SERVICE MANUAL (TROUBLESHOOTING)

ORIGINAL MANUAL ISSUE DATE: 2023.12

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9-888-907-21

OLED TV

SONY

Sony EMCS (Malaysia) Sdn. Bhd. HES-M

MODEL LISTS

THIS SERVICE MANUAL CONTAINS **TROUBLESHOOTING** INFORMATION FOR BELOW MODELS:

Self Diagnosis Supported model

MODEL

XR-42A90K XR-48A90K

TABLE OF CONTENTS

Self Diagnosis Supported model

Please refer Service Manual (Disassembly) for below information:

- Tools and Equipments
- FFC Precautions
- Disassembly and Removal Caution
- Wire Dressing
- Circuit Board Location
- Exploded Views and Part Lists
- Smart Core
- Appendix - Sharp Edge
  - FFC Replacement Cautions

Note: Pictures provided in this manual may have difference from an actual sets

SAFETY NOTES

1-1. Warnings and Caution.

1) CAUTION: These servicing instructions are for use by qualified service personnel only.

2) To reduce the risk of electric shock, do not perform any servicing other than that stated in the operating instructions unless you are qualified to do so.

3) WARNING!!: An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line.

The replaceable fuse should be in the neutral of the mains supply. When replacing the fuse, the mains must be disconnected to de-energize the phase conductors.

(*Except AC ADAPTOR, Because it does not carry out replacing an internal fuse.)

4) CARRYING THE TV: be sure to follow these guidelines to protect your property and avoid causing serious injury:

• Carry the TV with an adequate number of people; larger size TVs require two or more people.

•Correct hand placement while carrying the TV is very important for safety and to avoid damages.

5) SAFETY-RELATED COMPONENT WARNING!!: Components identified by shading and ! mark on the exploded views, and in the parts list are critical for safe operations. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operations are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

6) IMPORTANT REMINDER FOR TV MAIN BOARD REPLACEMENT:

It is mandatory for service centers to confirm the TV‘s system information after each repair is carried out with Main board replacement.

Whenever a TV Main board is replaced, the correct TV Model and Serial number must be reinserted into memory.

This is a MANDATORY procedure that each service center must apply.

SAFETY NOTES

1-2. Caution for OLED Panel.

1) Handling.

When repairing the TV set, be sure you are grounded by using a wrist band.

*Do not press on the panel or frame edge to avoid the risk of electric shock.

*Do not scratch or press on the panel with any sharp objects.

*Do not leave the module in high temperatures or in areas of high humidity for an extended period of time.

*Do not expose the panel to direct sunlight.

*Avoid contact with water. It may cause a short circuit within the module.

*Disconnect the AC power when replacing.

*Always clean the panel with a soft cloth material.

*Use care when handling the wires or connectors. Damaging the wires may cause a short.

*Protect the panel from ESD to avoid damaging the electronic circuit.

*It is not recommended to POWER ON when the panel is laid facing down during repair activity. Refer Figure 1.

*When transporting by hand, do not put pressure on the panel and the frame around the screen.

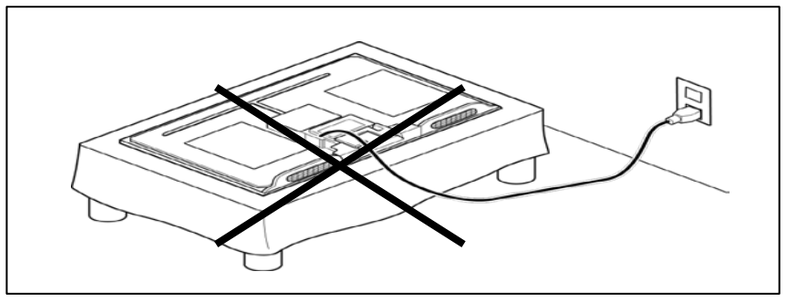


Figure 1.

Refer to the panel handling chapter of each Service manual, or the "Transporting" information of the Reference Guide of each model on how to hold it.

2) OLED Screen.

•Although the OLED screen is made with high-precision technology and 99.99% or more of the pixels are effective, black dots may appear or bright points of light (white, red, blue, or green) may appear constantly on the OLED screen. This is a structural property of the OLED screen and is not a malfunction.

•Do not push or scratch the front filter or place objects on top of this TV set. The image may be uneven, or the OLED screen may be damaged.

•The screen and cabinet get warm when this TV set is in use. This is not a malfunction.

3) Precautions to Protect the Screen from Damage.

Image retention.

OLED TVs are susceptible to image retention (burn-in) due to the characteristics of the materials used. Image retention may occur if images are displayed in the same location on the screen repeatedly or over extended periods of time. This is not a malfunction of the TV. Avoid displaying images that may cause image retention.

The following are examples of images that may cause image retention:

•Content with black bars either on the top and bottom and/or the left and right sides of the screen. (for example, Letterboxed, 4:3 screen, Standard definition).

•Static images such as photos.

•Video games that might have static content in some part of the screen.

•On-screen menus, program guides, channel logos etc.

•Static content from applications.

•On-screen tickers, such as those used for news and headlines.

SAFETY NOTES

To reduce the risk of image retention:

• Fill the screen by changing [Wide mode] to eliminate the black bars. Select [Wide mode] other than [Normal].

• Turn off the OSD (On Screen Display) by pressing the DISPLAY button and turn off the menus from connected equipment. For details, refer to the instruction manuals for the connected equipment.

• Avoid displaying static images with bright colours (including white), clocks or logos on any portion of the screen.

• Set the picture settings based on the ambient conditions. The Standard Picture is recommended for home use and when viewing content that often displays the station logos, etc.

The TV has following features to help reduce/ prevent image retention. Press the HOME button, then select [Settings] – [Picture & Display] – [Expert panel settings] – the desired option.

Panel refresh.

Panel refresh will automatically run to adjust the uniformity of the TV screen after it has been in use for long periods of time.

Panel refresh can also be performed manually and should only be used if image retention is very noticeable, or you see the following message: [Panel refresh did not finish...]

Caution:

• The Panel refresh function may affect the panel. As a reference, perform the Panel refresh only once a year, do not perform it more than once a year as it may affect the usable life of the panel.

• Panel refresh takes about one hour to complete.

• A white line may be displayed on the screen during the Panel refresh, this is not a malfunction of the TV.

• Panel refresh will only work when the room temperature is between 10ºC and 40 ºC.

Pixel shift.

Automatically moves the image on the screen to prevent image retention.

Other feature.

The screen brightness is automatically reduced when displaying still images, clocks, bright colours or logos etc.

1-3. Caution_for_Board_handling.

Symptom : The following problems will occur due to handling of the IC mounted on the board.

・Solder crack due to substrate handling (stress).

・IC breakdown due to static electricity (ESD).

When repairing the TV at the customer‘s home or service station or Repair of defect board, please pay attention to the handling of the board.

※Substrate that needs attention for handling

・Main Board（B** - Board）

・Backend Board（D** - Board）

SAFETY NOTES

※Things to prepare in advance.

ESD wrist-strap.

ESD cushion/sheet.

Please use a bag containing the board or a special seat.

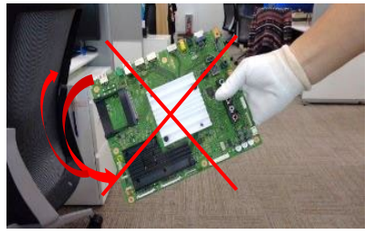
ESD wrist-strap to be checked daily.
Use Multi-meter to make sure resistance of ESD wrist-strap is OK.
(R=750K Ohms to 35Mega Ohms)

1) Caution for Board handling(Stress)
Be sure to observe the following contents.

① Hold the board with both hands.

② Do not hold/push Heat-Sink.

③ Handle with care. Do not swing.



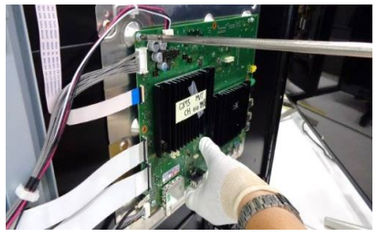
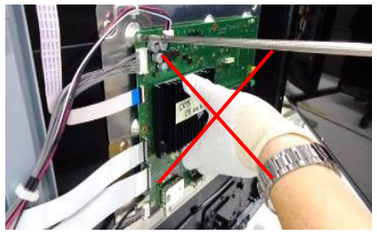
SAFETY NOTES

④ Regardless of Good board or Defective board, always put it on ESD cushion/sheet slowly.


⑤ Do not stack up.

⑥ Keep vertical position and put in/take out from Box.
Always put into ESD bag then place into Box/Container Box.

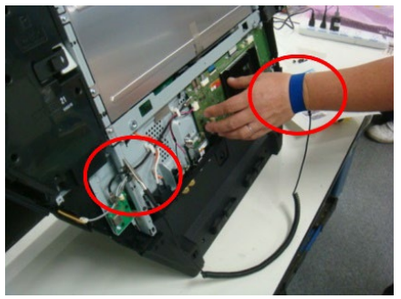
⑦Do not hold Heat-Sink when dis-assembly or assembly it.

2) Caution for Board handling(ESD).
Be sure to observe the following contents.

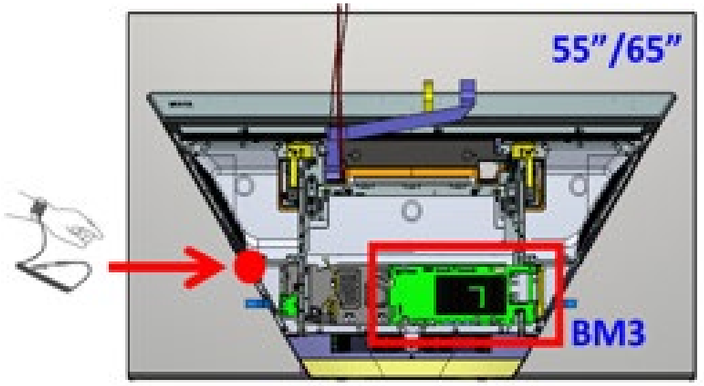
① When take off Rear-Cover, do not touch to board.

② Use ESD wrist-strap.



SAFETY NOTES

※Installation example of wrist-strap.
Please connect the clip to the metal part of the chassis of the TV with the wristband grounded. Below is a grounding example of each model.



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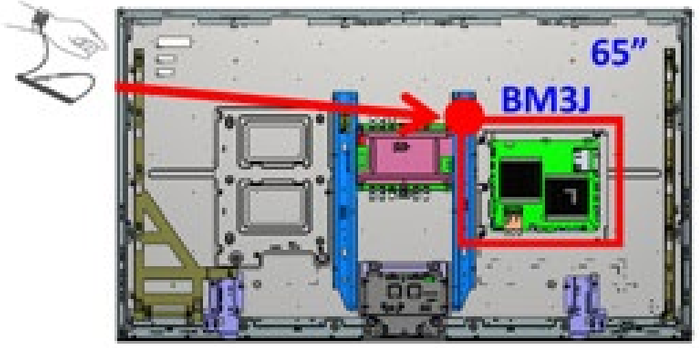


※Caution
ESD wrist-strap to be checked daily.
Use Multi-meter to make sure resistance of ESD wrist-strap is OK.(R=750K Ohms to 35Mega Ohms).

③ When holding board, do not hit/touch to Plastic part(s).

④ After take defective board out from TV, put it into ESD bag.
Do not place on floor mat/carpet direct. And, always put it on ESD cushion.

1-4. Caution About the Lithium Battery.

1) Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

2) Outer case broken battery should not contact to water.

SAFETY NOTES

1-5. Safety Check-Out

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:-

1) Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2) Check the inter board wiring to ensure that no wires are pinched or contact high-wattage resistors.

3) Check all control knobs, shields, covers, ground straps and mounting hardware have been replaced. Be absolutely certain you have replaced all the insulators.

4) Look for unauthorized replacement parts, particularly transistors that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5) Look for parts which show obvious signs of deterioration even though functioning. Point them to the customer and recommend for replacement.

6) Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7) Check the antenna terminals, metal trim, metalized knobs, screws and all other exposed metal parts for AC leakage. Check leakage test as described next.

8. For safety reasons, repairing the Power board and/or Inverter board is prohibited.

1-6. Leakage Test.

(To protect electric shock when customer touch the terminal.).

Leakage current can be measured by V: Voltmeter or oscilloscope (r.m.s. or peak reading).

Stabilized power supply instrument and isolated voltage transformer:

Use too much current capacity and isolated voltage transformer does not need to use stabilized power supply equipment.

Specification of RMS voltmeter: Input resistance > 1 Mohm, Input capacitance < 200 pF, Frequency range: 15 Hz – 1MHz . Refer Figure 2. Isolated type volt -meter (FLUKE 8921A etc *1).

*1 Not use FLUKE 8920A that connected to protective earth by diode.

Leakage current of measurement instrument is less than 10μArms when under test equipment AC plug is opened.

Set up the following condition and turn on the set. Applied voltage: Nominal input voltage (Description on Nameplate).

Measure the leakage current between one phase conductor and neutral for terminal A and terminal B.

Read rms value, and then calculate to peak value PEAK VALUE =√2 RMS VALUE.

Comply with the following requirement.

Class II equipment (2-pin plug): for each terminal, the worst value of measurement must not exceed AC 350uA peak).

Note: including AC adaptor, AC adaptor/DC operated unit combination.

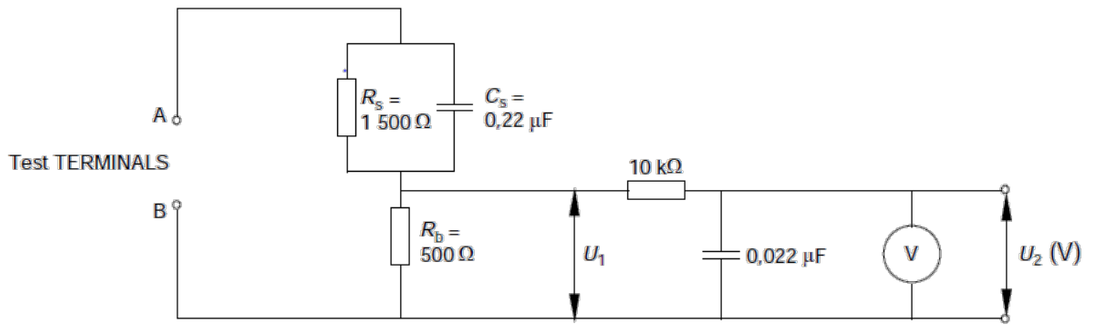


Figure 2 – Measuring network for Leakage Current

SAFETY NOTES

1-7. How to Find a Good Earth Ground.

1) A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground.

2) If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

3) If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble- light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure 3).

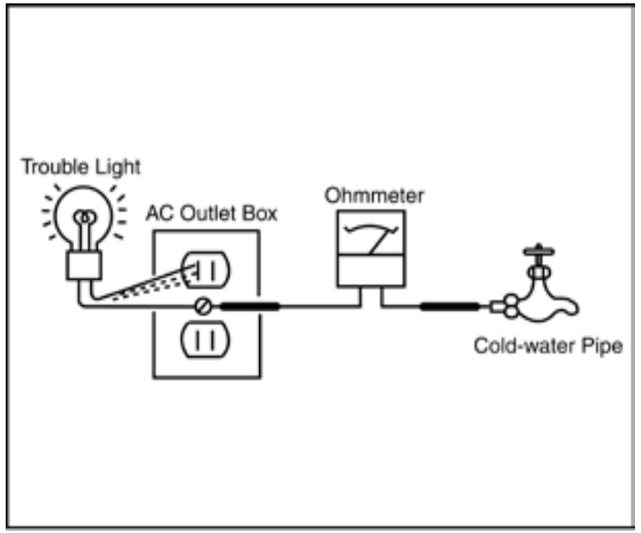


Figure 3. Checking for earth ground.

1-8. Lead Free Information

The circuit boards used in these models have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation.

Figure 4: LF Logo

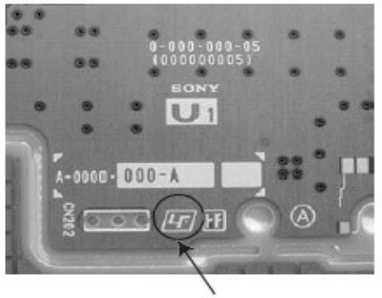


Figure 5: LF logo on circuit board

The servicing of these boards requires special precautions. It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints.

SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the Smart Core Red LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem.

A definition of the Smart Core Red LED flash indicators is listed in the instruction manual for the user's knowledge and reference.
If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

DIAGNOSTIC TEST INDICATORS

When an error occurs, the Smart Core Red LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.
Result for all of the following diagnostic items are displayed on screen. If the screen displays a "0", no error has occurred .

Self Diag. Quick Reference (LED blinking)

Smart Core RED LED blinking count	Error Item	Detection Items
2x	MAIN_POWER	<B/G> Main 12V over voltage
3x	DC_ALERT	<B/G> Main 5.0V failure
	AUD_ERR	<B/S/G> Audio amp. protection
4x	*LD_ERR*	<P/T/B/G>TCON internal error/TCON I2C communication failure
	BCM_ERR	<P/T/G/B> EVDD failure
5x	*P_ID_ERR*	<P/T/G/B> *Panel ID EEPROM I2C No ACK* *(Also panel power failure is a suspect)* <T/B>*Data corruption in EEPROM*
6x	BACKLIGHT_ERR	<P/G/B> EVDD over voltage
7x	TEMP_ERR	<P/B> Over temperature protection
8x	4KBE_ERR	<B> 4KBE failure (4KBE WDT)

Blue italic: detect at startup sequence only.
<G>: Power Supply board, <B>: Main board, <T>: T-con board, <P>: Panel module, <S>: Speaker

SELF DIAGNOSIS FUNCTION

Self Diag. Quick Reference (Not LED blinking [Record Only])

Error Item	Detection Items
AUD_ERR_I2C	<B> Audio amp I2C communication failure
TEMP_ERR_I2C	<B/H> Temp sensor I2C communication failure
TU_DEMOD_I2C	<B> Tuner & Demodulator I2C communication failure

Notes :
<B>: Main board, <H>: LED / IR & sensor board

SELF DIAGNOSIS FUNCTION

Retry Limitation by Remote/Power Key

Smart Core Red LED blinking count	Error Name	Retry Permission Times *1	Note
2x	MAIN_POWER	STDWN_RTRY_LIMIT_MAINPOWR = 1	
3x	DC_ALERT (5V)	STDWN_RTRY_LIMIT = 2	
	AUD_ERR	STDWN_RTRY_LIMIT = 2	
4x	LD_ERR	STDWN_RTRY_LIMIT = 2	
	BCM_ERR	STDWN_RTRY_LIMIT = 2	
5x	P_ID_ERR	STDWN_RTRY_LIMIT = 2	
6x	BACKLIGHT	STDWN_RTRY_LIMIT = 2	
7x	TEMP_ERR	STDWN_RTRY_LIMIT = 2	
8x	4KBE_ERR	STDWN_RTRY_LIMIT = 2	

Number of off/on action for MAIN_POWER shutdown is recorded to STDWN_OFFON_CNT_MAIN_POWER.

Number of off/on action during the error shutdown is recorded to STDWN_OFFON_CNT.

*1) If STDWN_OFFON_CNT <= STDWN_RTRY_LIMIT, and STDWN_OFFON_CNT_MAIN_POWER <= STDWN_RTRY_LIMIT_MAINPOWR, you can turn the set on by a remote/power key. At this time, if the error occurs again, the STDWN_OFFON_CNT is incremented by 1.

*2) When the main micro operates normally for STDWN_OFFON_CLR = 60 minutes, STDWN_OFFON_CNT and STDWN_OFFON_CNT_MAIN_POWER are cleared.

TROUBLESHOOTING

Triage Chart

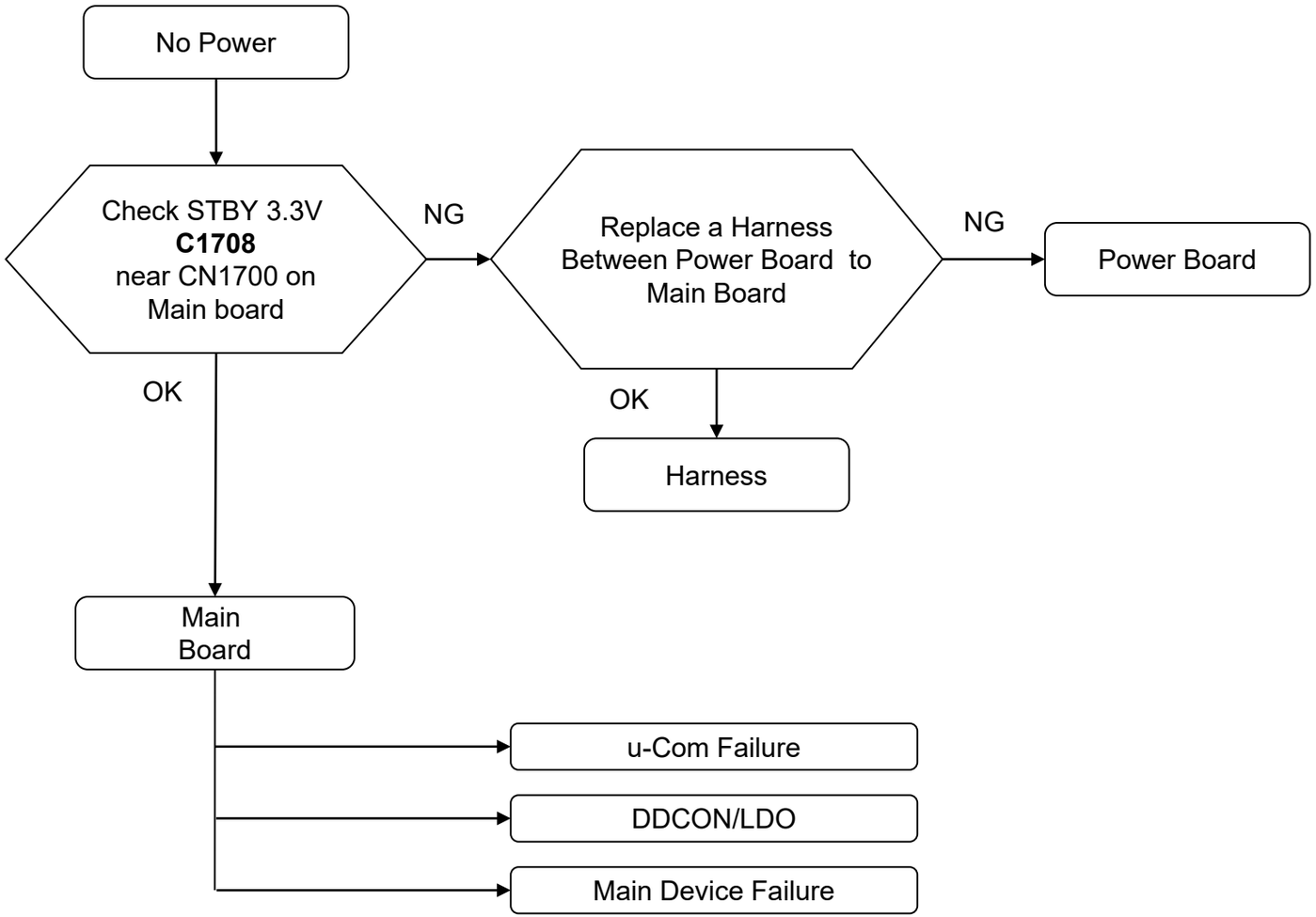
Before you make the service call:

1. Confirm the symptom from the customer.
2. Select that symptom from the chart.
3. Bring all the boards and cables listed for that symptom.
4. Follow the troubleshooting charts in the technical guides to isolate the board.
5. Chart Color Code: ● : Most likely defective part ■ : Tertiary possible defective part
   ▲ : Secondary possible defective part BLACK TEXT: Board that may correct the symptom

Reference	Symptoms - Shutdown. Power LED blinking red diagnostics sequences							Symptoms - no shutdown Error log record only									No Power	Video - missing or distorted					Remote	Network	Audio	Smart Core	Bluetooth (BT)
	2	3	4	5	6	7	8	TU_ DEMOD	TU_ DEMOD _I2C	TCON _ERR	FRCTC _I2C	AUD _ERR _I2C	4KPQ _ERR _I2C	TEMP _ERR _I2C	EARC _ERR _I2C	8KBE _COM _ERR	AMB _ERR _I2C	No White Power LED & does not respond to remote (Dead Set)	Stationary colored lines or dots	No video One of Inputs	NO RF input	No video of Camera	No video all Inputs	No Remote Operation	Cannot connect to Wireless Network	No Audio	Smart Core no LED (Set is still alive)	Bluetooth / One Step Remote (OSR) can't connect
Main Board	▲	●	■	■	■	●	●		●			●		▲				▲	▲	●	●	▲	●	▲	▲	●	▲	▲
Power Board	●	▲	■	■	▲													●					▲			▲		
Receiver Board														●				▲						●			●	
Actuator (Panel module)		▲																								●		
Speaker (Sub-woofer)		▲																								●		
Wi-fi & BT Module																									●			●
V By One FFC				▲															▲				▲					
T-con (Panel module)			▲	●															▲				■					
OLED Panel (Panel module)			●	▲	●	▲													●				■					
Camera (accessory)																						●						
Problem	Power	Power Audio	Panel module T-con Power	Panel (Communication) T-con	Panel Power	TEMP	4KBE																					

TROUBLESHOOTING

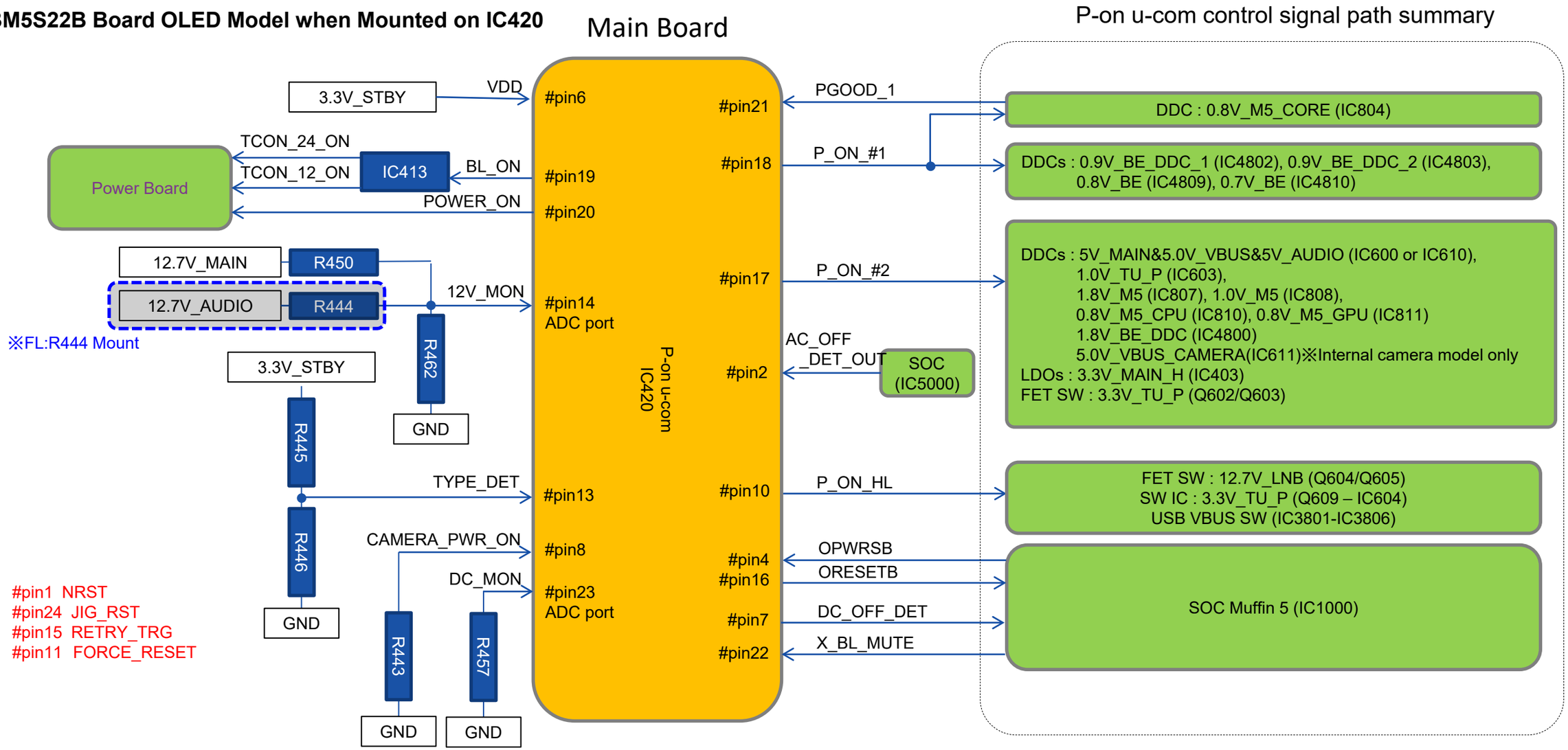
1.0 No Power



TROUBLESHOOTING

1.2 No Power u-com Failure

BM5S22B Board OLED Model when Mounted on IC420



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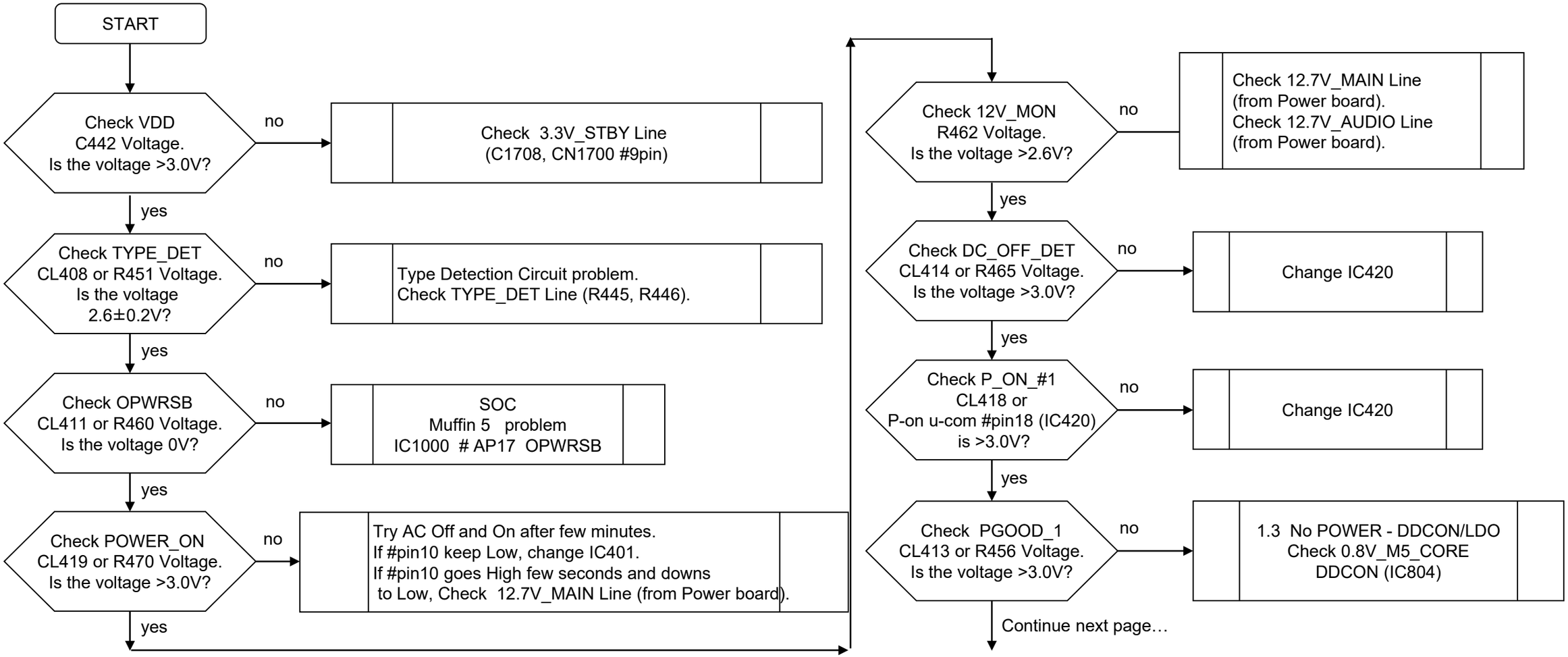
BM5S22B Board OLED Model when Mounted on IC420



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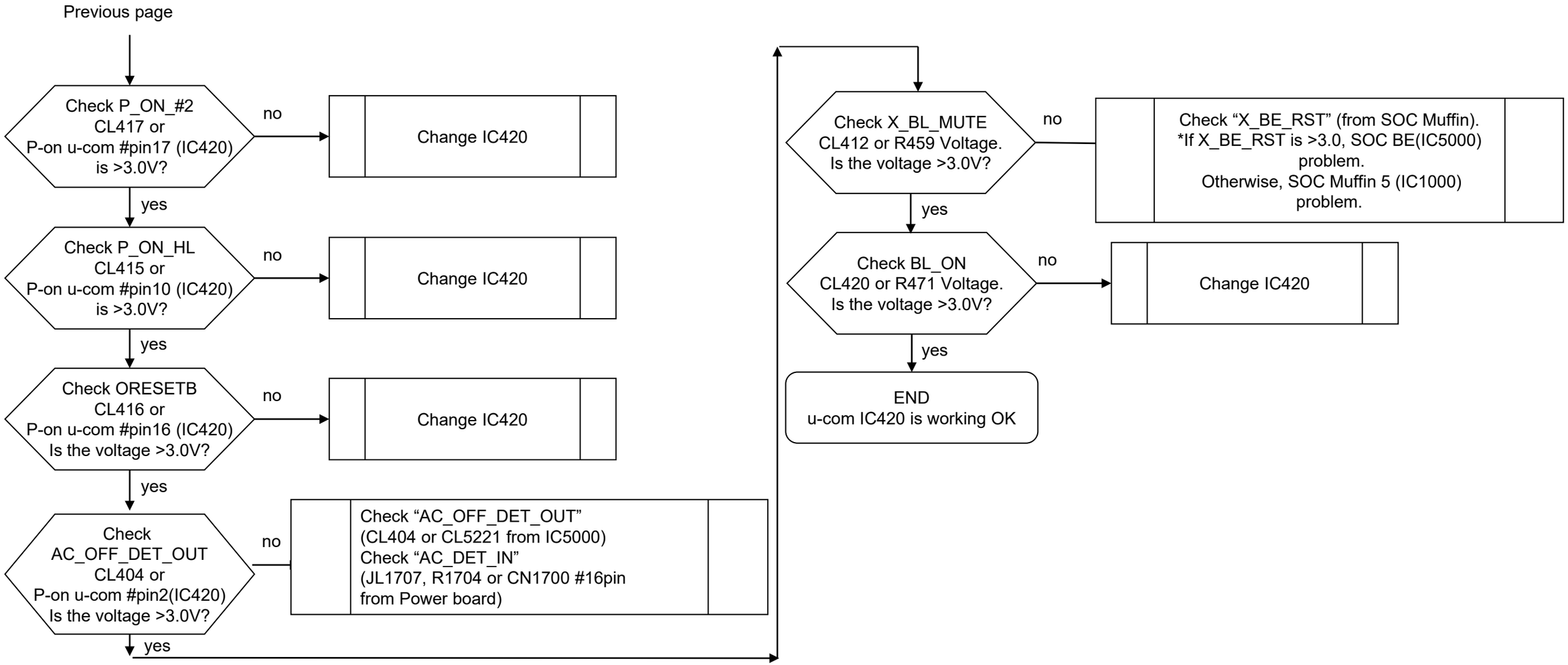
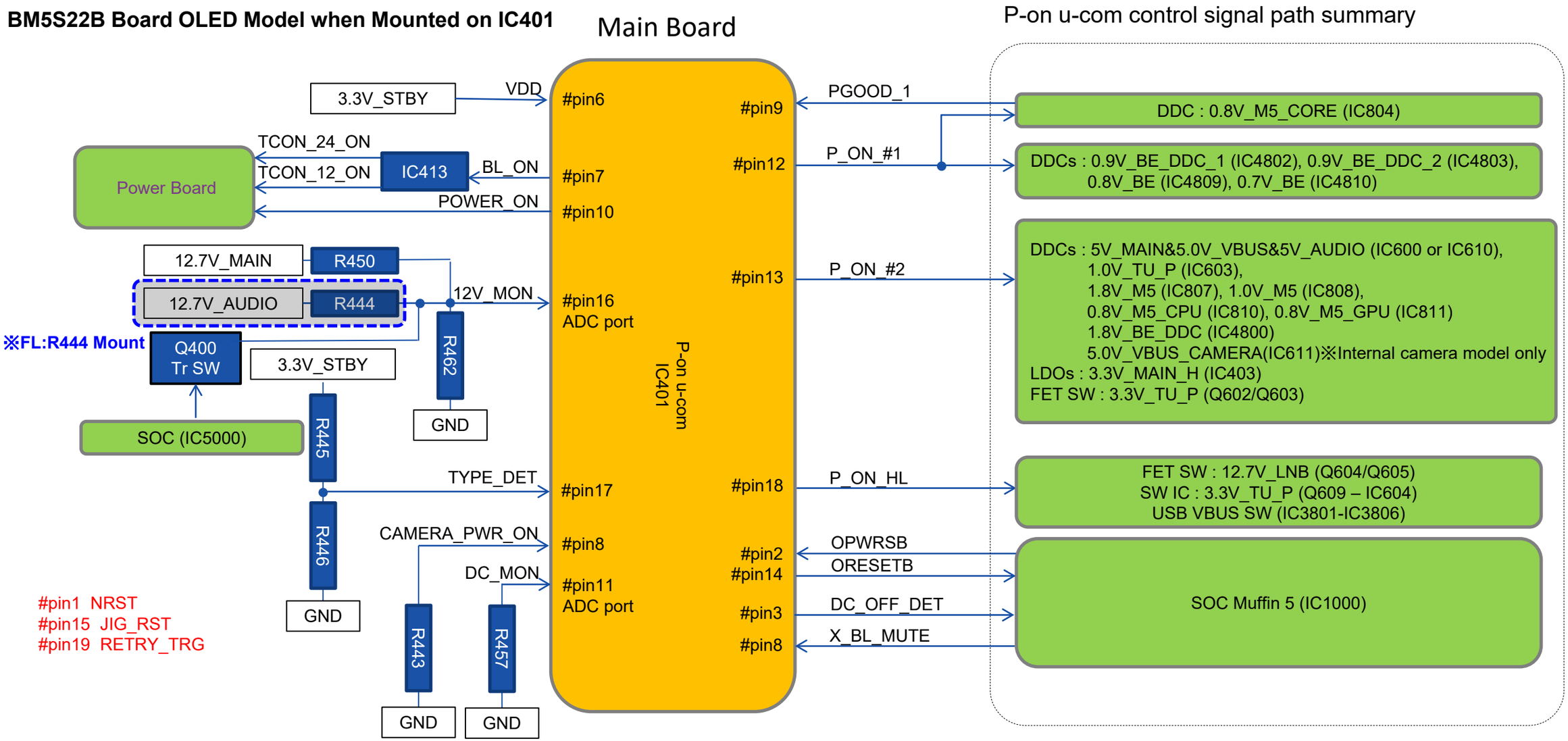
BM5S22B Board OLED Model when Mounted on IC420



TROUBLESHOOTING

1.2 No Power u-com Failure

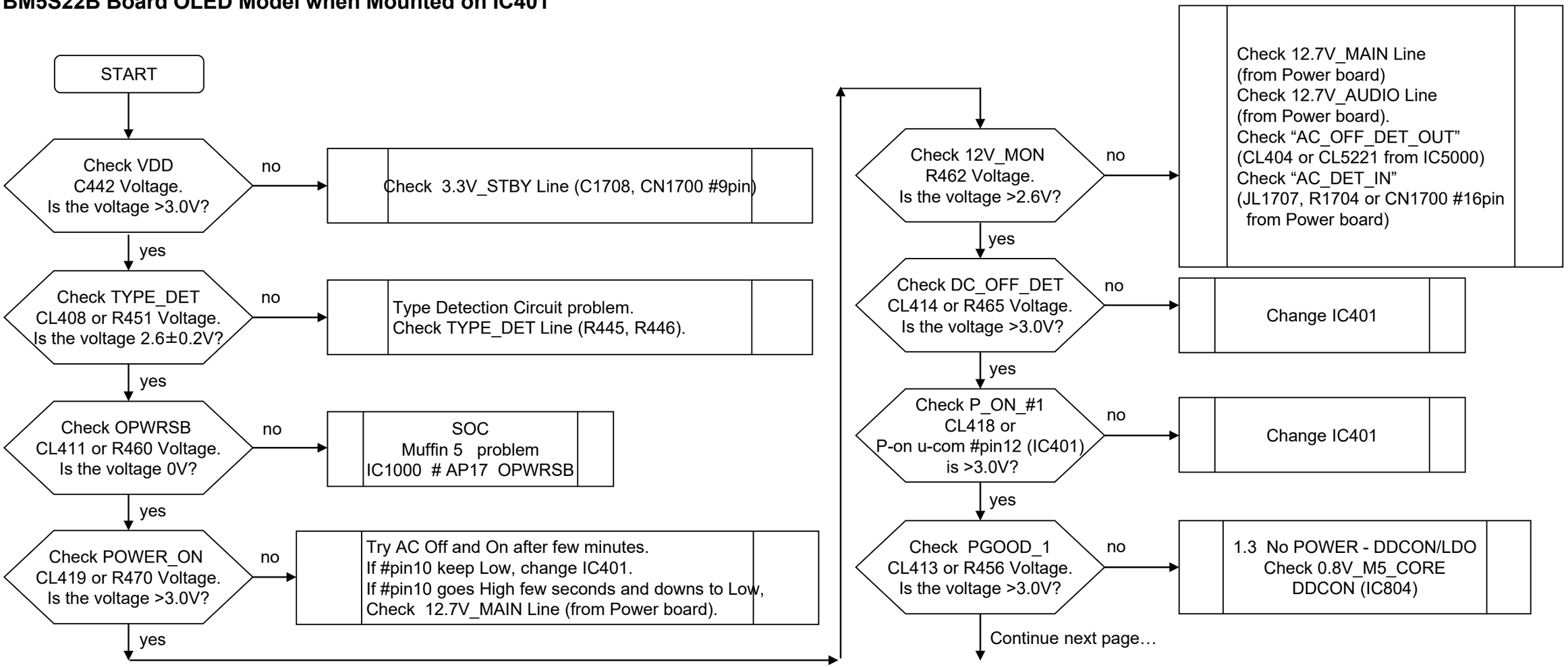
BM5S22B Board OLED Model when Mounted on IC401



