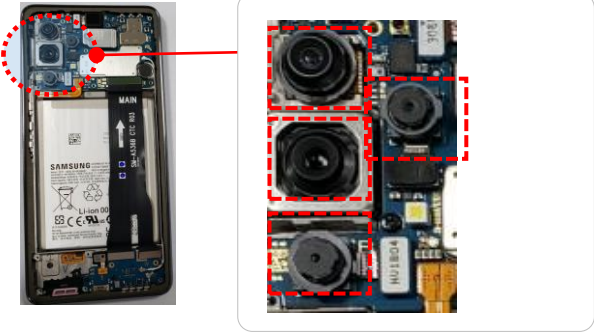
- 1) Symptom
- Description : Abnormal display of rear camera



- 2) Defect Decision Conditions
- Blemishes or dots on image
- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

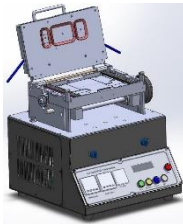
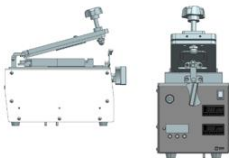
Image	Description
	<div>1. Check the camera deco glass and lens.</div> <div>- Should be clean and no particle.</div>
	<div>2. Execute Mega cam test of *#0*# to figure out which camera has defect.</div> <div>- Rear : Wide camera</div> <div>    Rear2 : Bokeh camera</div> <div>    Rear3 : Ultra wide camera</div> <div>    Rear3 : Macro camera</div>
<div><div>[AOD Jig]</div></div> <div><div>[AOD mini]</div></div>	<div>3. Disassemble the device.</div> <div>- Refer to '<u>Disassembly and assembly video guide for Galaxy A53 5G</u>' from the GSPN.</div>

6-4-5. Abnormal Preview(Rear Camera)

Image	Description
	<p><b>[Attention]</b></p> <p>4. Disconnect Battery Connector (SOC6000) at first.</p>
	<p>5. Replace the camera module with new one and check the device.</p> <ul style="list-style-type: none"><li>- upper : ULTRA WIDE CAMERA</li><li>- MIDDLE : WIDE CAMEAR</li><li>- LOWER : BOKEH CAMERA</li><li>- RIGHT : MACRO CAMERA</li></ul>

## 6-5-1. RCV sound abnormal

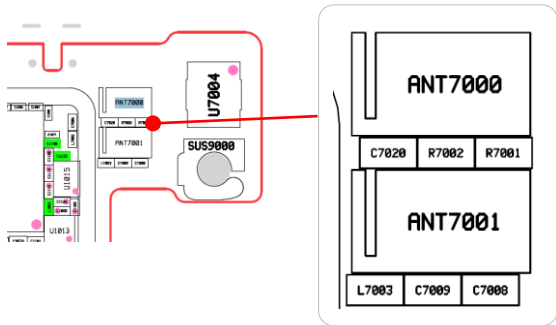
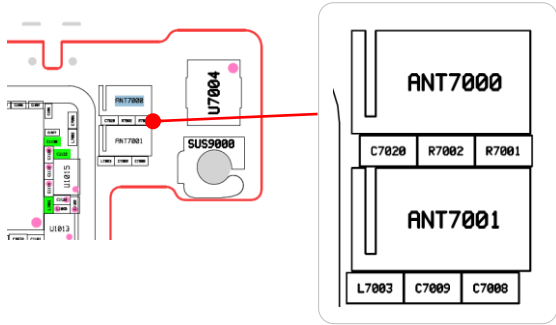
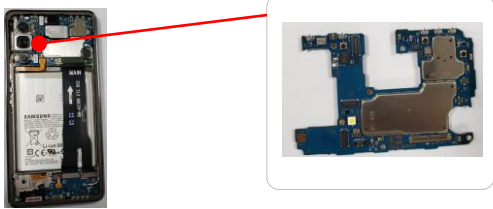
- 1) Symptom
- Description : RCV sound is low/abnormal
- 2) Defect Decision Conditions
- The phone sounds abnormally
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description																					
<table><tr><td>RED</td><td>GREEN</td><td>BLUE</td></tr><tr><td>BLACK</td><td>RECEIVER</td><td>VIBRATION</td></tr><tr><td>MEGA CAM</td><td>GRIPSENSOR</td><td>SENSOR</td></tr><tr><td>TOUCH</td><td>TOUCH(SUB)</td><td>SPEAKER 1</td></tr><tr><td>SPEAKER 2</td><td>SUB KEY</td><td>FRONT CAM</td></tr><tr><td>HALL IC</td><td>MST TEST</td><td>LOOPBACK</td></tr><tr><td>VERSION</td><td>SPEN HOVERING</td><td>S-PEN</td></tr></table>	RED	GREEN	BLUE	BLACK	RECEIVER	VIBRATION	MEGA CAM	GRIPSENSOR	SENSOR	TOUCH	TOUCH(SUB)	SPEAKER 1	SPEAKER 2	SUB KEY	FRONT CAM	HALL IC	MST TEST	LOOPBACK	VERSION	SPEN HOVERING	S-PEN	<p>1. Execute Receiver test of *#0*# to figure out which receiver has defect.</p>
RED	GREEN	BLUE																				
BLACK	RECEIVER	VIBRATION																				
MEGA CAM	GRIPSENSOR	SENSOR																				
TOUCH	TOUCH(SUB)	SPEAKER 1																				
SPEAKER 2	SUB KEY	FRONT CAM																				
HALL IC	MST TEST	LOOPBACK																				
VERSION	SPEN HOVERING	S-PEN																				
<div><p>[AOD Jig]</p></div> <div><p>[AOD mini]</p></div>	<p>2. Disassemble the device.</p> <p>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</p>																					

6-5-1. RCV sound abnormal

Image	Description
<div><p>RCV</p></div>	<p>3. Refer to the RCV location.</p>
<div></div>	<p>4. Check RCV module and RCV rubber is ok. (tears and particles)</p>
<div><p>RCV</p></div>	<p>5. If it is ok, change to new RCV module.</p>

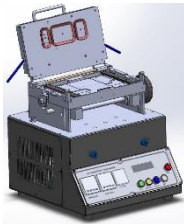
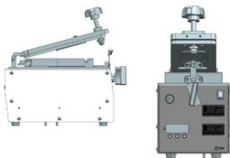
## 6-5-1. RCV sound abnormal

Image	Description
	<p>9. In case of RCV problem, Check below components of the MAIN PBA if there is any damage (crack, burnt....) ANT7000, ANT7001 C7020, R7002, R7001, L7003, C7009, C7008 → change components when you find defects.</p>
	<p>10. Check the Resistor and Capacitor value on the PBA as below. Replace the components if has problem. R7001, R7002 = 4.7kΩ C7020 C7008 = 33pF, L7003 = 100nH</p>
	<p>11. If the device is not working normally after exchanging it, exchange the PBA .</p>



6-5-2. SPK sound abnormal

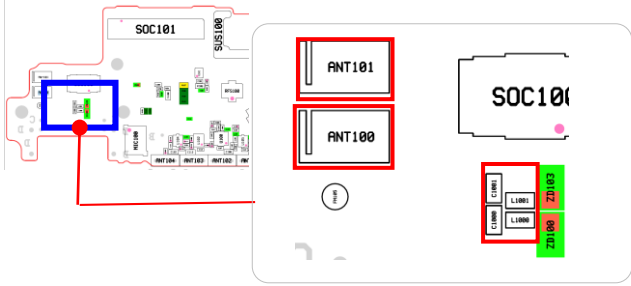
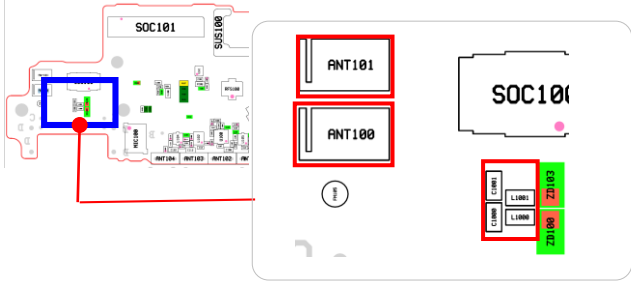
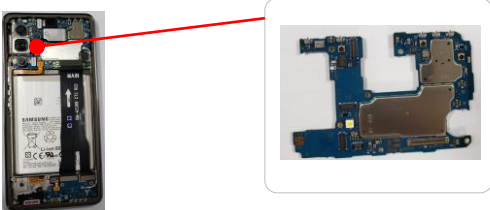
- 1) Symptom
- Description : SPK sound is low/abnormal
- 2) Defect Decision Conditions
- The phone sounds abnormally
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description																					
<table><tr><td>RED</td><td>GREEN</td><td>BLUE</td></tr><tr><td>BLACK</td><td>RECEIVER</td><td>VIBRATION</td></tr><tr><td>MEGA CAM</td><td>GRIPSENSOR</td><td>SENSOR</td></tr><tr><td>TOUCH</td><td>TOUCH(SUB)</td><td>SPEAKER 1</td></tr><tr><td>SPEAKER 2</td><td>SUB KEY</td><td>FRONT CAM</td></tr><tr><td>HALL IC</td><td>MST TEST</td><td>LOOPBACK</td></tr><tr><td>VERSION</td><td>SPEN HOVERING</td><td>S-PEN</td></tr></table>	RED	GREEN	BLUE	BLACK	RECEIVER	VIBRATION	MEGA CAM	GRIPSENSOR	SENSOR	TOUCH	TOUCH(SUB)	SPEAKER 1	SPEAKER 2	SUB KEY	FRONT CAM	HALL IC	MST TEST	LOOPBACK	VERSION	SPEN HOVERING	S-PEN	<p>1. Execute Speaker test of *#0*# to figure out which speaker has defect.</p>
RED	GREEN	BLUE																				
BLACK	RECEIVER	VIBRATION																				
MEGA CAM	GRIPSENSOR	SENSOR																				
TOUCH	TOUCH(SUB)	SPEAKER 1																				
SPEAKER 2	SUB KEY	FRONT CAM																				
HALL IC	MST TEST	LOOPBACK																				
VERSION	SPEN HOVERING	S-PEN																				
<div><div><p>[AOD Jig]</p></div><div><p>[AOD mini]</p></div></div>	<p>2. Disassemble the device.</p> <p>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</p>																					

6-5-2. SPK sound abnormal

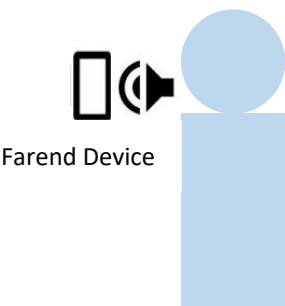
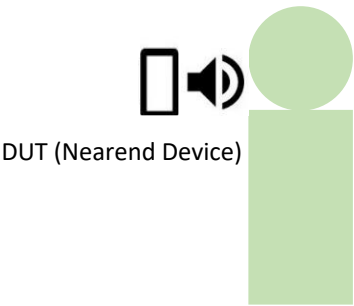
Image	Description
<div><p>SPK</p></div>	Refer to the SPK location.
<div><p>SPK</p></div>	3. Check water damage and if not, change to new SPK module.
<div></div>	4. Check SPK module and spk rubber is ok. (tears and particles)
<div><p>SPK</p></div>	5. If it is ok, change to new lower SPK module.