TROUBLESHOOTING

1.2 No Power u-com Failure

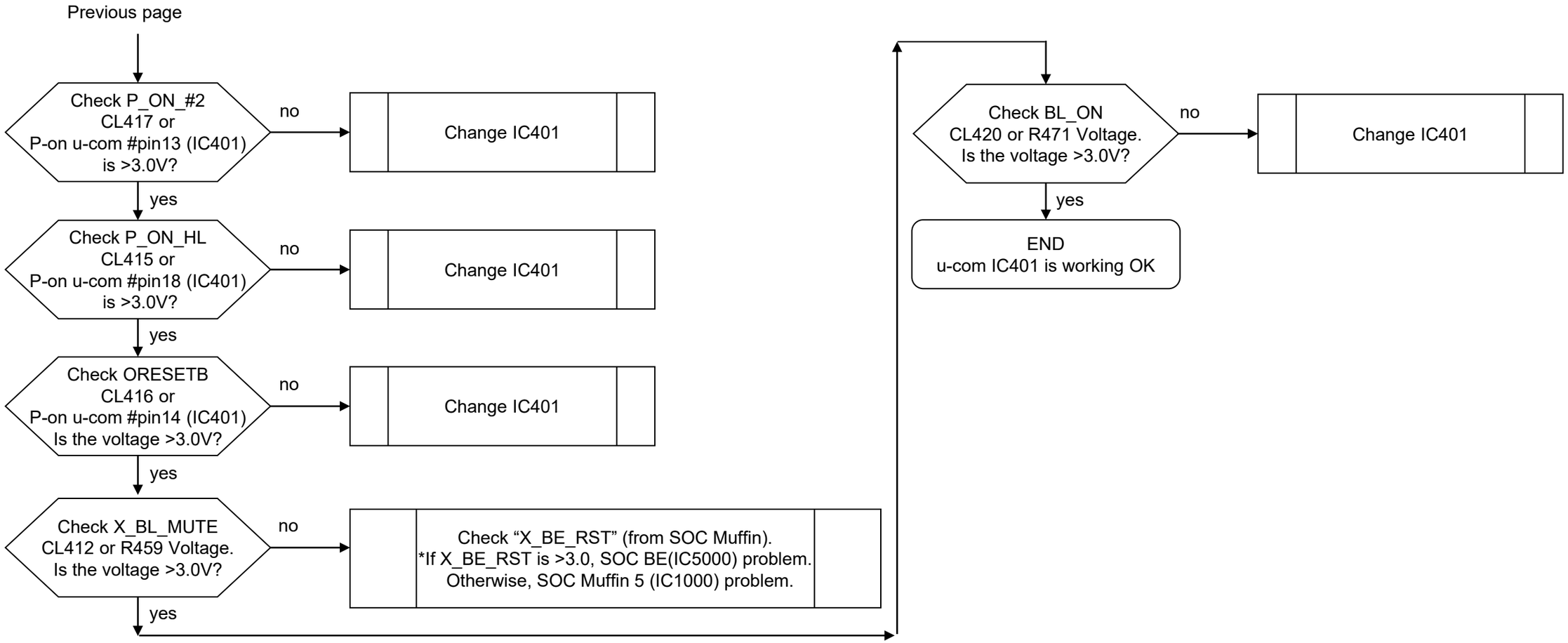
BM5S22B Board OLED Model when Mounted on IC401



TROUBLESHOOTING

1.2 No Power u-com Failure

BM5S22B Board OLED Model when Mounted on IC401



TROUBLESHOOTING

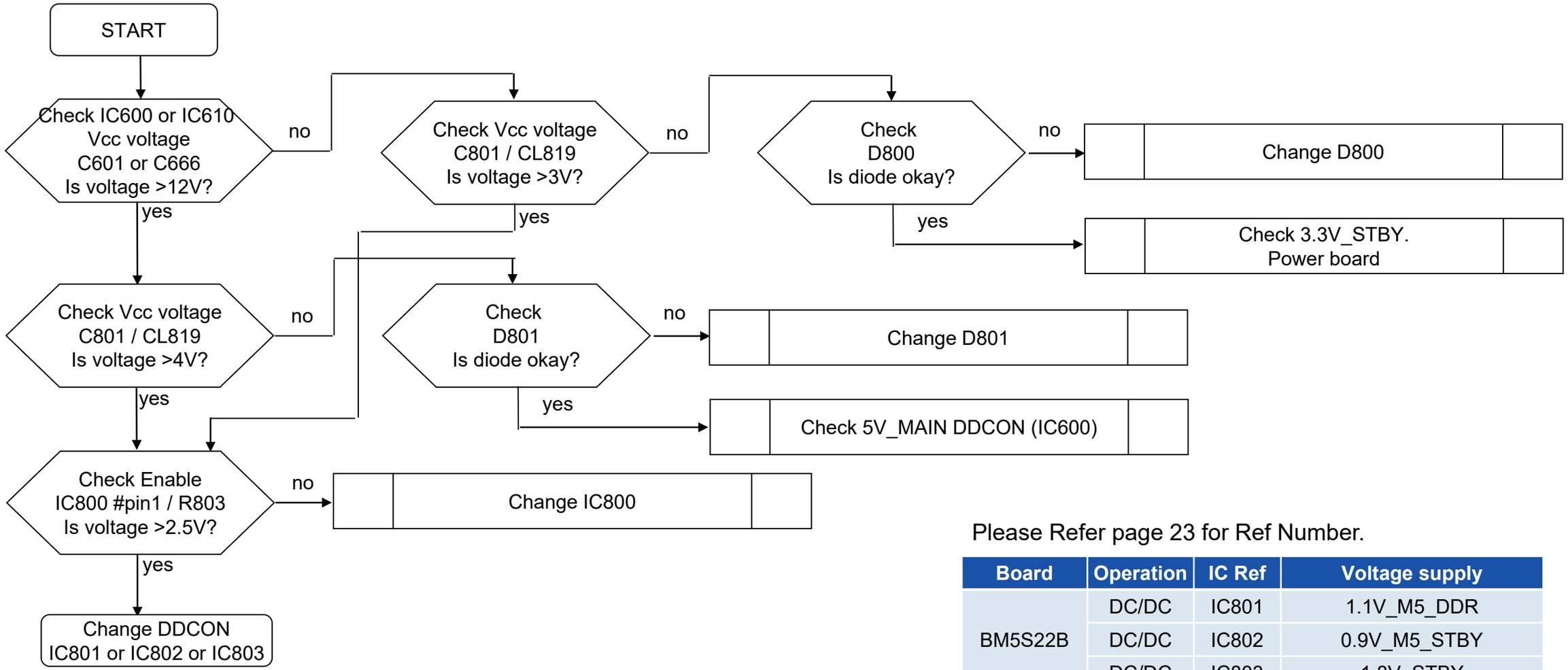
1.3 No Power DDCON/LDO

Board	Operation	IC Ref	Voltage supply	Output ref.	Enable pin	Enable source	Fuse	Vcc ref.
BM5S22B	DC/DC	IC418 or IC419	5.0V_STBY_H	C508 or C514 /JL1212	R557	R557(3.3V_STBY)	-	C505 or C511
	LDO	IC403	3.3V_MAIN_H	C416/CL402	R413(shorted)	P_ON_#2	-	C415
	DC/DC	IC600 or IC610	5V_MAIN/5V_AUDIO	C610 or C673/JL601	R600 or R670/ CL604 or CL615	P_ON_#2	F600 or F602	C601 or C666
	DC/DC	IC601	3.3V_MAIN/3.3V_AUDIO	C619/JL603	R658/CL605	R658(1.8V_BE_DDC)	F601	C618
	DC/DC	IC603	1.0V_TU_P	C630/CL607	R631(shorted)/JL607	P_ON_#2 or IC1000 #AL18 (EWS_PWR_ON)	-	C628
	DC/DC	IC611	5.0V_VBUS_CAMERA	C682/JL635	R681/CL616	P_ON_#2	F603	C681
	DC/DC	IC801	1.1V_M5_DDR	C806/JL801	R913(shorted)	R804/R907 (3.3V_STBY)	-	C801/CL819
	DC/DC	IC802	0.9V_M5_STBY	C809/CL803	R908(shorted)	R804/R907 (3.3V_STBY)	-	C807/CL822
	DC/DC	IC803	1.8V_STBY	C812/CL811	R822(shorted)	R804 (3.3V_STBY)	-	C810/CL824
	DC/DC	IC804	0.8V_M5_CORE	C846/JL803	R849(shorted)/CL816	P_ON_#1	F802	C831
	LDO	IC806	1.8V_M5_ET_STBY	C818/JL808	R832(shorted)	IC1000 #AN19 (ETHER_PWR_EN)	-	C817/CL826
	DC/DC	IC807	1.8V_M5	C823/JL811	R833(shorted)/CL827	P_ON_#2	F800	C822
	DC/DC	IC808	1.0V_M5	C829/JL813	R839(shorted)/CL828	P_ON_#2	F801	C828
	LDO	IC809	3.3V_M5_STBY	C816/CL831	R917	R917(3.3V_STBY)	-	C815
	DC/DC	IC810	0.8V_M5_CPU	C861/JL816	R914/CL829	P_ON_#2	F803	C855
	DC/DC	IC811	0.8V_M5_GPU	C874/JL818	R915/CL830	P_ON_#2	F804	C868
	DC/DC	IC4800	1.8V_BE_DDC	C4805/JL4801	R4801(shorted)/CL4816	P_ON_#2	F4800	C4803
	DC/DC	IC4801	1.1V_BE	C4813/JL4803	R4907/CL4817	R4907(1.8V_BE_DDC)	F4801	C4812
	DC/DC	IC4802	0.9V_BE_DDC_1	C4820/JL4805	R4819(shorted)/CL4818	P_ON_#1	F4802	C4819
	DC/DC	IC4803	0.9V_BE_DDC_2	C4828/JL4807	R4827(shorted)/CL4819	P_ON_#1	F4803	C4827
	DC/DC	IC4809	0.8V_BE	C4860/JL4819	R4849(shorted)/CL4808	P_ON_#1	F4804	C4845
	DC/DC	IC4810	0.7V_BE	C4878/JL4821	R4865(shorted)/CL4811	P_ON_#1	F4805	C4863

P_ON_#1 : P-on u-com IC401 #pin12
P_ON_#2 : P-on u-com IC401 #pin13

TROUBLESHOOTING

1.3 No Power DDCON/LDO (DDCON Check)

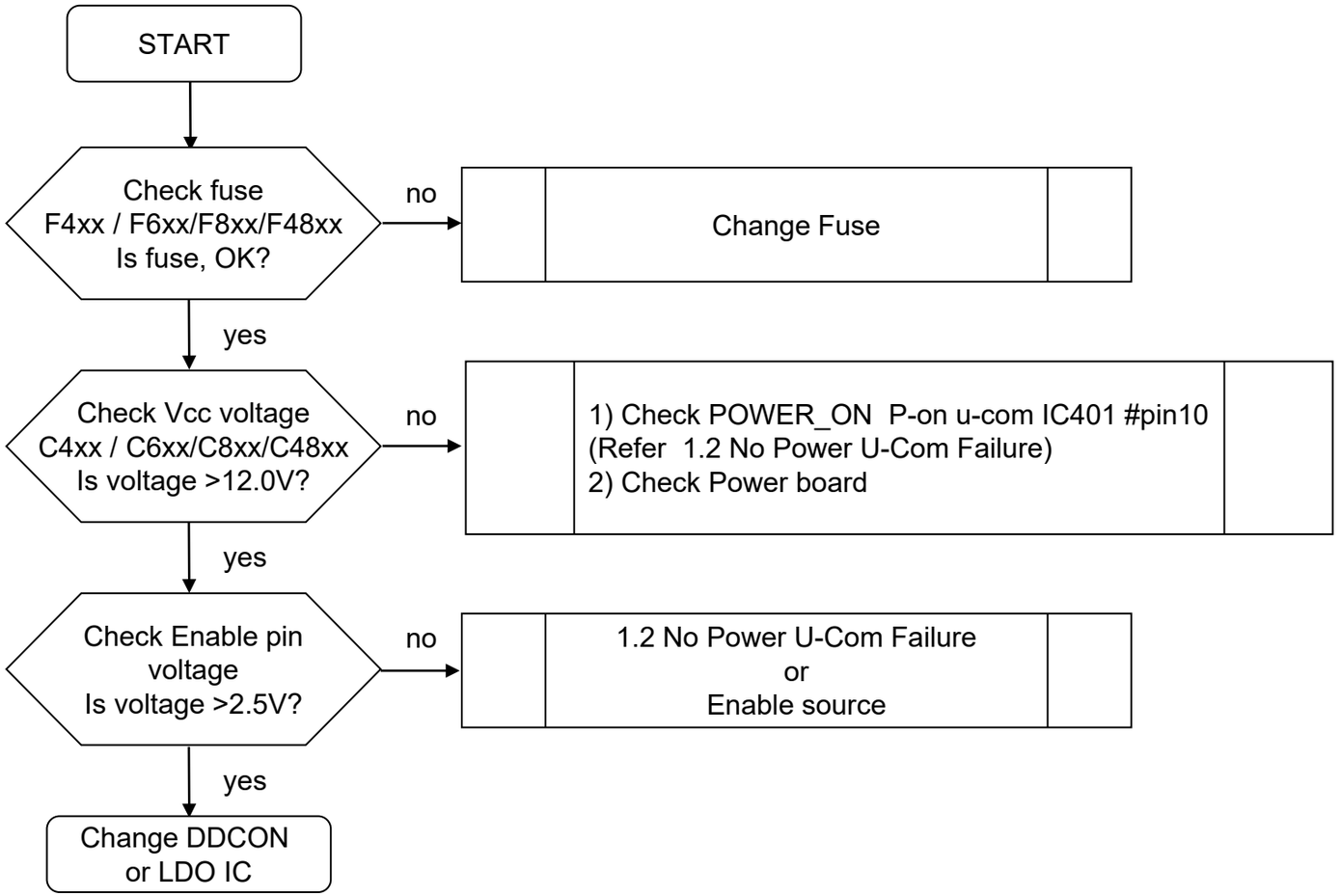


Please Refer page 23 for Ref Number.

Board	Operation	IC Ref	Voltage supply
BM5S22B	DC/DC	IC801	1.1V_M5_DDR
	DC/DC	IC802	0.9V_M5_STBY
	DC/DC	IC803	1.8V_STBY

TROUBLESHOOTING

1.3 No Power DDCON/LDO (DDCON Check)

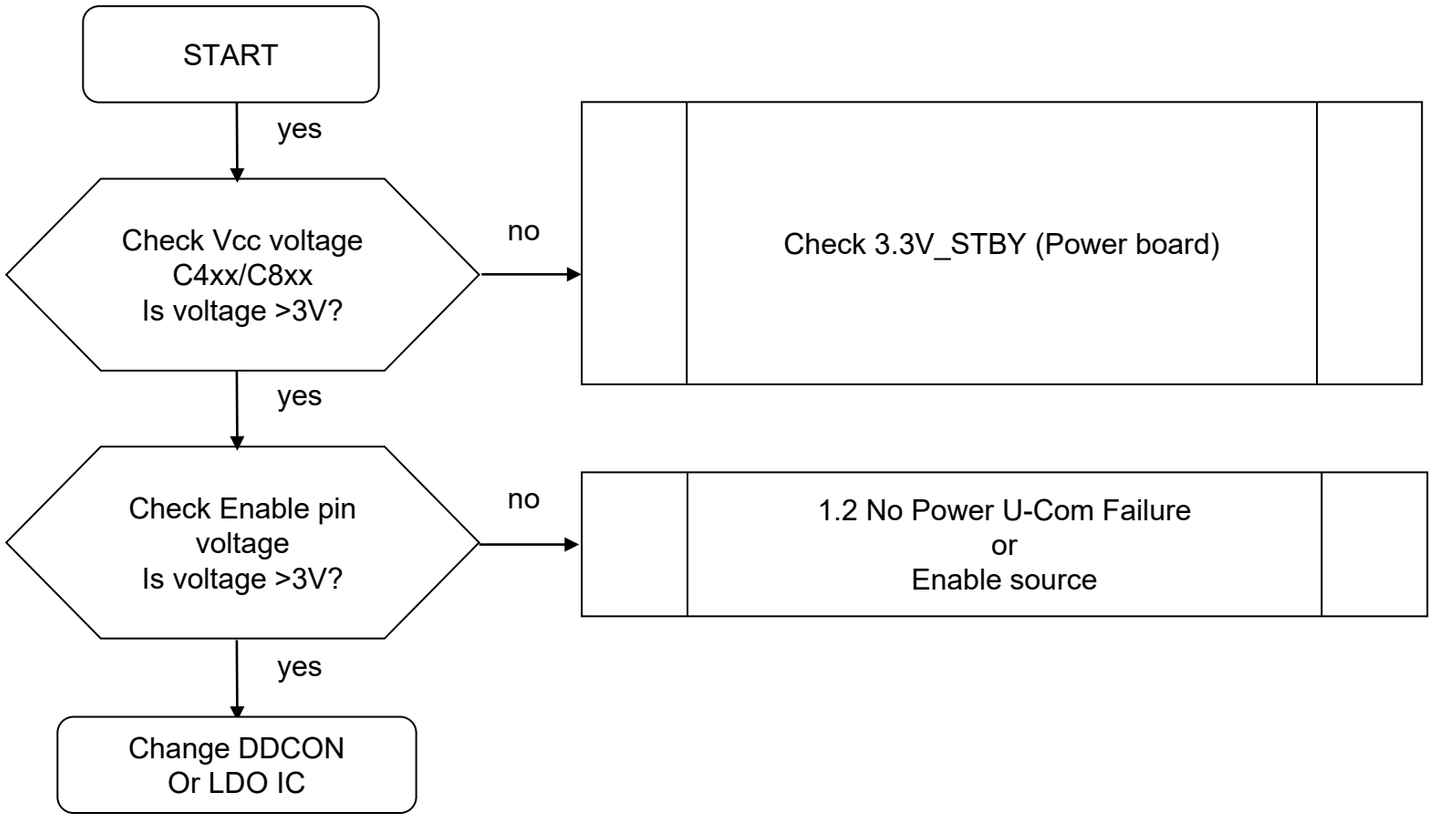


Please Refer page 23 for Ref Number.

Board	Operation	IC Ref	Voltage supply
BM5S22B	DC/DC	IC600 or IC610	5V_MAIN/5V_AUDIO
	DC/DC	IC601	3.3V_MAIN/3.3V_AUDIO
	DC/DC	IC804	0.8V_M5_CORE
	DC/DC	IC807	1.8V_M5
	DC/DC	IC808	1.0V_M5
	DC/DC	IC810	0.8V_M5_CPU
Board	**Operation**	**IC Ref**	**Voltage supply**
BM5S22B	DC/DC	IC4800	1.8V_BE_DDC
	DC/DC	IC4801	1.1V_BE
	DC/DC	IC4802	0.9V_BE_DDC_1
	DC/DC	IC4803	0.9V_BE_DDC_2
	DC/DC	IC4809	0.8V_BE
	DC/DC	IC4810	0.7V_BE

TROUBLESHOOTING

1.3 No Power DDCON/LDO (DDCON Check)

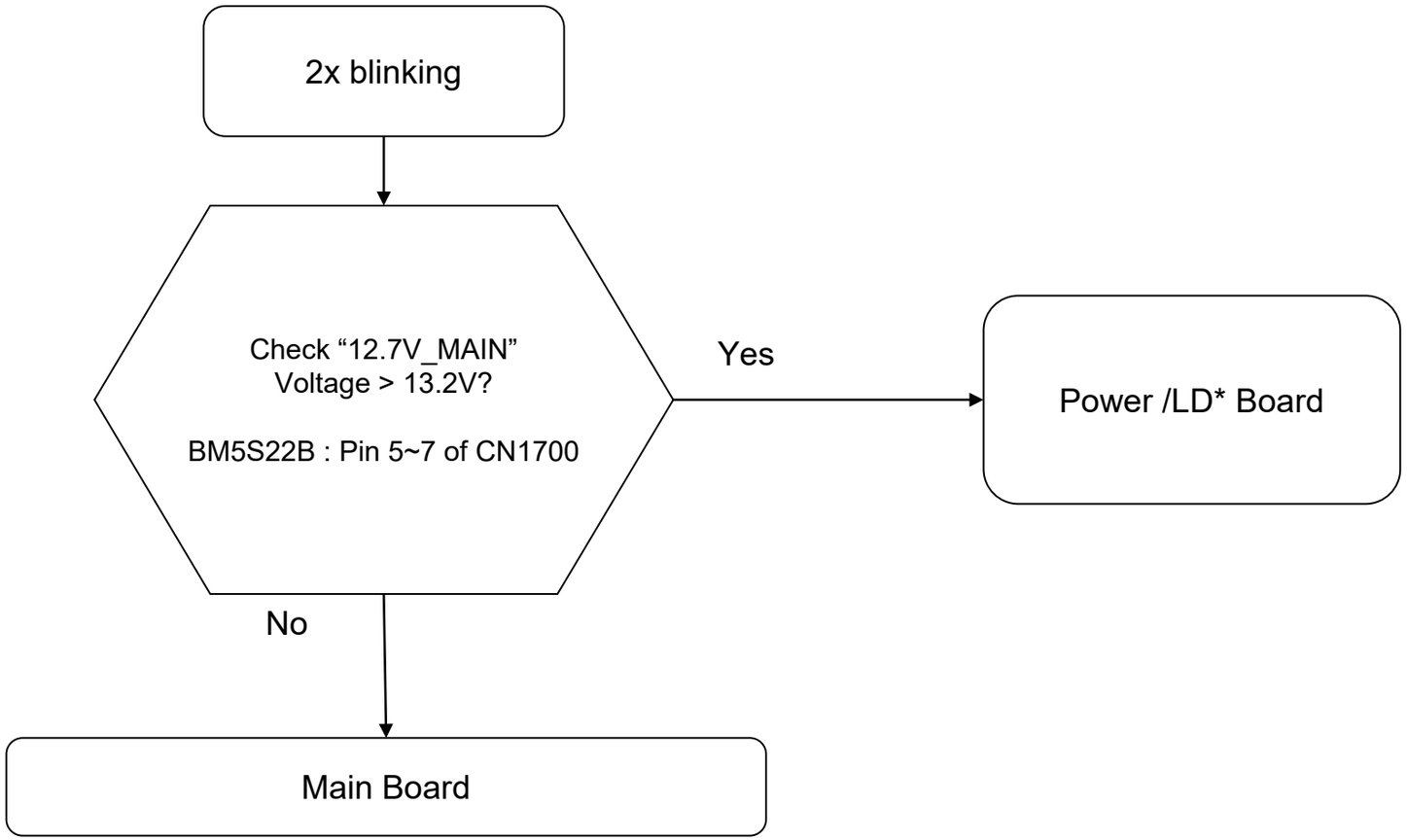


Please Refer page 23 for Ref Number.

Board	Operation	IC Ref	Voltage supply
BM5S22B	DC/DC	IC418 or IC419	5.0V_STBY_H
	LDO	IC403	3.3V_MAIN_H
	LDO	IC806	1.8V_M5_ET_STBY
	LDO	IC809	3.3V_M5_STBY

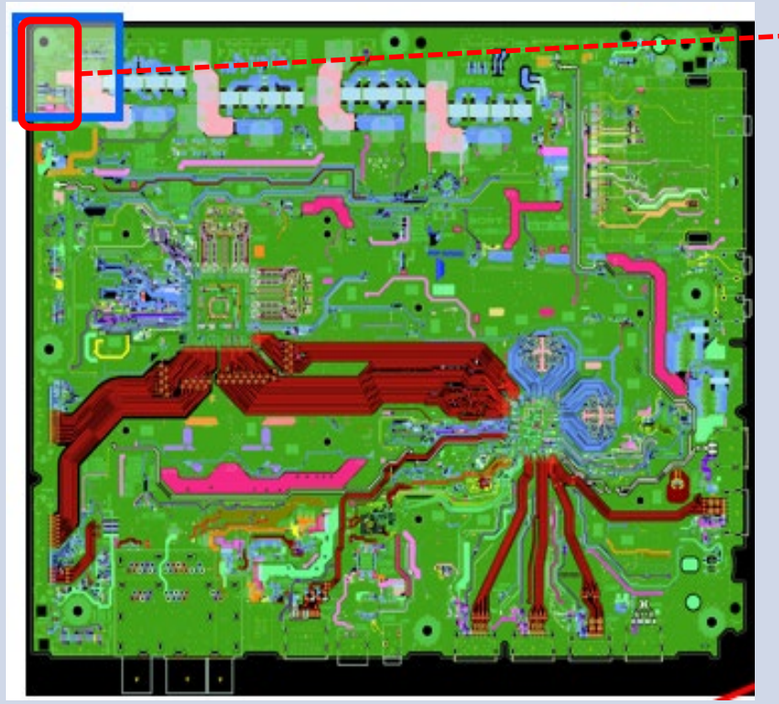
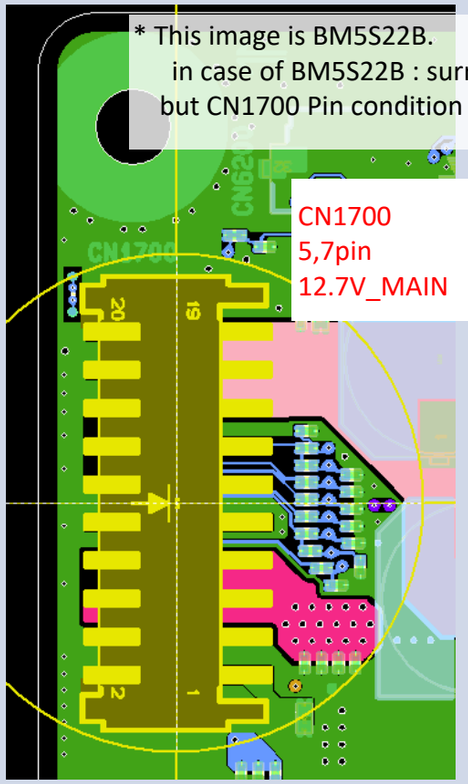
TROUBLESHOOTING

2.0 LED Blinking: 2x (Main Power Error)



TROUBLESHOOTING

Checking Point

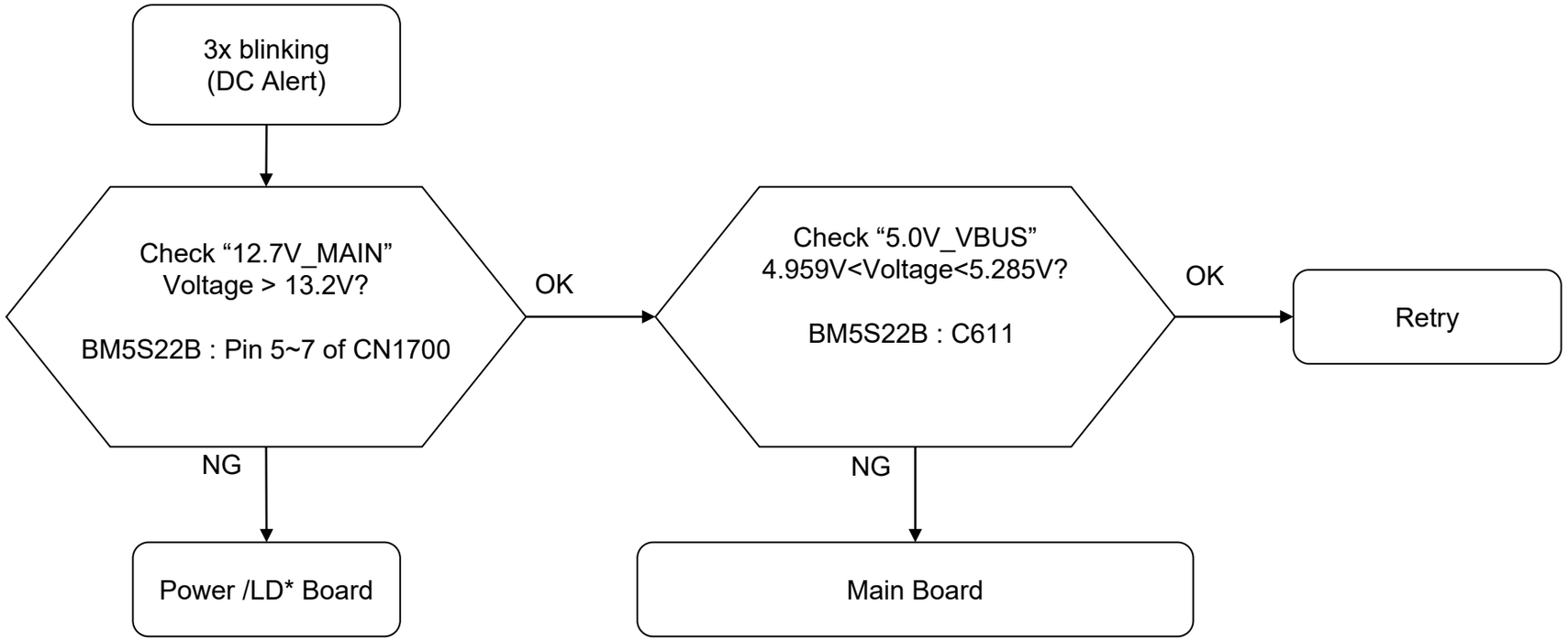
Board PWB (A side)	Detail
	

* This image is BM5S22B.
in case of BM5S22B : surrounding parts layout are little different,
but CN1700 Pin condition is same as BM5S22B.

CN1700
5,7pin
12.7V_MAIN

TROUBLESHOOTING

2.1 LED Blinking: 3x (DC ALERT)



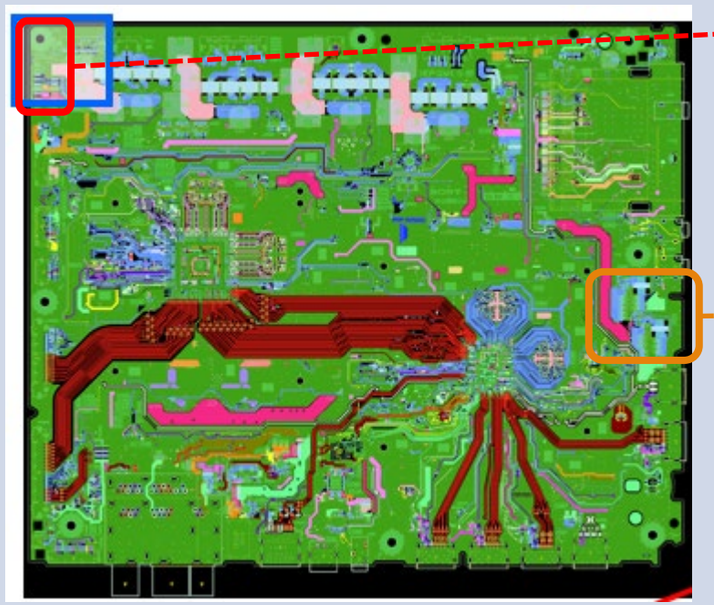
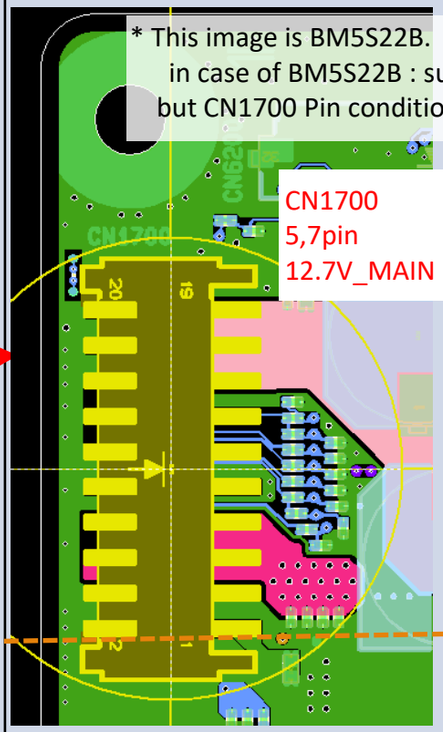
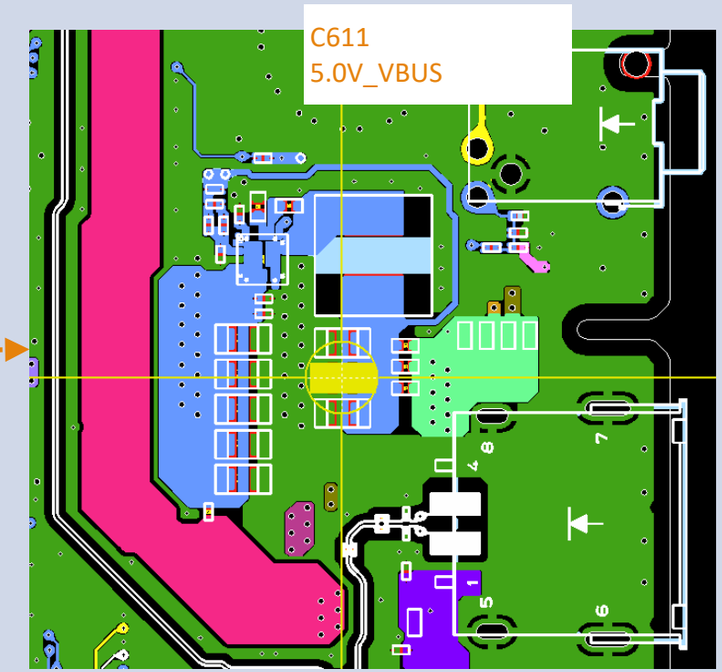
TROUBLESHOOTING

Detail of 3x LED Blinking

Error Item	Number of STBY LED Blinking	Description
DC_ALERT	3	Main 5V power failure
AUD_ERR	3	Audio amp. protection

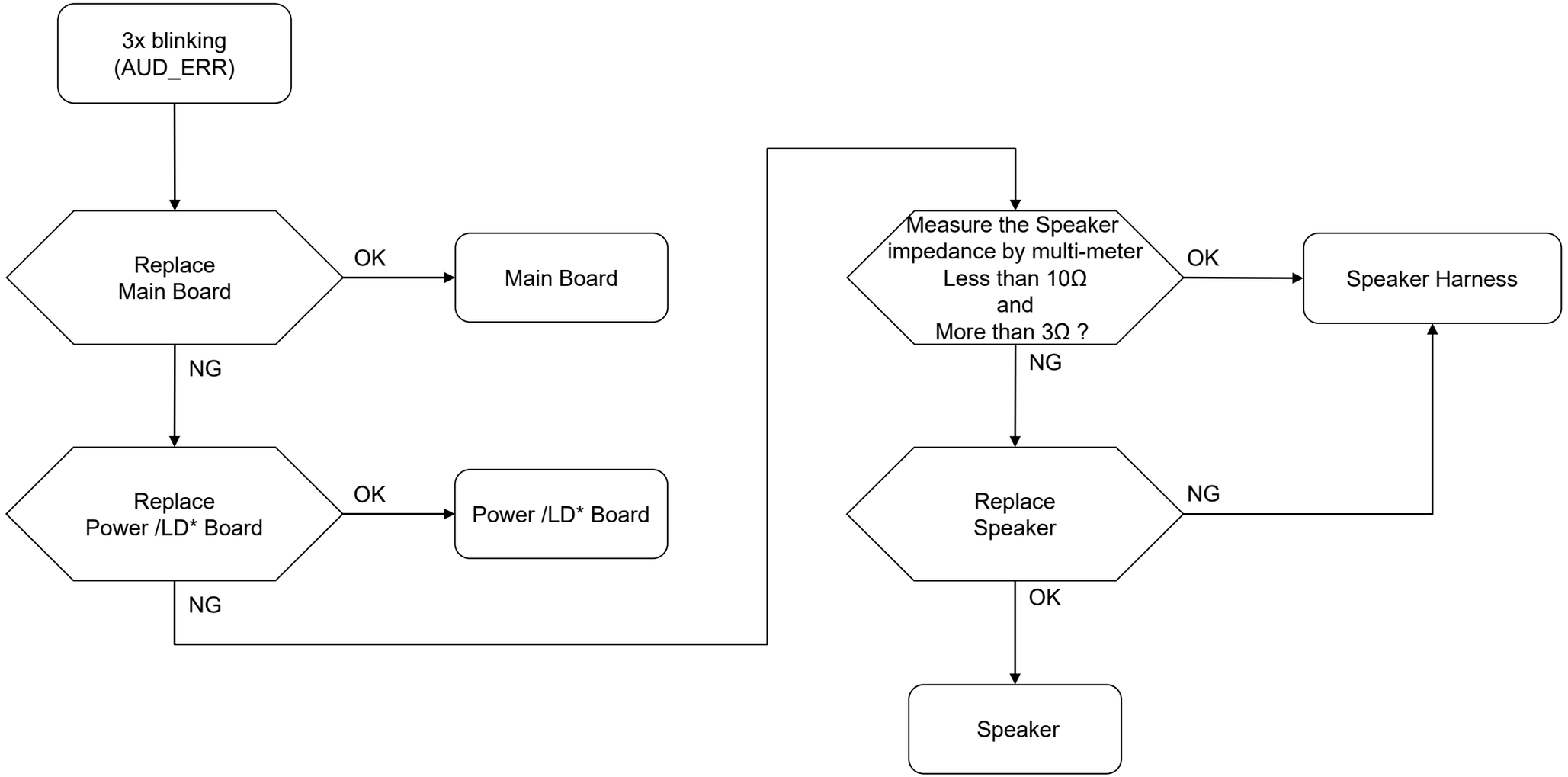
TROUBLESHOOTING

Checking Point

Board PWB (A side)	Detail
	* This image is BM5S22B. in case of BM5S22B : surrounding parts layout are little different, but CN1700 Pin condition is same as BM5S22B.  

TROUBLESHOOTING

2.2 LED Blinking: 3x (AU ERR)



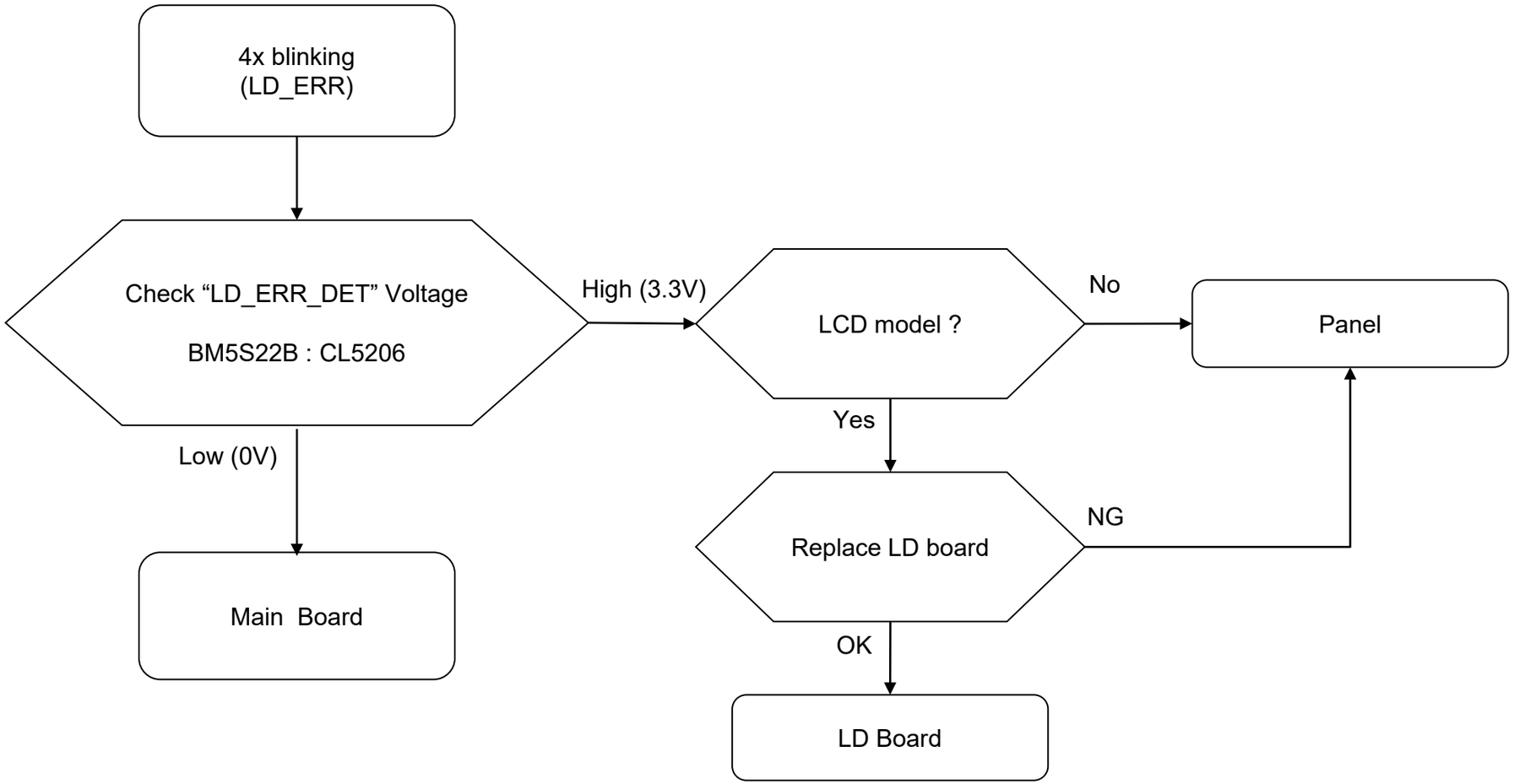
TROUBLESHOOTING

Detail of 3x LED Blinking

Error Item	Number of STBY LED Blinking	Description
DC_ALERT	3	Main 5V power failure
AUD_ERR	3	Audio amp. protection

TROUBLESHOOTING

2.3 LED Blinking: 4x (LD_ERR)



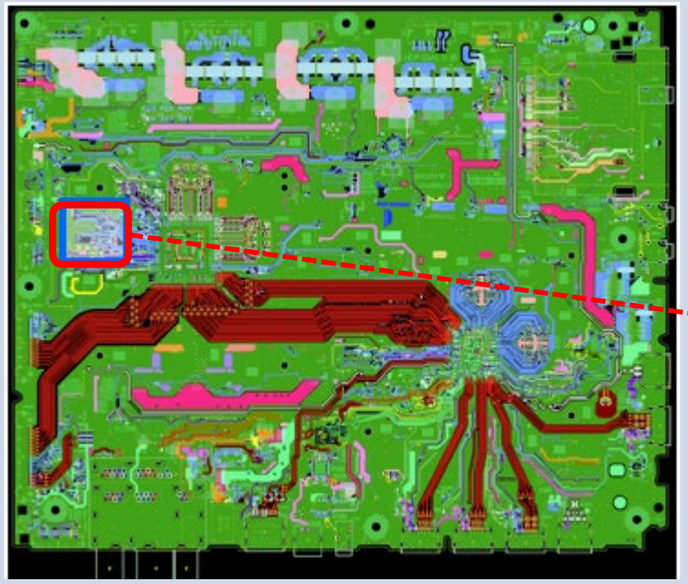
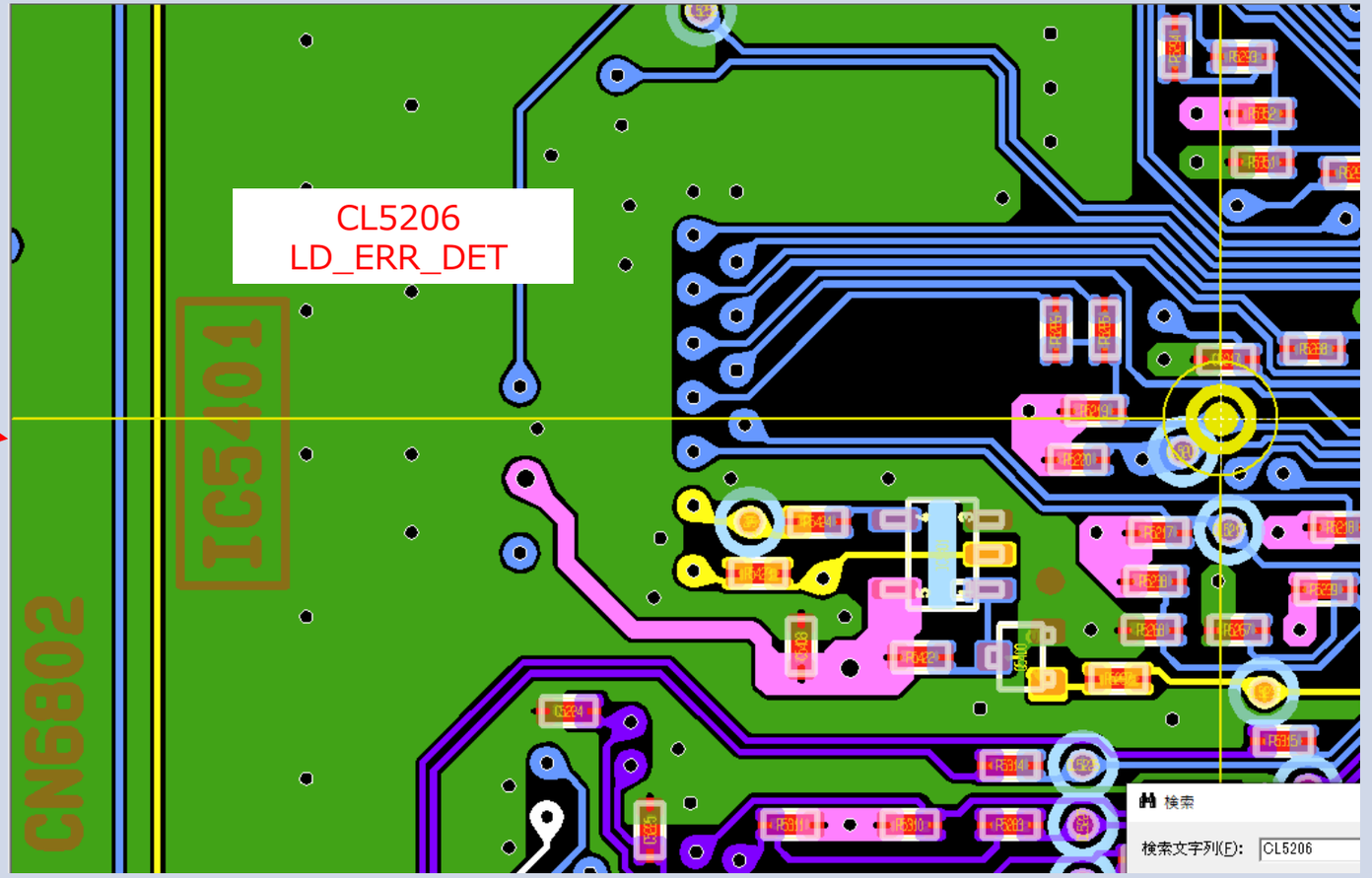
TROUBLESHOOTING

Detail of 4x LED Blinking

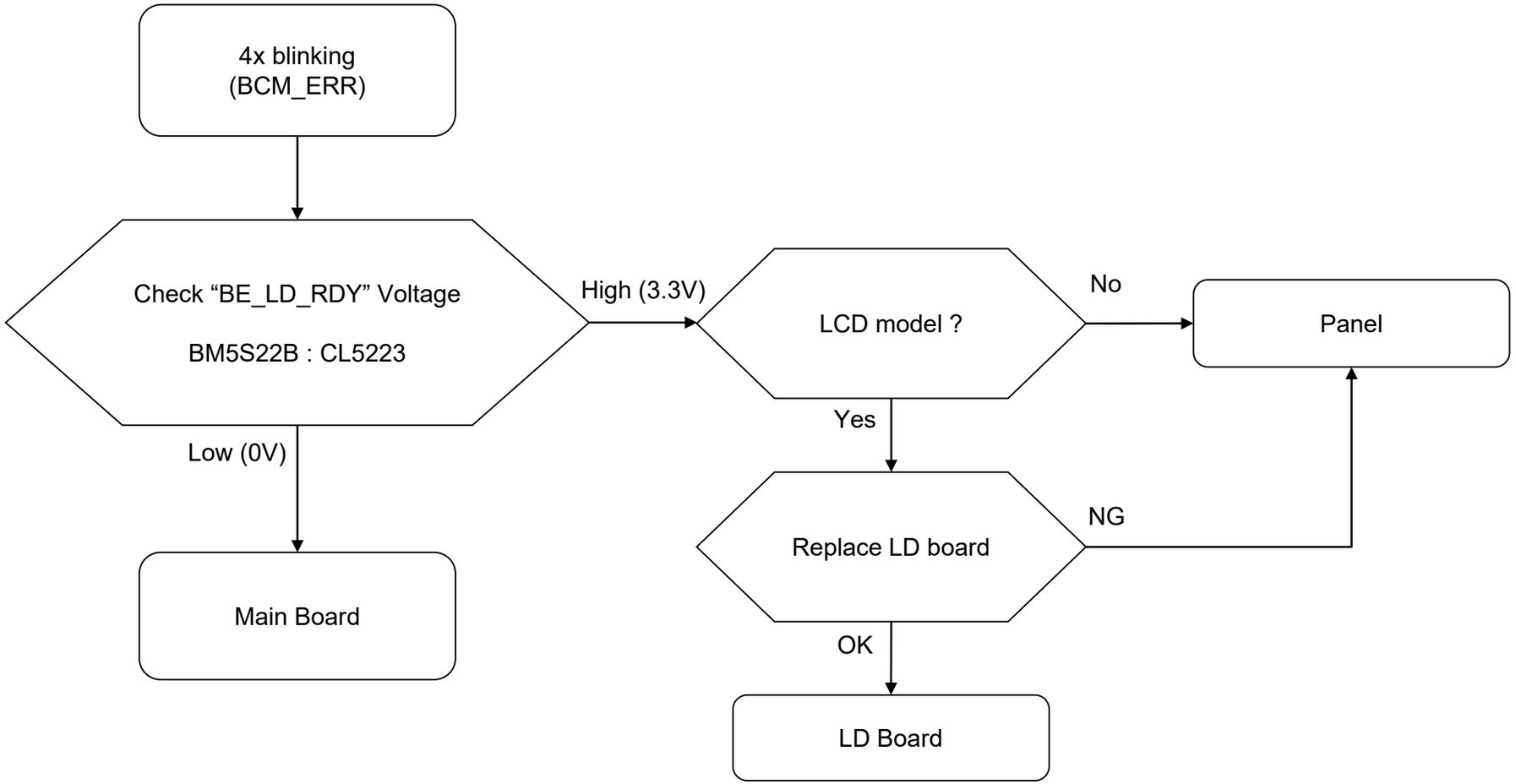
Error Item	Number of STBY LED Blinking	Description	
LD_ERR	4	LCD	LED driver failure/LED voltage protection
		OLED	TCON internal or I2C communication failure
BCM_ERR	4	LCD	LD IC initialize or I2C communication failure
		OLED	Panel power failure

TROUBLESHOOTING

Checking Point

Board PWB (A side)	Detail
	

2.4 LED Blinking: 4x (BCM_ERR)



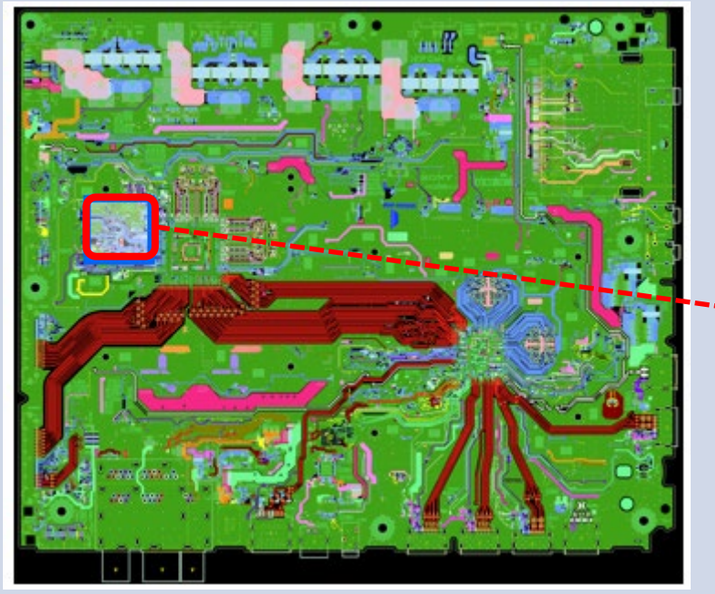
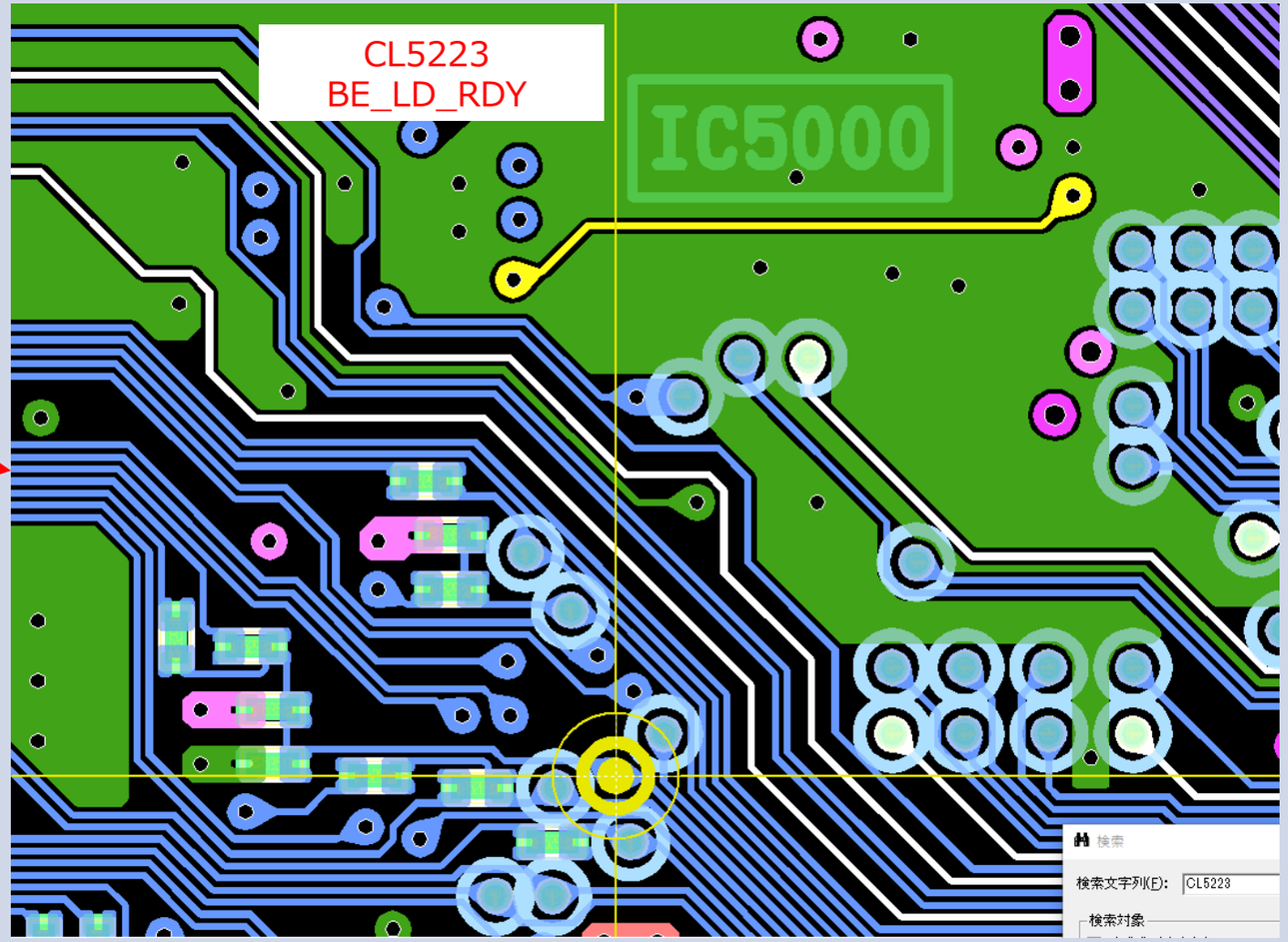
TROUBLESHOOTING

Detail of 4x LED Blinking

Error Item	Number of STBY LED Blinking	Description	
LD_ERR	4	LCD	LED driver failure/LED voltage protection
		OLED	TCON internal or I2C communication failure
BCM_ERR	4	LCD	LD IC initialize or I2C communication failure
		OLED	Panel power failure

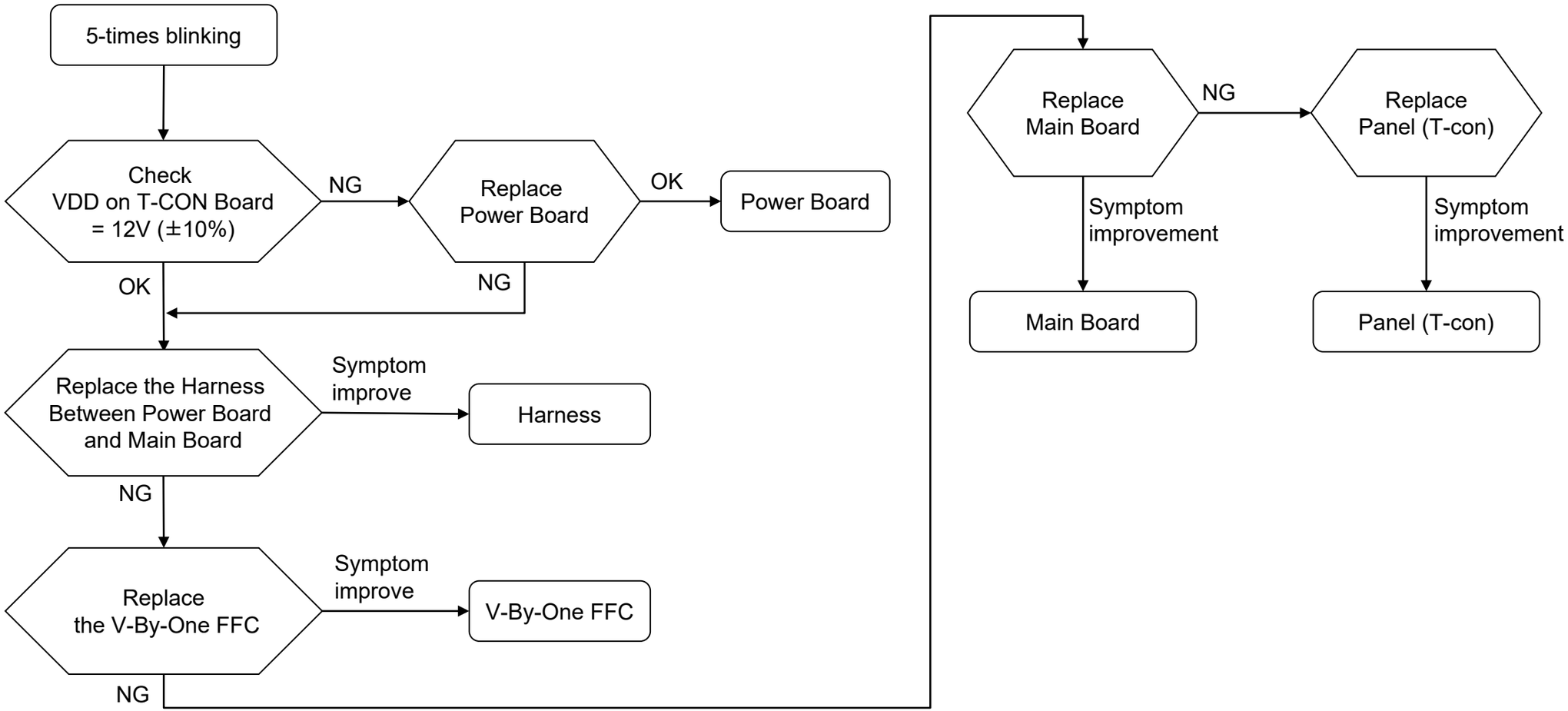
TROUBLESHOOTING

Checking Point

Board PWB (A side)	Detail
	

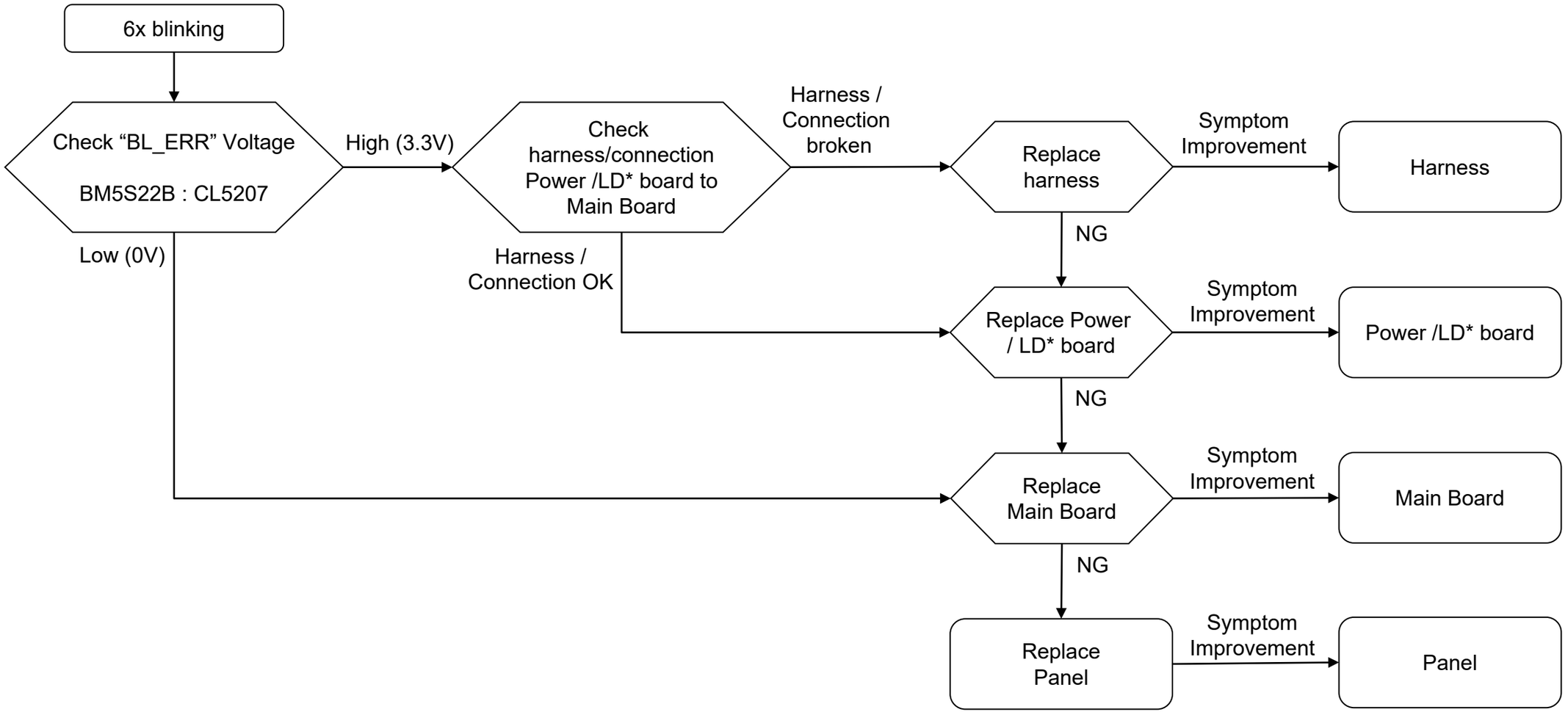
TROUBLESHOOTING

2.5 LED Blinking: 5x (P_ID_ERR)



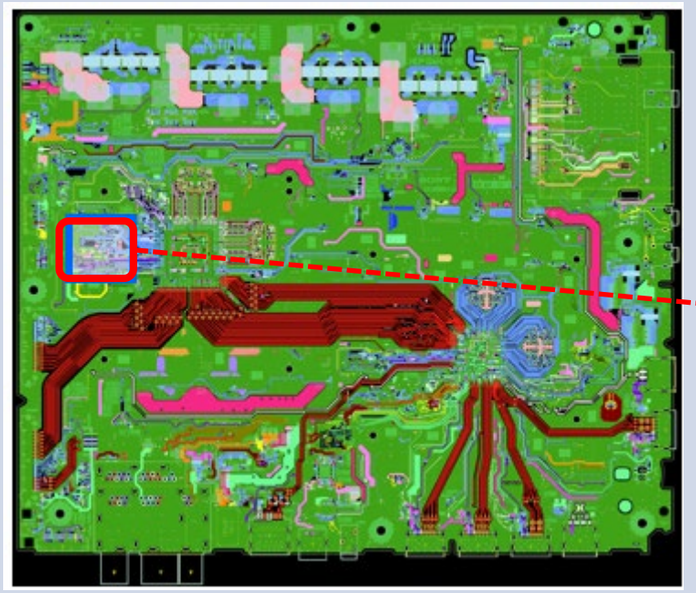
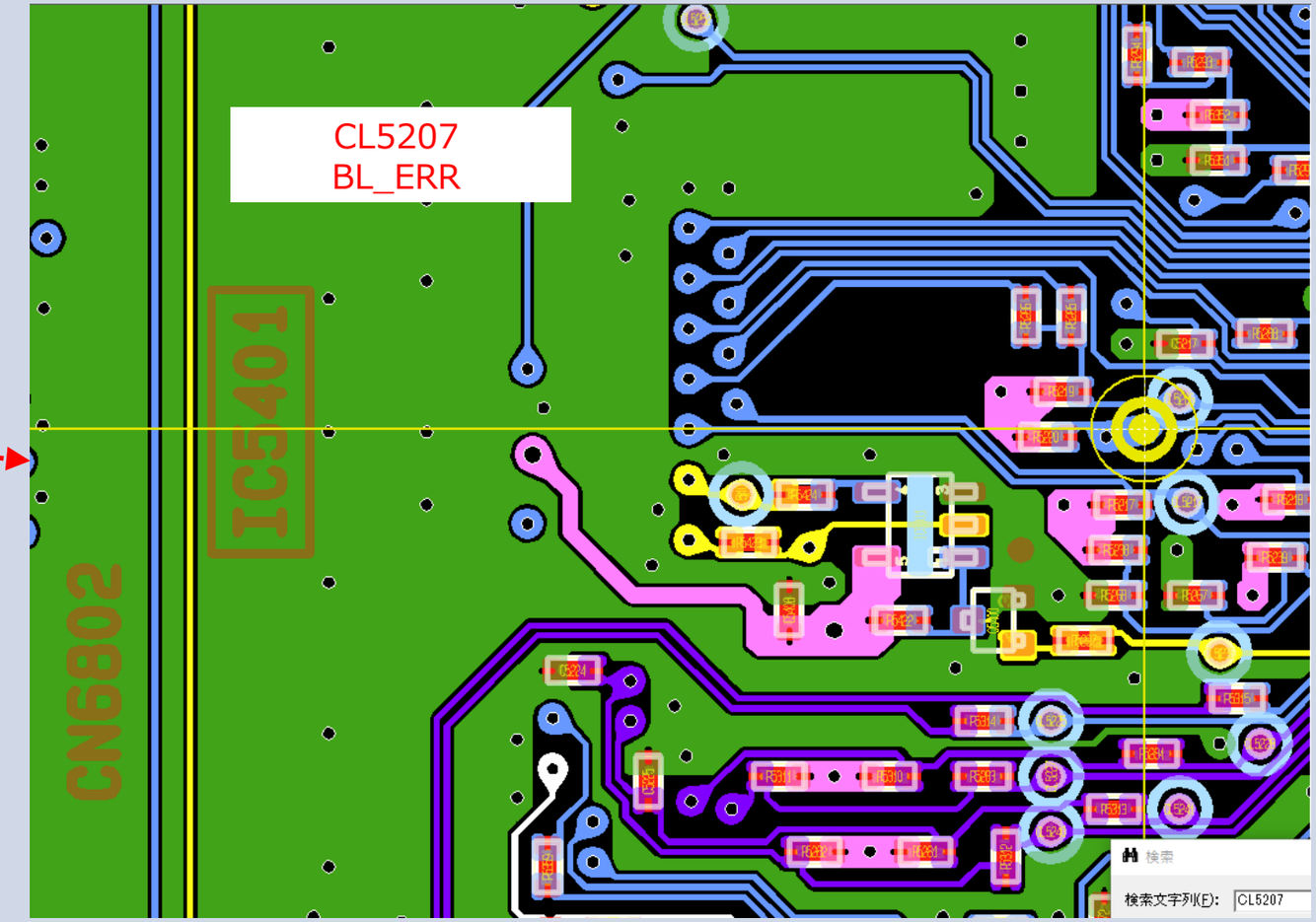
TROUBLESHOOTING

2.6 LED Blinking: 6x (Backlight Error)

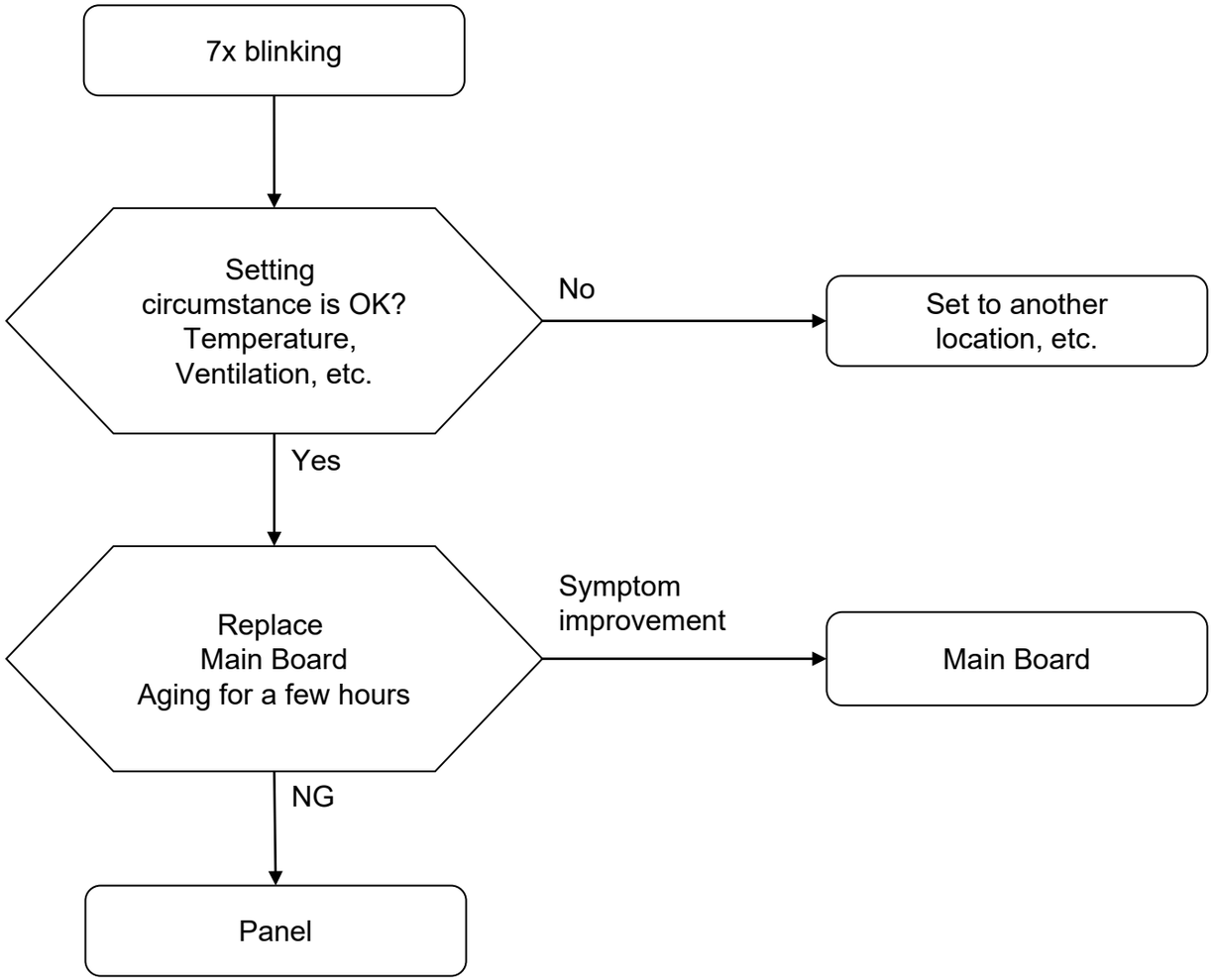


TROUBLESHOOTING

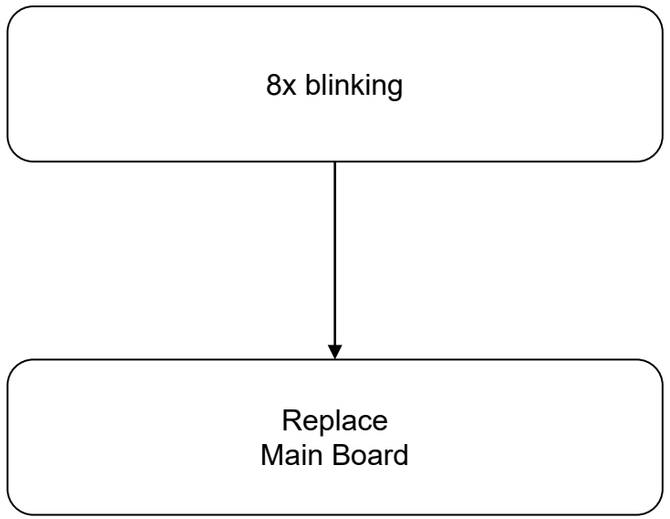
Checking Point

Board PWB (A side)	Detail
	

2.7 LED Blinking: 7x (Temperature Error)

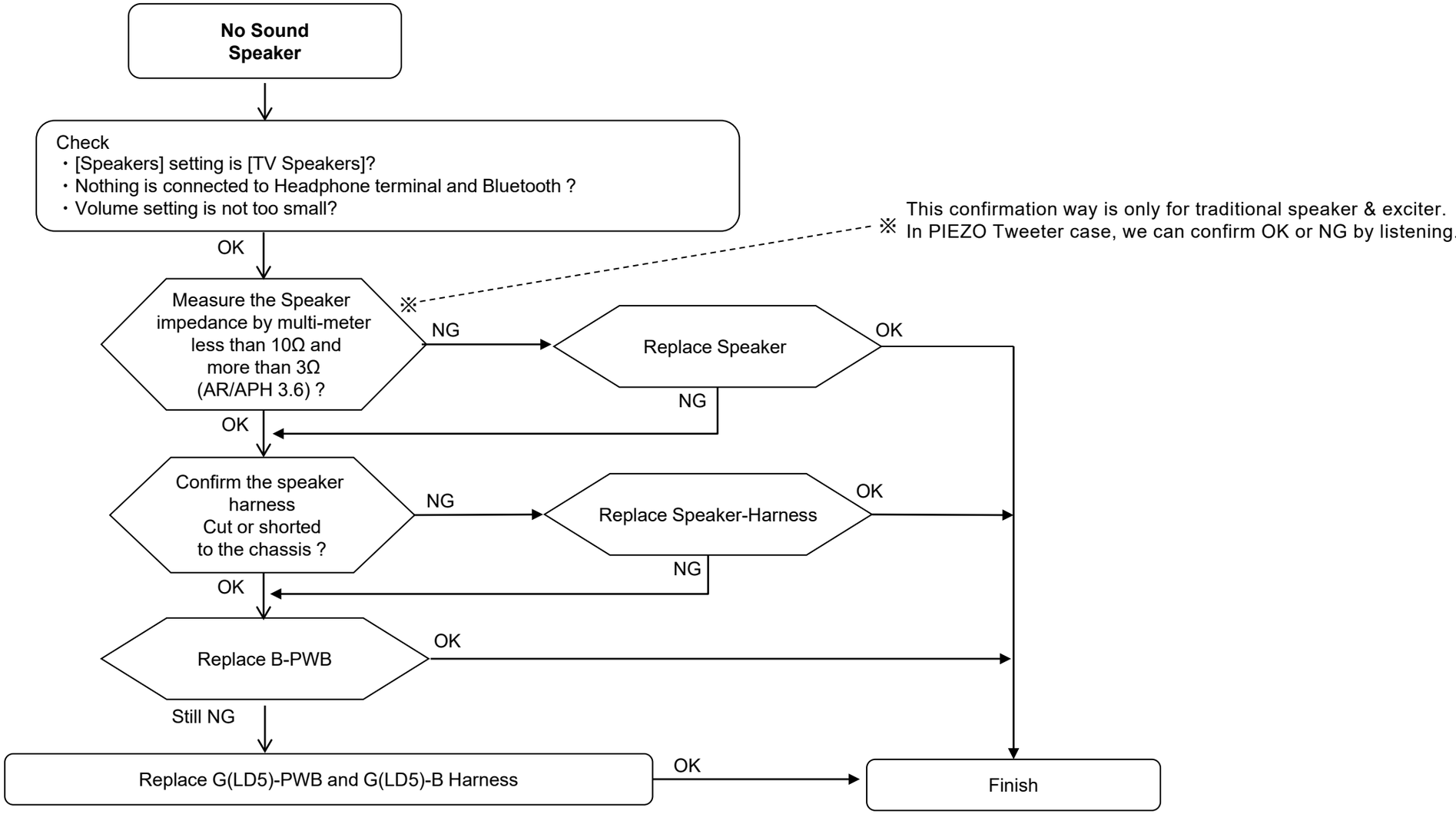


2.8 LED Blinking : 8x Blinking (4KBE_ERR)

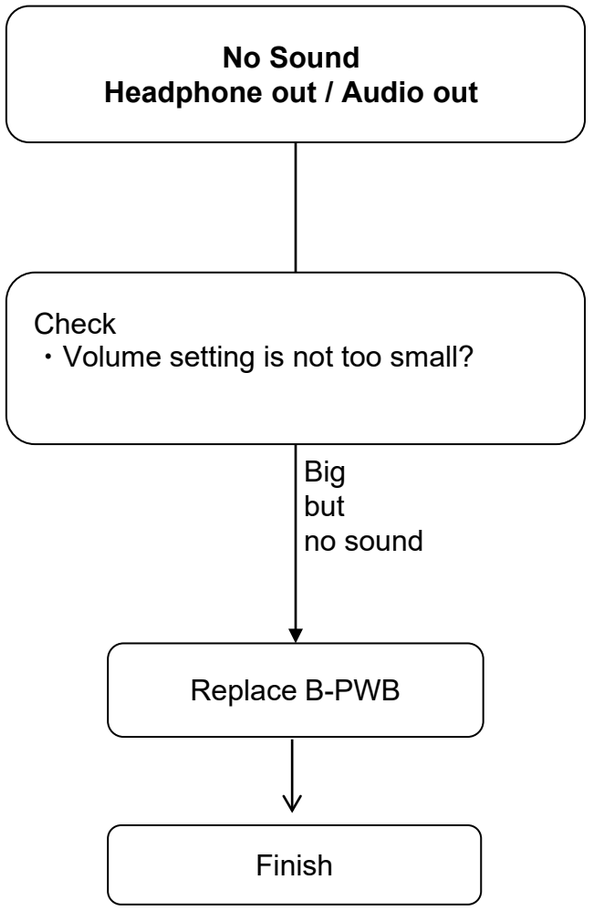


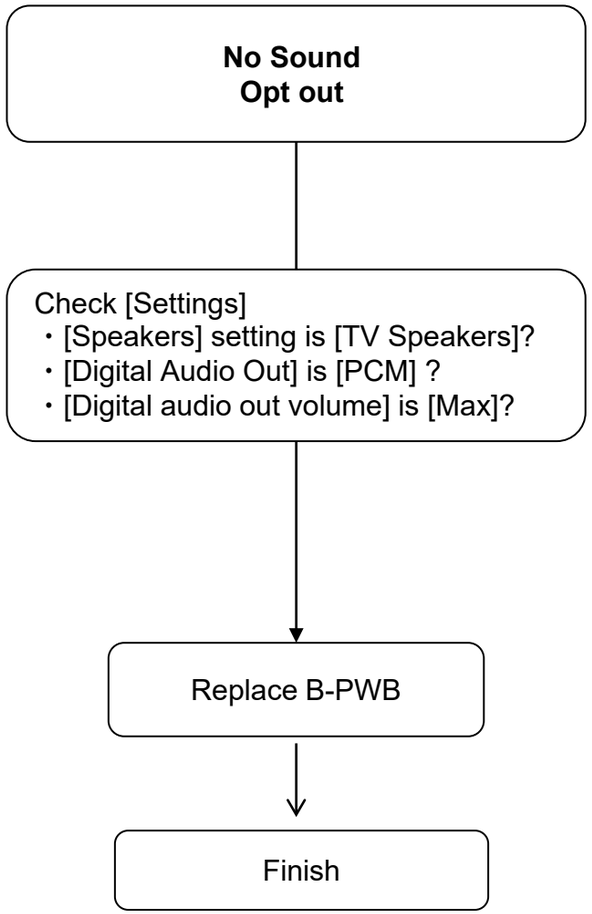
TROUBLESHOOTING

3.1 No Sound for Speaker



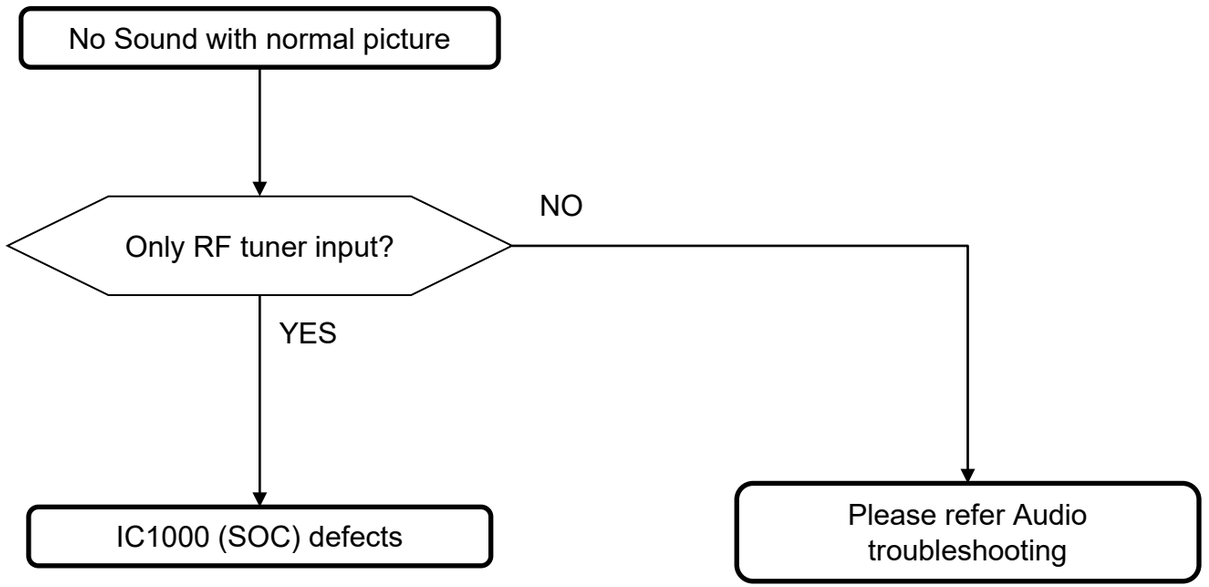
3.2 No Sound for Headphone out/ Audio out/Optical out