6-5-2. SPK sound abnormal

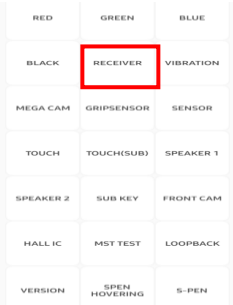
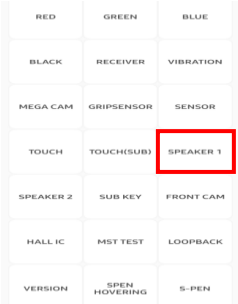
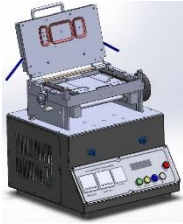
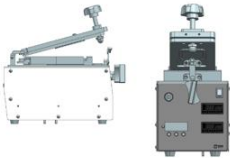
Image	Description
	<p>6. In case of lower SPK problem, Check below components of the SUB PBA if there is any damage (crack, burnt....)</p> <p>ANT101, ANT102</p> <p>L1001, L1000, C1000, C1001→ change components when you find defects.</p>
	<p>7. Check the Resistor and Capacitor value on the PBA as below. Replace the components if has problem.</p> <p>C1000, C1001 = 100pF</p> <p>L1000, L1001 = 100nH</p>
	<p>8. If the device is not working normally after exchanging it, exchange the PBA .</p>

## 6-5-3. Rx Voice mute

- 1) Symptom
  - Description : While calling, Rx voice is mute.
- 2) Defect Decision Conditions
  - Description : A person who is calling with a nearend device can't hear Rx voice.



### 3) Repair Guide

Image	Description
	<p>1-1. RECEIVER test (Problem in RCV call : Handset mode)</p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : RECEIVER</li><li>- Should hear the sound in RCV</li></ul>
	<p>1-2. SPEAKER test (Problem in SPK call : Handsfree mode)</p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : SPEAKER</li><li>- Should hear the sound in SPK</li></ul>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<p>If there was no sound from RCV or SPK</p> <p>2. Disassemble the device.</p> <ul style="list-style-type: none"><li>- Refer to '<u>Disassembly and assembly video guide for Galaxy A53 5G</u>' from the GSPN.</li></ul>

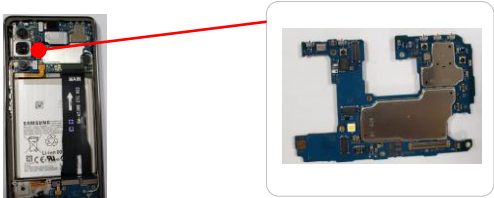
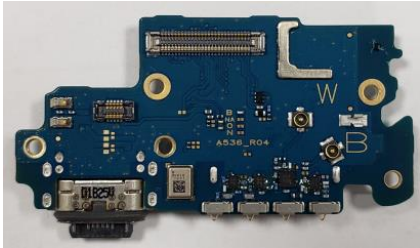
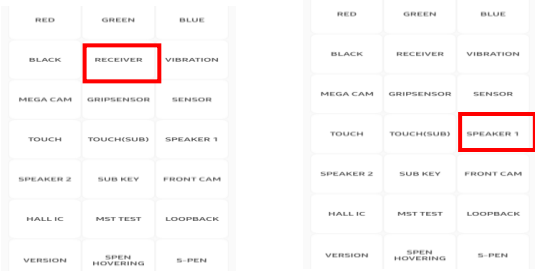
## 6-5-3. Rx Voice mute

Image	Description																					
 <p>RCV</p>	<p>3-1. Swap the RCV module to normal sample.</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <p>- RCV module damaged.</p>																					
	<p>3-2. Swap the SPK module to normal sample.</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <p>- SPK module damaged.</p>																					
<table><tr><td>RED</td><td>GREEN</td><td>BLUE</td></tr><tr><td>BLACK</td><td>RECEIVER</td><td>VIBRATION</td></tr><tr><td>MEGA CAM</td><td>GRIPSENSOR</td><td>SENSOR</td></tr><tr><td>TOUCH</td><td>TOUCH(SUB)</td><td>SPEAKER 1</td></tr><tr><td>SPEAKER 2</td><td>SUB KEY</td><td>FRONT CAM</td></tr><tr><td>HALL IC</td><td>MST TEST</td><td>LOOPBACK</td></tr><tr><td>VERSION</td><td>SPEN HOVERING</td><td>S-PEN</td></tr></table>	RED	GREEN	BLUE	BLACK	RECEIVER	VIBRATION	MEGA CAM	GRIPSENSOR	SENSOR	TOUCH	TOUCH(SUB)	SPEAKER 1	SPEAKER 2	SUB KEY	FRONT CAM	HALL IC	MST TEST	LOOPBACK	VERSION	SPEN HOVERING	S-PEN	<p>4-1. RECEIVER test</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <p>- *#0#</p> <p>- Select : RECEIVER</p> <p>- Should hear the sound in RCV</p>
RED	GREEN	BLUE																				
BLACK	RECEIVER	VIBRATION																				
MEGA CAM	GRIPSENSOR	SENSOR																				
TOUCH	TOUCH(SUB)	SPEAKER 1																				
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VERSION	SPEN HOVERING	S-PEN																				
<table><tr><td>RED</td><td>GREEN</td><td>BLUE</td></tr><tr><td>BLACK</td><td>RECEIVER</td><td>VIBRATION</td></tr><tr><td>MEGA CAM</td><td>GRIPSENSOR</td><td>SENSOR</td></tr><tr><td>TOUCH</td><td>TOUCH(SUB)</td><td>SPEAKER 1</td></tr><tr><td>SPEAKER 2</td><td>SUB KEY</td><td>FRONT CAM</td></tr><tr><td>HALL IC</td><td>MST TEST</td><td>LOOPBACK</td></tr><tr><td>VERSION</td><td>SPEN HOVERING</td><td>S-PEN</td></tr></table>	RED	GREEN	BLUE	BLACK	RECEIVER	VIBRATION	MEGA CAM	GRIPSENSOR	SENSOR	TOUCH	TOUCH(SUB)	SPEAKER 1	SPEAKER 2	SUB KEY	FRONT CAM	HALL IC	MST TEST	LOOPBACK	VERSION	SPEN HOVERING	S-PEN	<p>4-2. SPEAKER test</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <p>- *#0#</p> <p>- Select : SPEAKER</p> <p>- Should hear the sound in SPK</p>
RED	GREEN	BLUE																				
BLACK	RECEIVER	VIBRATION																				
MEGA CAM	GRIPSENSOR	SENSOR																				
TOUCH	TOUCH(SUB)	SPEAKER 1																				
SPEAKER 2	SUB KEY	FRONT CAM																				
HALL IC	MST TEST	LOOPBACK																				
VERSION	SPEN HOVERING	S-PEN																				

6-5-3. Rx Voice mute

Image	Description
	<p>If there was no sound from RCV or SPK</p> <p><b>[Attention]</b></p> <p>5. Disconnect Battery Connector (Ref. SOC6000) at first.</p>
	<p>6. Check SMD status and resolder on PBA.</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- RCV module contacts <b>(ANT7000, ANT7001)</b></li><li>- AMP out series inductor <b>(L7002, L7003)</b></li></ul>
	<p>7. Check SMD status and resolder on SUB PBA.</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- SPK module contacts <b>(ANT101, ANT102)</b></li><li>- AMP series inductor <b>(L1001, L1000)</b></li></ul>
	<p>8. RECEIVER test</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : RECEIVER</li><li>- Should hear the sound in RCV</li></ul>
	<p>9. SPEAKER test</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : SPEAKER</li><li>- Should hear the sound in SPK</li></ul>

## 6-5-3. Rx Voice mute

Image	Description
	<p>If there was no sound from RCV</p> <p>10. Swap the MAIN PBA to normal sample. <b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- RCV amp damaged.</li><li>- or AP damaged.</li></ul>
	<p>If there was no sound from SPK</p> <p>11. Swap the SUB PBA to normal sample. <b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- SPK amp damaged(SUB PBA)</li><li>- or AP damaged.</li></ul>
	<p>12. RECEIVER test <b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : RECEIVER</li><li>- Should hear the sound in RCV</li></ul> <p>SPEAKER test <b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- *#0#</li><li>- Select : SPEAKER</li><li>- Should hear the sound in SPK</li></ul>

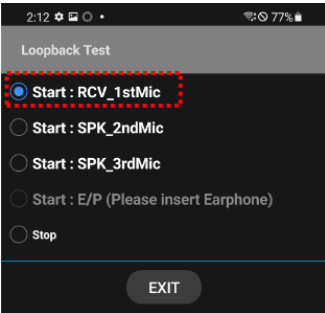
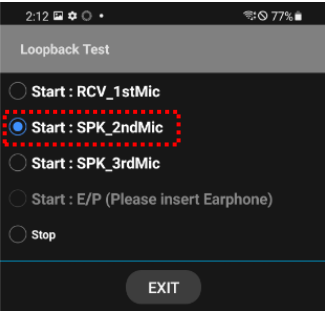
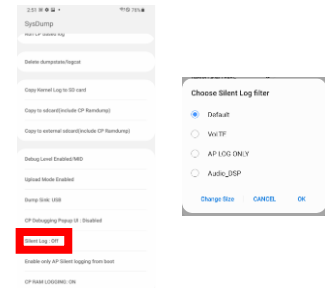


6-5-4. Rx Voice swing/low/noise

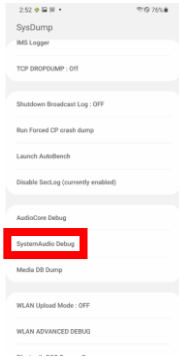


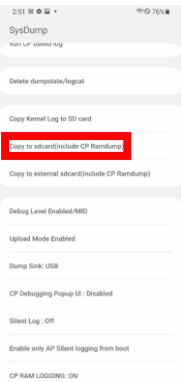
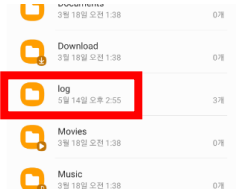
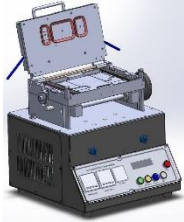
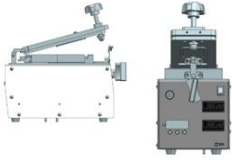