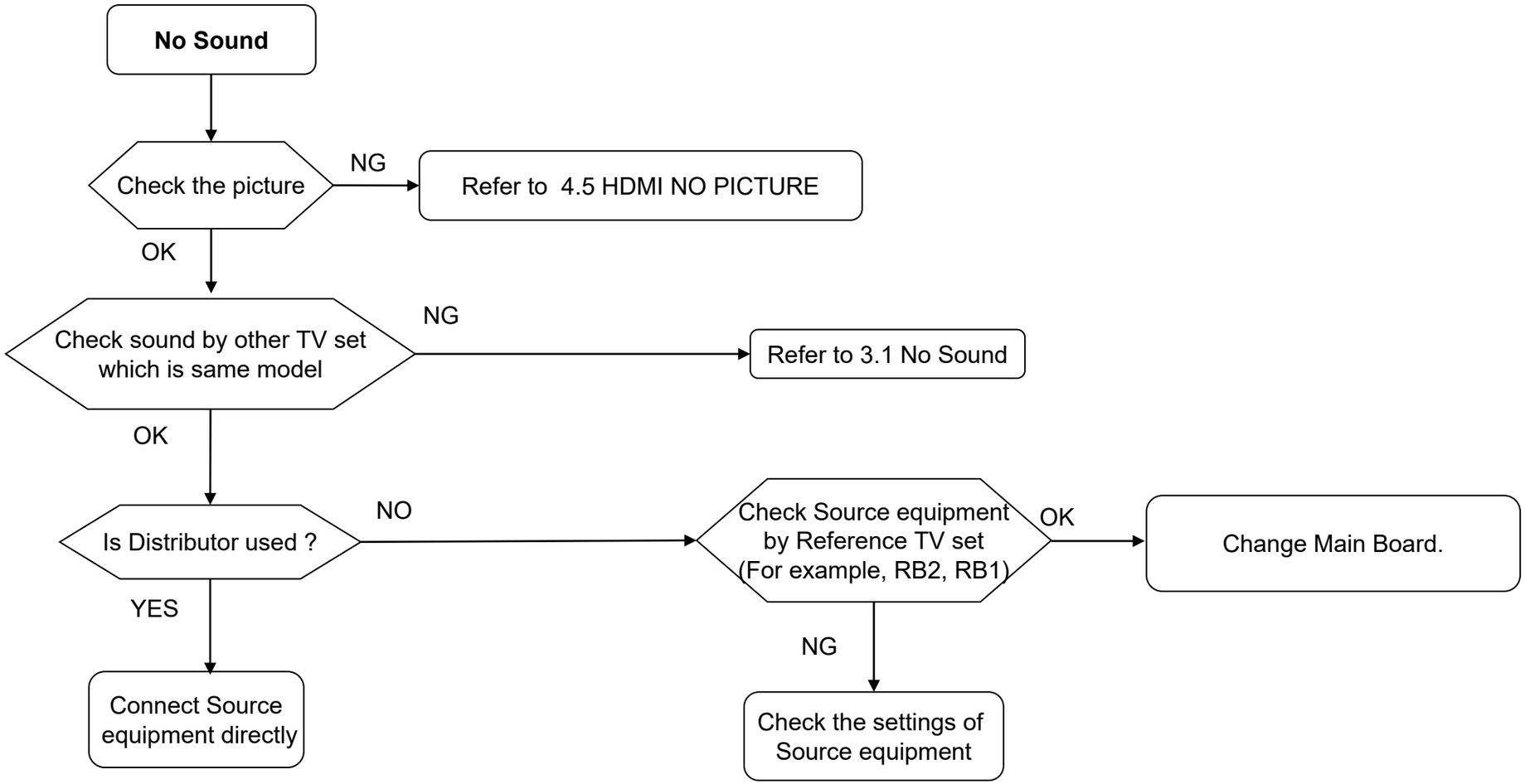
TROUBLESHOOTING

3.7 No Sound at Tuner



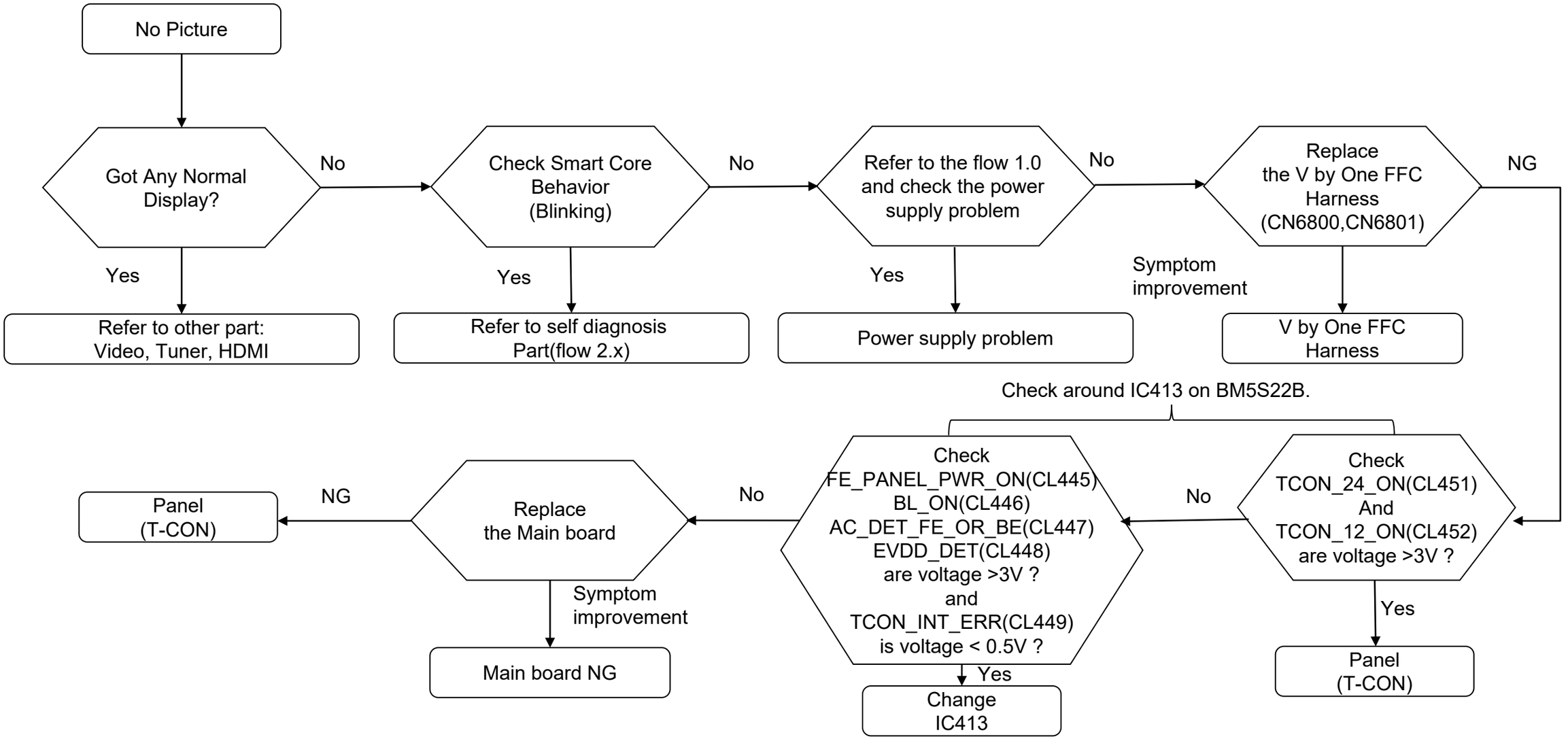
TROUBLESHOOTING

3.8 No Sound HDMI 1/2/3/4



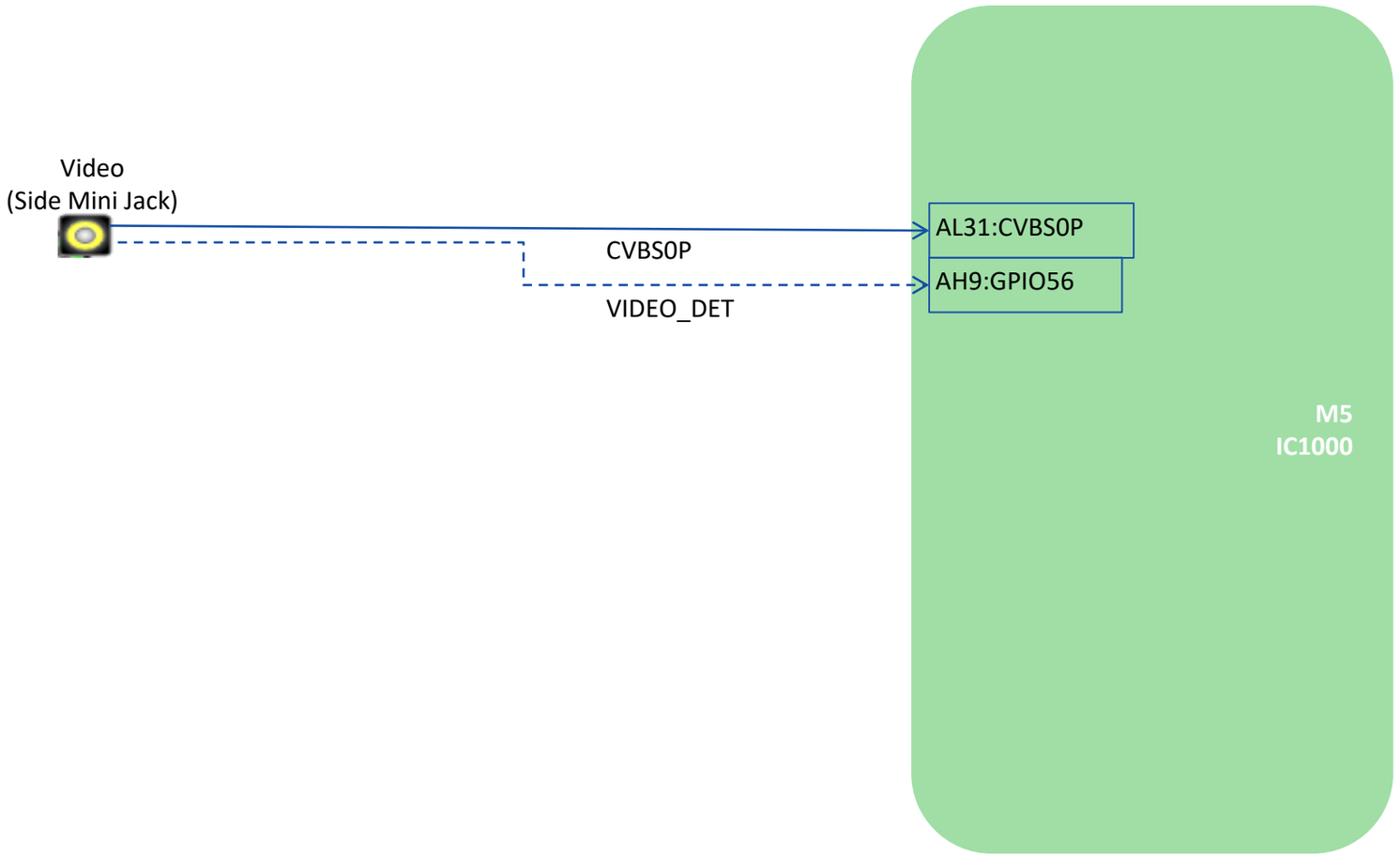
TROUBLESHOOTING

4.0 No Picture



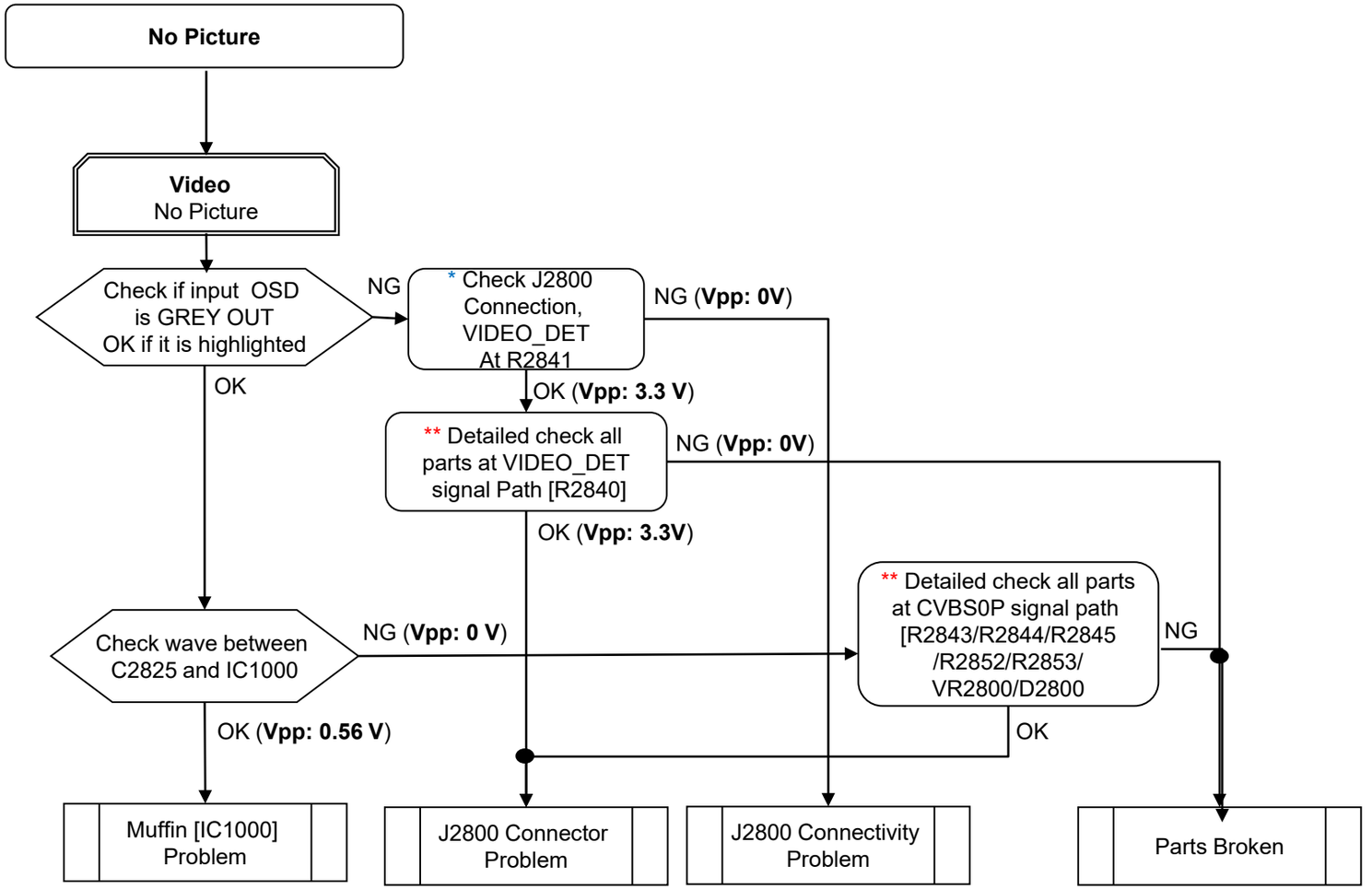
TROUBLESHOOTING

4.1 Analog Video Signal Path



TROUBLESHOOTING

4.2 No Picture



* → OK Condition : No solder splash can be seen
→ NG Condition : Solder splash can be seen

** → OK Condition : No part short-circuited
→ NG Condition : Part short-circuited

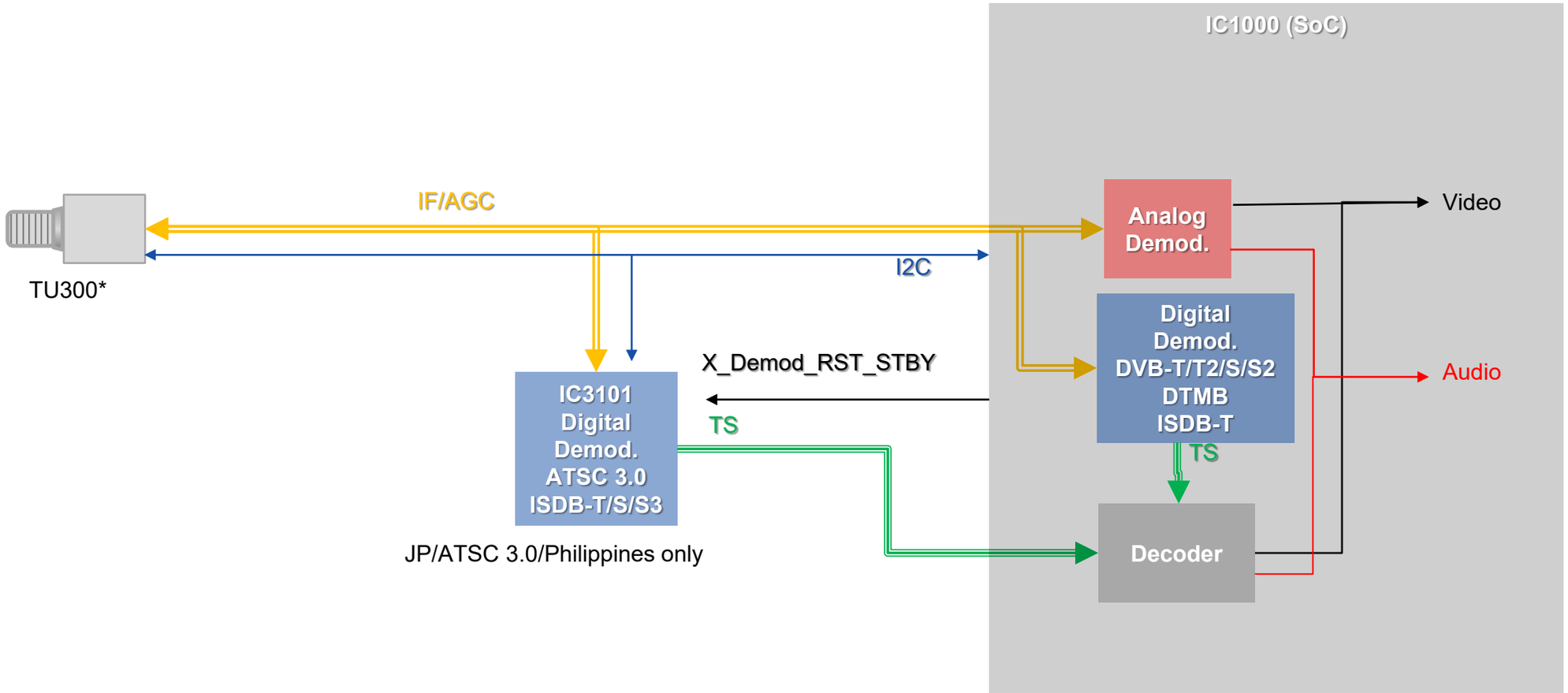
4.2 No Picture

Condition	Actions to be taken
Muffin [IC1000] Problem	Refer to IC troubleshooting for further investigation
J2800 Connector Problem	Change Connector
J2800 Connectivity Problem	
Parts Broken	Change Part

4.3 Input Skip Function

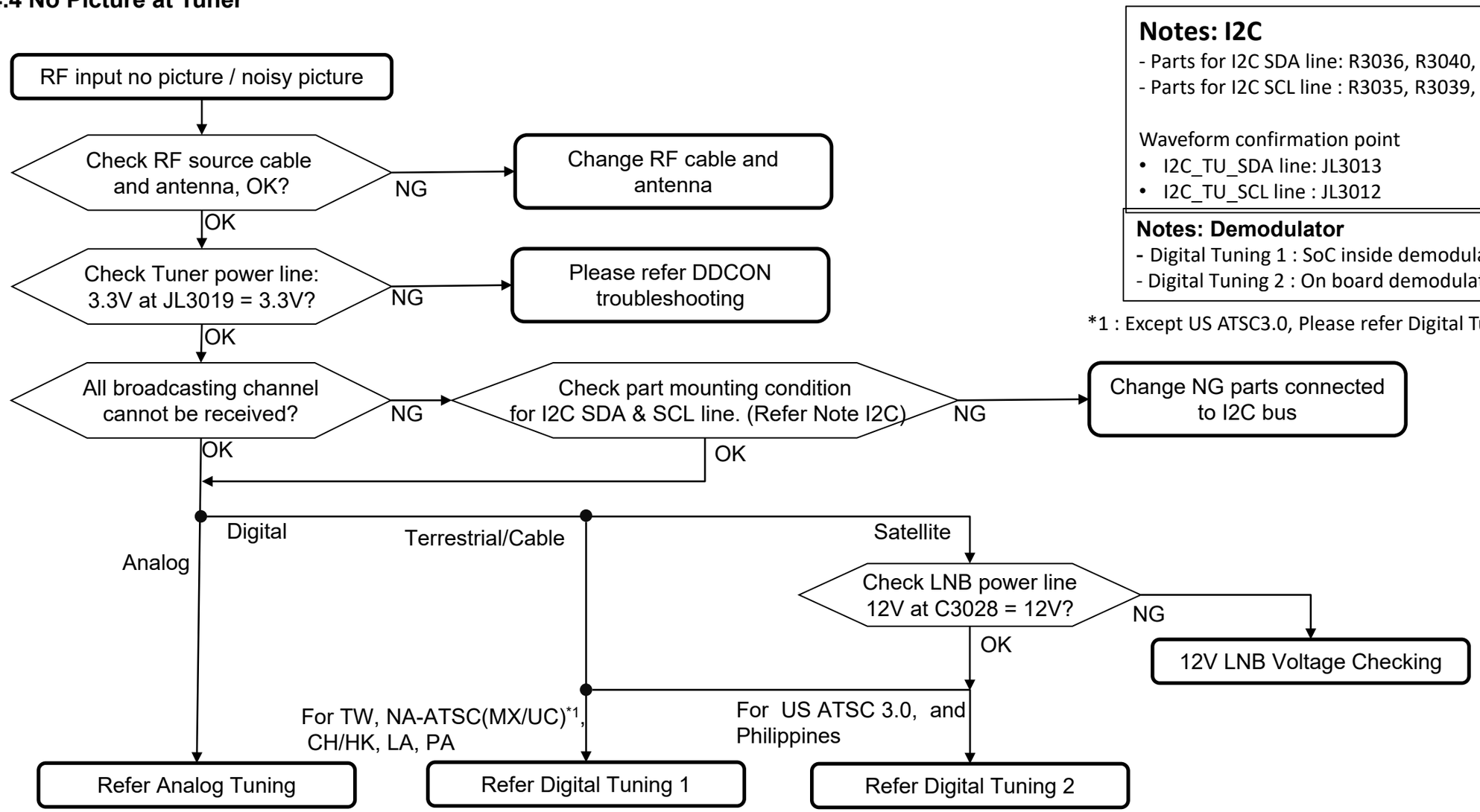
Input	Signal	Non-Detect (Typical)	Detect (Typical)
Video	VIDEO_DET IC1000 AH9-GPIO56	0V	3.3V

4.4 No Picture at Tuner



TROUBLESHOOTING

4.4 No Picture at Tuner



Notes: I2C

- Parts for I2C SDA line: R3036, R3040, C3005
- Parts for I2C SCL line : R3035, R3039, C3006

Waveform confirmation point

- I2C_TU_SDA line: JL3013
- I2C_TU_SCL line : JL3012

Notes: Demodulator

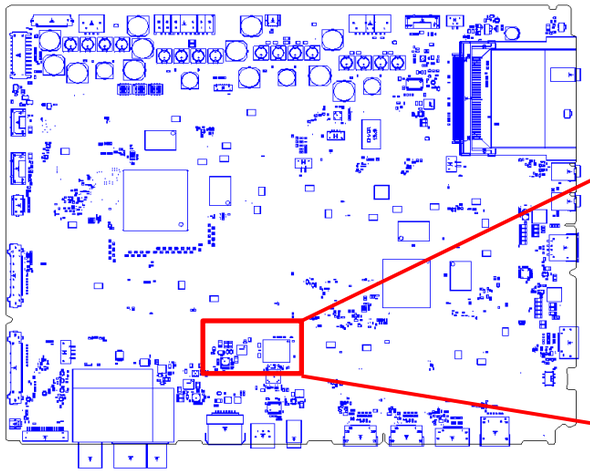
- Digital Tuning 1 : SoC inside demodulator
- Digital Tuning 2 : On board demodulator

*1 : Except US ATSC3.0, Please refer Digital Tuning 2

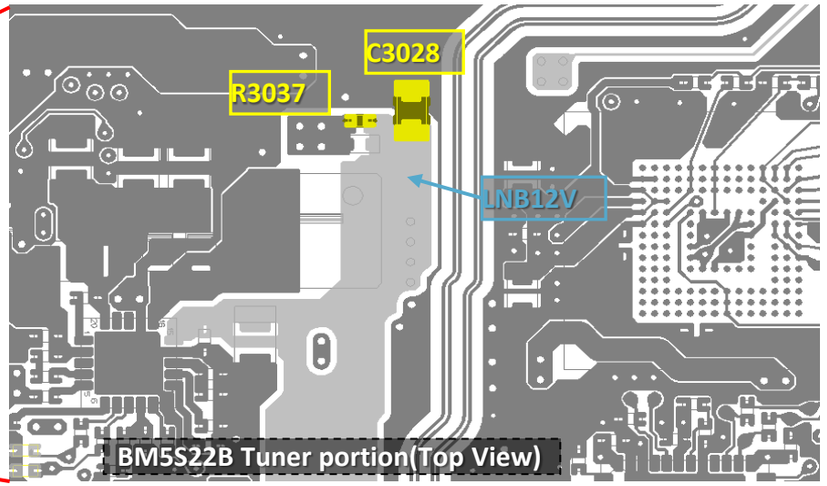
TROUBLESHOOTING

4.4 No Picture at Tuner

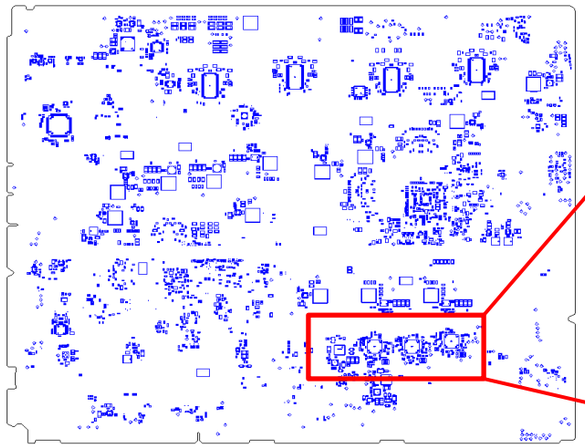
BM5S22B (Top View)

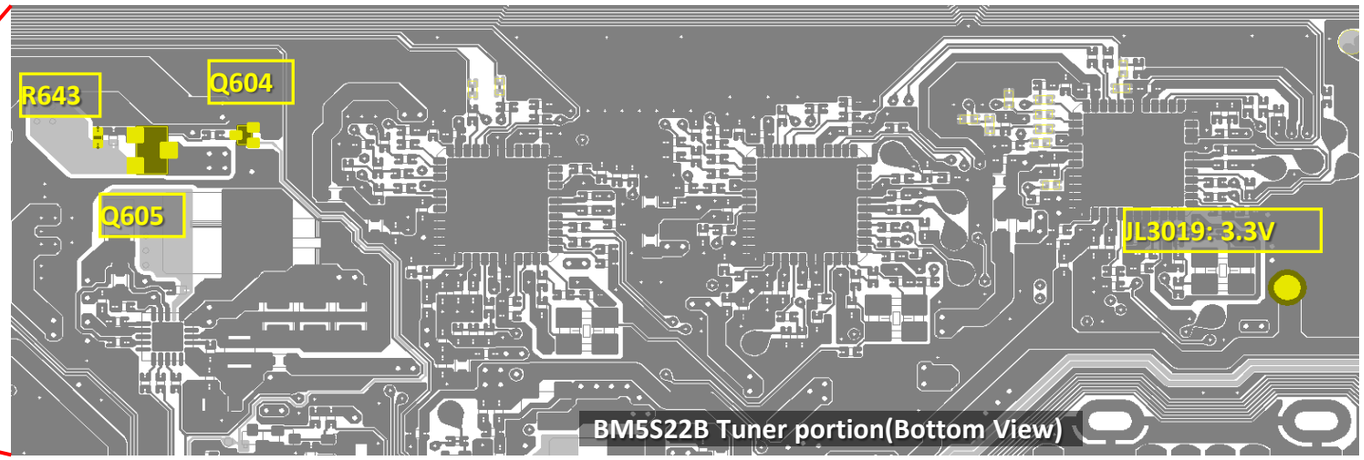


*I2C: Please refer Digital Tuning



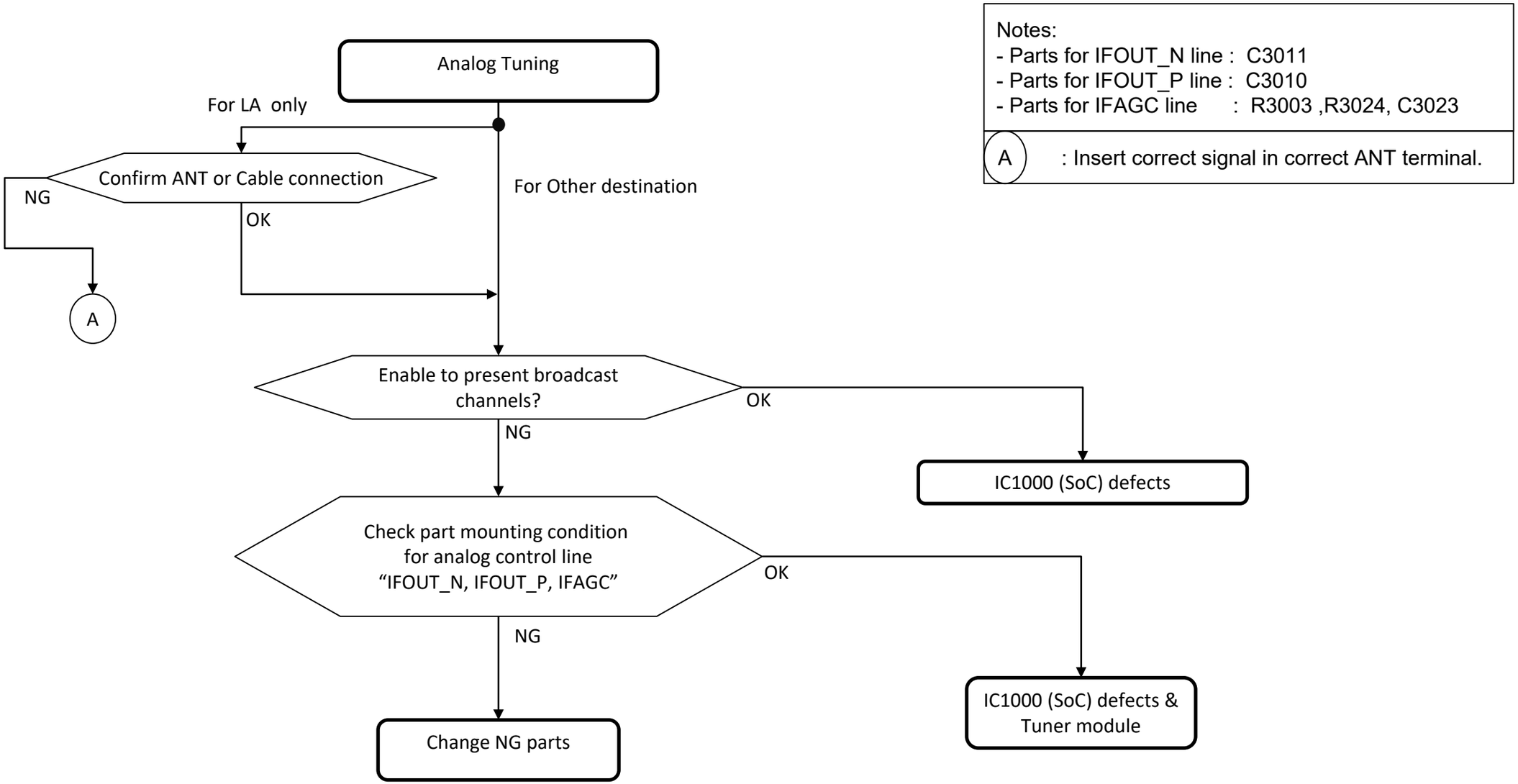
BM5S22B (Bottom View)





TROUBLESHOOTING

4.4 No Picture at Tuner - FOR ANALOG TUNING @ All destination

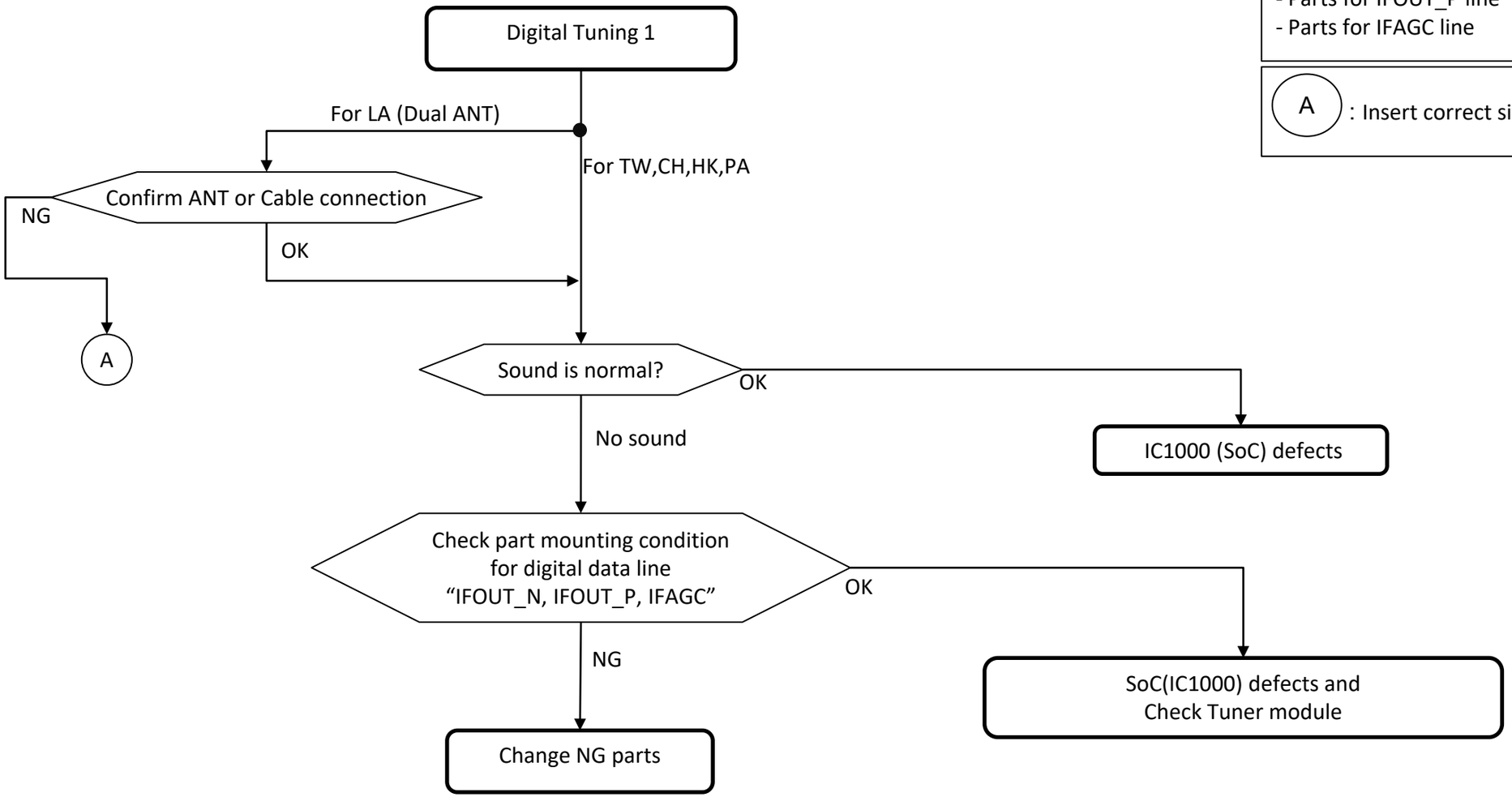


TROUBLESHOOTING

4.4 No Picture at Tuner - FOR DIGITAL TUNING 1 For TW,CH,HK,LA,PA

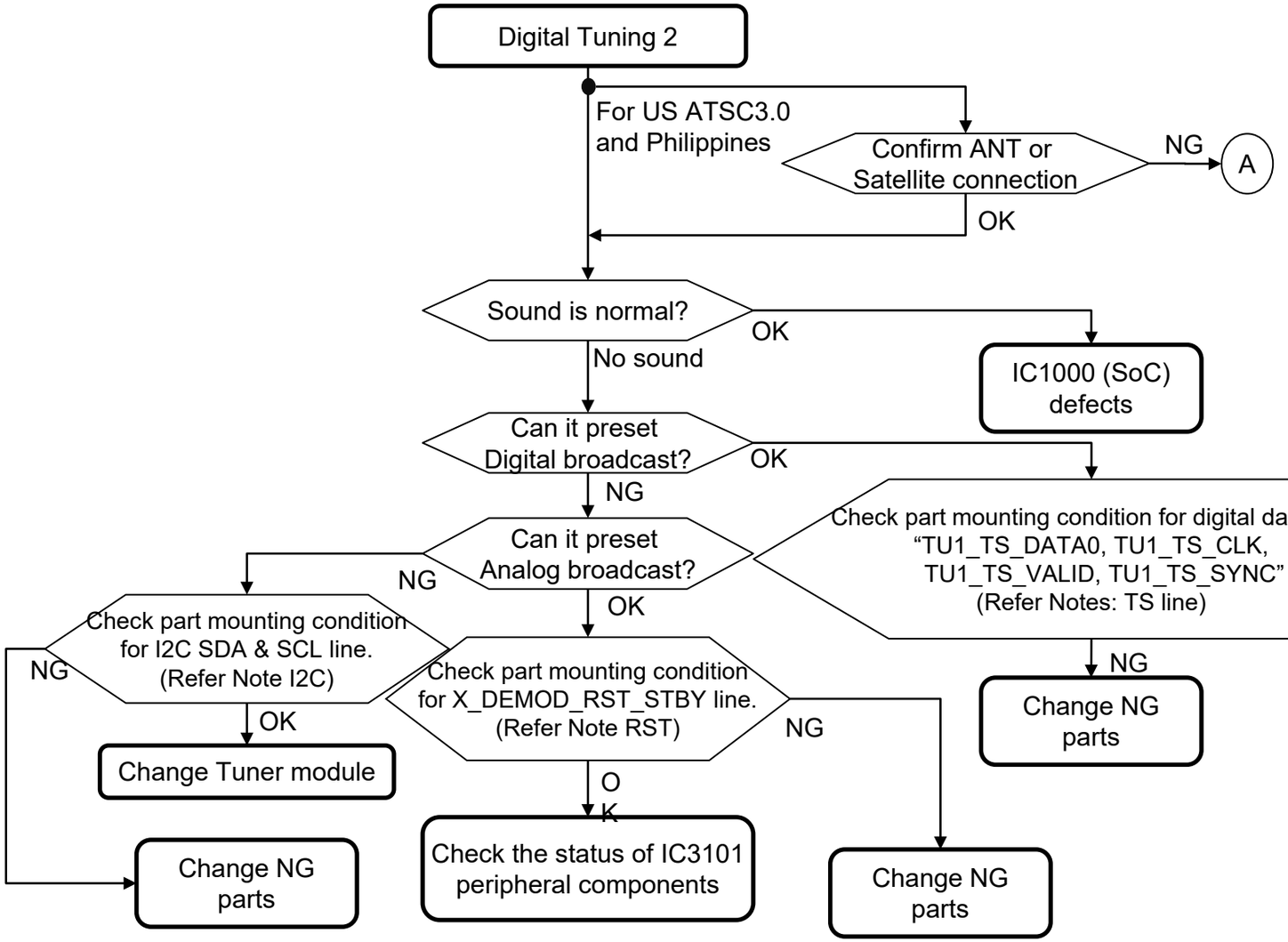
Notes:
- Parts for IFOUT_N line : C3011
- Parts for IFOUT_P line : C3010
- Parts for IFAGC line : R3003 ,R3024, C3023

A : Insert correct signal in correct ANT terminal.



TROUBLESHOOTING

4.4 No Picture at Tuner - FOR DIGITAL TUNING 2 For , US ATSC3.0 and Philippines



Notes: I2C
- Parts for I2C SDA line: R3036, R3040, C3005
- Parts for I2C SCL line : R3035, R3039, C3006

Waveform confirmation point
- I2C_TU_SDA line: JL3013
- I2C_TU_SCL line : JL3012

Notes: TS line
-TS line parts for US ATSC3.0/Philippines
R3114/R3116/R3117/R3120/R3121/R3122/R3123/RB3001
- TS line parts for JP :
R3113/R3114/R3116/R3117/R3120/R3121/R3122/R3123/
R3027/RB3001

A : Insert correct signal in correct ANT terminal.

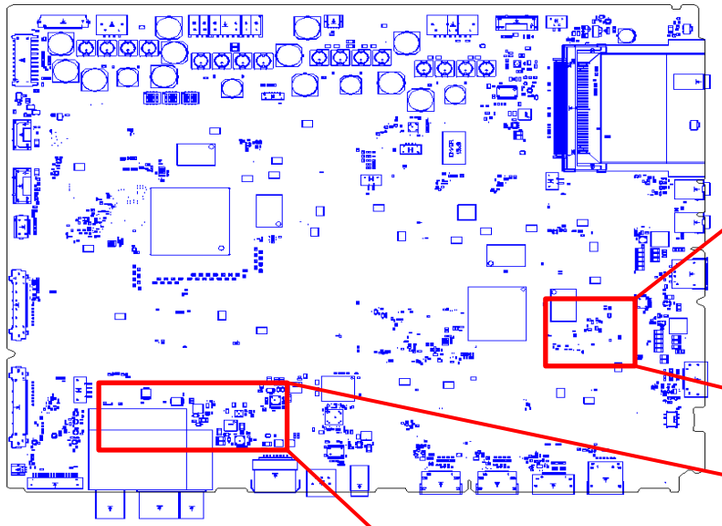
Notes: RST
- Parts for X_DEMOD_RST line:
R3109, C3117

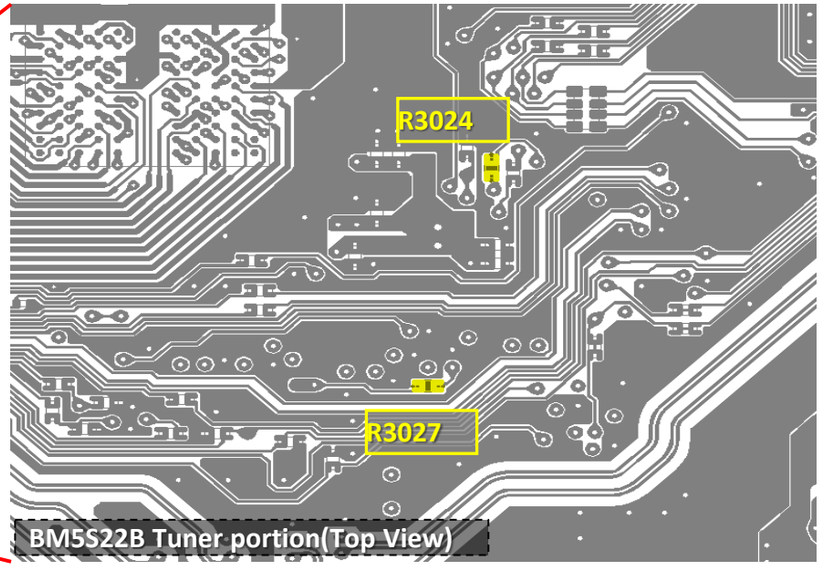
Voltage confirmation point
C3117 = 3.3V

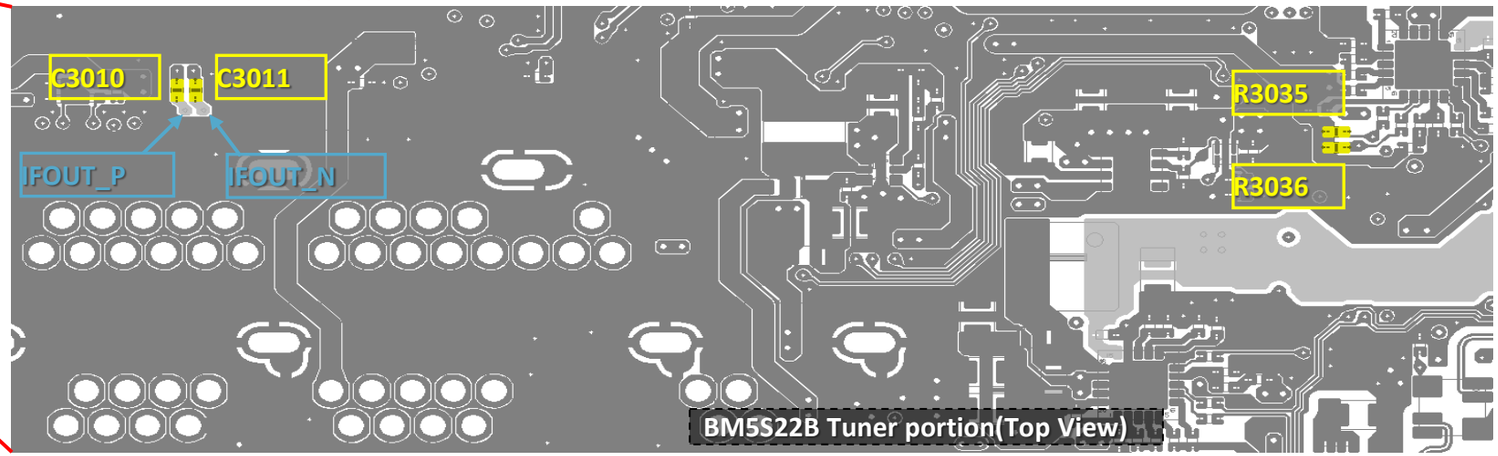
TROUBLESHOOTING

4.4 No Picture at Tuner

BM5S22B (Top View)



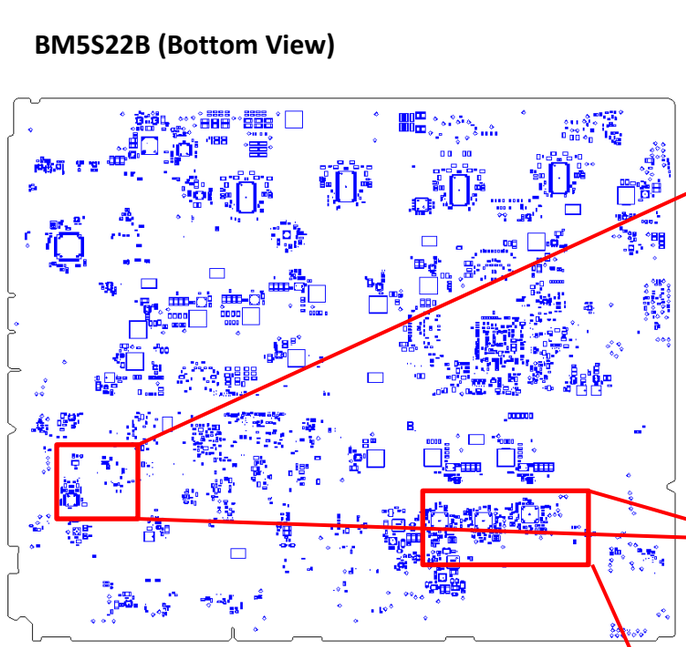


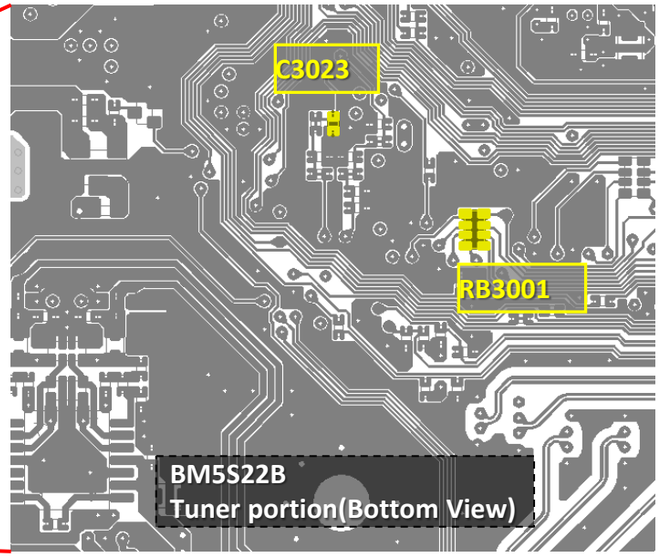


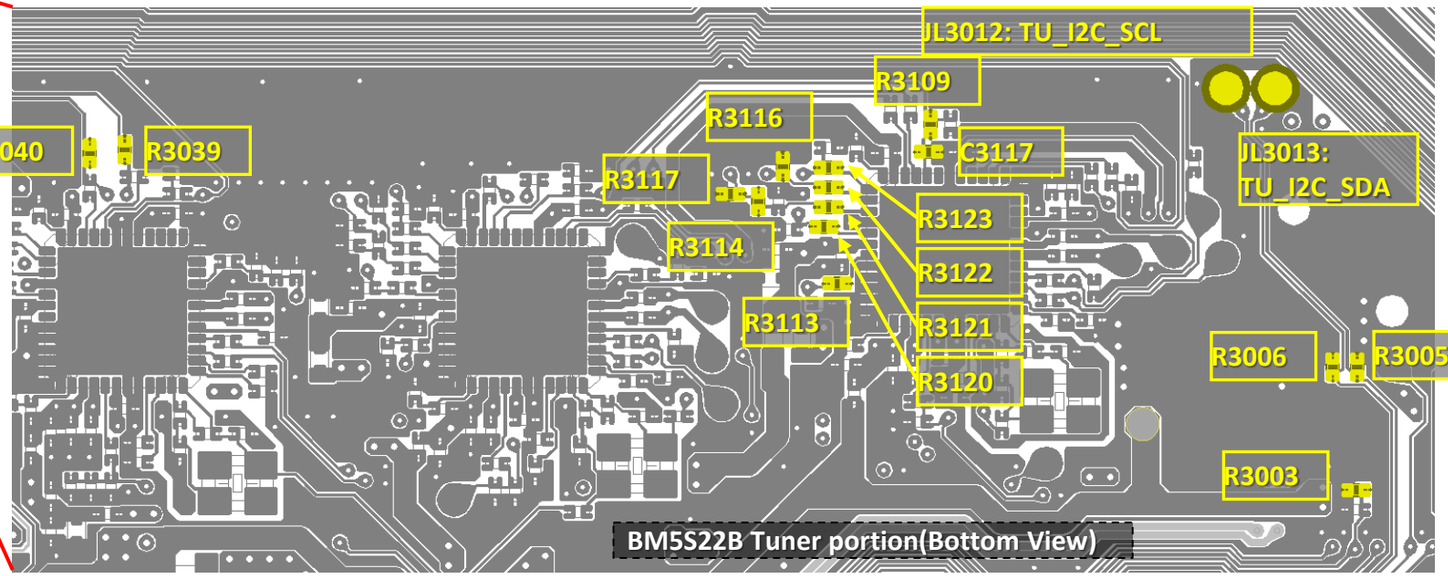
TROUBLESHOOTING

4.4 No Picture at Tuner

BM5S22B (Bottom View)

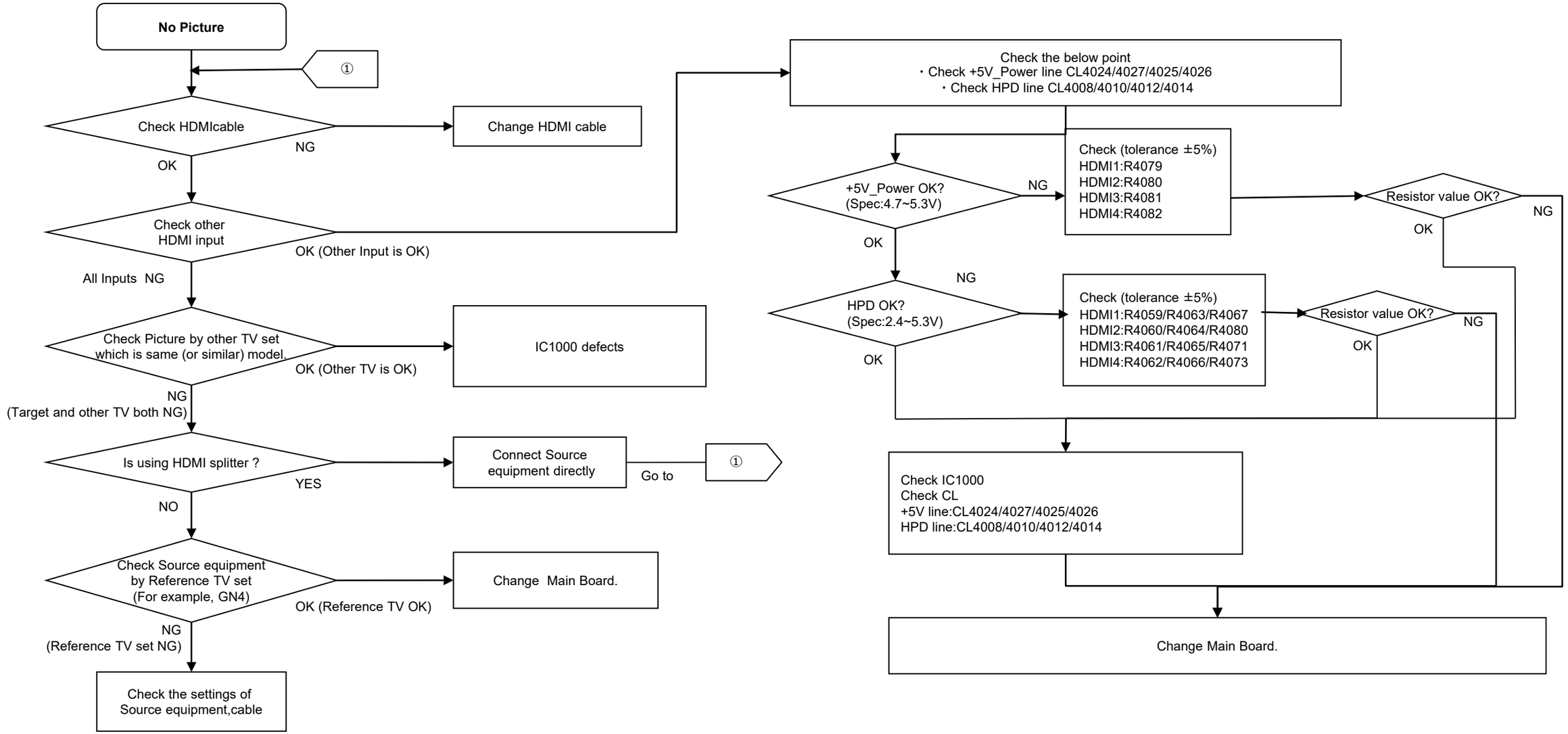




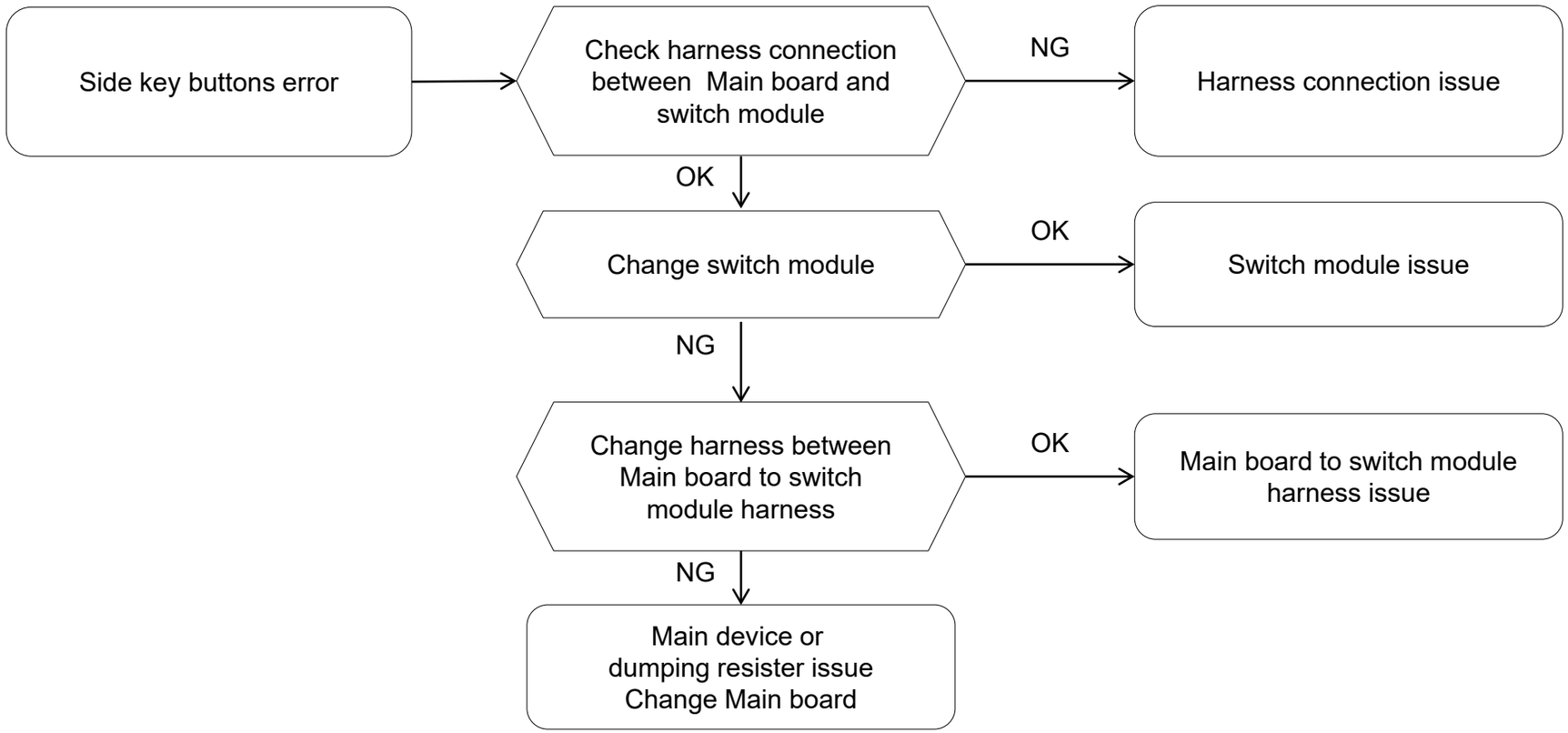


TROUBLESHOOTING

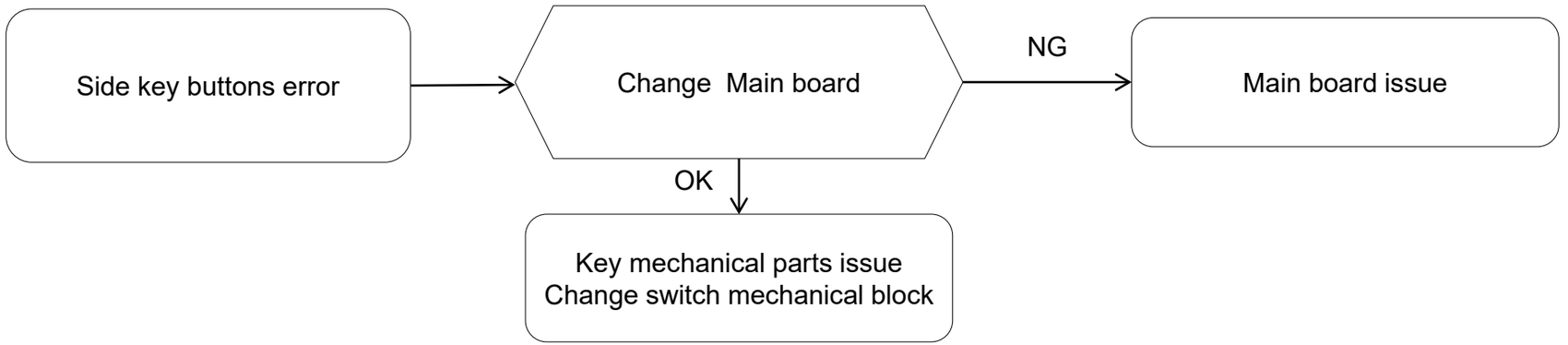
4.5 No Picture HDMI 1/2/3/4



5.0 Key Switch Button Error – Switch model type

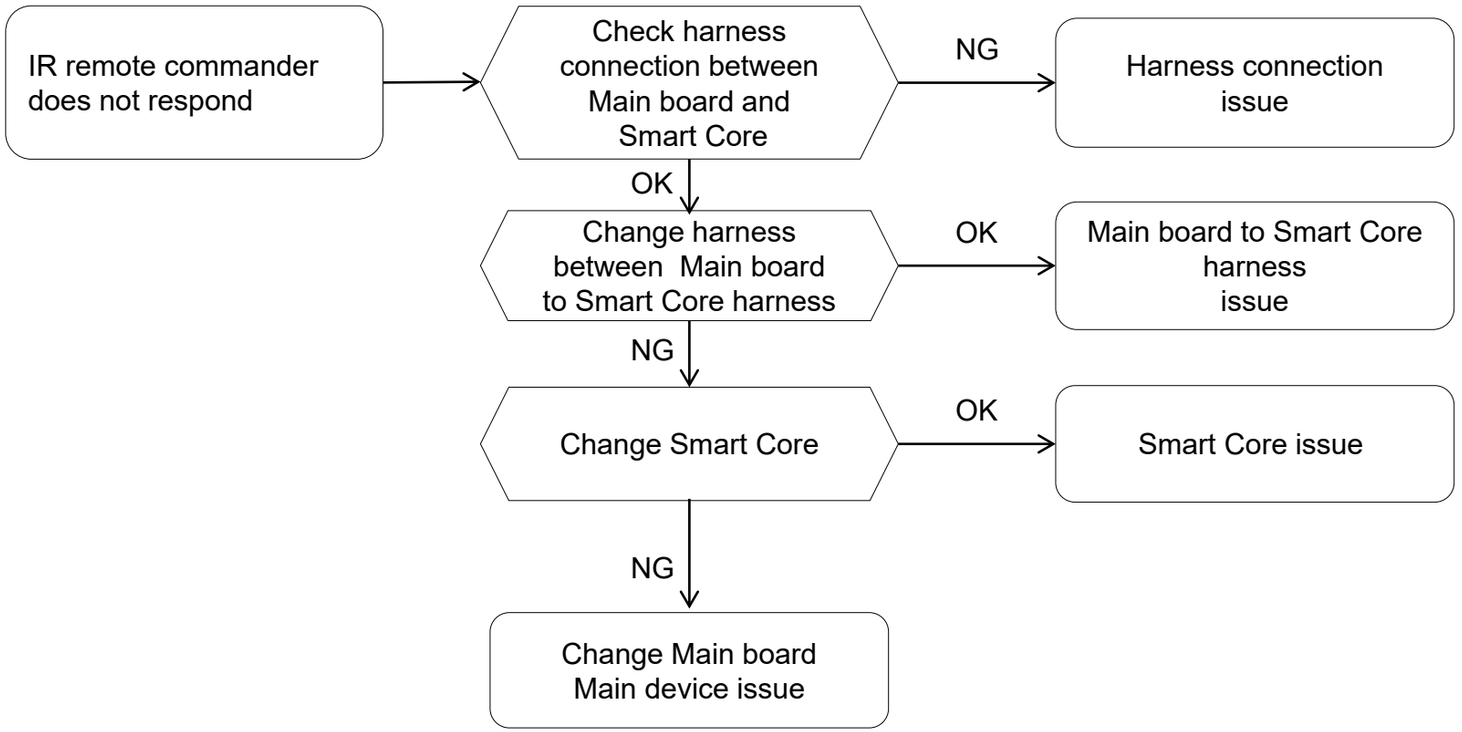


5.0 Key Switch Button Error – On board switch type

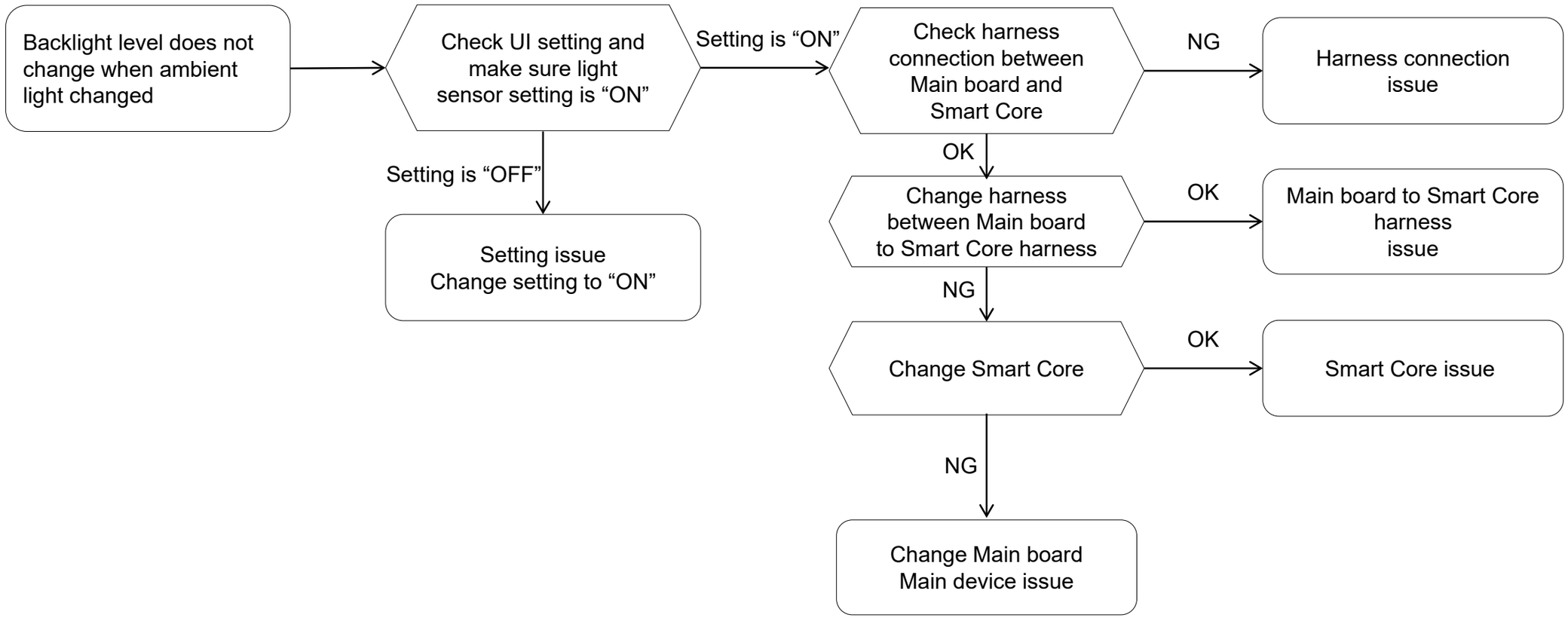


TROUBLESHOOTING

5.1 IR Remote Commander Error

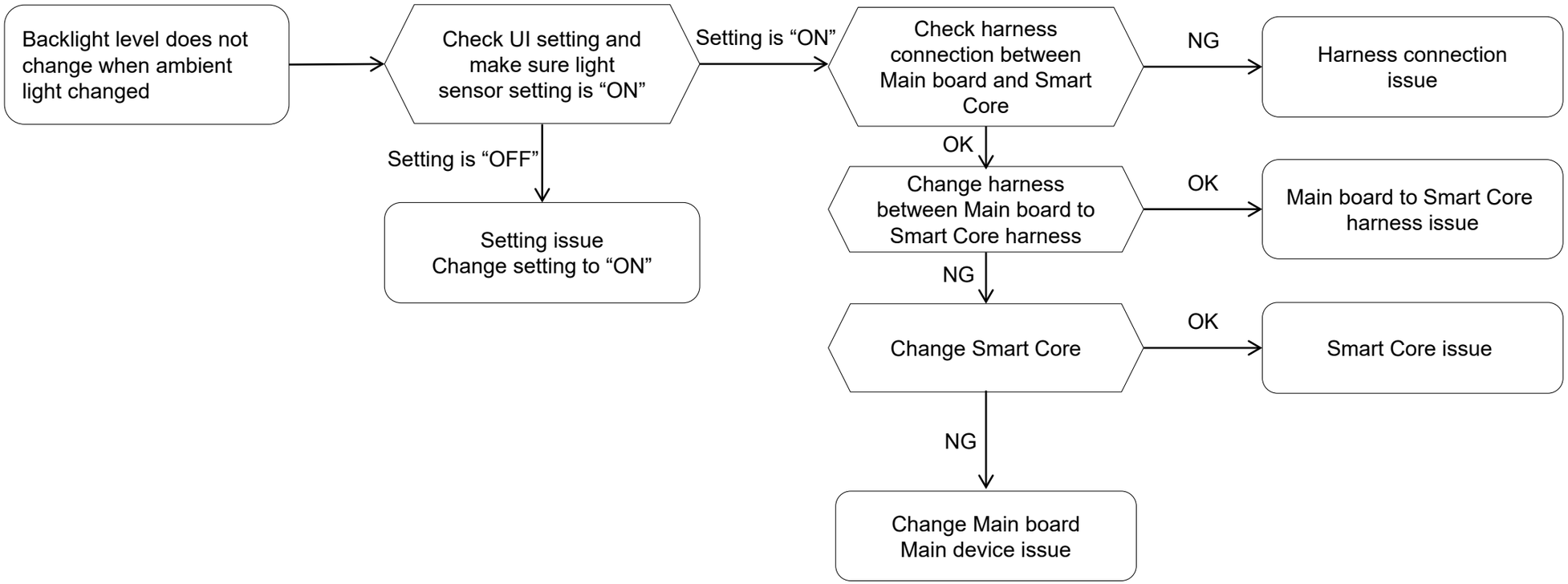


5.2 Light Sensor Error

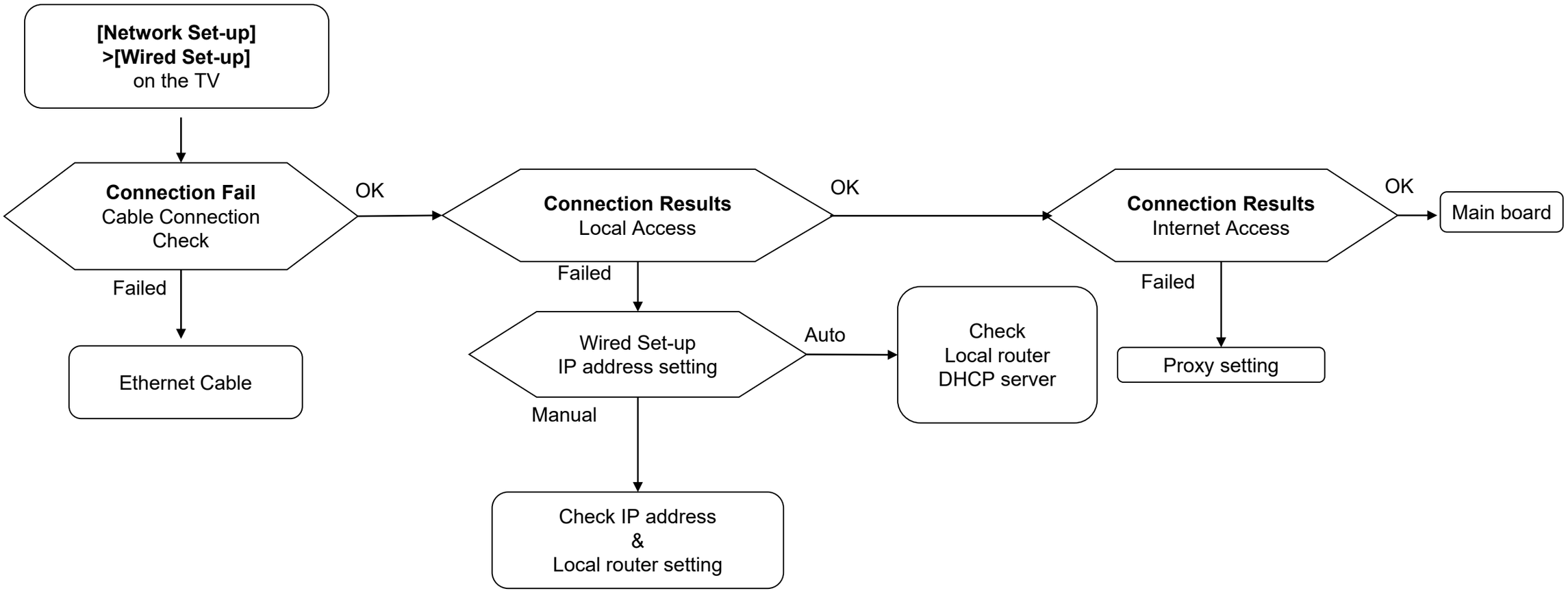


TROUBLESHOOTING

5.3 CAS ID Unknown

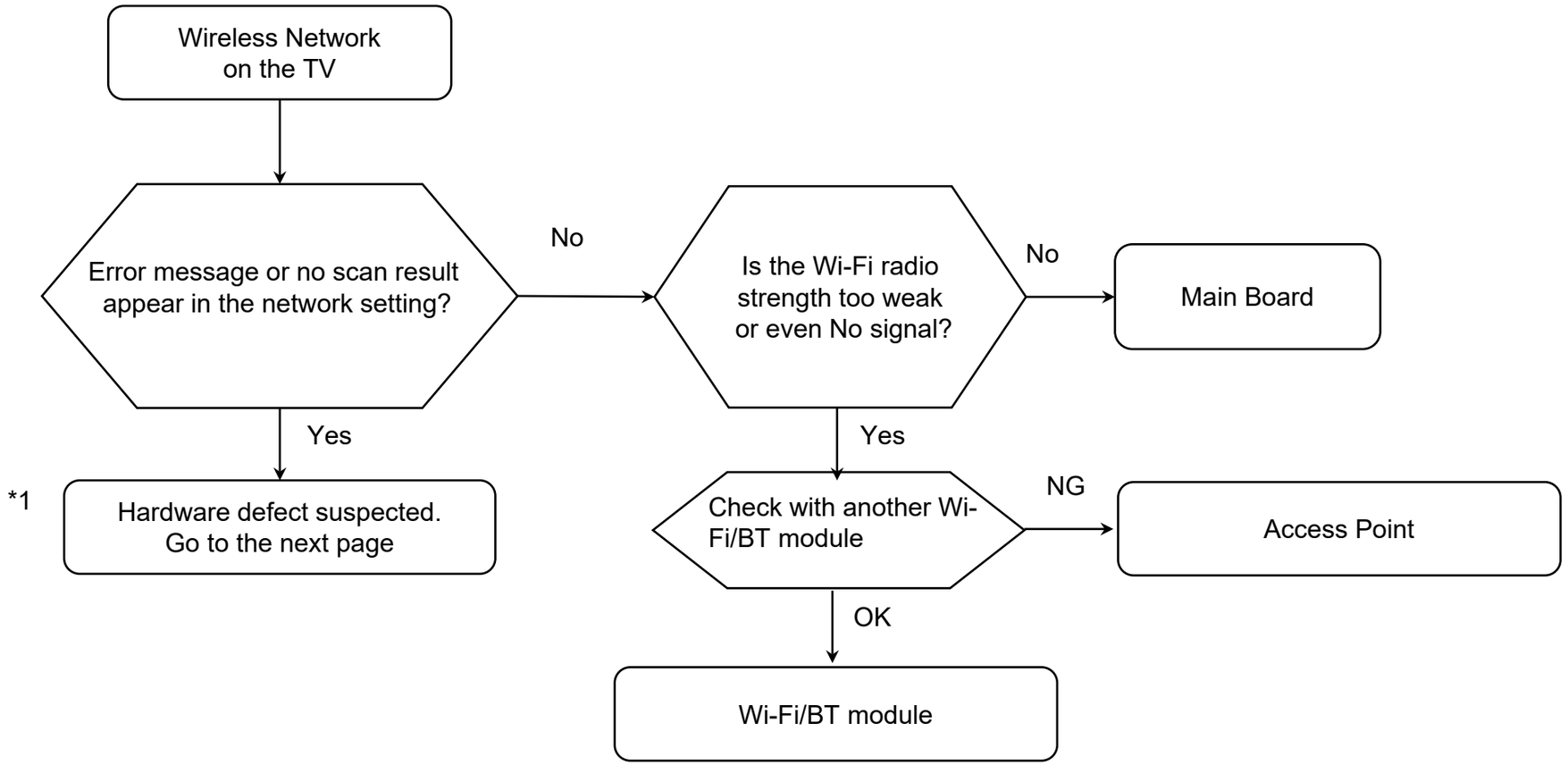


6.0 Network Malfunction: Ethernet (wired)



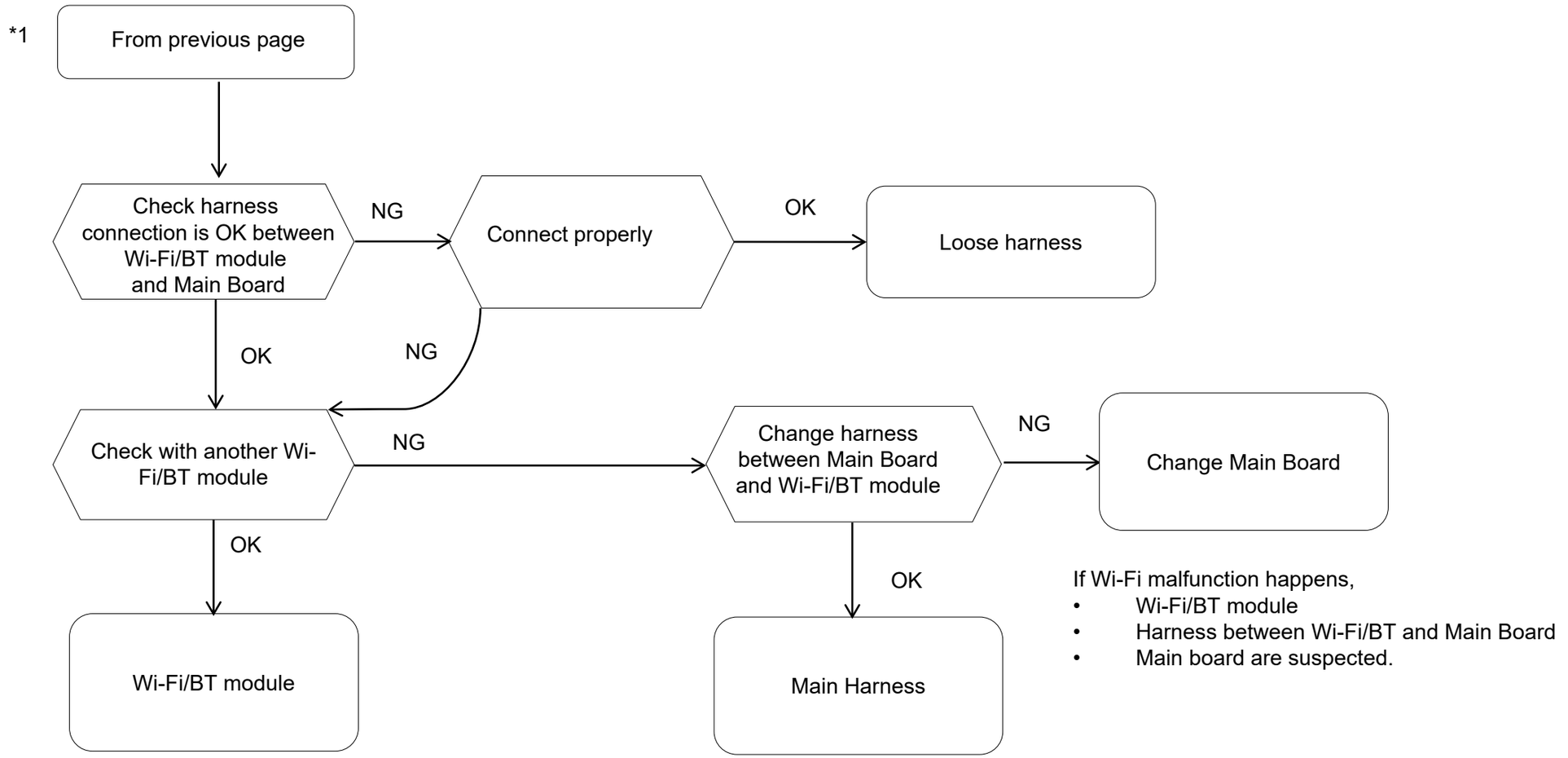
6.2 Wi-Fi Bluetooth - Wireless Network malfunction (1/2)