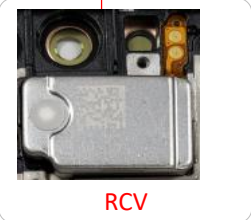
- 1) Symptom
- Description : While calling, Rx voice is swinging, low or noisy.
- 2) Defect Decision Conditions
- Description : A person who is calling with a nearend device can hear something wrong in Rx voice.  
(voice is swinging, low or noisy)



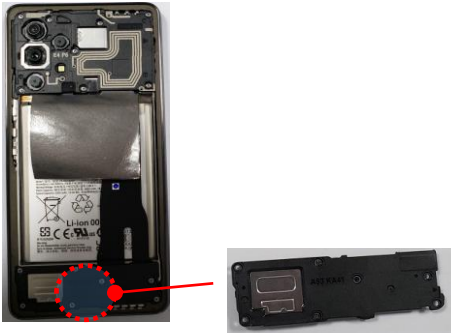
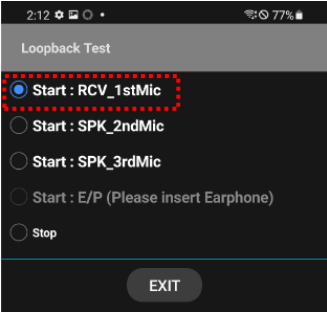
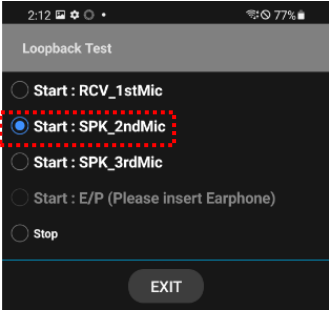
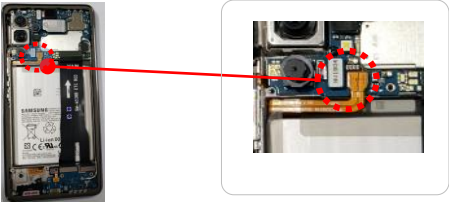
3) Repair Guide

Image	Description
	<div>1-1. RCV loopback test</div> <div>(Problem in RCV call : Handset mode)</div> <div>- *#0283#</div> <div>- Select Start : RCV_1stMIC</div> <div>- Do test : say something into a 1<sup>st</sup> mic(lower mic).</div> <div>- Should hear the voice clearly through the RCV without noise.</div>
	<div>1-2. SPK loopback test</div> <div>(Problem in SPK call : Handsfree mode)</div> <div>- *#0283#</div> <div>- Select Start : SPK_2ndMIC</div> <div>- Do test : say something into a 2<sup>nd</sup> mic(upper mic).</div> <div>- Should hear the voice clearly through the SPK(lower spk) without noise.</div>
	<div>If it's ok in the loopback test (if the voice was heard clearly from RCV or SPK without noise),</div> <div>2. get dumps while calling.</div> <div>- *#9900#</div> <div>- Silent log : off -&gt; on (Default select)</div>

6-5-4. Rx Voice swing/low/noise

Image	Description
 	<p>2. get dumps while calling</p> <ul style="list-style-type: none"><li>- SystemAudio Debug</li><li>- ABOX DUMP</li><li>- ADM off -&gt; on</li><li>- Call test</li></ul>
  	<p>2. get dumps while calling.</p> <ul style="list-style-type: none"><li>- After finishing test, ADM on -&gt; off</li><li>- COPY TO SDCARD</li><li>- *#9900#</li><li>- Copy to sdcards(include CP Ramdump)</li><li>- After finishing copy dumps, share the log folder to HW engineer.</li></ul>
 <p data-bbox="198 1593 294 1624">[AOD Jig]</p>  <p data-bbox="491 1593 608 1624">[AOD mini]</p>	<p>If there was a loopback test problem (if the voice was low or noisy from RCV or SPK),</p> <p>3. Disassemble the device.</p> <ul style="list-style-type: none"><li>- Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</li></ul>
  <p data-bbox="486 1929 534 1949">RCV</p>	<p>4-1. Swap the RCV module to normal sample.</p> <p>(Problem in RCV call : Handset mode)</p> <ul style="list-style-type: none"><li>- RCV module damaged.</li></ul>

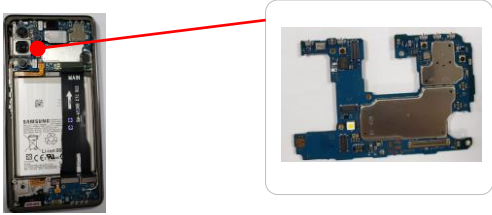
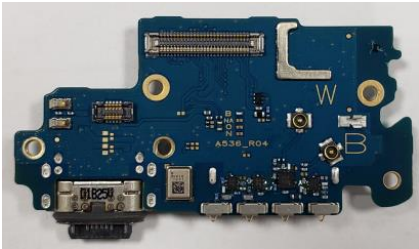
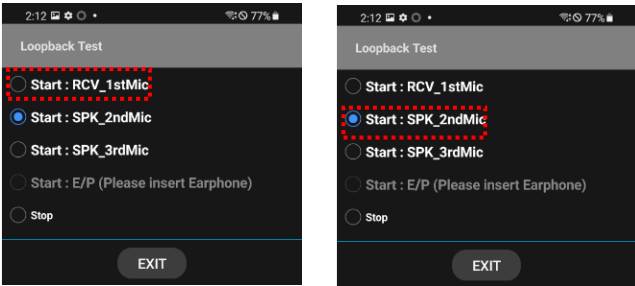

6-5-4. Rx Voice swing/low/noise

Image	Description
	<p>4-2. Swap the lower SPK module to normal sample.</p> <p>(Problem in SPK call : Handsfree mode)</p> <p>- SPK module damaged.</p>
	<p>5-1. RCV loopback test</p> <p>(Problem in RCV call : Handset mode)</p> <p>- *#0283#</p> <p>- Select Start : RCV_1stMIC</p> <p>- Do test : say something into a 1<sup>st</sup> mic(lower mic).</p> <p>- Should hear the voice clearly through the RCV without noise.</p>
	<p>5-2. SPK loopback test</p> <p>(Problem in SPK call : Handsfree mode)</p> <p>- *#0283#</p> <p>- Select Start : SPK_2ndMIC</p> <p>- Do test : say something into a 2<sup>nd</sup> mic(upper mic).</p> <p>- Should hear the voice clearly through the SPK without noise.</p>
	<p>If there was a loopback test problem (if the voice was low or noisy from RCV or SPK),</p> <p>[Attention]</p> <p>6. Disconnect Battery Connector (Ref. SOC6000) at first.</p>

6-5-4. Rx Voice swing/low/noise

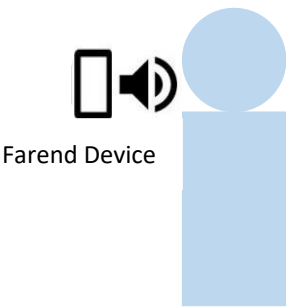
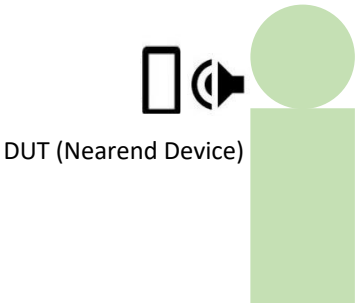
Image	Description
	<p>7. Check SMD status and resolder on PBA.</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- RCV module contacts <b>(ANT7000, ANT7001)</b></li><li>- AMP out series inductor <b>(L7002, L7003)</b></li></ul>
	<p>7-2. Check SMD status and resolder on SUB PBA.</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- SPK module contacts <b>(ANT101, ANT102)</b></li><li>- AMP series inductor <b>(L1001, L1000)</b></li></ul>
	<p>8-1. RCV loopback test</p> <p><b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : RCV_1stMIC</li><li>- Do test : say something into a 1<sup>st</sup> mic(lower mic).</li><li>- Should hear the voice clearly through the RCV without noise.</li></ul>
	<p>8-2. SPK loopback test</p> <p><b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : SPK_2ndMIC</li><li>- Do test : say something into a 2<sup>nd</sup> mic(upper mic).</li><li>- Should hear the voice clearly through the SPK without noise.</li></ul>

## 6-5-4. Rx Voice swing/low/noise

Image	Description
	<p>If there was a loopback test problem (if the voice was low or noisy from RCV or SPK),</p> <p>9-1. Swap the MAIN PBA to normal sample. <b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- RCV amp damaged.</li><li>- or AP damaged.</li></ul>
	<p>9-2. Swap the SUB PBA to normal sample. <b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- SPK amp damaged</li><li>- AP damaged.</li></ul>
	<p>10. RCV loopback test <b>(Problem in RCV call : Handset mode)</b></p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : RCV_1stMIC</li><li>- Do test : say something into a 1<sup>st</sup> mic(lower mic).</li><li>- Should hear the voice clearly through the RCV without noise.</li></ul> <p>SPK loopback test <b>(Problem in SPK call : Handsfree mode)</b></p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : SPK_2ndMIC</li><li>- Do test : say something into a 2<sup>nd</sup> mic(upper mic).</li><li>- Should hear the voice clearly through the SPK(lower spk) without noise.</li></ul>
	<p>If there was a loopback test problem (if the voice was low or noisy from RCV / SPK),</p> <p>11. Swap the Sub FPCB to a normal sample.</p> <ul style="list-style-type: none"><li>- C to C FPCB damaged.</li></ul>

6-5-5. Tx Voice mute



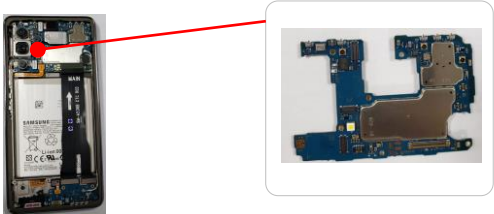
- 1) Symptom
- Description : While calling, Tx voice is Mute.
- 2) Defect Decision Conditions
- Description : A person who is calling with a farend device can't hear Rx voice.