1) Internal Wireless Network malfunction



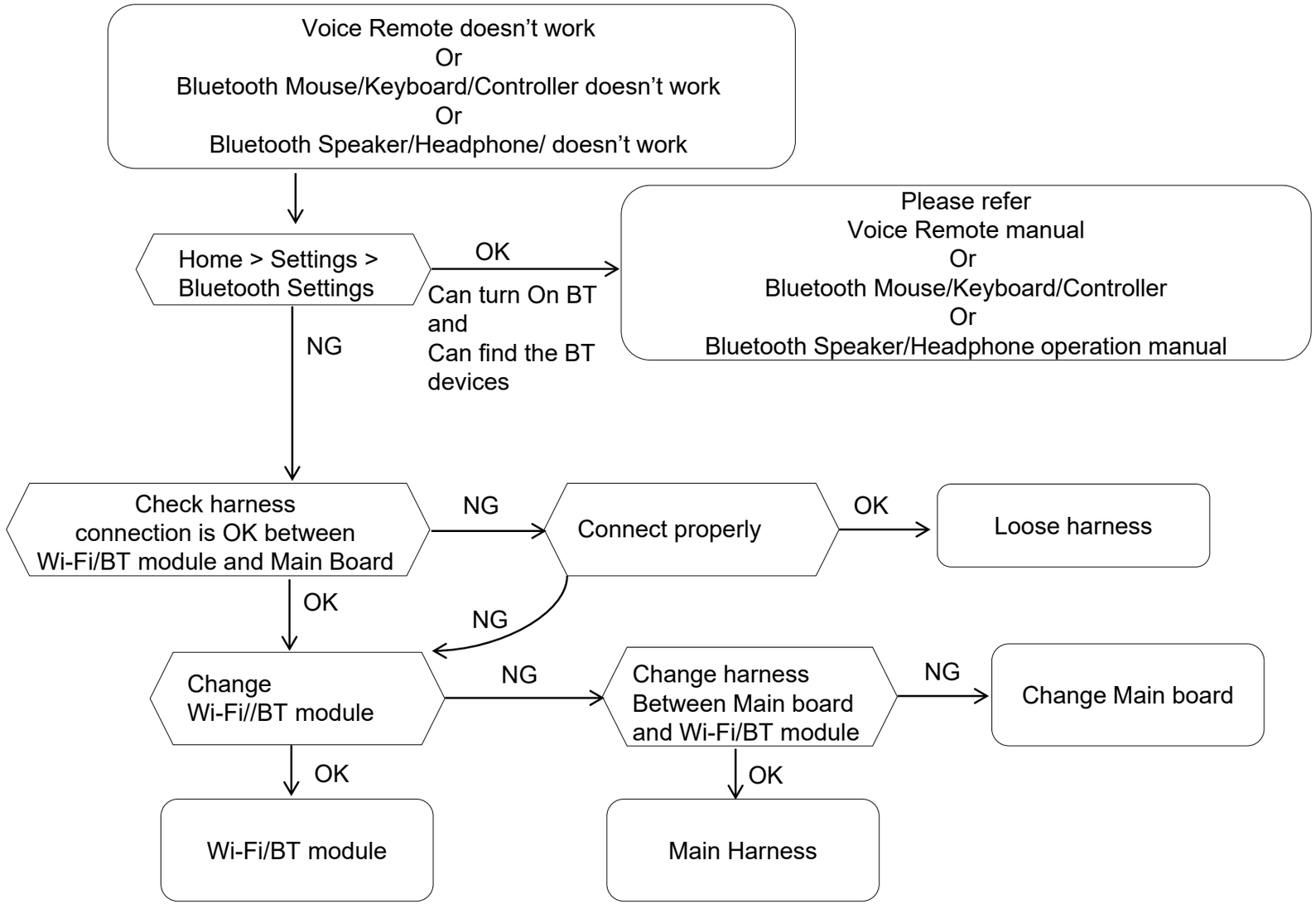
TROUBLESHOOTING

6.2 Wi-Fi Bluetooth - Wireless Network malfunction (2/2)

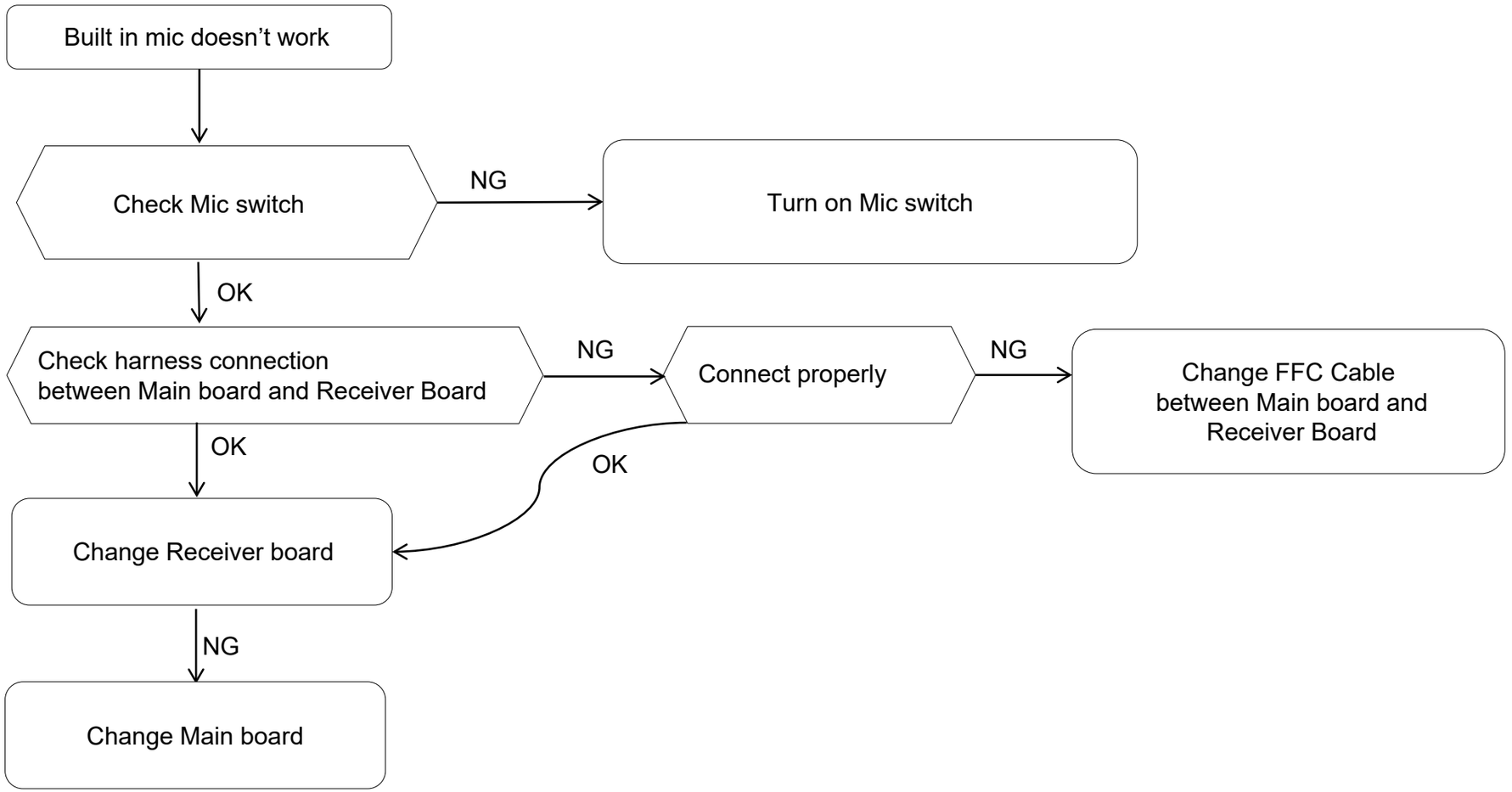


TROUBLESHOOTING

6.3 Wi-Fi Bluetooth - Bluetooth malfunction

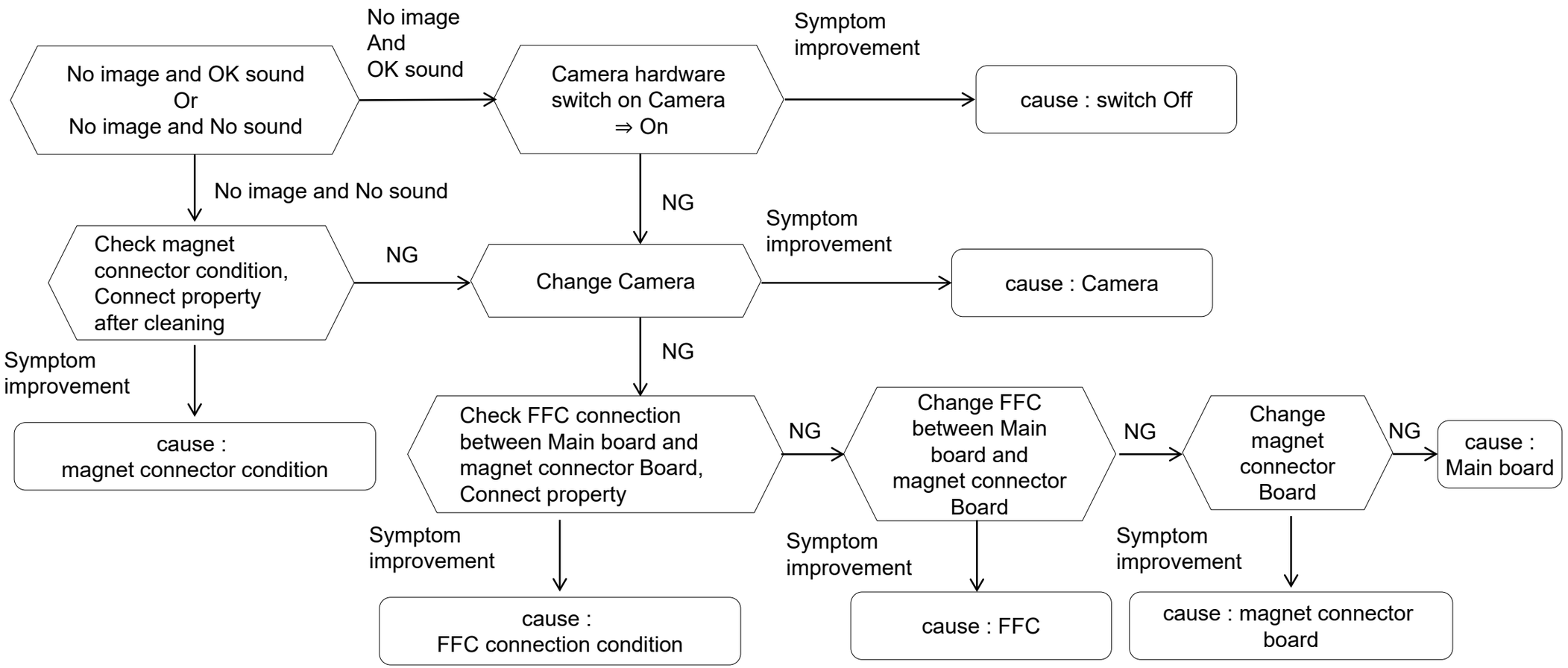


6.4 Built in Mic Malfunction



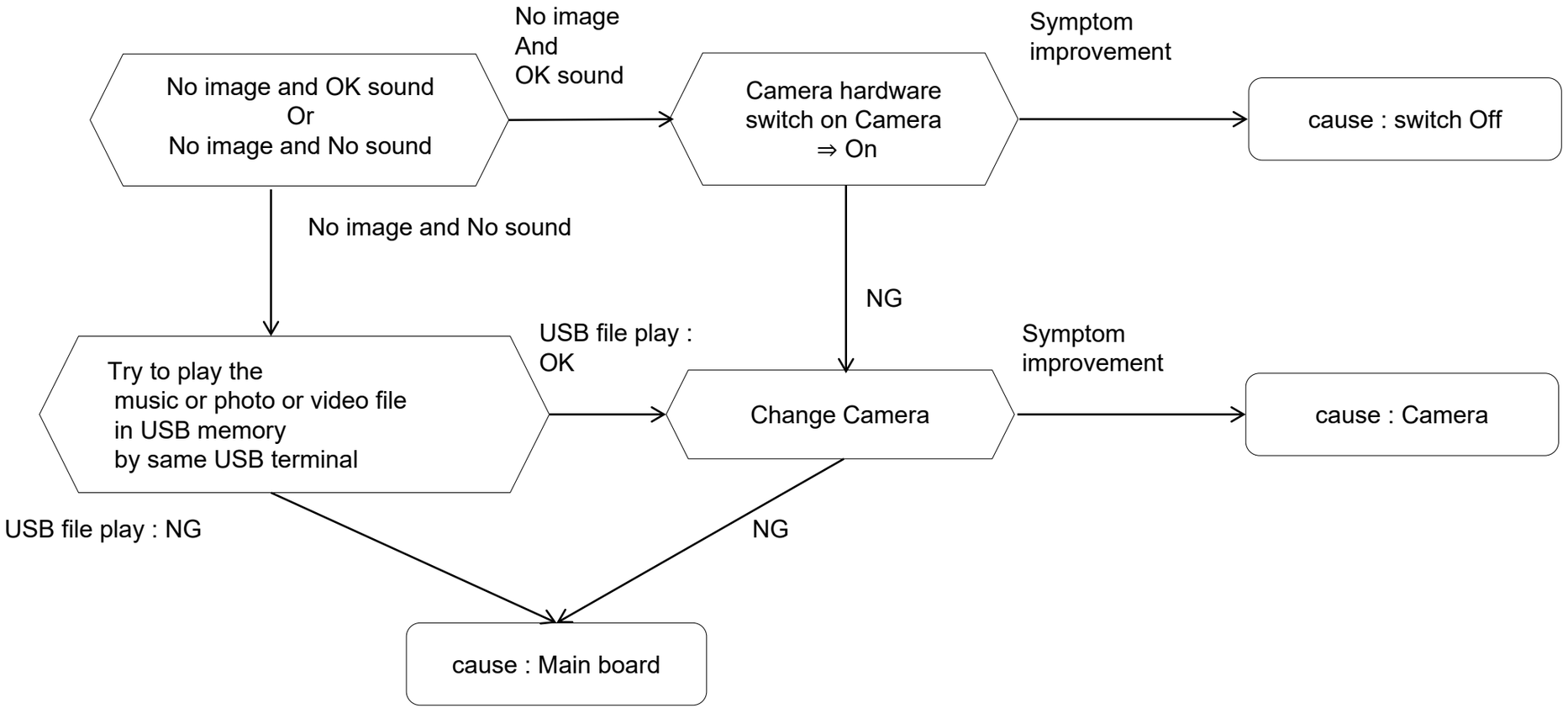
TROUBLESHOOTING

6.5 Camera Magnet connector type Camera (Bundle)



TROUBLESHOOTING

6.5 Camera USB connector type Camera (Accessory)



SOFTWARE UPDATE & RESET

USB Update

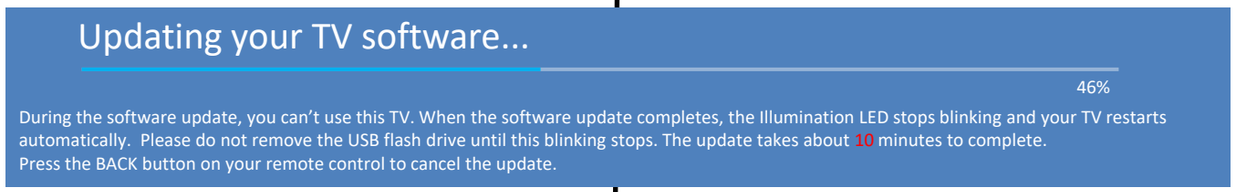
Caution: DO NOT power off while the update is in progress.

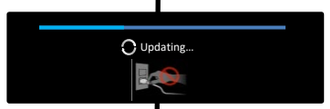
1: Download USB image and unzip file.

2: Copy zip file to USB memory root folder.

3: USB memory insert TV.

4-a:USB image is newer soft version.
Automatically show message and start update.
Please follow directions.





5: finished

The system reboot
will happen once or twice

4-b:USB image is not newer soft version.
Automatically show message.
Please follow directions.

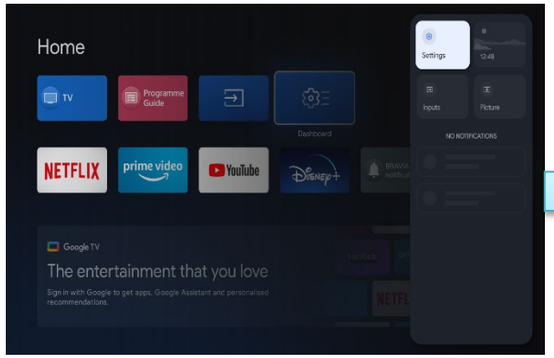
5: finished

※ Display may change depending on the model / SW version.

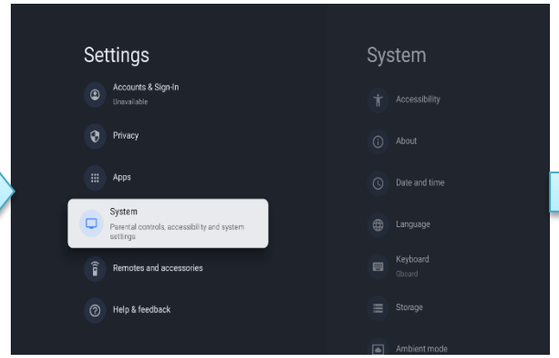
SOFTWARE UPDATE & RESET

Factory Data Reset – with UI method

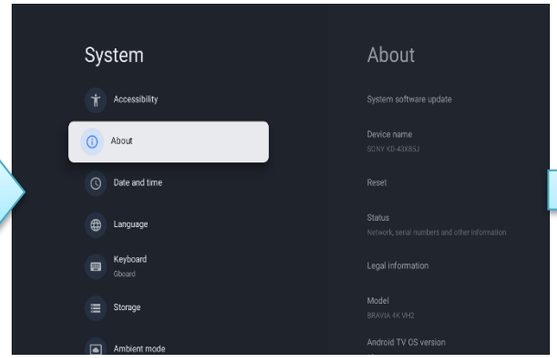
1. At Home Menu, go to Settings



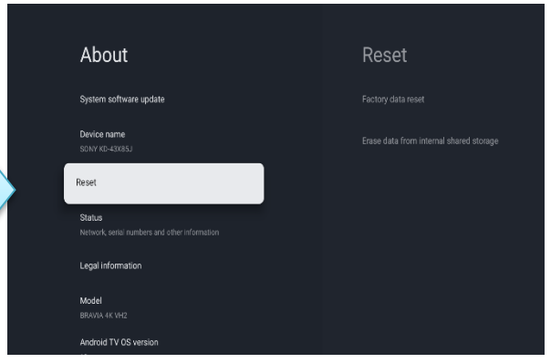
2. Select System/Device Preferences



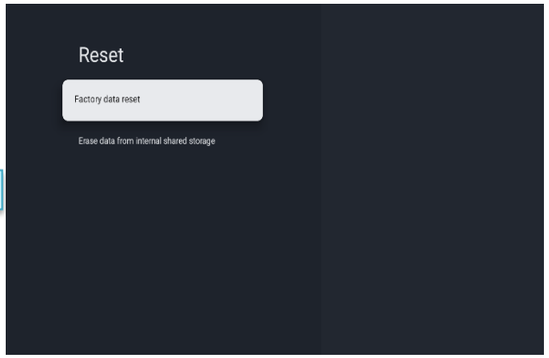
3. Select 'About'



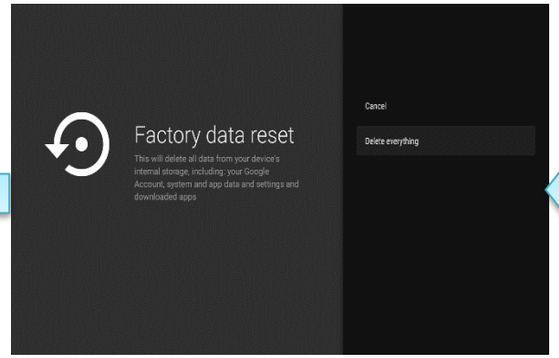
4. In About, Select 'Reset'



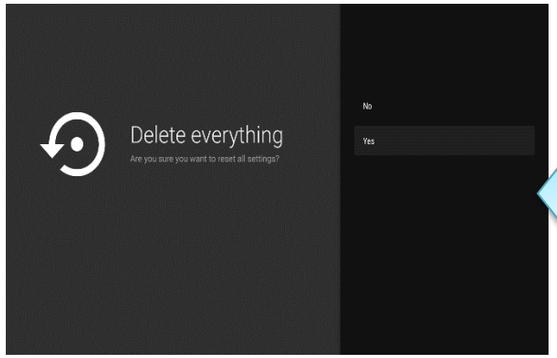
5. In Reset, Select 'Factory data reset'



6. Select 'Delete everything'



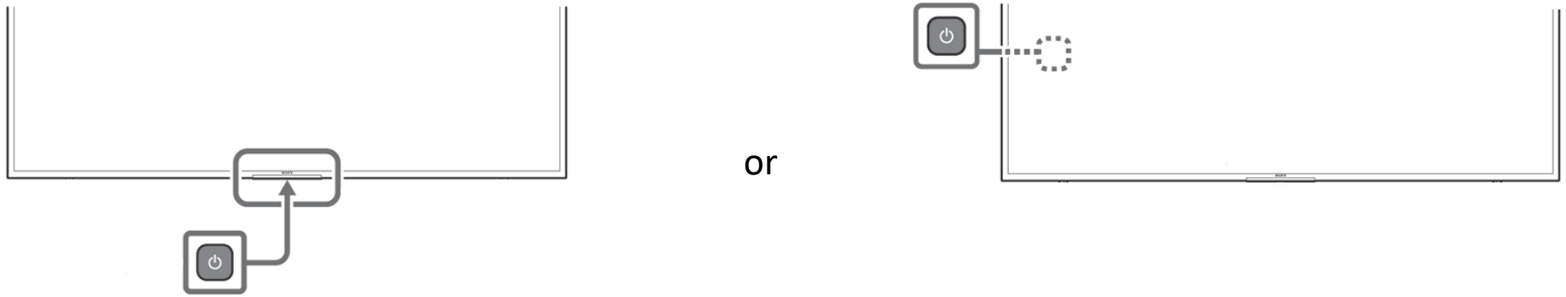
7. Select 'Yes'



SOFTWARE UPDATE & RESET

Factory Data Reset – force method (without UI)

1. Press and hold the Power button. (The position of the Power button depends on the model.)

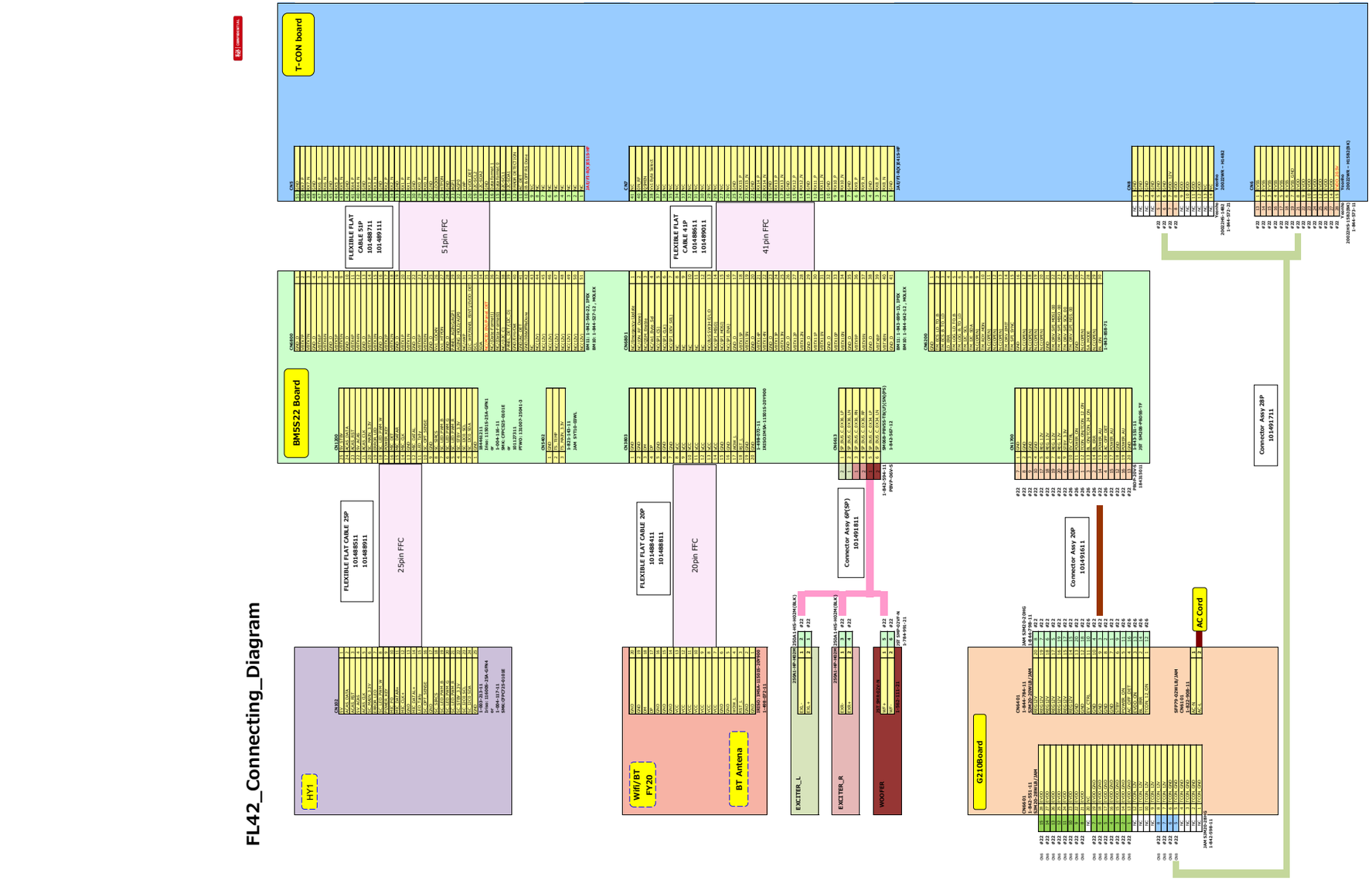


2. AC on.

3. Hold the Power button down for several seconds until the system starts Factory Data Reset.

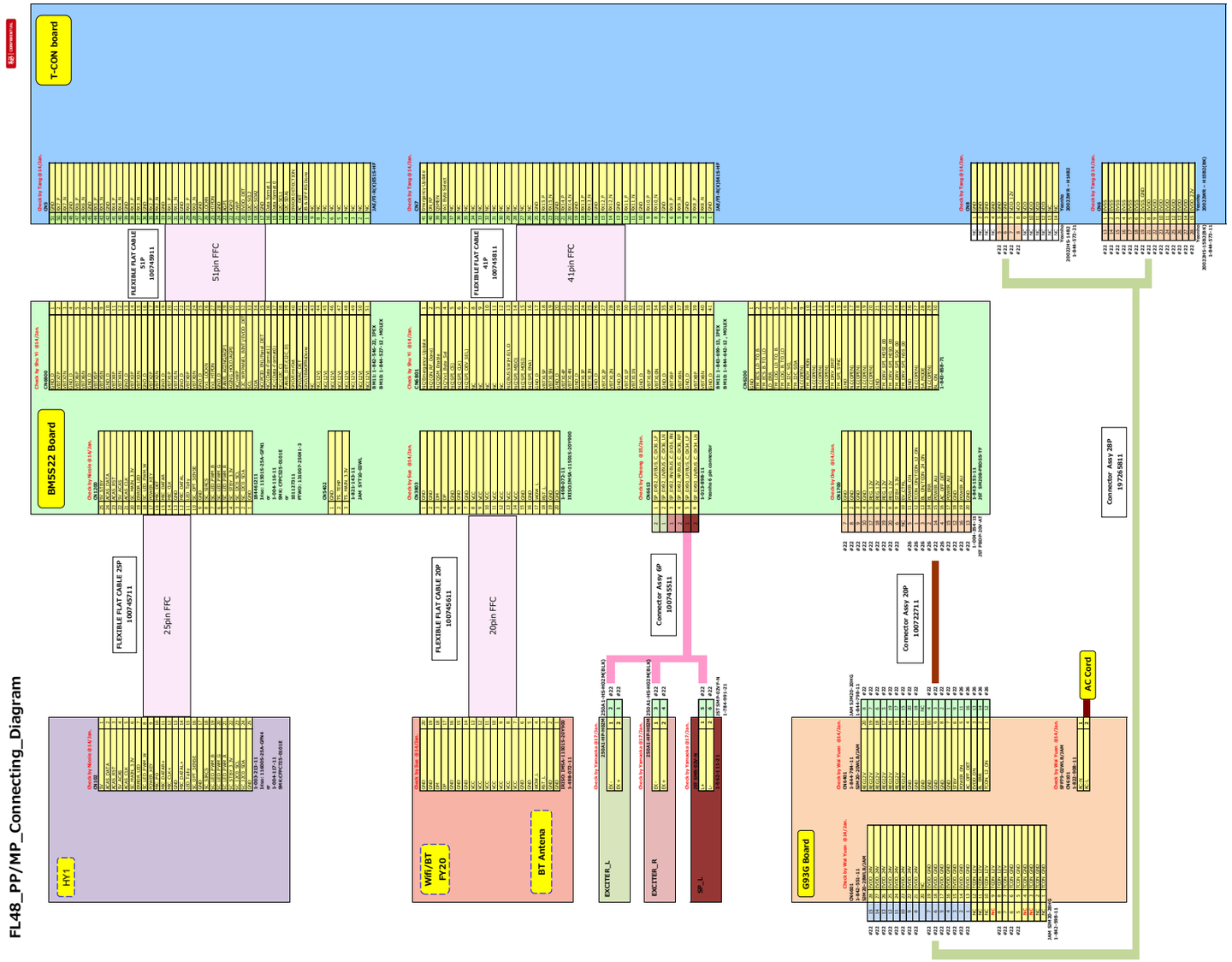
DIAGRAM

42” Connecting Diagram



DIAGRAM

48” Connecting Diagram



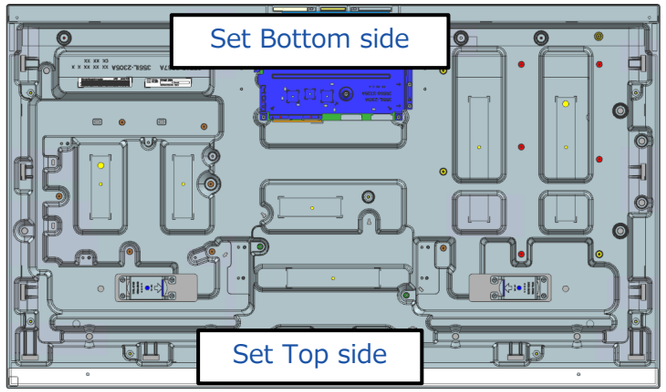
HANDLING GUIDE

Take out from P-mod packing

Holding positions are as follow

Grab the AL bag and take out.

Top side : Grab the AL bag
Bottom side : Support the bottom of the panel



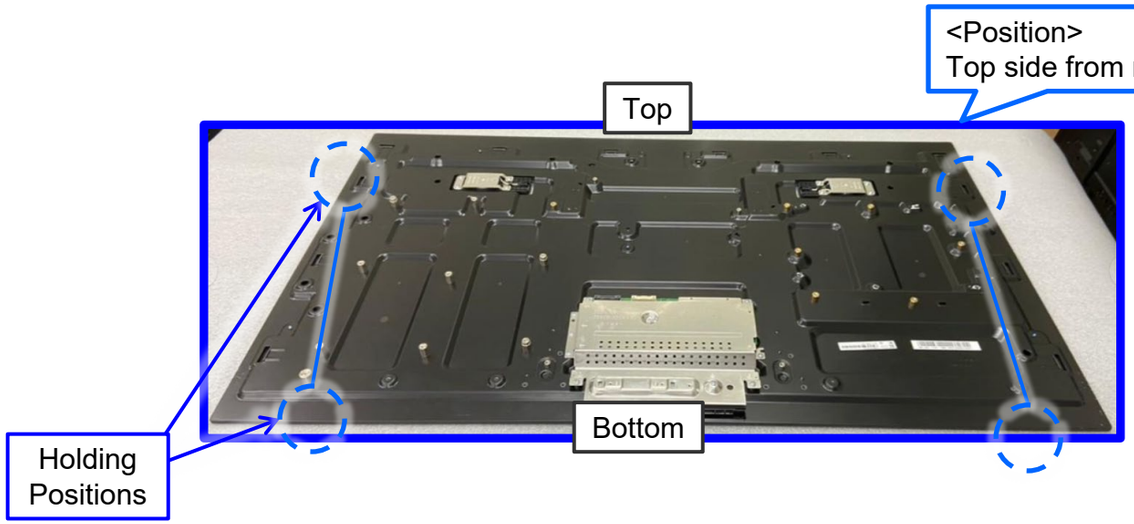
*P-Mod packing condition : Upside down

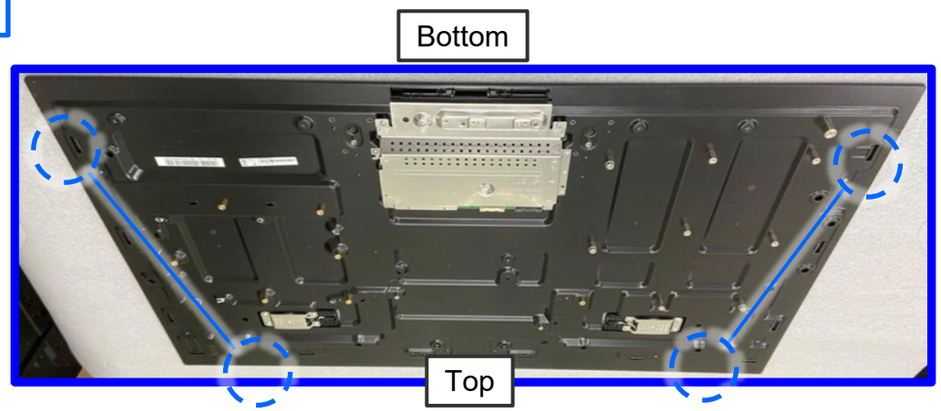
HANDLING GUIDE

Moving panel vertical position (OK)

OK

Holding Positions



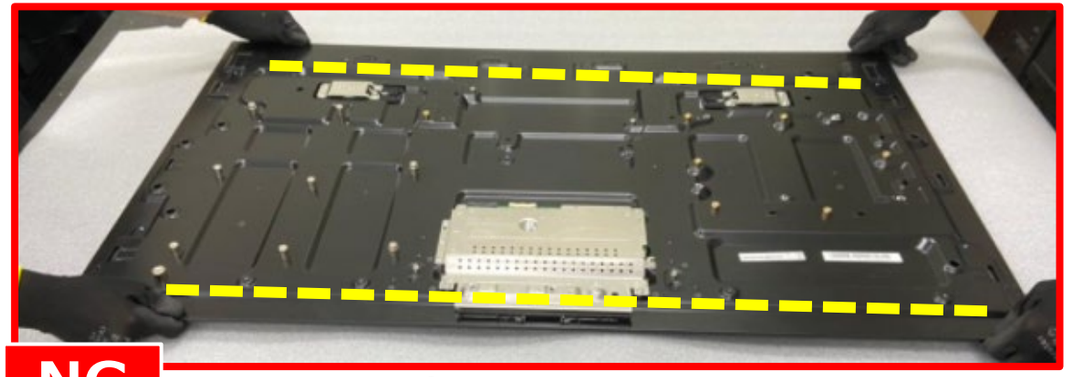


The same way to hold the panel upside down.

HANDLING GUIDE

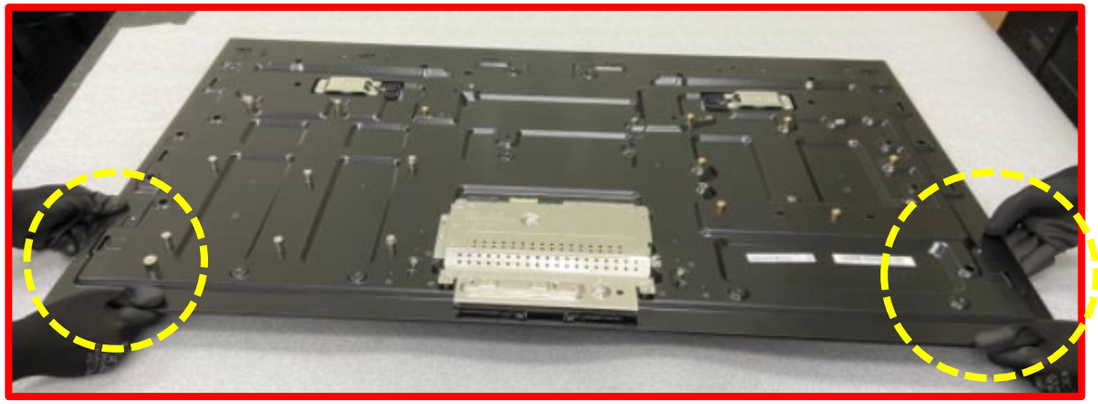
Moving panel vertical position (NG)

DO NOT allow to carry panel on face down condition.



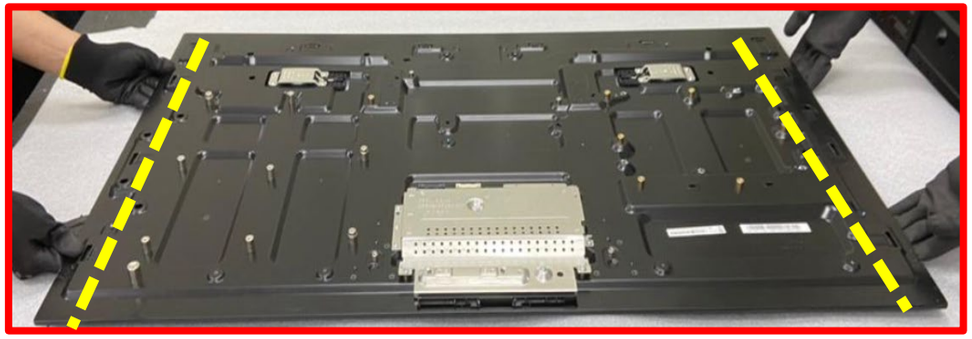
NG

Only long side



NG

Only corner



NG

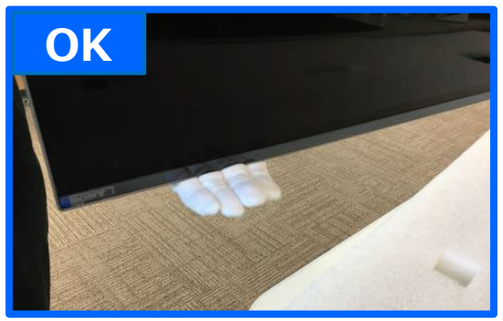
Only short side

HANDLING GUIDE

Holding on Vertical Position & Moving 1/2

OK

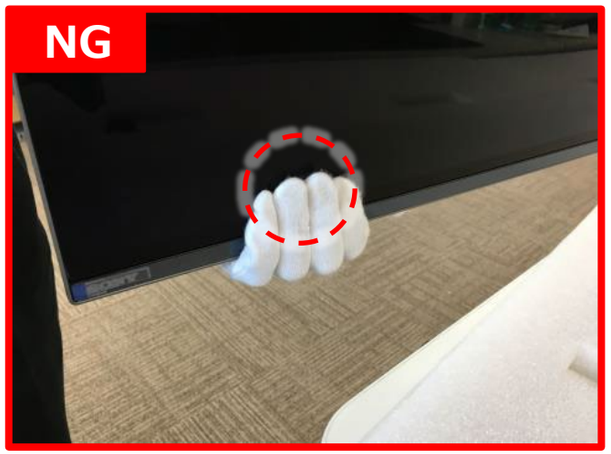
The same way to hold the panel upside down.



DO NOT catch frame by finger.

DO NOT push display by finger.

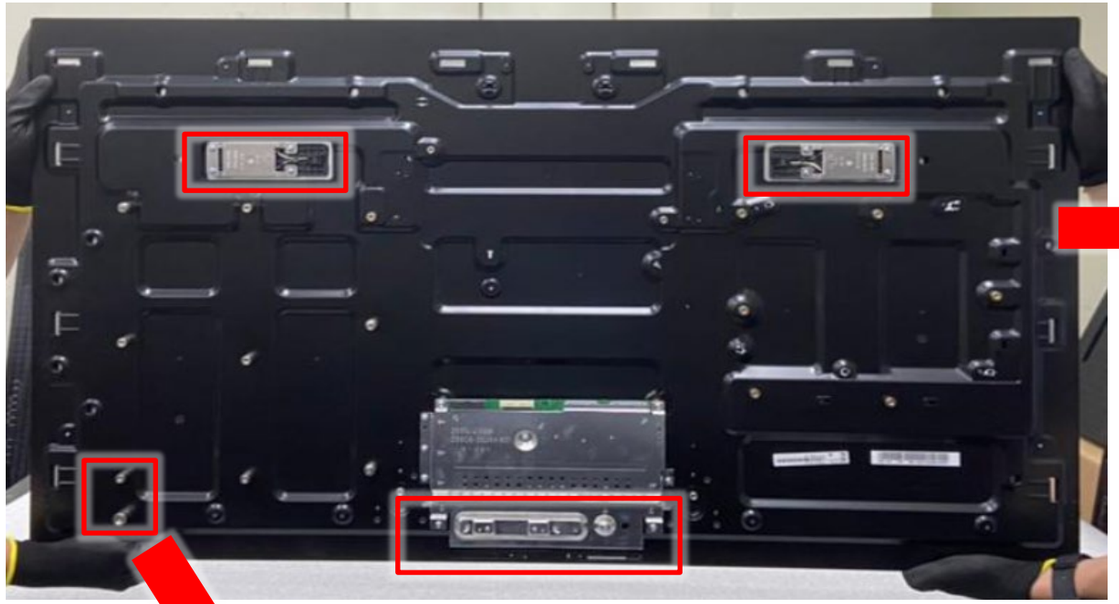
DO NOT grab 4 corner



DO NOT push display by finger.

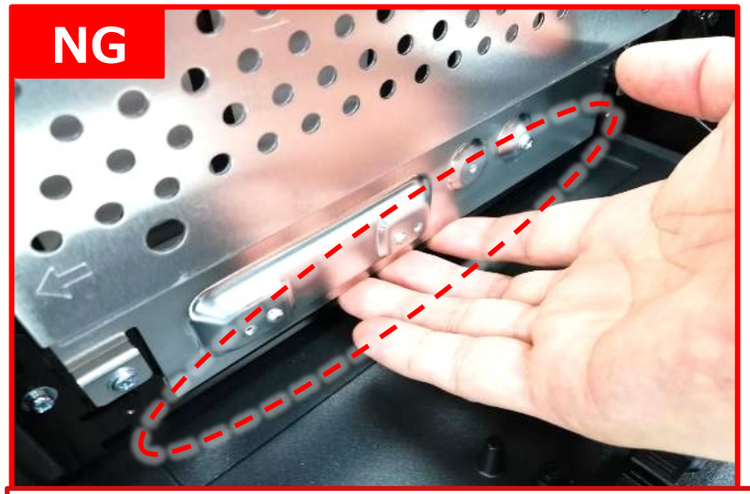
HANDLING GUIDE

Holding on Vertical Position & Moving 2/2



DO NOT grab EXCITER.

DO NOT grab all STUD.



DO NOT grab T-CON COVER SHIELD.

SERVICE MANUAL (DISASSEMBLY)

ORIGINAL MANUAL ISSUE DATE: 2023.12

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9-888-907-U1

OLED TV

SONY

Sony EMCS (Malaysia) Sdn. Bhd. HES-M

MODEL LISTS

Model	Remote	Destination
XR-42A90K	RMF-TX900U	UCM
XR-48A90K	RMF-TX900U	UCM

Self Diagnosis Supported model

RMF-TX900U

TABLE OF CONTENTS

Self Diagnosis Supported model

Please refer Service Manual (Troubleshooting) for below information:

- General Safety Notes
- Self Diagnosis Function
- Triage Chart
- Troubleshooting, Troubleshooting reference
- Software Update & Reset
- Diagrams: Connector Diagram
- Handling Guide

Note: Pictures provided in this manual may have difference from an actual sets

TOOLS & EQUIPMENTS

1 LIST OF ITEMS TO PREPARE

i. Screwdriver (e.g., #2 Phillips Screwdriver)

ii. Multimeter

iii. ESD Wrist Straps

iv. Metal Washer (Flat) or Coin (for remove Rear Cover)

v. Ruler (for remove Rear Cover)

vi. Service Manual (Disassembly) (for remove & replace details)

2 OPTIONAL EQUIPMENTS

i. Screwdriver (e.g., #0 Phillips Screwdriver)

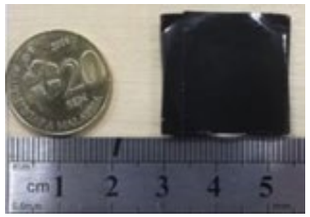
ii. Parts Tray for loose screws and small items

iii. Flashlight

iv. Service Manual (Troubleshooting)

3 PREPARATION BEFORE REPAIRS

Before you begin, unplug the TV from the wall outlet and stand it up on a level work surface to begin removing the Rear Cover. If you are working on a TV that was wall-mounted, and does not have a stand, simply place the TV faced-down on top of a thick blanket, on a large/flat surface, or you may be able to lean it up against a wall near a wall outlet.



Thickness: approx. 1.5mm
Diameter: 20~25mm
(wrap in tape (L=50mm))

Plastic or Metal Ruler
(In case of Metal ruler, wrap in tape (L=50mm) for prevent scratches)

FFC PRECAUTIONS

※Caution: DO NOT hold / touch copper side during FFC handling.

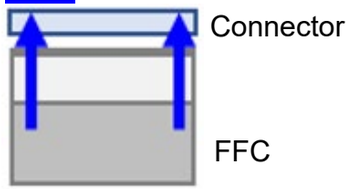
FFC Insertion Method

ESSENTIAL CAUTION INFO THAT MUST BE FOLLOWED BY PRODUCTION FOR ANY FFC INSERTION METHOD

INSERT FFC IN STRAIGHT CONDITION

STRAIGHT INSERT

OK



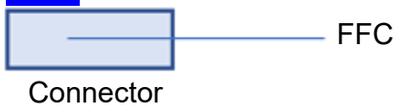
NG

DO NOT INSERT FFC IN SLANTING CONDITION

DO NOT APPLY EXCESSIVE FORCE DURING INSERTION

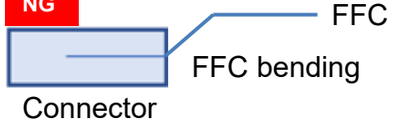
INSERT ANGLE

OK

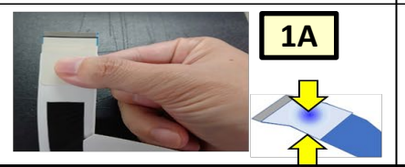
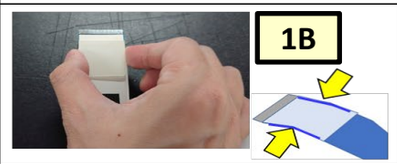
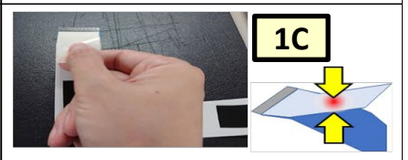
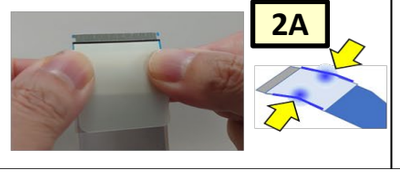
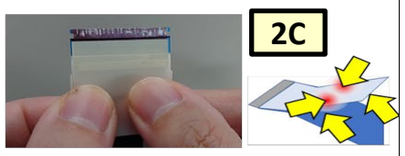


Cross section of TV set from A

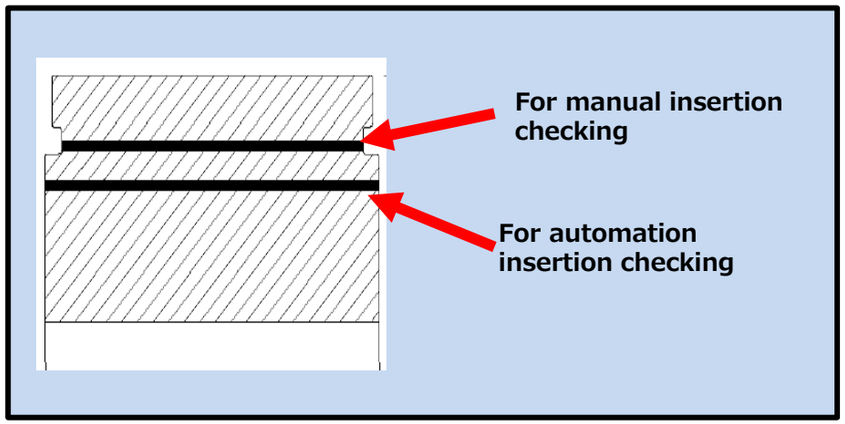
NG



RECOMMENDED FFC HOLDING METHOD MATRIX

	A Sandwich	B Both ends	C Plate
1 One-hand	 1A	 1B	 1C
2 Both hands	 2A		 2C

INDICATION FOR FFC FULL INSERTION

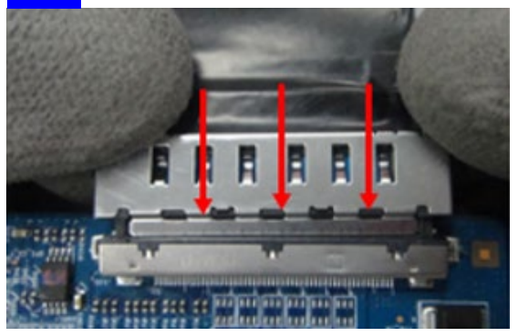


FFC PRECAUTIONS

Caution for FFC with Housing Connector

CAUTION FOR FFC WITH CONNECTOR INSTALLATION AT PANEL SIDE

OK



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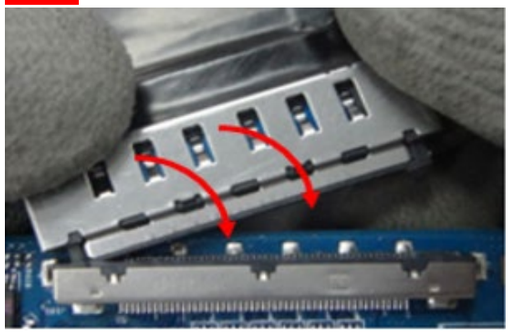
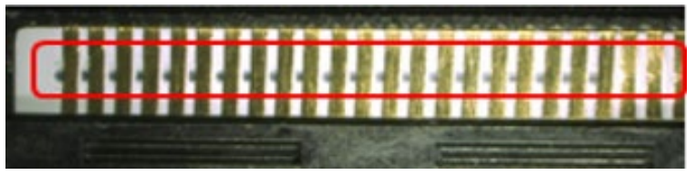
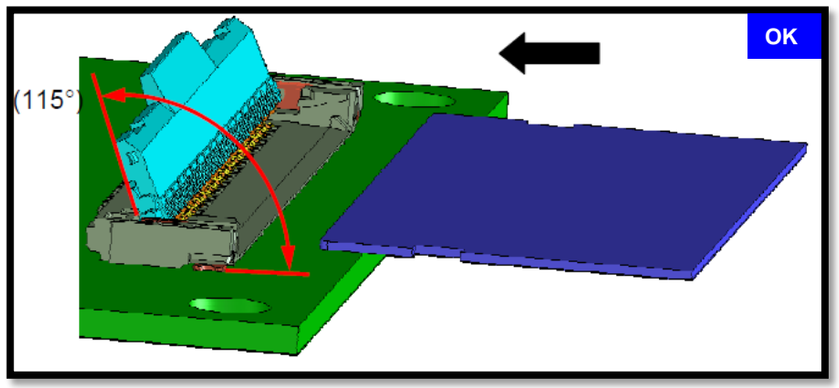


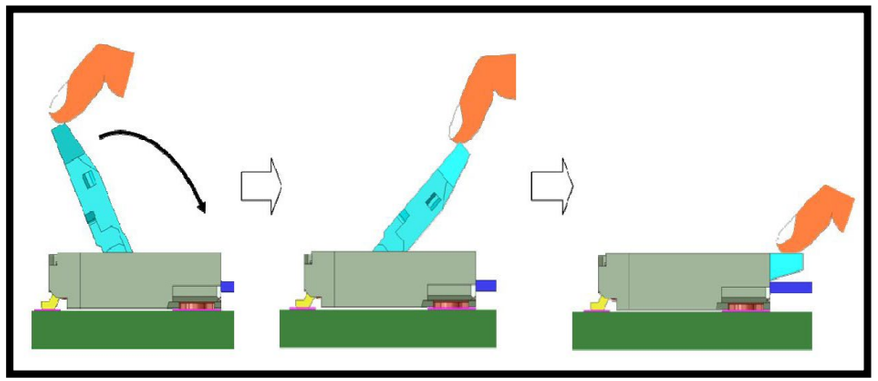
ABNORMAL HANDLING WILL CAUSE CONTACT SHIFTED & FOREIGN PARTICLES ISSUE AS PICTURE BELOW:



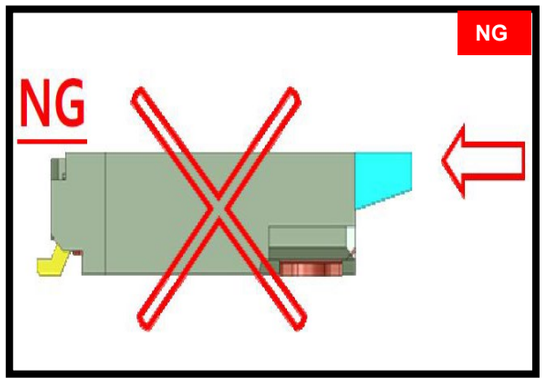
ZIFF FFC Insertion Caution



Pull ***up*** to open actuator.



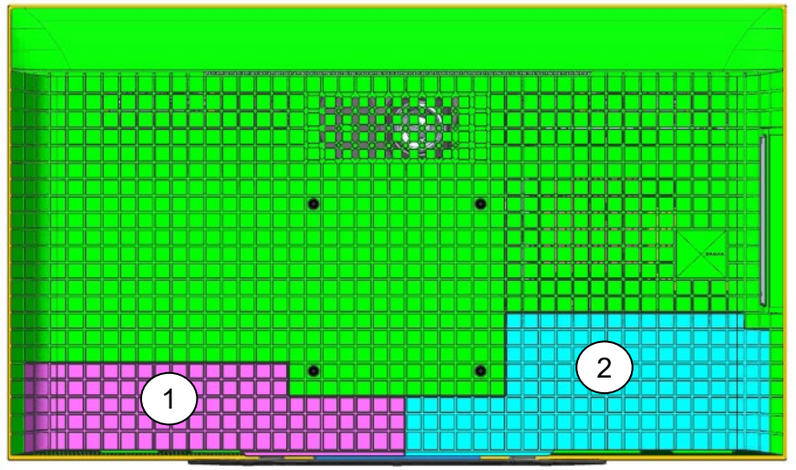
Close actuator securely to lock
Make sure line indication on FFC is align with actuator.



Do not push ***inwards*** with excessive force.

REAR COVER

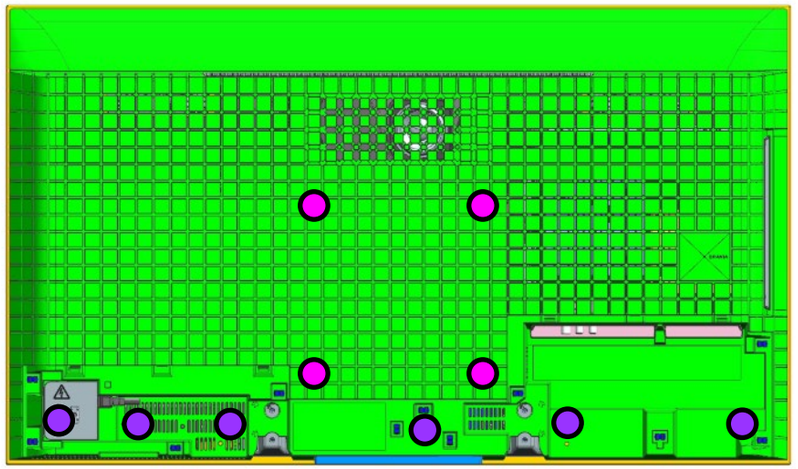
1. Remove AC Cover and Under Cover



(1) COVER, AC(SM LIO)

(2) COVER, UNDER (SM LIO)

2. Remove screws from Rear Cover

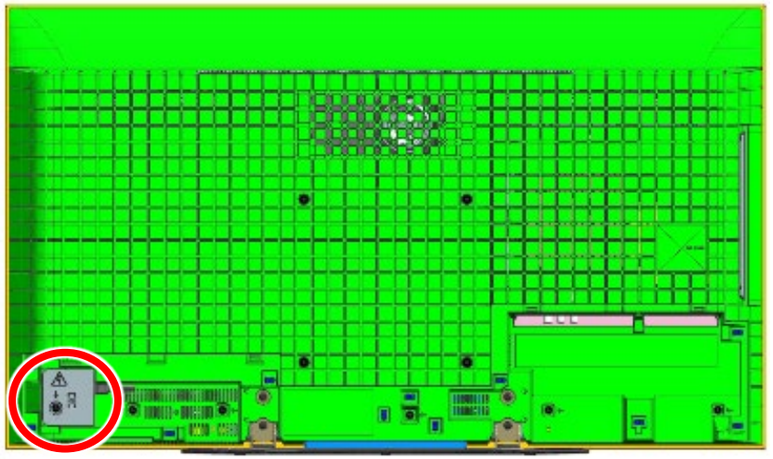


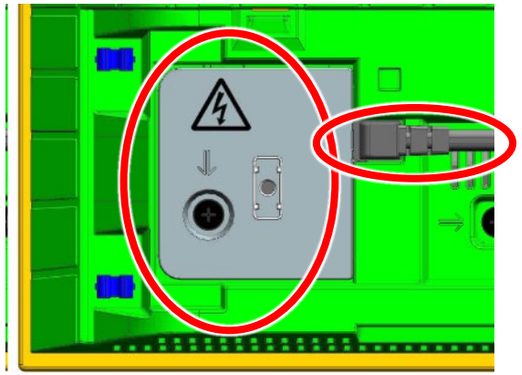
SCREW M3X3.0 STEP	6 pcs
SCREW, ORNAMENTAL M6x12	4 pcs

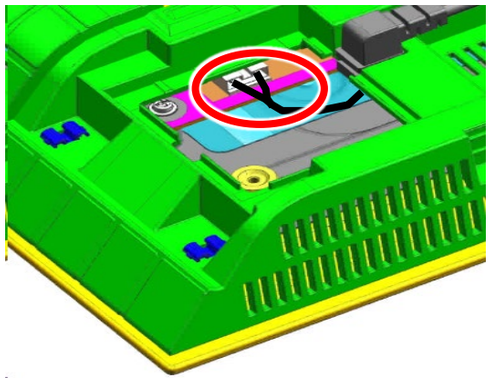
Total screws : 10 pcs

REAR COVER

3. Remove AC Cover (AC COVER (AT) and Power Supply Cord
   Then disconnect from Power Board .

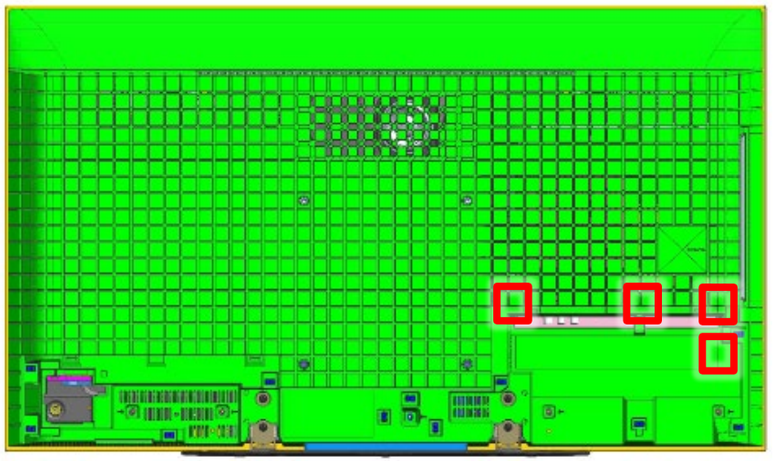






4. Hold near Smart Core and pull up Rear Cover.
   Then release all hooks at under recess area.

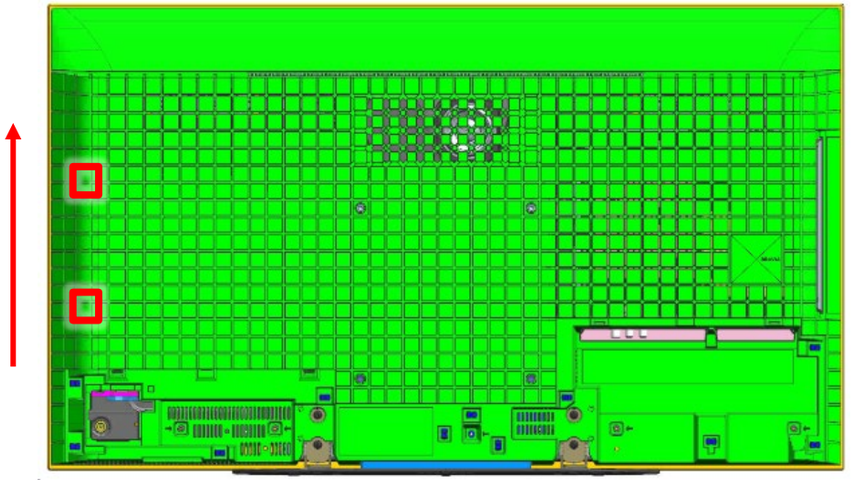
Total hooks : 4 pcs

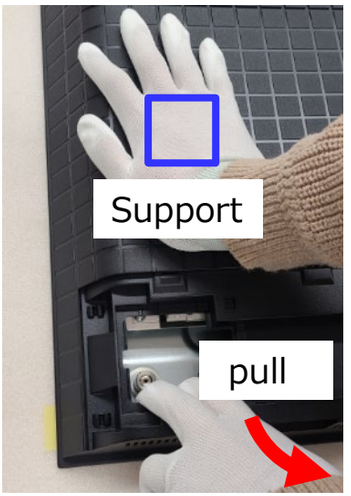


REAR COVER

5. Remove hooks at the left side

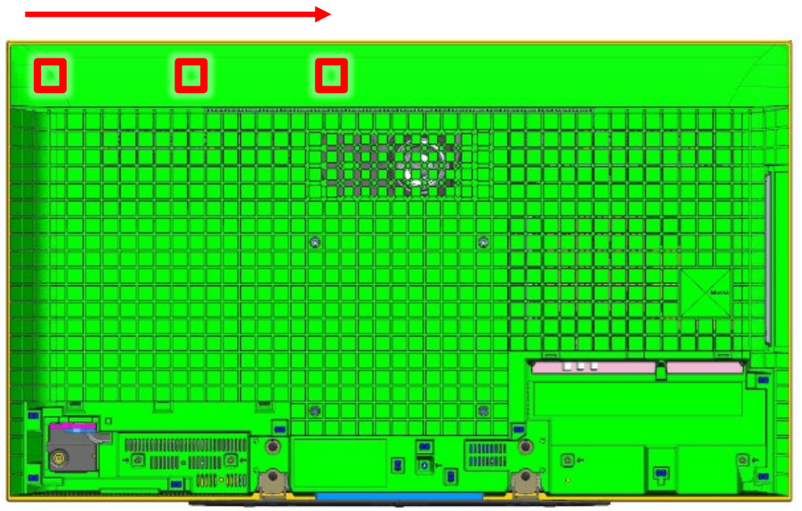
1. Use gloves is a must to remove the hooks
2. Support at right figure area and hold the hole at the AC Cover
3. After that pull the Rear Cover downwards
4. Then , release the 2 pcs of hooks

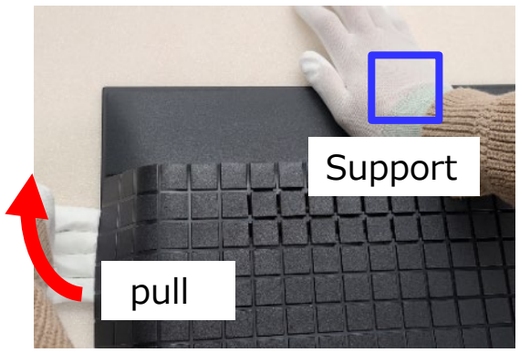




6. Remove hooks at the top side

1. Use gloves is a must to remove the hooks
2. Support at right figure area and hold the gap between the Rear Cover panel
3. After that pull the Rear Cover
4. Then , release the corner hooks
5. Release other hooks with the same method

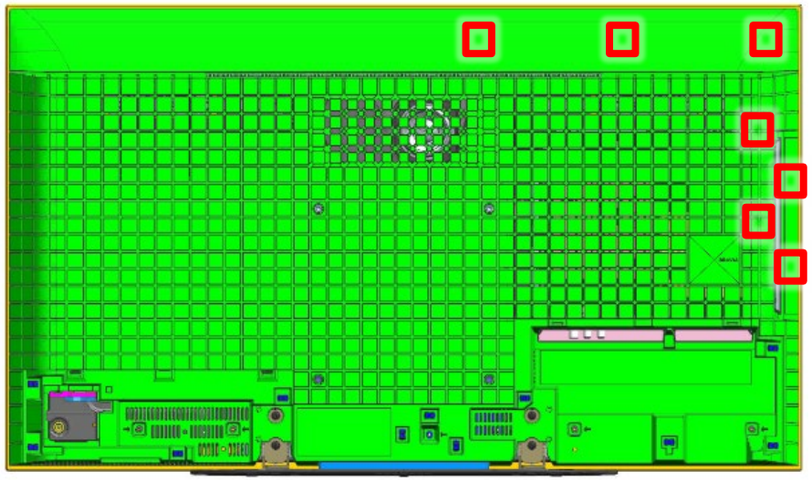




REAR COVER

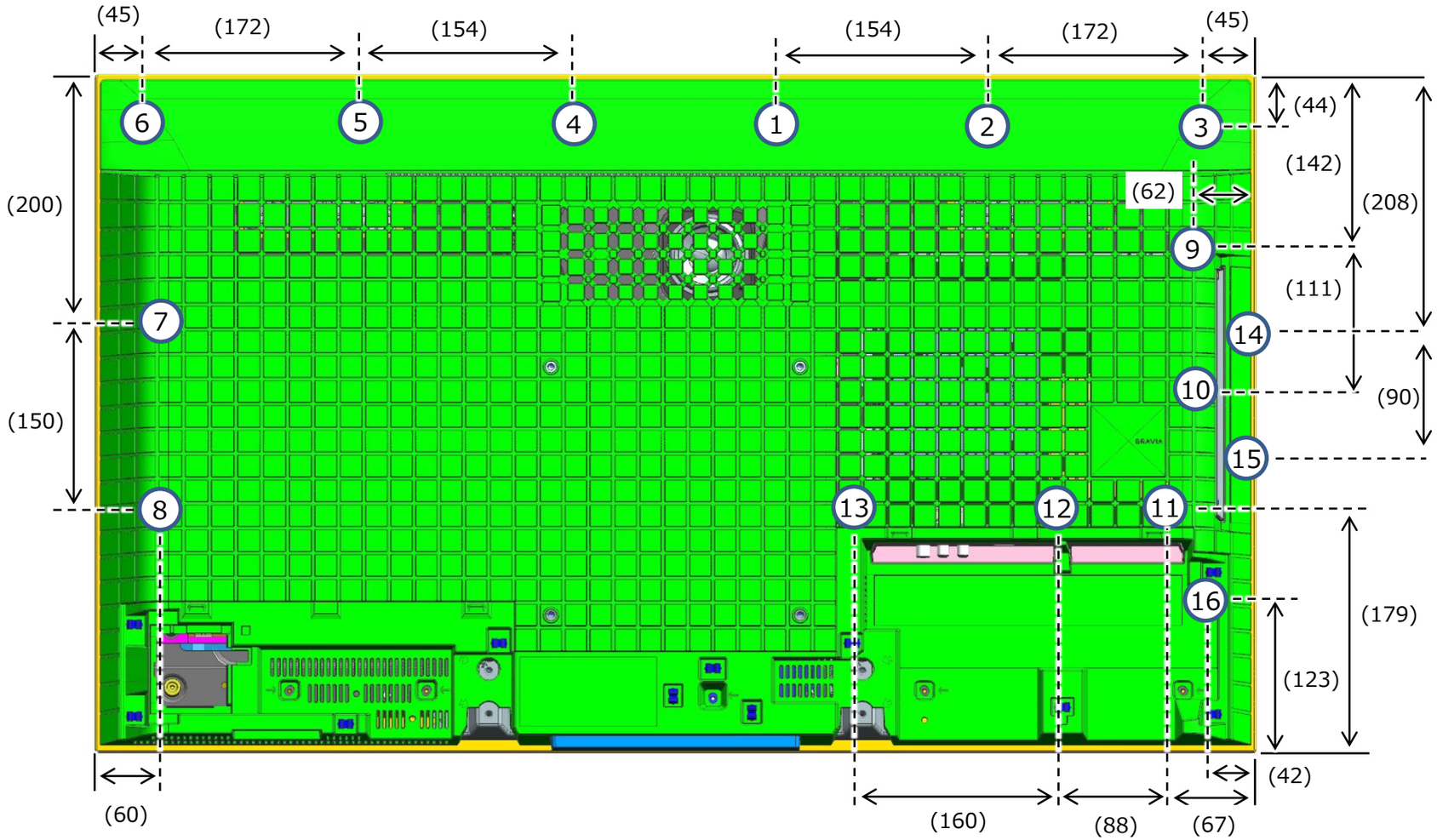
7. Remove hooks at the top / right side and terminal area

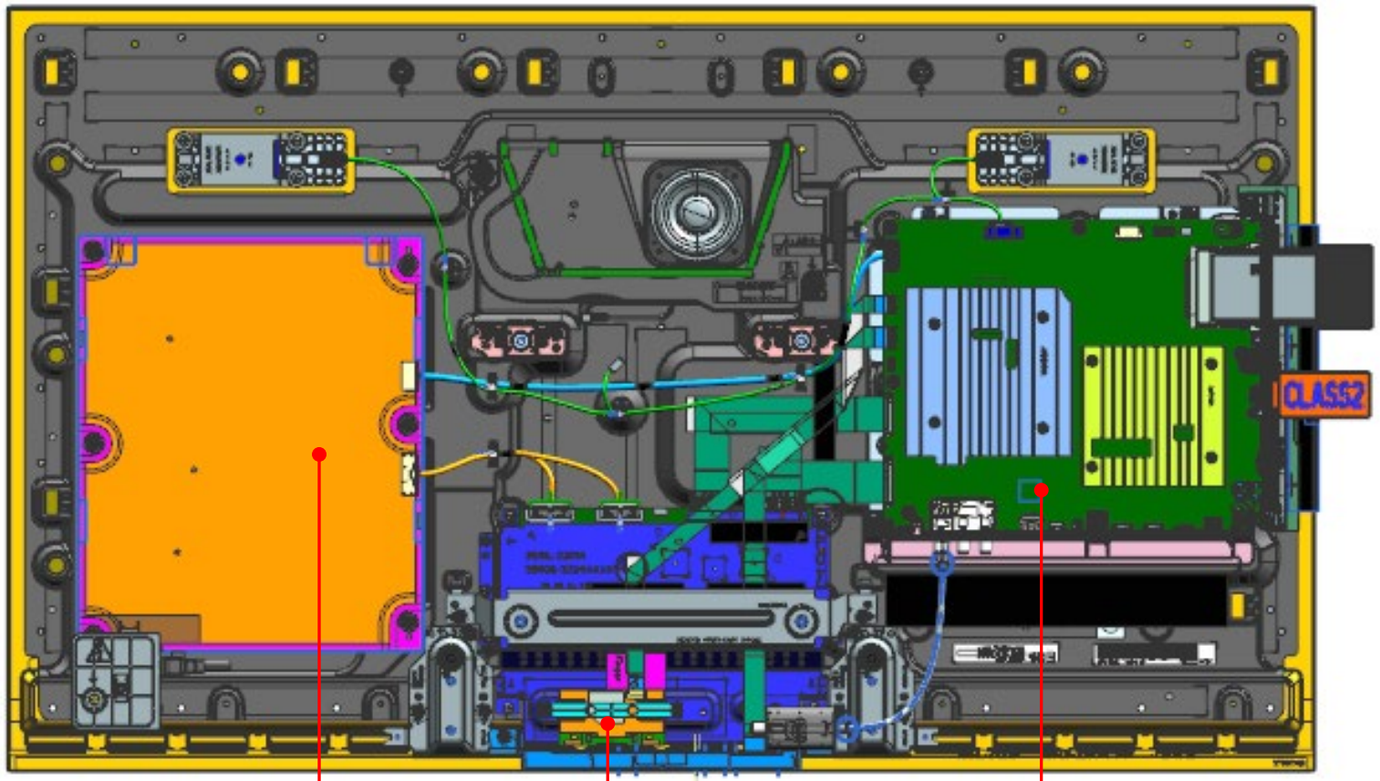
   1. Push Rear Cover to the right side
   2. Then , release 7 pcs of hooks at top / right side and terminal area as well
   3. When releasing hooks , please support Rear Cover to make sure it doesn't fall.

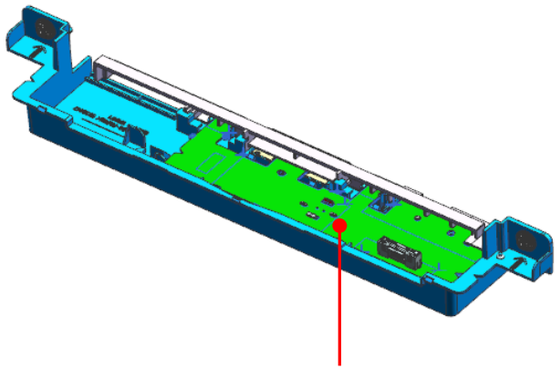


REAR COVER

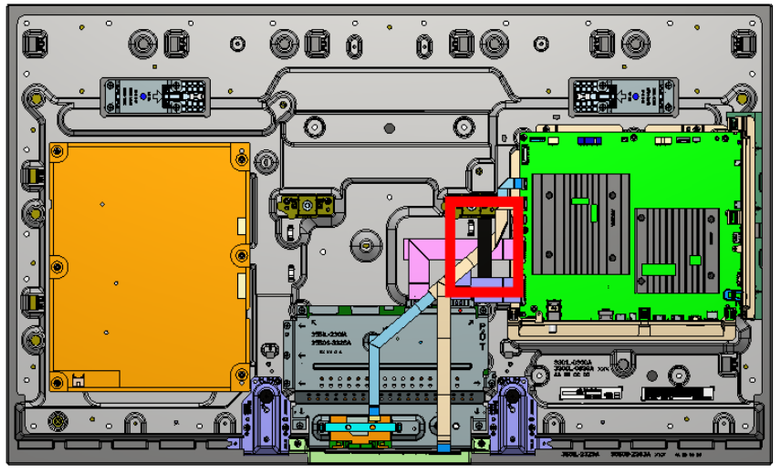
8. Hooks Positioning




POWER BOARD
WI-FI BOARD
MAIN BOARD


RECEIVER BOARD

TAPE



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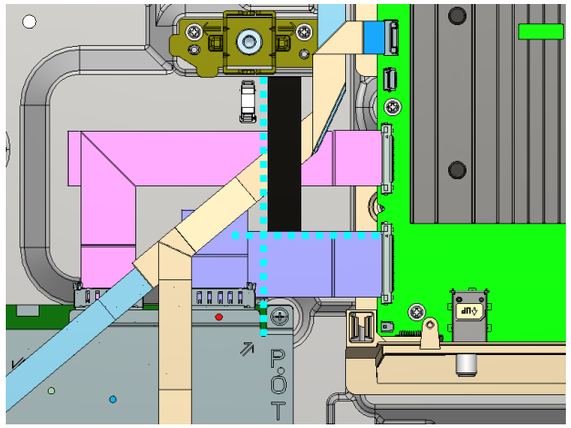

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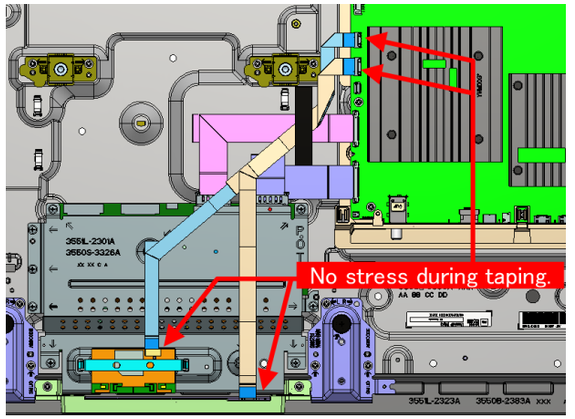

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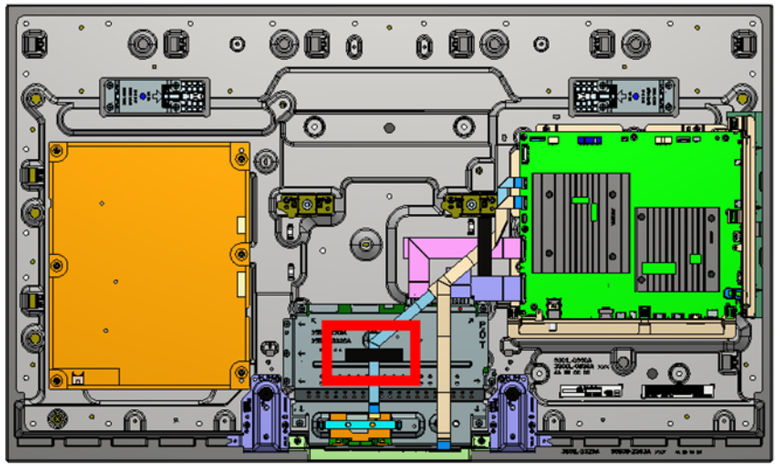

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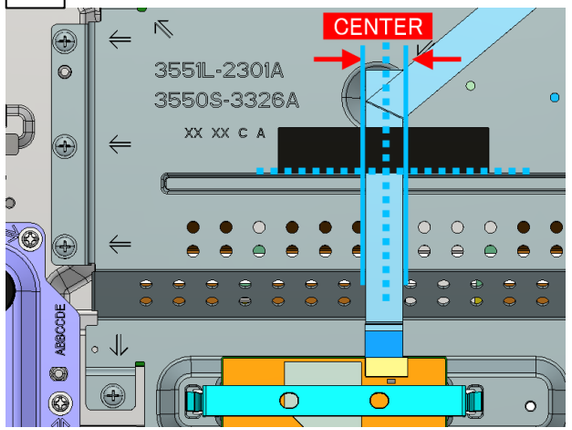

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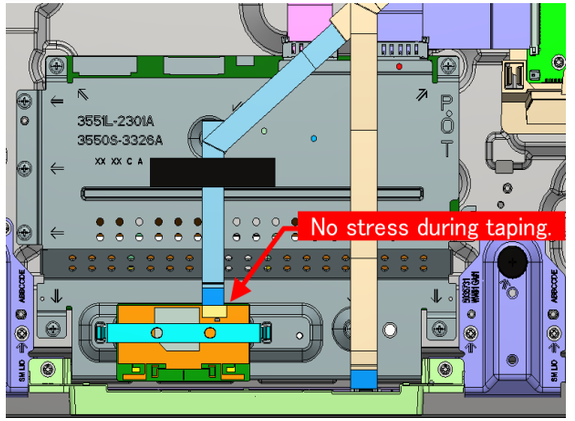

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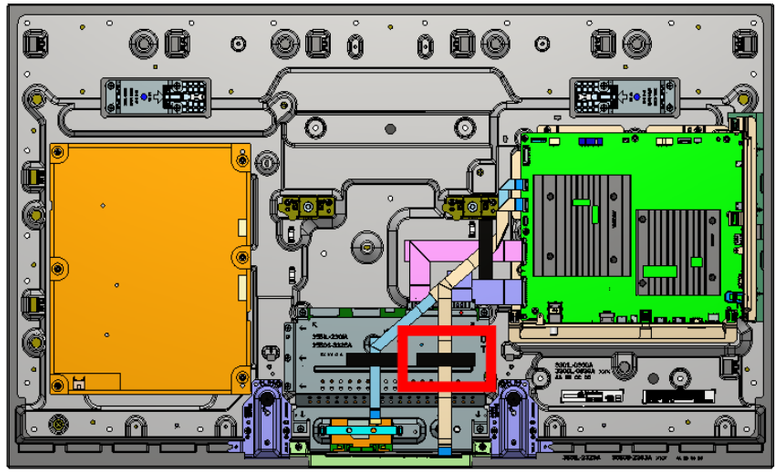

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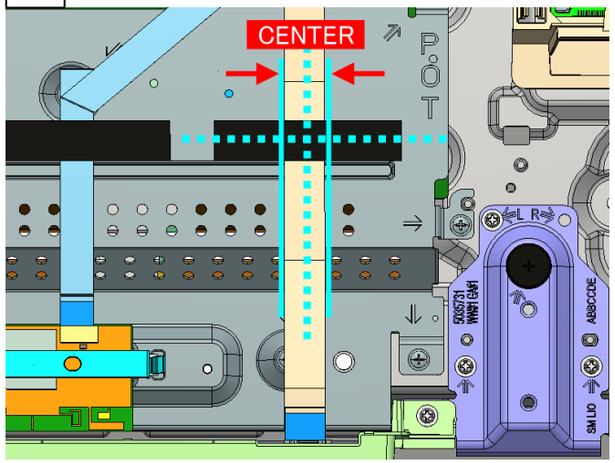

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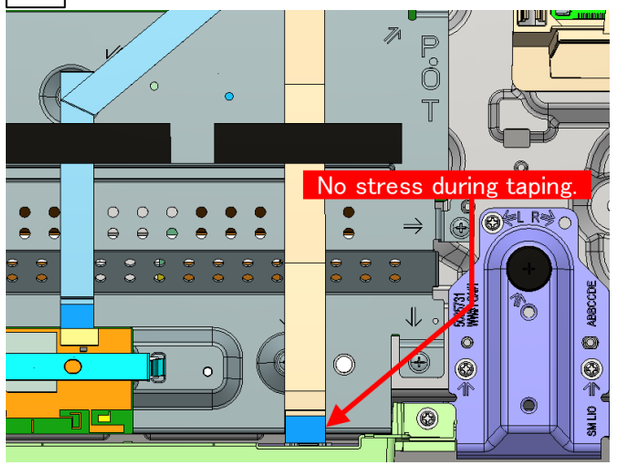