3) Repair Guide

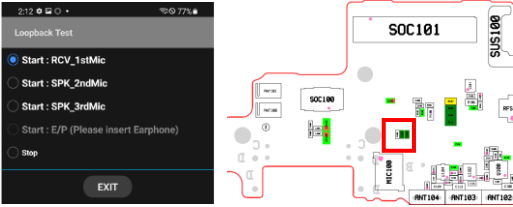
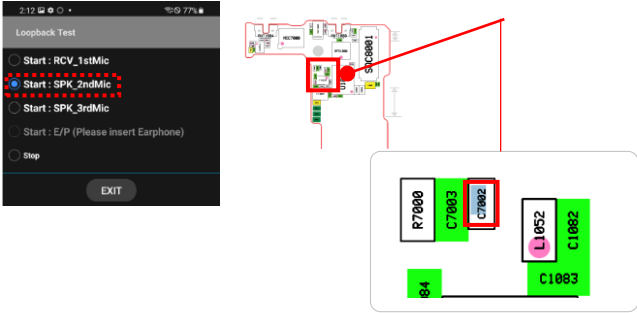
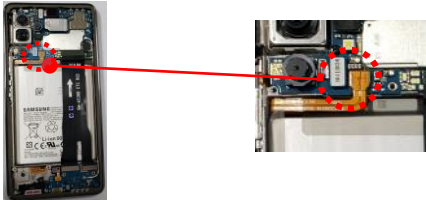
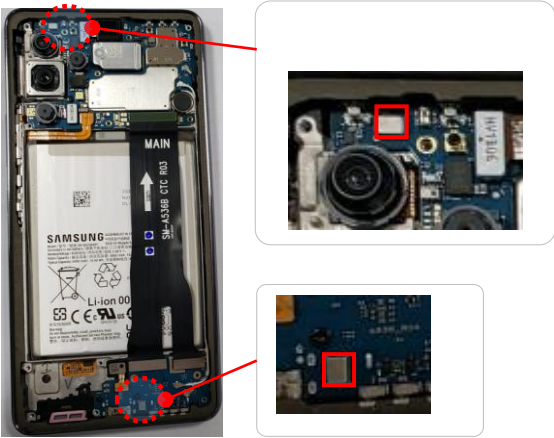
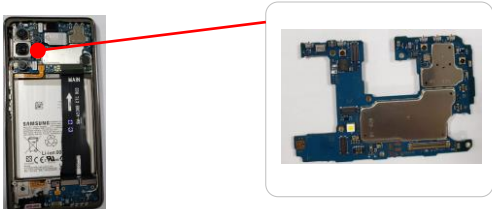
Image	Description
	1-1. 1 <sup>st</sup> mic loopback test - *#0283# - Select Start : RCV_1stMIC - Do test : say something into a 1 <sup>st</sup> mic (lower mic). - Should hear the voice through the RCV
	1-2. 2 <sup>nd</sup> mic loopback test - *#0283# - Select Start : SPK_2ndMIC - Do test : say something into a 2 <sup>nd</sup> mic (upper mic). - Should hear the voice through the SPK.
<div> [AOD Jig]</div> <div> [AOD mini]</div>	If there was no sound in loopback test,  2. Disassemble the device. - Refer to ' <u>Disassembly and assembly video guide for Galaxy A53 5G</u> ' from the GSPN.

6-5-5. Tx Voice mute


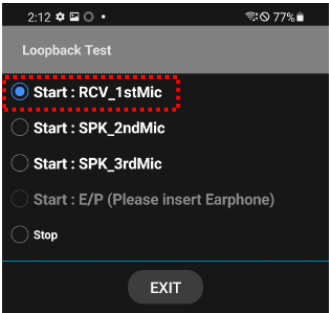

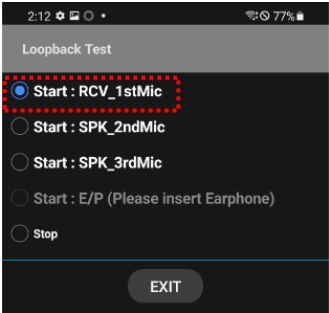
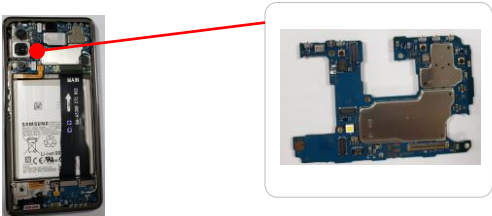
Image	Description
	<p>3. If there was no sound in 1st mic loopback test, swap the C to C FPCB to a normal sample.</p> <ul style="list-style-type: none"><li>- C to C FPCB damaged.</li></ul>
	<p>4. Swap the SUB PBA to normal sample.</p> <p>(For 1<sup>st</sup> mic)</p> <ul style="list-style-type: none"><li>- USB PBA damaged</li></ul>
	<p>5. If there was no sound in 1st mic loopback test, swap the PBA to normal sample.</p> <ul style="list-style-type: none"><li>- AP damaged.</li></ul>



6-5-5. Tx Voice mute

Image	Description
	<p>3-1. Check mic bias voltage and clk of 1<sup>st</sup> mic on USB PBA.</p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : RCV_1stMIC</li><li>- Check mic bias voltage : 1.8V (C118)</li></ul>
	<p>3-2. Check mic bias voltage and clk of 2<sup>nd</sup> mic on PBA.</p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : SPK_2ndMIC</li><li>- Check mic bias voltage : 1.8V (C7002)</li></ul>
	<p>[Attention]</p> <p>4. Disconnect Battery Connector (Ref. SOC6000) at first.</p>
	<p>If it's ok that mic bias voltage,</p> <p>5. Swap the 1<sup>st</sup> and 2<sup>nd</sup> mic to a normal sample.</p> <ul style="list-style-type: none"><li>- 1<sup>st</sup> and 2<sup>nd</sup> mic damaged.</li></ul>
	<p>If it's not ok that mic bias of 2<sup>nd</sup> mic,</p> <p>6. Swap the PBA to normal sample.</p> <ul style="list-style-type: none"><li>(For 2<sup>nd</sup> mic)</li><li>- AP damaged</li></ul>

6-5-5. Tx Voice mute

Image	Description
	<p>If it's not ok that mic bias voltage of 1<sup>st</sup> mic,</p> <p>7. Swap the USB PBA to normal sample. (For 1<sup>st</sup> mic) - USB PBA damaged</p>
	<p>8. Retest 1<sup>st</sup> mic loopback - *#0283# - Select Start : RCV_1stMIC - Do test : say something into a mic. - Should hear the voice.</p>
	<p>9. If there was no sound in 1st mic loopback test, swap the C to C FPCB to a normal sample. - C to C FPCB damaged.</p>
	<p>10. Retest 1<sup>st</sup> mic loopback - *#0283# - Select Start : RCV_1stMIC - Do test : say something into a mic. - Should hear the voice.</p>
	<p>11. If there was no sound in 1st mic loopback test, swap the PBA to a normal sample. - AP damaged.</p>

## 6-5-5. Tx Voice mute

Image	Description
	<p>If it's not ok that mic bias voltage of 1<sup>st</sup> mic,</p> <p>12. Swap the USB PBA to normal sample. (For 1<sup>st</sup> mic) - USB PBA damaged</p>

## 6-5-6. Tx Voice swing/low/noise

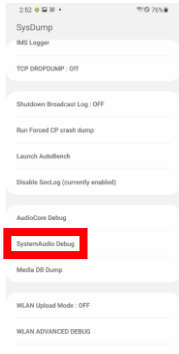
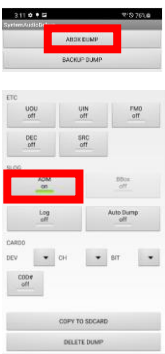

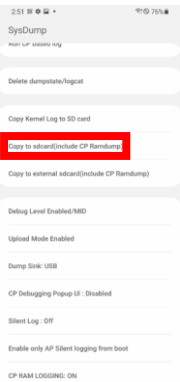
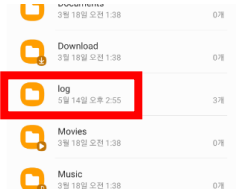
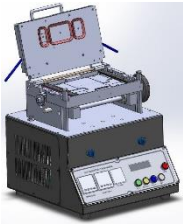
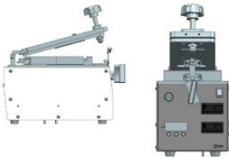


- 1) Symptom
- Description : While calling, Tx voice is swinging, low or noisy.
- 2) Defect Decision Conditions
- Description : A person who is calling with a farend device can hear something wrong in Rx voice.  
(voice is swinging, low or noisy)



### 3) Repair Guide

Image	Description
	<div>1-1. 1<sup>st</sup> mic sealing test</div> <div>- *#0283#</div> <div>- Select Start : RCV_1stMIC</div> <div>- Do test in normal situation(1<sup>st</sup> test) and then retest after blocking a 1<sup>st</sup> mic(lower mic) hole(2<sup>nd</sup> test).</div> <div>: say something into a 1<sup>st</sup> mic(lower mic).</div> <div>- Should hear the voice in 1<sup>st</sup> test, and shouldn't hear the voice in 2<sup>nd</sup> test.</div>
	<div>1-2. 2<sup>nd</sup> mic sealing test</div> <div>- *#0283#</div> <div>- Select Start : SPK_2ndMIC</div> <div>- Do test in normal situation(1<sup>st</sup> test) and then retest after blocking a 2<sup>nd</sup> mic(upper mic) hole(2<sup>nd</sup> test).</div> <div>: say something into a 2<sup>nd</sup> mic(upper mic).</div> <div>- Should hear the voice in 1<sup>st</sup> test, and shouldn't hear the voice in 2<sup>nd</sup> test.</div>
	<div>If it's ok in the mic sealing test (if the voice wasn't heard in 2<sup>nd</sup> test),</div> <div>2. get dumps while calling.</div> <div>- *#9900#</div> <div>- Silent log : off -&gt; on (Default select)</div>

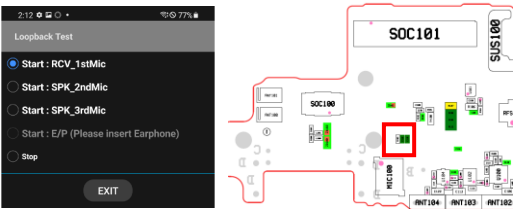
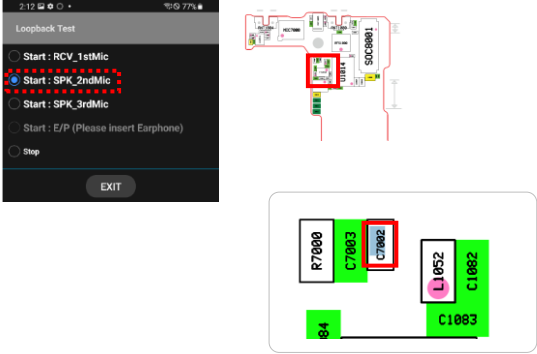
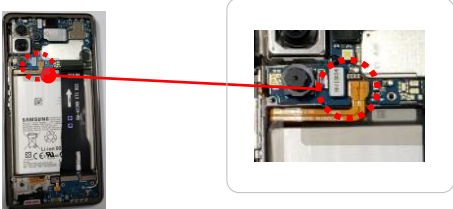
6-5-6. Tx Voice swing/low/noise

Image	Description
	<p>2. get dumps while calling</p> <ul style="list-style-type: none"><li>- SystemAudio Debug</li><li>- ABOX DUMP</li><li>- ADM off -&gt; on</li><li>- Call test</li></ul>
	
	<p>2. get dumps while calling.</p> <ul style="list-style-type: none"><li>- After finishing test, ADM on -&gt; off</li><li>- COPY TO SDCARD</li><li>- *#9900#</li><li>- Copy to sdcard(include CP Ramdump)</li><li>- After finishing copy dumps, share the log folder to SAMSUNG.</li></ul>
	
	
	<p>If there was a mic sealing problem (if the voice was heard in 2<sup>nd</sup> test),</p> <p>3. Disassemble the device.</p> <ul style="list-style-type: none"><li>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</li></ul>
	
	<p><b>[Attention]</b></p> <p>4. Disconnect Battery Connector (Ref. SOC6000) at first.</p>
	

6-5-6. Tx Voice swing/low/noise






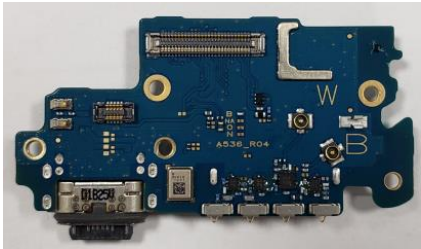
Image	Description
<div><p>2<sup>nd</sup> mic rubber</p><p>1<sup>st</sup> mic rubber</p></div>	<p>5. If there was a mic sealing problem(if the voice was heard in 2<sup>nd</sup> test), check 1<sup>st</sup> and 2<sup>nd</sup> mic rubber on the front assy.</p> <p>- Mic rubber damaged.</p>
<div></div>	<p>6. Change mic sealing rubber if there was a problem.</p>
<div></div>	<p>7. Swap C to C and check that works properly.</p>
<div></div>	<p>8. Swap the USB PCB and check that works properly.</p>

6-5-6. Tx Voice swing/low/noise

Image	Description
 The image shows a screenshot of the 'Loopback Test' menu on the left, with options: Start: RCV_1stMic (selected), Start: SPK_2ndMic, Start: SPK_3rdMic, Start: E/P (Please insert Earphone), and Stop. An 'EXIT' button is at the bottom. To the right is a PCB diagram with a red box highlighting a component near SOC101.	<p>10-1. Check mic bias voltage and clk of 1<sup>st</sup> mic on USB PBA.</p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : RCV_1stMIC</li><li>- Check mic bias voltage : 1.8V (C118)</li></ul>
 The image shows a screenshot of the 'Loopback Test' menu on the left, with options: Start: RCV_1stMic, Start: SPK_2ndMic (selected), Start: SPK_3rdMic, Start: E/P (Please insert Earphone), and Stop. An 'EXIT' button is at the bottom. To the right is a PCB diagram with a red box highlighting a component near SOC881. Below the diagram is a component list: R7000, C7003, C7002, L1052, C1082, C1083, and S4.	<p>10-2. Check mic bias voltage and clk of 2<sup>nd</sup> mic on PBA.</p> <ul style="list-style-type: none"><li>- *#0283#</li><li>- Select Start : SPK_2ndMIC</li><li>- Check mic bias voltage : 1.8V (C7002)</li></ul>
 The image shows two photographs of a phone disassembly. The left photo shows the back of the phone with the battery cover removed. The right photo shows the internal components, with a red box highlighting the battery connector area. A red line connects the battery connector in the right photo to the battery cover in the left photo.	<p><b>[Attention]</b></p> <p>11. Disconnect Battery Connector (Ref. SOC6000) at first.</p>

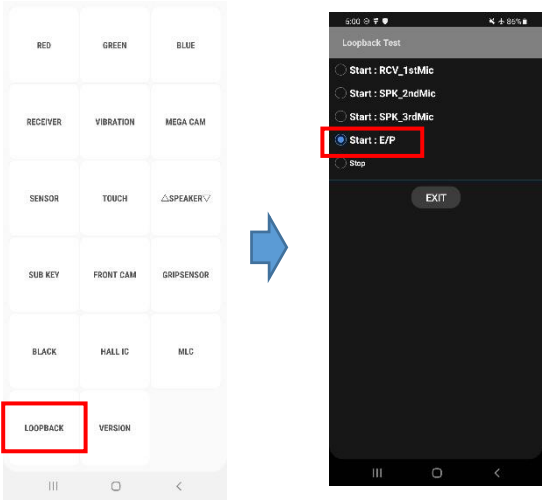
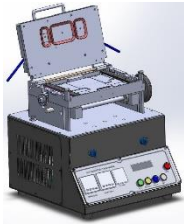
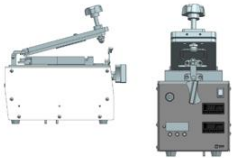


6-5-6. Tx Voice swing/low/noise

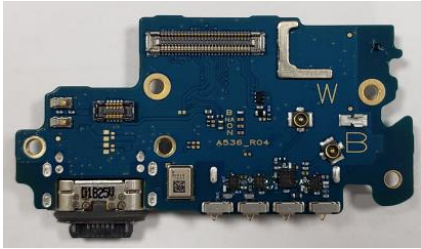

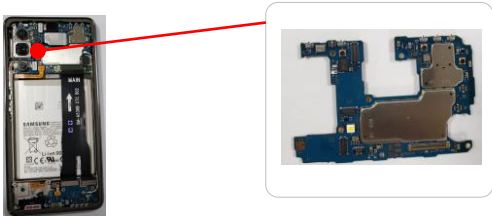
Image	Description
  	<p>If it's ok that mic bias voltage,</p> <p>12. Swap the 1<sup>st</sup> and 2<sup>nd</sup> mic to a normal sample.</p> <p>- 1<sup>st</sup> and 2<sup>nd</sup> mic damaged.</p>
 	<p>If it's not ok that mic bias voltage of 2<sup>nd</sup> mic,</p> <p>13. Swap the PBA to normal sample.</p> <p>(For 2<sup>nd</sup> mic)</p> <p>- AP damaged</p>
	<p>If it's not ok that mic bias voltage of 1<sup>st</sup> mic,</p> <p>14. Swap the SUB PBA to normal sample.</p> <p>(For 1<sup>st</sup> mic)</p> <p>- SUB PBA damaged</p>

6-5-7. Earphone sound abnormal (L3)

- 1) Symptom
- Description : Earphone sound is low/abnormal
- 2) Defect Decision Conditions
- Earphone sound is ok when you swap new one.
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<div>1. Execute test mode (*#0*#) on call mode and goes to LOOPBACK – Start E/P mode. . Check loopback mode is working properly.</div>
<div><div>[AOD Jig]</div><div>[AOD mini]</div></div>	<div>2. Disassemble the device. - Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</div>

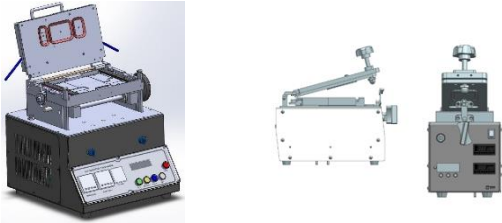
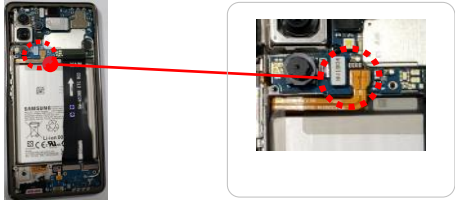
6-5-7. Earphone sound abnormal (L3)

Image	Description
	3. Try to swap new USB PBA and check that is working properly.
	4. Try to swap C to C and check that is working properly.
	5. If the device is not working normally after exchanging it, exchange the PBA

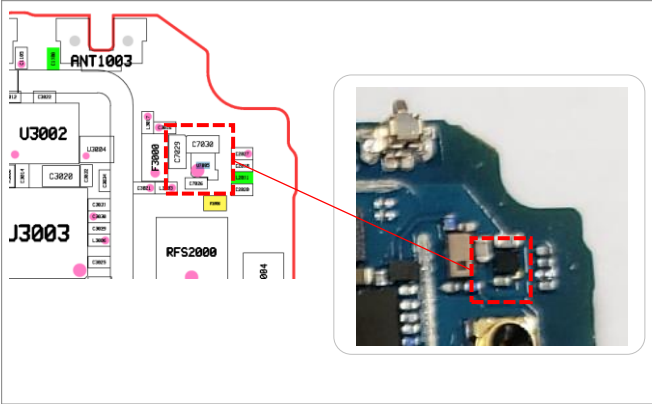
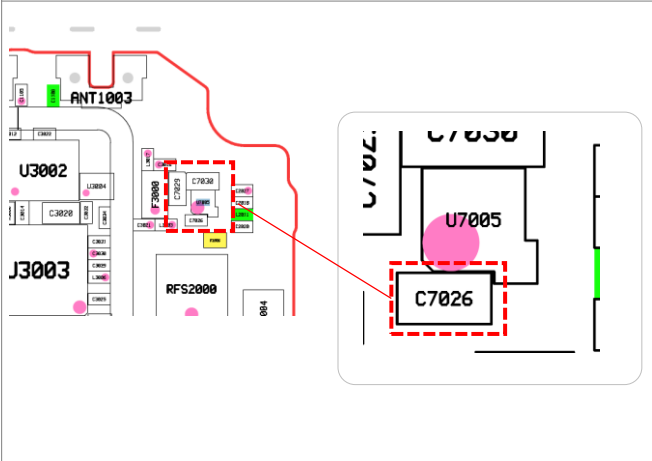
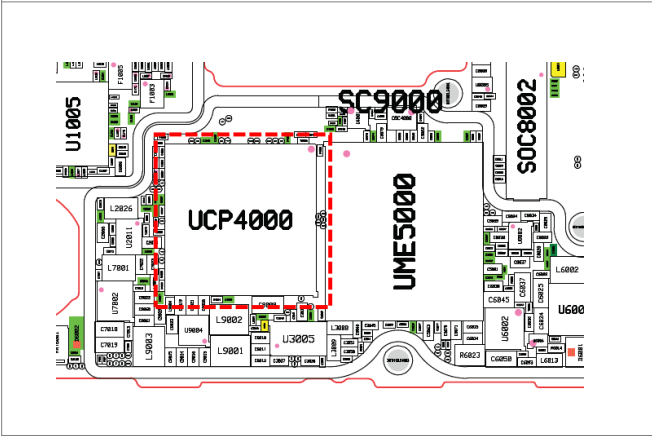
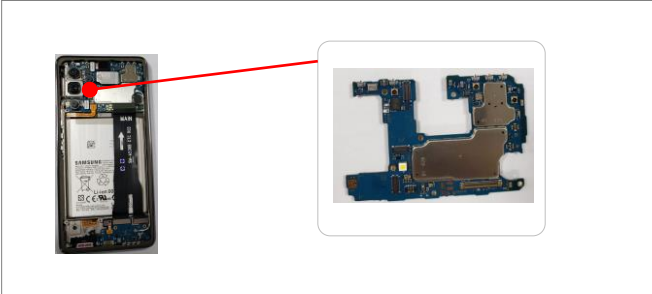
## 6-6-1. Magnetic Sensor Problem

- 1) Symptom
- Description : Magnetic Sensor does not work.
- 2) Defect Decision Conditions
- No response.

- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

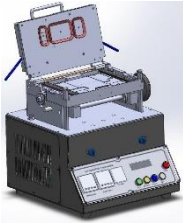
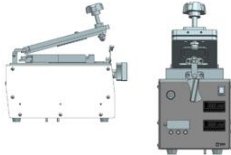

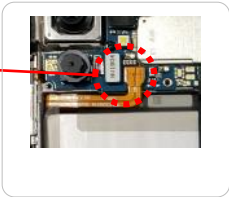
Image	Description
	<div>1. Disassemble the device.</div> <div>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</div>
	<div>[Attention]</div> <div>2. Disconnect Battery Connector at first.</div>

6-6-1. Magnetic Sensor Problem

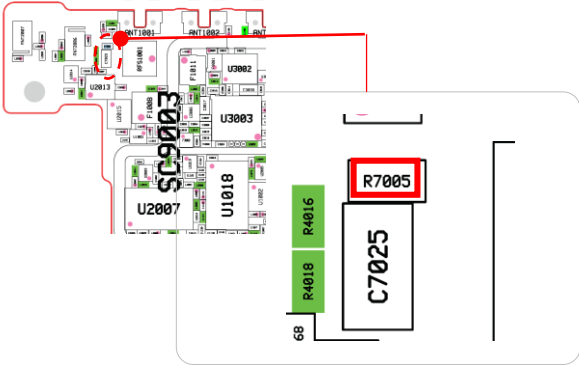
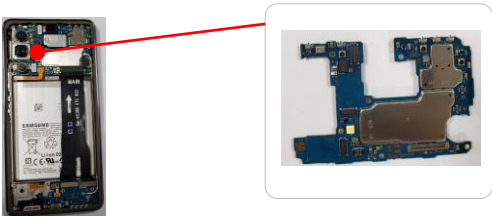
Image	Description
	<p>3. Check U7005 appearance(broken, chipping, scratch) on the PBA is OK. If so, replace U7005.</p>
	<p>4. Check 'Capacitors' nearby 'U7005' on the PBA as below. - VDD_L26M_SENSOR_1P8=1.8V (Ref. C7026)</p>
	<p>5. If not, replace UCP4000 and check the device.</p>
	<p>6. If not, finally, Exchange the Master PBA with new one and check the device.</p>

## 6-6-2. Ambient Sensor Problem

- 1) Symptom
- Description : Ambient Sensor does not work.
- 2) Defect Decision Conditions
- No response.
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<div>1. Disassemble the device.</div> <div>- Refer to '<u><b>Disassembly and assembly video guide for Galaxy A53 5G</b></u>' from the GSPN.</div>
<div></div> <div></div>	<div>[Attention]</div> <div>2. Disconnect Battery Connector at first.</div>

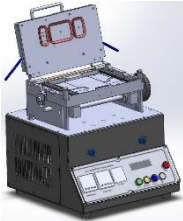
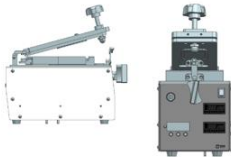

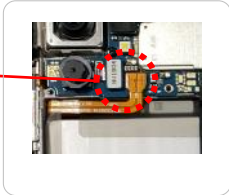
6-6-2-1. Ambient Sensor Problem

Image	Description
	<p>5. Check 'Capacitor' nearby 'RFS1001' on the PBA as below.</p> <ul style="list-style-type: none"><li>- VDD_L26M_SENSOR_1P8=1.8V (R7005)</li></ul> <p>6. Check its 'Power Level' is OK when it turned on.</p> <ul style="list-style-type: none"><li>- If not, replace PBA.</li></ul>
	<p>11. Exchange the PBA with new one and check the device.</p>

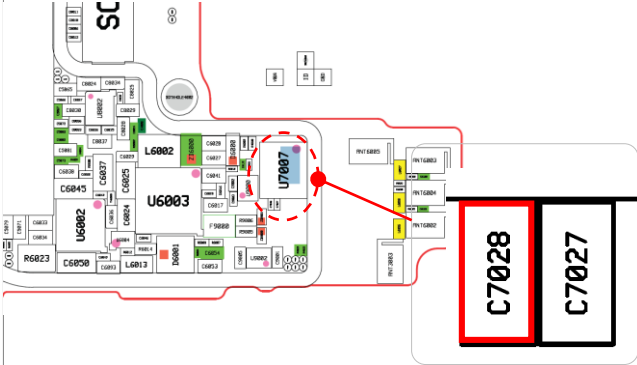
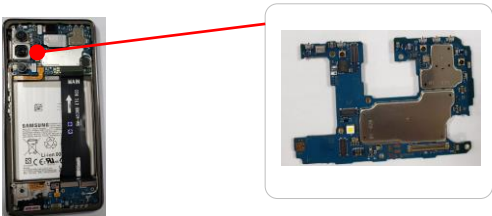


## 6-6-3. ACC&GYRO SENSOR

- 1) Symptom
  - Description : Ambient Sensor does not work.
- 2) Defect Decision Conditions
  - No response.
- 3) Repair Guide
  - **Caution : Disconnect battery connector first when it shows.**

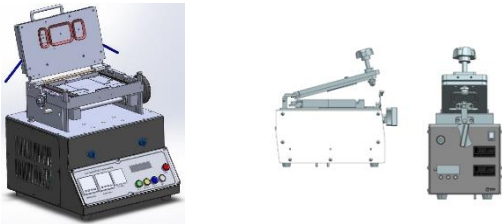
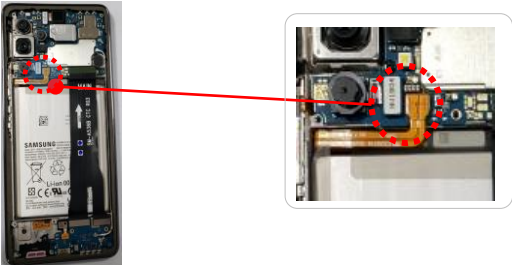
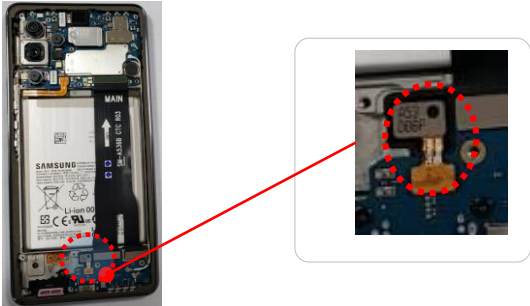
Image		Description
<div> [AOD Jig]</div> <div> [AOD mini]</div>		1. Disassemble the device. - Refer to ' <b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b> ' from the GSPN.
<div></div> <div></div>		<b>[Attention]</b>  2. Disconnect Battery Connector at first.

6-6-3-1. ACC&GYRO SENSOR

Image	Description
	<p>3. Check 'Capacitor' nearby 'U7007' on the PBA as below.</p> <ul style="list-style-type: none"><li>- VDD_L26M_SENSOR_1P8=1.8V (C7028)</li></ul> <p>4. Check its 'Power Level' is OK when it turned on.</p> <ul style="list-style-type: none"><li>- If not, replace PBA.</li></ul>
	<p>5. Exchange the PBA with new one and check the device.</p>

## 6-6-4. Finger Print Sensor Problem

- 1) Symptom
- Description : Finger Print Sensor does not work.
- 2) Defect Decision Conditions
- No response when you touch finger print sensing area.
- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

Image	Description
<div><div>[AOD Jig] [AOD mini]</div></div>	<div>1. Disassemble the device.</div> <div>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy</u></b>' from the GSPN.</div>
<div></div>	<div>[Attention]</div> <div>2. Disconnect Battery Connector at first.</div>
<div></div>	<div>3. Check the 'PBA ↔ Finger Key' connector and connect it again when it connected improperly.</div> <div>After that, connect battery connector again and check the Finger Print Sensor.</div>

6-6-4. Finger Print Sensor Problem

Image	Description
	<p>4. Disconnect Key connector and pretest with new Finger-Key first.</p> <p>If Finger module is trouble then disassemble SUS cover / Water proof tape.</p>
	<p>5. If not, check SUB PBA and exchange R102</p>
	<p>7. If not, finally, exchange the PBA with new one and check the device.</p>

# 6-7. Connectivity (WiFi, GPS, NFC)

## 6-7-1. Wi-Fi Connection Problem

- 1) Symptom
- Description : Wi-Fi Connection Problem after Wi-Fi On.

No Connection to AP or frequent disconnection



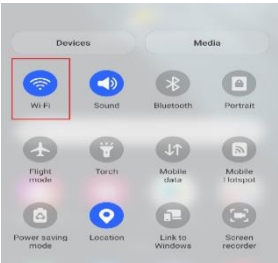
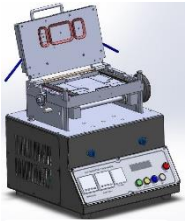
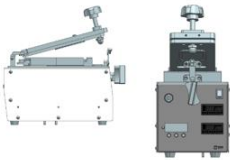
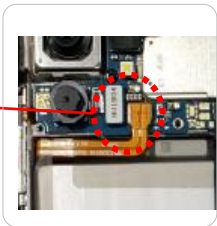

- 2) Defect Decision Conditions
- The phone shows Wi-Fi on without problem after rebooting.

- But It won't connect to AP or will be disconnected automatically after connection.

- Also, It shows weak wifi signal bar than normal device.

- Setting > WIFI > SCAN : Number of APs is less than normal device when searching AP

- 3) Repair Guide
- Caution : Disconnect battery connector first when it shows.

Image	Description
	<div>1. Check Wi-Fi Function On</div> <div>- Enable Wi-Fi function.</div> <div>- If it is ok, turn off the phone.</div>
<div><div>[AOD Jig]</div><div>[AOD mini]</div></div>	<div>2. Disassemble the device.</div> <div>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</div>
<div></div>	<div>3. Disconnect Battery Connector.</div>




# 6-7. Connectivity (WiFi, GPS, NFC)

## 6-7-1. Wi-Fi Connection Problem

Image	Description
	<p>4-1. Check the Wi-Fi antenna1 clip and change when you find defects (ANT1001)</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>4-2 Check the Wi-Fi antenna2 clip and change when you find defects (ANT3004)</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>5-1. Check the antenna1 matching components and change when you find defects (L1058, C1089, L1081, L1056 )</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>5-2 Check the antenna2 matching components and change when you find defects (C3000, L3000, L3002)</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>

# 6-7. Connectivity (WiFi, GPS, NFC)

## 6-7-1. Wi-Fi Connection Problem

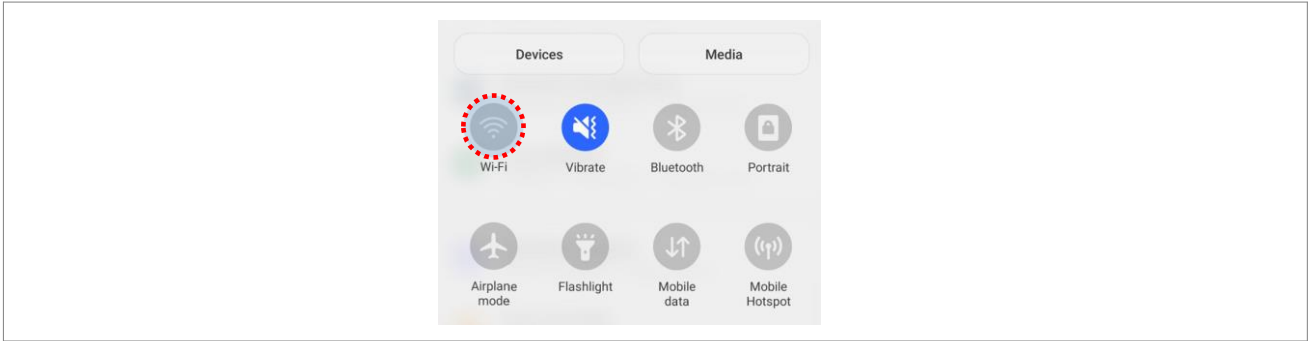
Image	Description
<div><div><ul style="list-style-type: none"><li>• Exchange the Front Assy</li></ul></div></div>	6. Replace the Front Assy with new one and check the Wi-Fi
<div><div></div></div>	7. If not, finally, Replace the Master PBA with new one and check the Wi-Fi



# 6-7. Connectivity (WiFi, GPS, NFC)

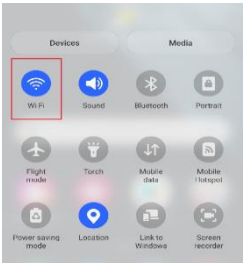
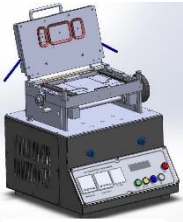
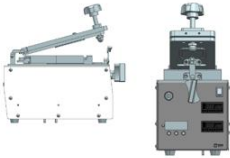


## 6-7-2. Wi-Fi On Problem

- 1) Symptom
  - Description : Can not enable Wi-Fi function



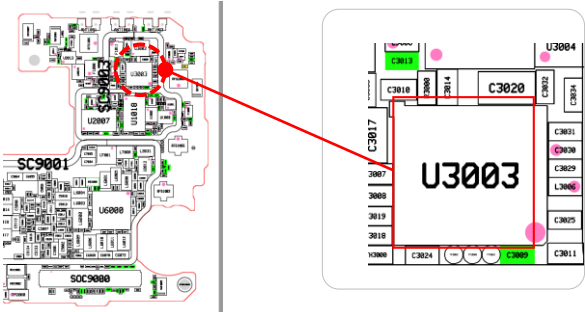
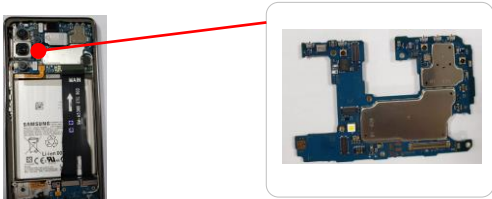
- 2) Defect Decision Conditions
  - You can not enable Wi-Fi function and Wi-Fi don't work

- 3) Repair Guide
  - **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<p>1. Check Wi-Fi Function On after reboot</p> <p>- If it is not ok, turn off the phone.</p>
<div><p>[AOD Jig]</p><p>[AOD mini]</p></div>	<p>2. Disassemble the device.</p> <p>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</p>
<div></div>	<p>3. Disconnect Battery Connector.</p>

# 6-7. Connectivity (WiFi, GPS, NFC)

## 6-7-2. Wi-Fi On Problem

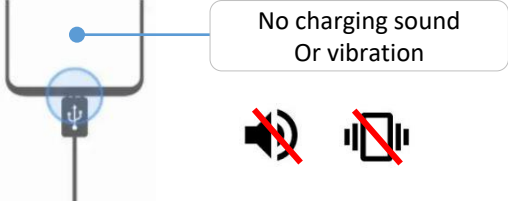
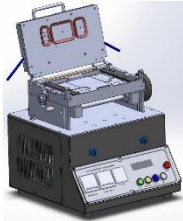
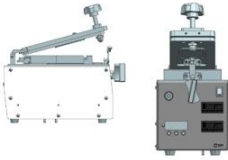



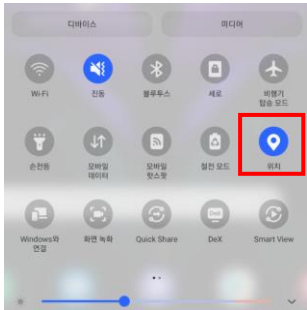
Image	Description
	<p>4. Check the Wi-Fi IC and change when you find defects (U3003)</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>5. If not, finally, Replace the Master PBA with new one and check the Wi-Fi</p>

## 6-7-3. GPS Problem

- 1) Symptom
- Description : Received GPS signal problem after GPS On.
- 2) Defect Decision Conditions
- The phone shows GPS on without problem after rebooting.

- But It won't receive GPS signal after GPS On.

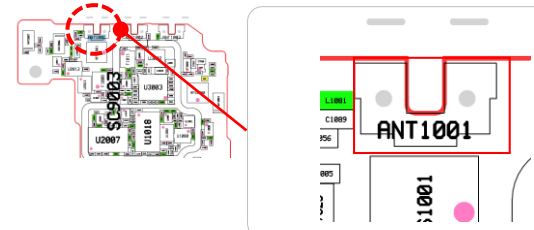
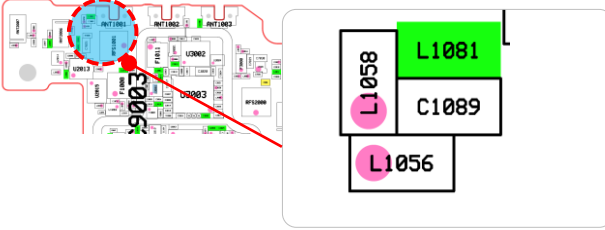
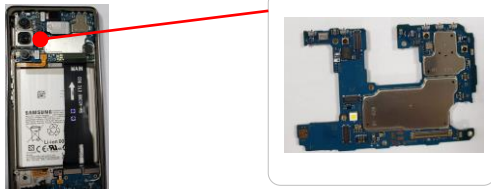
- Also, it shows weak performance than normal device while driving or using map
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<div>1. Check the charging notification sound or vibration when connected to charger.</div> <div><div>- Should be no sound and no vibration.</div><div>- The device keep 'No display' status.</div></div>
<div> [AOD Jig]</div> <div> [AOD mini]</div>	<div>2. Disassemble the device.</div> <div><div>- Refer to '<b>Disassembly and assembly video guide for Galaxy A53 5G</b>' from the GSPN.</div></div>
<div></div> <div></div> <div></div>	<div>3. Check the disassembled device for OOW.</div> <div><div>- Water damage.</div><div>- Part burnt. (Charging port, PBA, Battery and others)</div><div>- Broken traces and others.</div></div>
	<div>4. Check GPS is working properly</div> <div><div>- Setting - enable GPS function</div></div>

# 6-7. Connectivity (WiFi, GPS, NFC)

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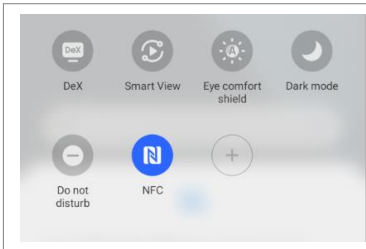
## 6-7-3. GPS Problem

Image	Description
	<p>2. Check GPS antenna clip (ANT1001) and change when you find defects around it.</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>3. Check Filter &amp; Series Comp &amp; LNA (L1058, L1081, C1089, L1056) and change when you find defects.</p> <ul style="list-style-type: none"><li>- Crack</li><li>- Open</li><li>- Damaged or broken traces and others</li></ul>
	<p>4. If the device is not working normally with new component, exchange the PBA.</p>

## 6-7-4. NFC

### 1) Symptom

- Description : NFC tag read failure or card emulation failure after NFC On.



### 2) Defect Decision Conditions

- check quick panel and check NFC on.
- if there isn't NFC icon it can appear by quick panel layout.
- NFC tag read fail or card emulation fail when NFC On.

### 3) Repair Guide



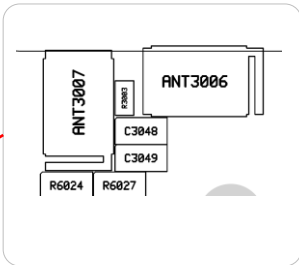

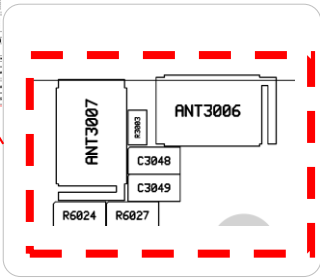


- **Caution : Disconnect battery connector first when it shows.**

Image		Description
		1. Check the backglass and cover. if there is metal material that interrupt NFC antenna, remove it. Recheck NFC function.
		2. Disassemble the device. - Refer to ' <b>Disassembly and assembly video guide for Galaxy A53 5G</b> ' from the GSPN.
		3. Check the NFC Antenna and Antenna contact.

NFC Ant connector

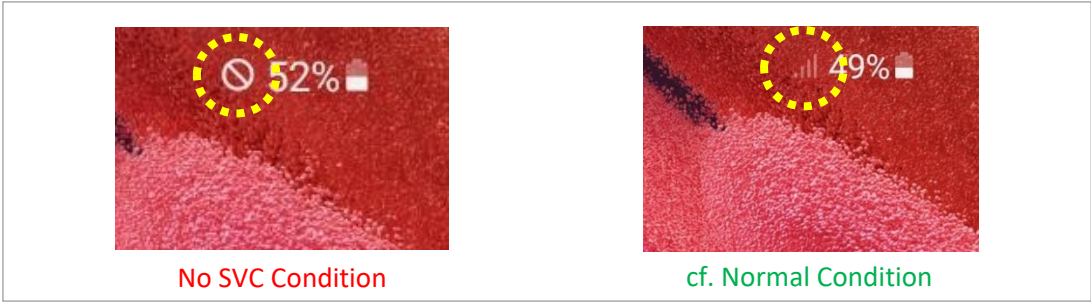
NFC Ant

### 6-7-4. NFC

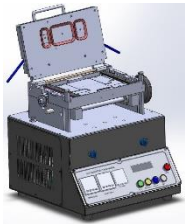
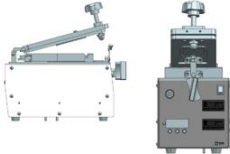
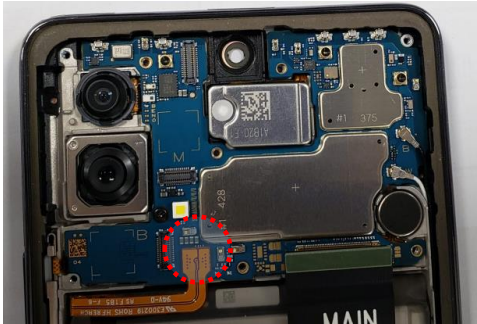
Image	Description
	4. Replace NFC antenna and check NFC.
 	5. Check NFC antenna Contact. (ANT3007, ANT3006) If there is Damage, replace contact
 	6. Check capacitors C3048, C3049, R3003, C3045 if there is crack or open, replace capacitor. Replace NFC IC U3005.
 	7. If the device is not working normally with new component, exchange the PBA.

6-8-1. NO SVC

- 1) Symptom
- Description : A prohibition mark shows on the right of the status bar instead of the antenna bars.



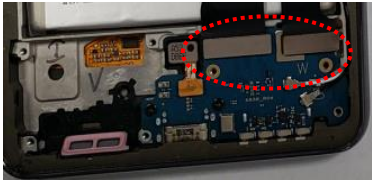

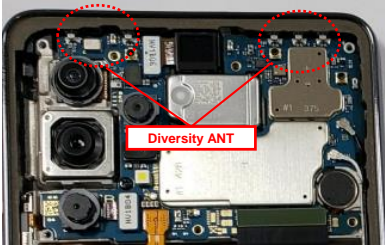
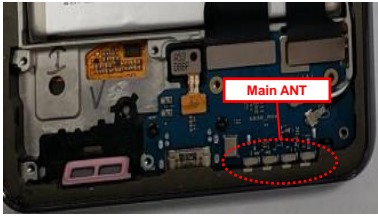


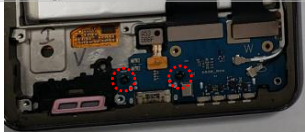


- 2) Defect Decision Conditions
- The phone continues to show this prohibition mark after rebooting or turning on and off airplane mode.
- Other phones around the phone maintain the normal condition.
- 3) Repair Guide
- **Caution : Disconnect battery connector first when it shows.**






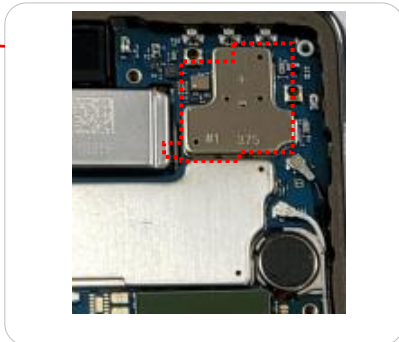
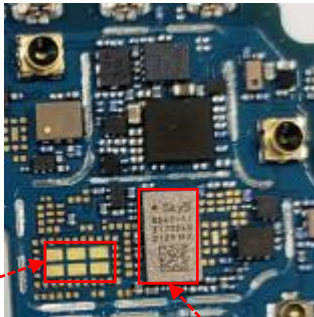
Image	Description
<div><p>[AOD Jig]</p></div> <div><p>[AOD mini]</p></div>	<div>1. Disassemble the device.</div> <div>- Refer to '<a href="#">Disassembly and assembly video guide for Galaxy A53 5G</a>' from the GSPN</div>
	<div>[Attention]</div> <div>2. Disconnect Battery Connector. at first.</div>



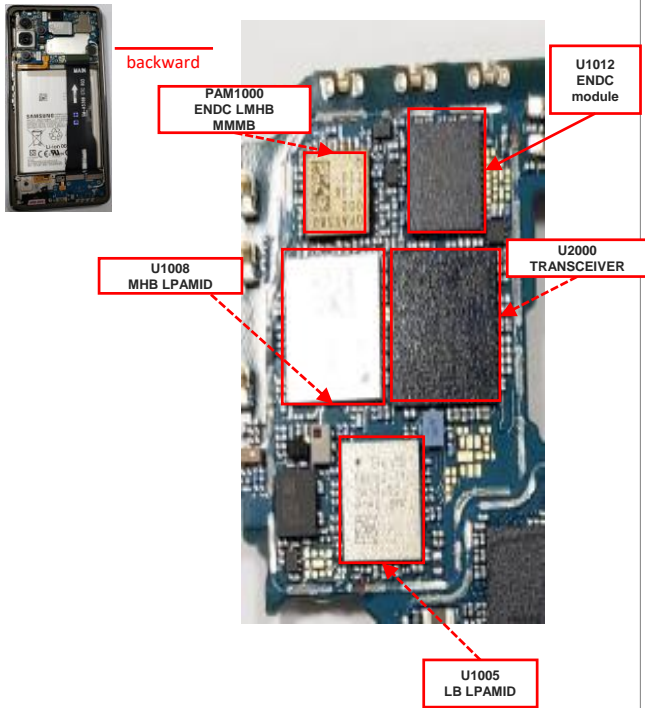
6-8-1. NO SVC

Image		Description
		<p>3. Check C to C FPCB connectors are OK.</p> <p>Also, check FPCB condition.</p> <ul style="list-style-type: none"><li>- Broken traces and others.</li><li>- Little particles or dust which can disturb connections.</li></ul>
		
		<p>4. Check Antenna C-clip is damaged.</p> <p>Also, check antenna contact points.</p>
		
		<p>5. Check Antenna screw is loosen.</p>
		

6-8-1. NO SVC

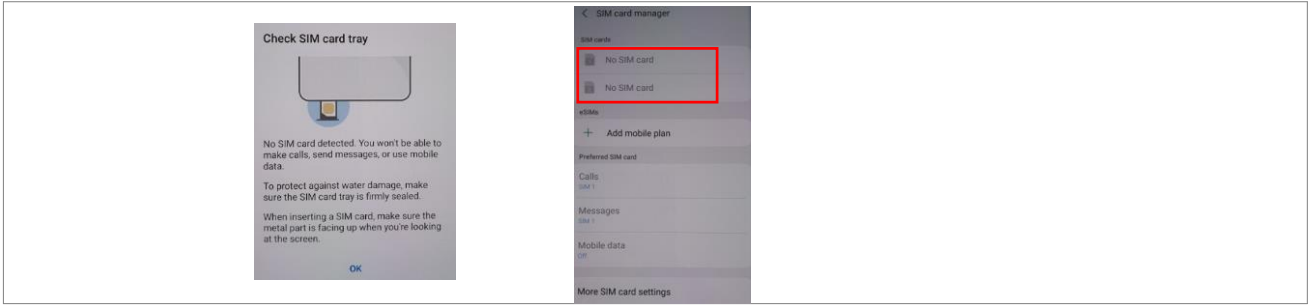
Image	Description
<div></div> <div></div> <div>FRC Cable</div>	6-1. Exchange the C to C FPCB with new one and check the device is working normally.
<div></div> <div></div>	6-2. If not, exchange the SUB PBA with new one and check the device
<div></div> <div></div> <div></div> <div>U2007 N79 PA (CHN/JPN)</div> <div>U1018 N78 LPAMID</div>	7. Check the soldering status of RF chips and other electronic components on the secondary PBA, and resolder it if the soldering status is not ok. After that, check the device is working normally.

6-8-1. NO SVC

Image	Description
	<p>8. Check the soldering status of RF chips and other electronic components on the master PBA, and resolder it if the soldering status is not ok. After that, check the device is working normally.</p> <p>If not, exchange the PBA.</p>

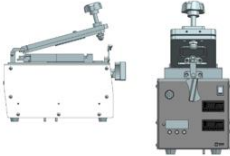
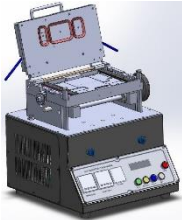
6-9-1. Abnormal USIM

- 1) Symptom
  - Description : USIM card is not recognized.

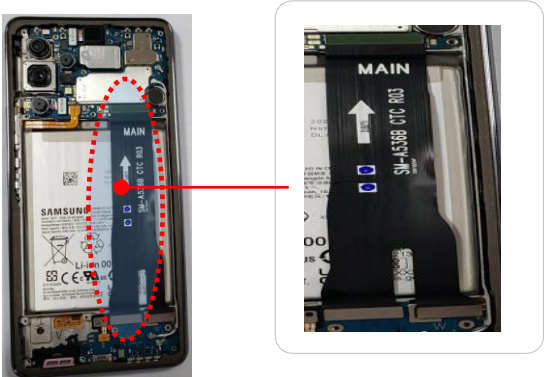
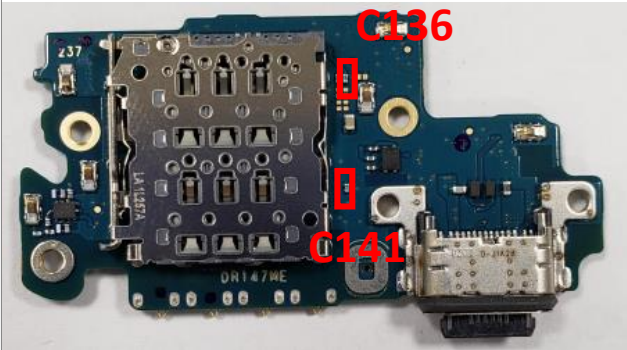
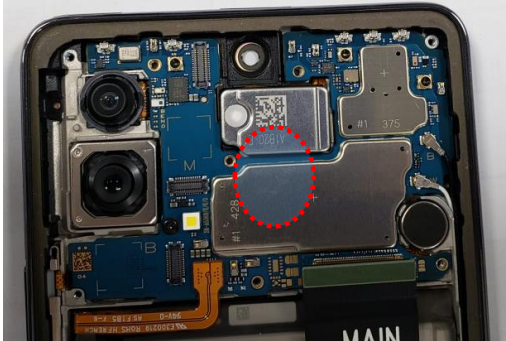


- 2) Defect Decision Conditions
  - The changed SIM card is not recognized.

- 3) Repair Guide
  - **Caution : Disconnect battery connector first when it shows.**

Image	Description
	<div>1. Check the USIM Card.<ul style="list-style-type: none"><li>- Check if there is any problem using a normal SIM card.</li></ul></div>
<div></div> <div>[AOD Jig]                      [AOD mini]</div>	<div>2. Disassemble the device.<ul style="list-style-type: none"><li>- Refer to '<b><u>Disassembly and assembly video guide for Galaxy A53 5G</u></b>' from the GSPN.</li></ul></div>
	<div>[Attention]</div> <div>3. Disconnect Battery Connector (Ref. SOC6000) at first.</div>

6-9-1. Abnormal USIM

Image	Description
	<p>4. Check the C to C FPCB for cracks or damage.</p> <p>Replace the C to C FPCB with new one and check the device.</p>
	<p>5. Check the voltage of SIM PBA</p> <ul style="list-style-type: none"><li>- C136 = 1.8 or 3.0V</li><li>- C141 = 1.8 or 3.0V</li></ul> <p>6. If the voltage checked is abnormal, replace the SUB PBA with new one and check the device.</p>
	<p>7. After that, check the device is working normally.</p> <p>If not, exchange the MAIN PBA. After that, check the device is working normally.</p>

# SAMSUNG

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