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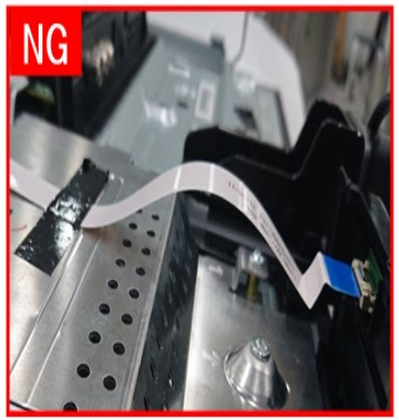

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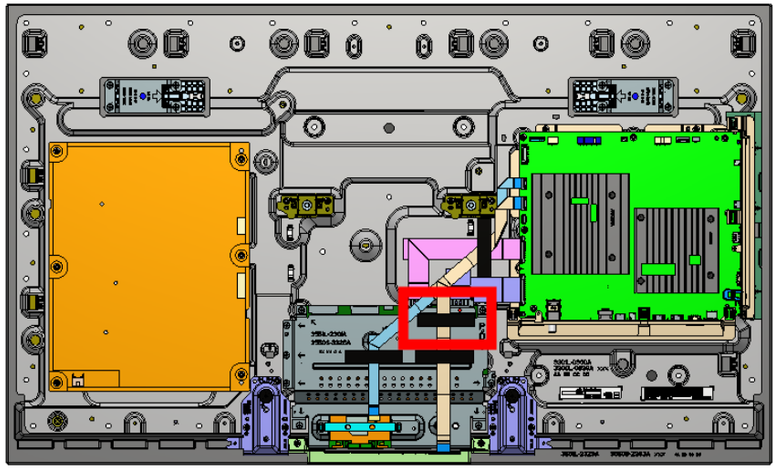

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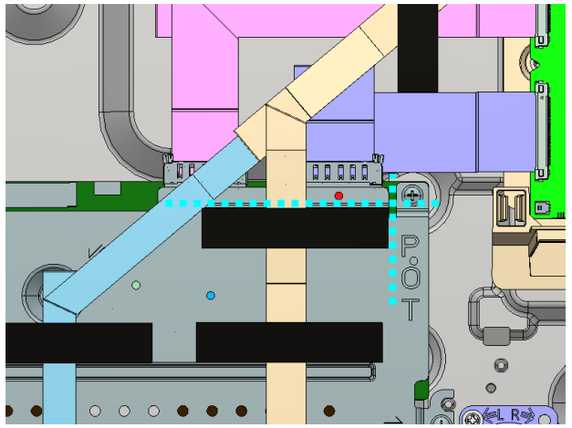

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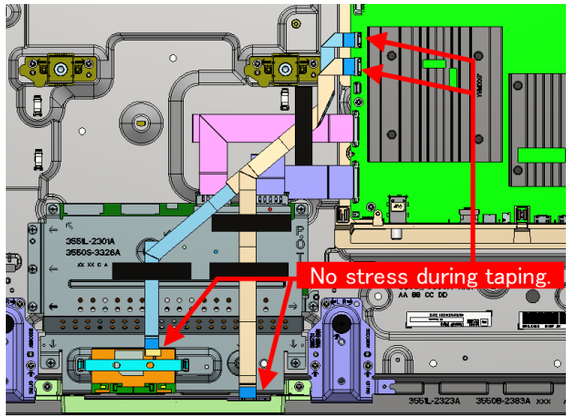
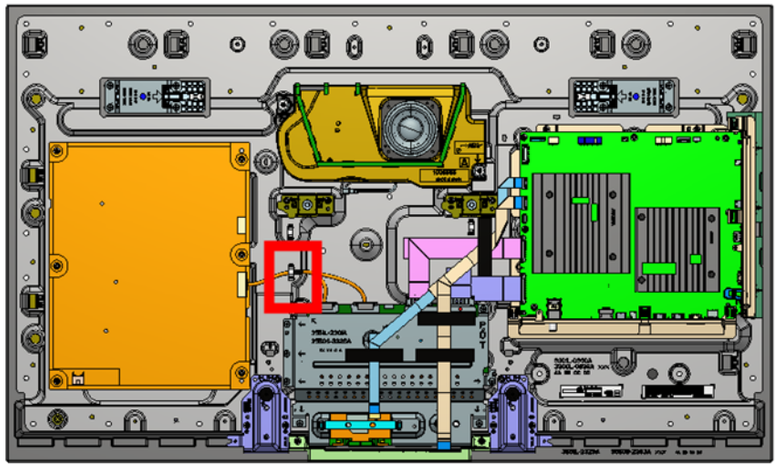
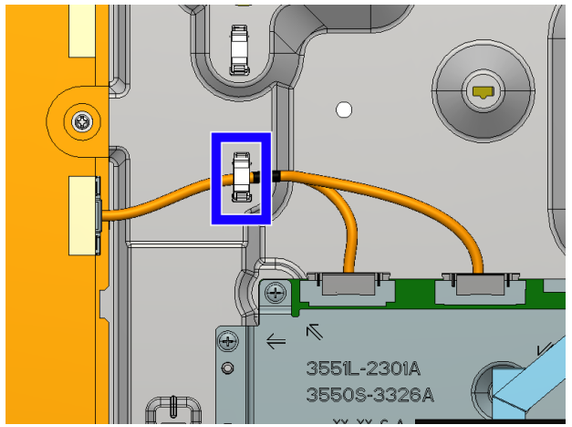


WIRE DRESSING





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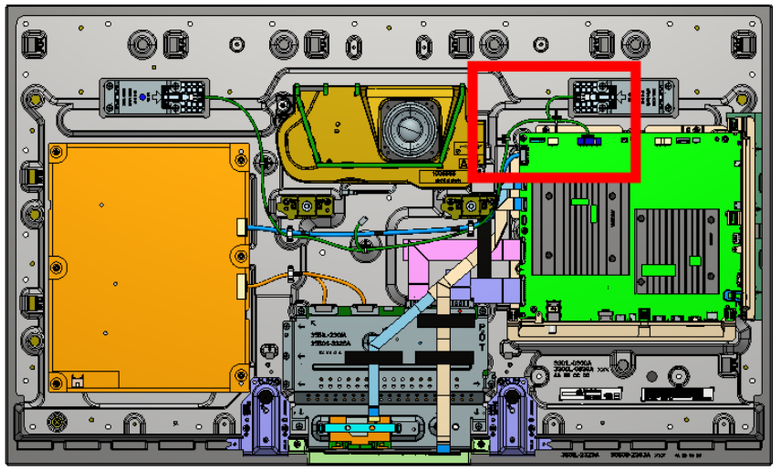

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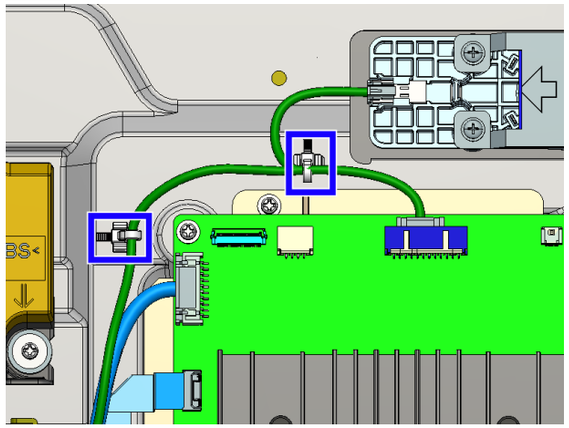

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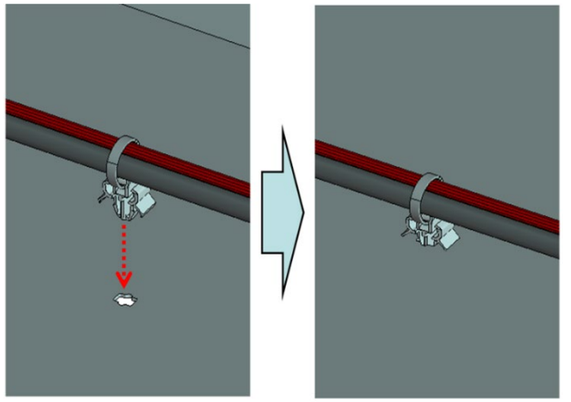

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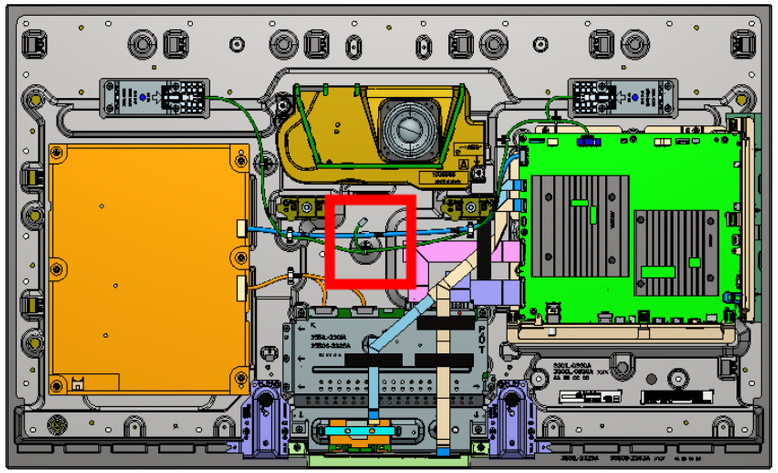

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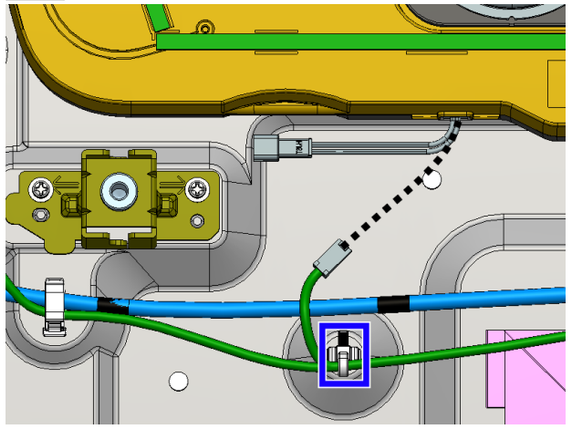

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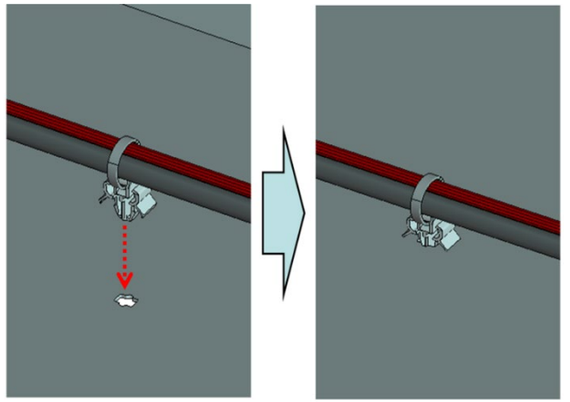

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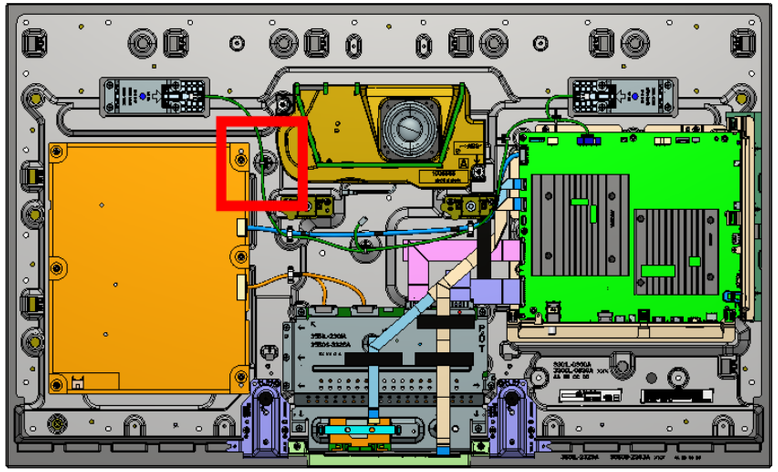

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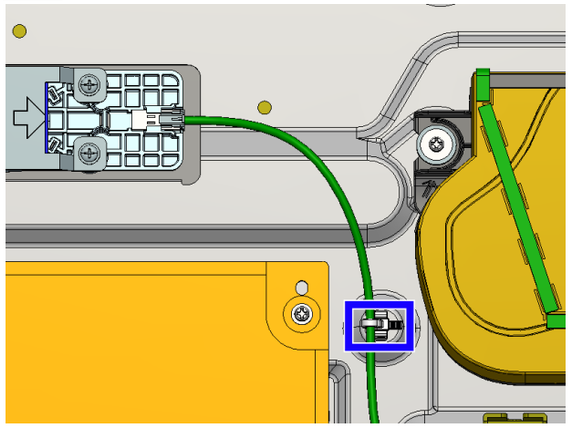

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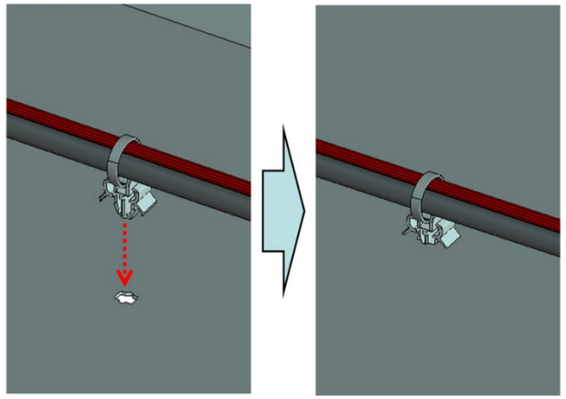

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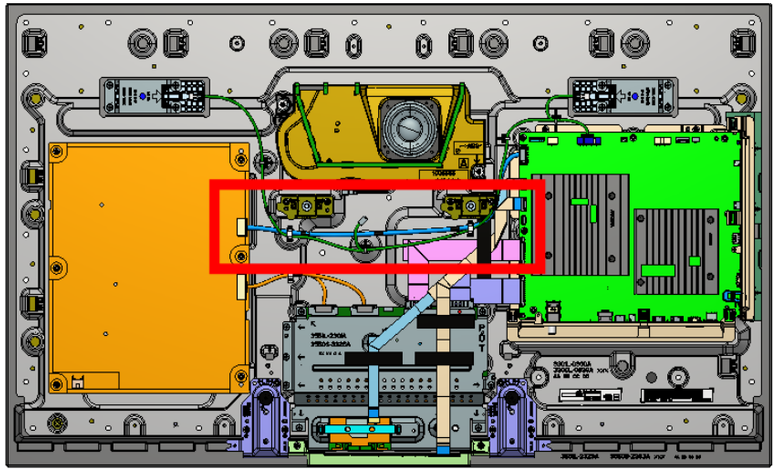

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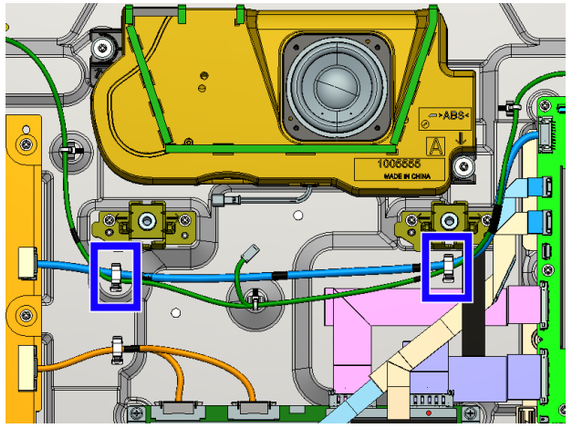

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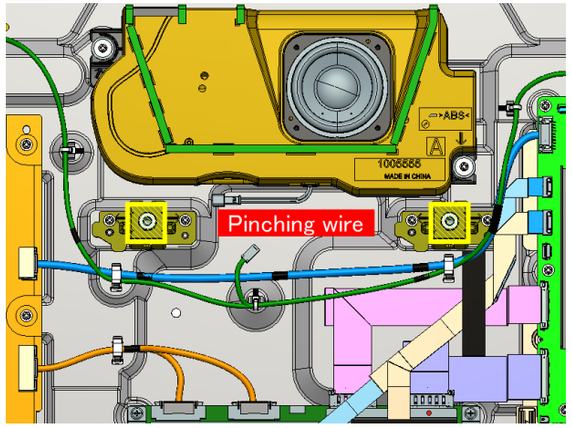
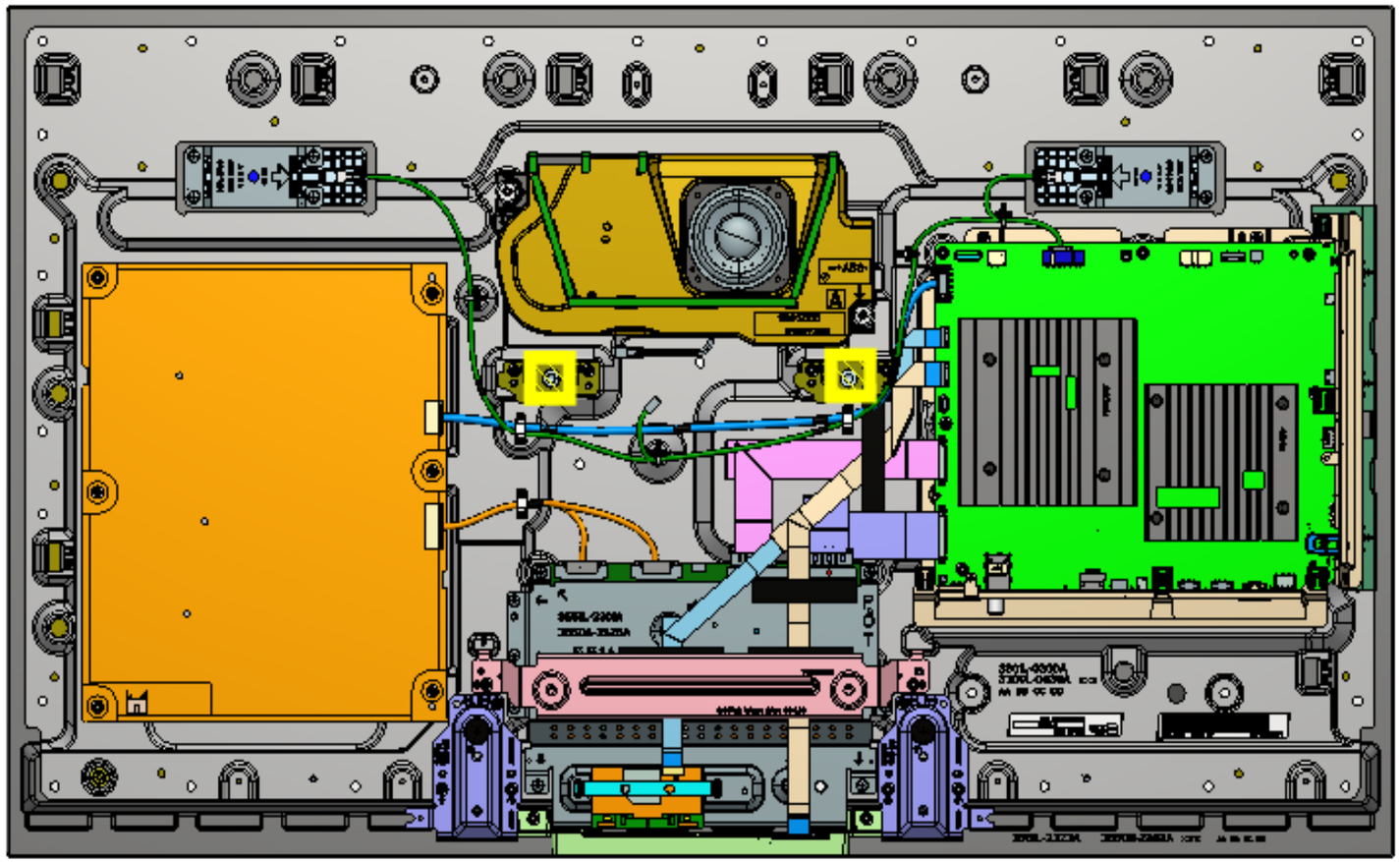
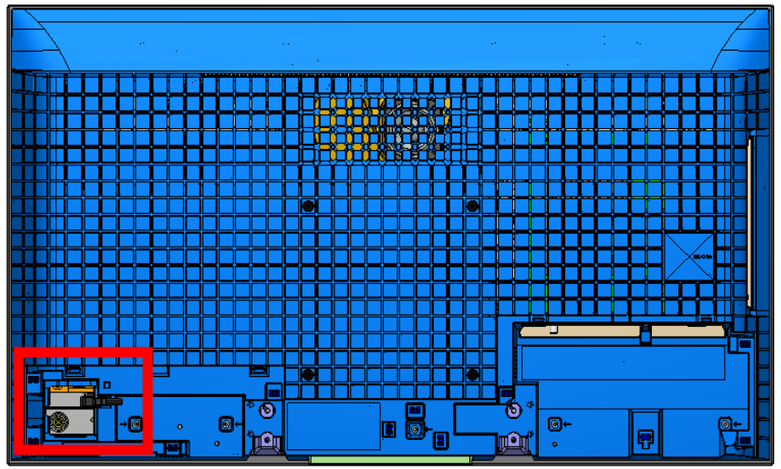


INFORMATION

Keep harness away from inhibit area.



WIRE DRESSING



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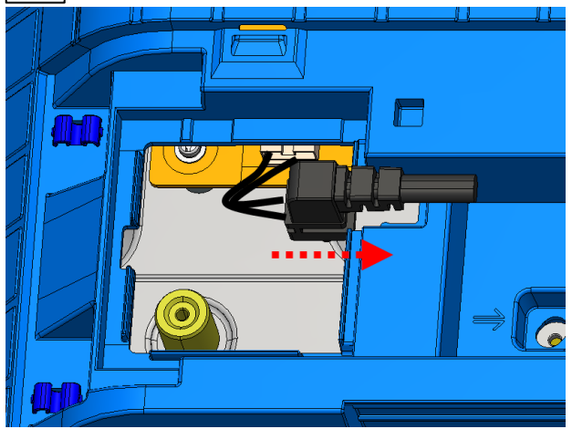

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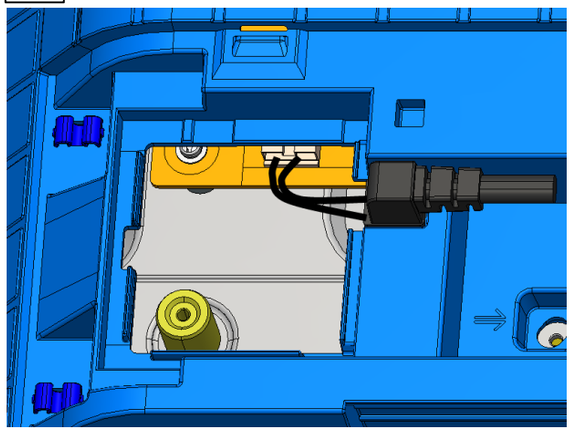
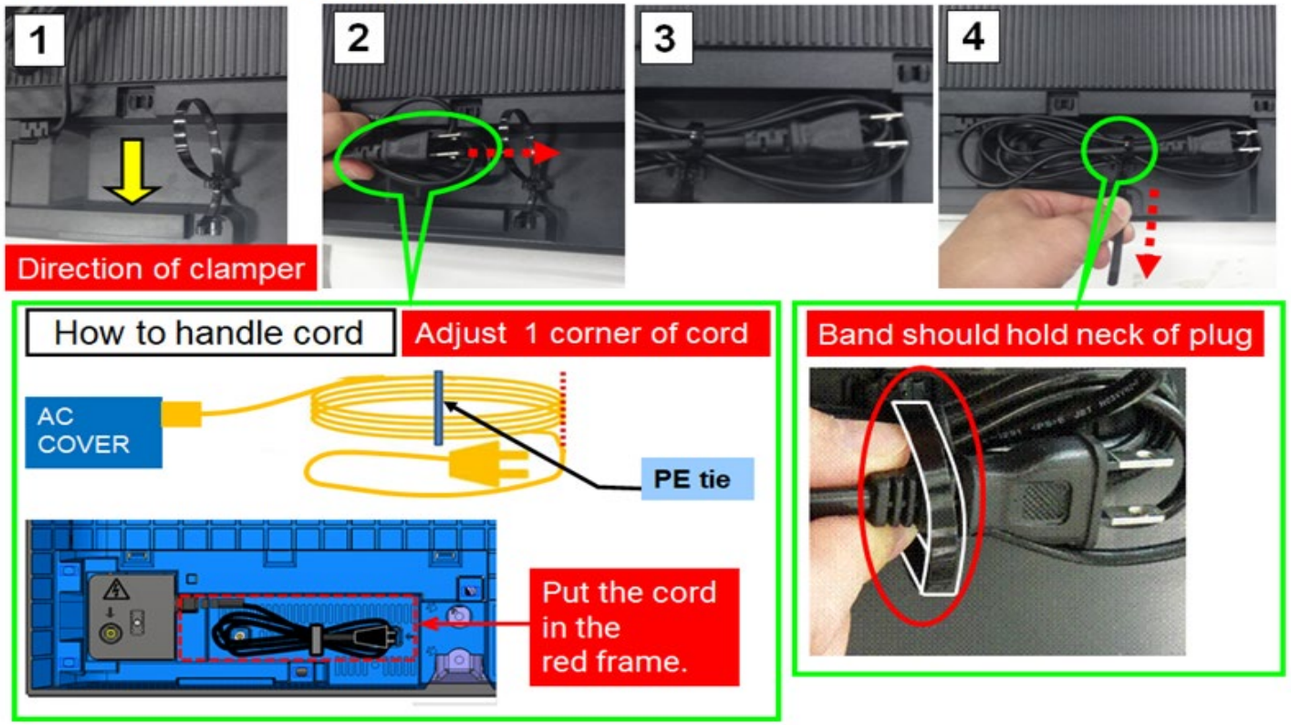


WIRE DRESSING

1. Make sure of the direction of clamper.
2. Let bundled cord into clamper.
3. AC plug in front side.
4. Pull band to the left tightly.

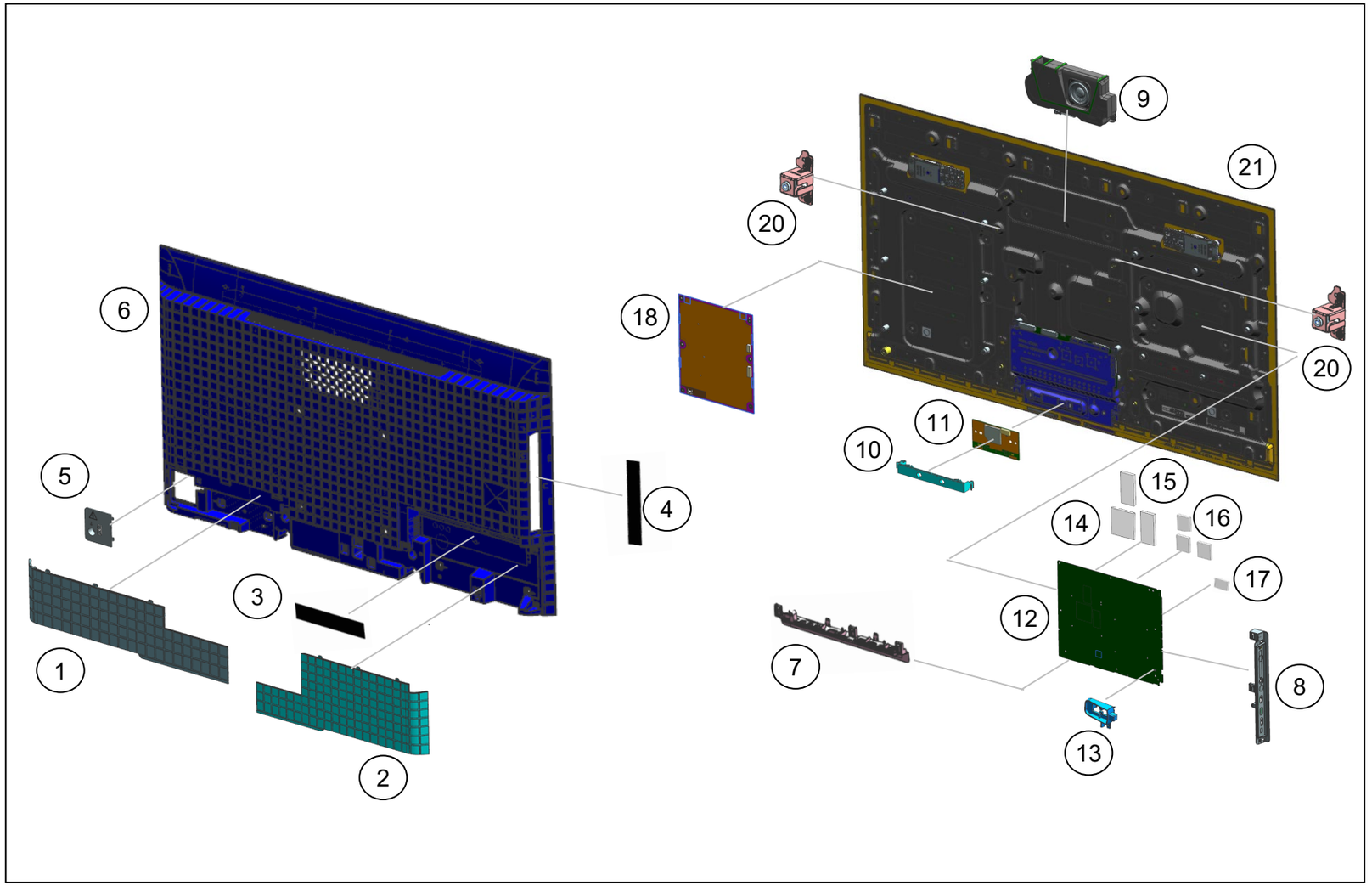


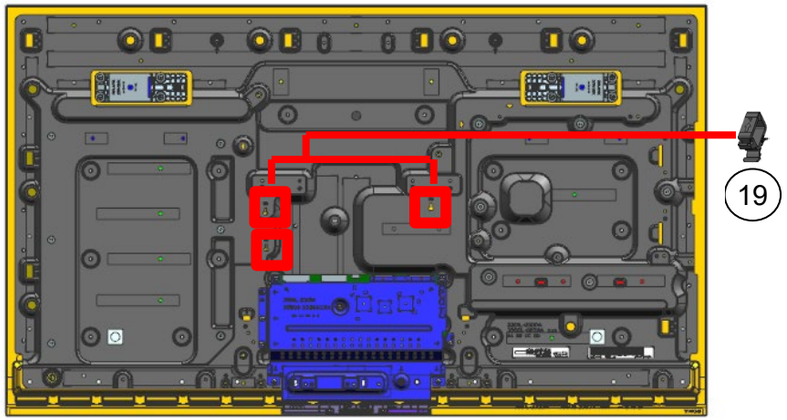
SECTION 1: XR-42A90K

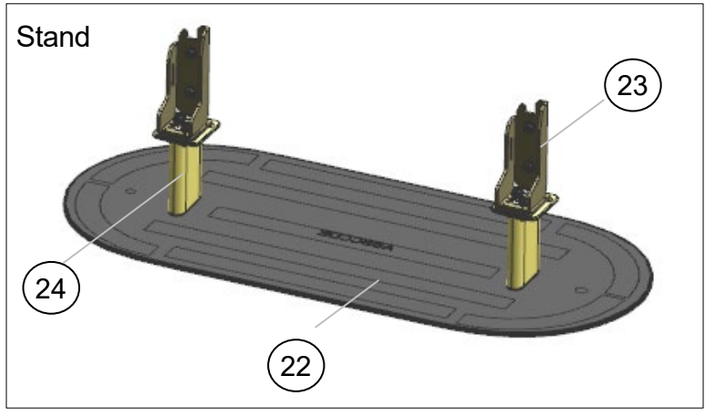
1-4. EXPLODED VIEW AND PART LIST

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



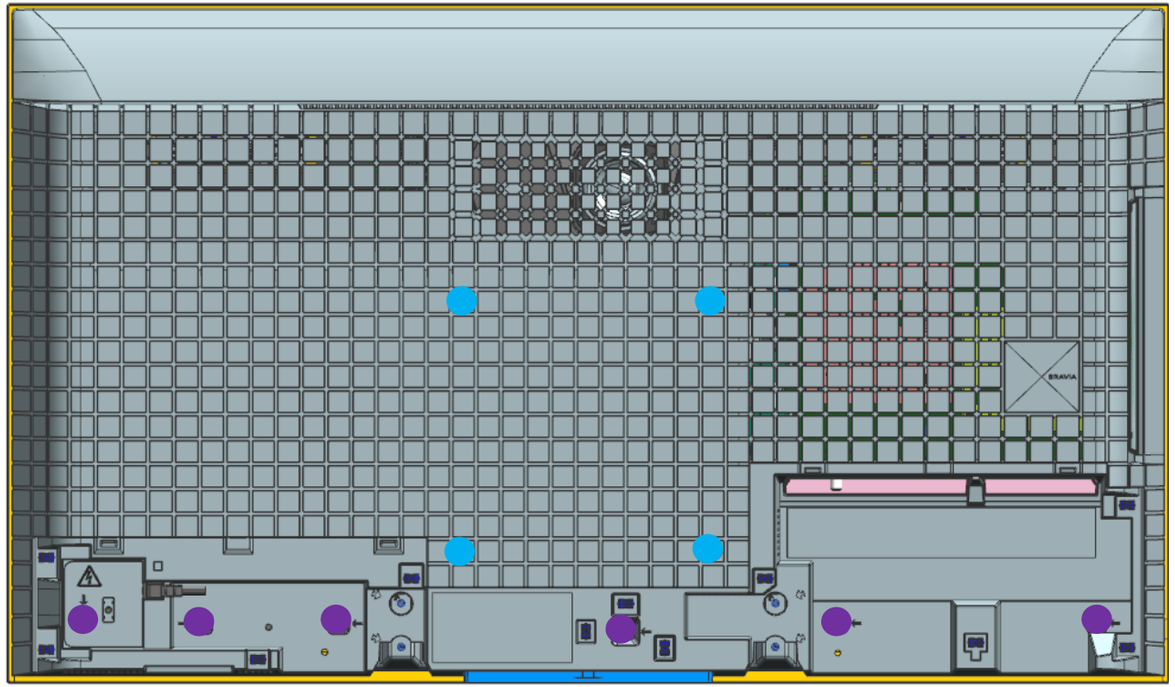


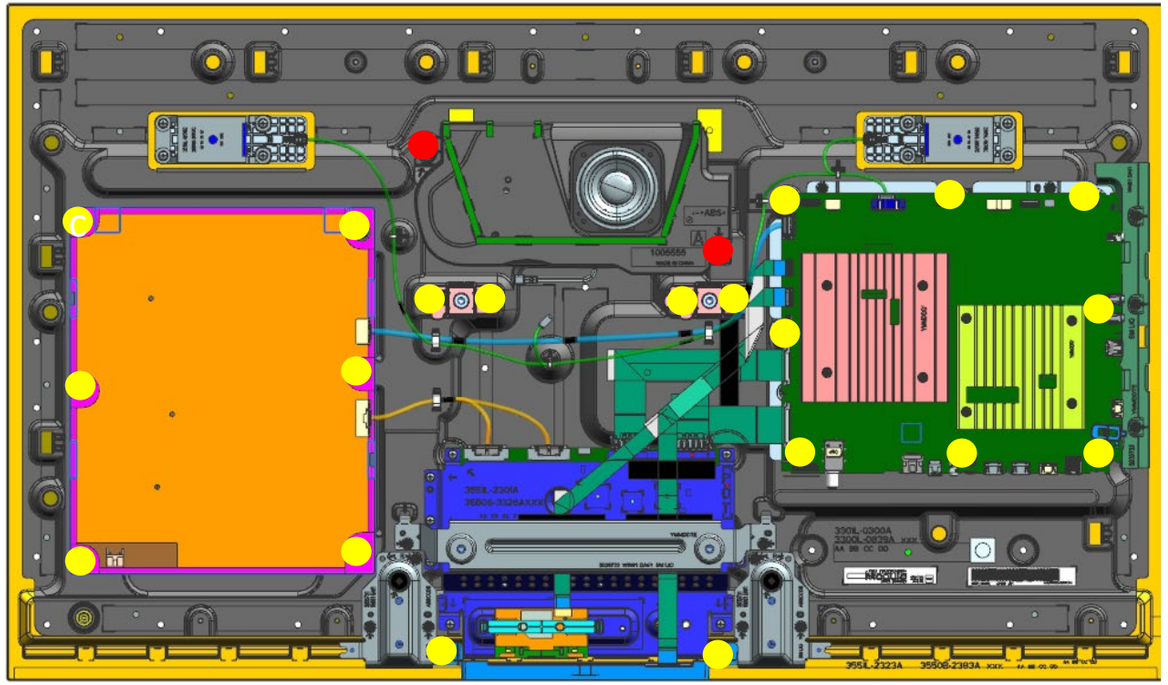


SET PART LIST

REF. NO	PART NO.	DESCRIPTION	UCM
1	5-035-735-11	COVER, AC(SM LIO)	•
2	5-035-734-11	COVER, UNDER (SM LIO)	•
3	5-036-141-01	LABEL, UNDER TERMINAL (BM5S22)	•
4	5-036-145-31	LABEL, SIDE TERMINAL (BM5S22)	•
⚠ 5	4-745-608-01	AC COVER (AT)	•
⚠ 6	5-035-728-01	REAR COVER (SM LIO) A	•
7	4-724-146-14	BRACKET, UNDER (BM2A)	•
8	5-036-017-22	BRACKET SIDE(SGT)	•
9	1-005-555-32	SP-BOX ASSY,FY20 D40-WF-DRN	•
10	5-009-258-21	BRACKET, WIFI(BNN)	•
11	1-005-419-33	WLAN/BT MODULE(11AC)FXC	•
12	A-5044-985-A	COMPL SVC BM5S22B_FL_UCMX	•
13	5-023-281-02	KEY,TOP(SGT)	•
14	5-011-960-01	SHEET, THERMAL(LMN TCON)	•
15	5-023-557-01	SHEET THERMAL(BM5S21 DDR)	•
16	4-699-975-02	SHEET,THERMAL(5567H)	•
17	5-020-359-01	SHEET, THERMAL CSOT (APL)	•
⚠ 18	1-014-412-11	G210 - STATIC CONVERTER(TV)	•
19	2-650-770-21	SLIDE, CLAMP	•
20	*5-023-713-01	BRACKET, VESA(3L LMN)	•
⚠ 21	1-014-435-11	OLED PANEL (L42EQD1)	•
22	5-035-696-01	STAND BASE (ML LIO) A	•
23	5-035-705-01	NECK STD (ML LIO) A	•
24	5-035-702-01	STAND ARM (ML LIO) A	•

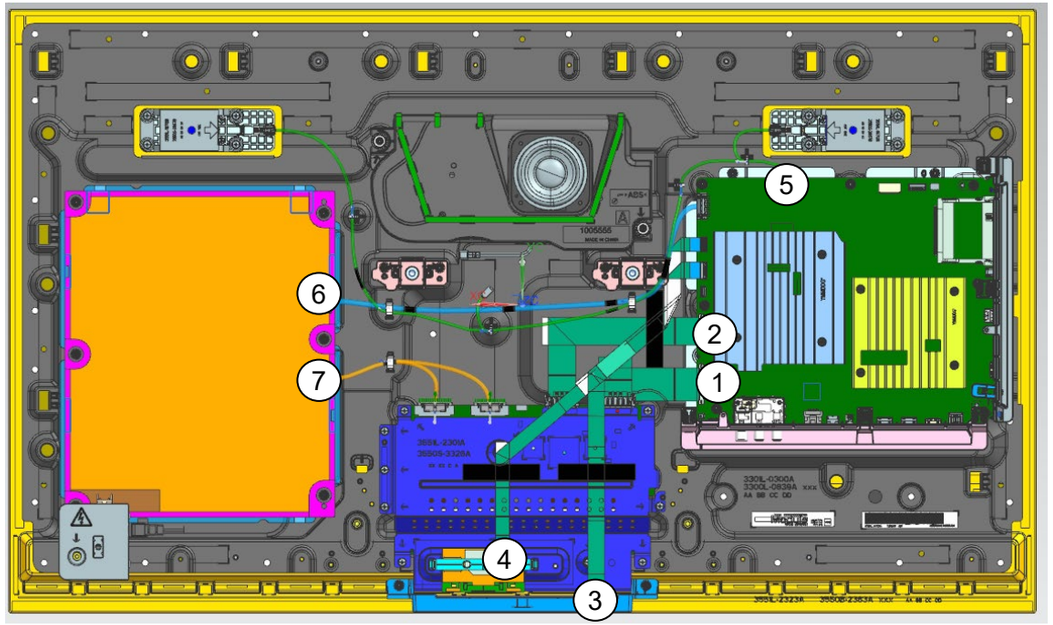
SCREW





REMARKS	P/N	DESCRIPTION	QTY	TORQUE (N.m)
●	4-579-926-01	SCREW M3X3.0 STEP	6	0.4±0.05
●	4-268-126-02	SCREW, ORNAMENTAL M6X12	4	1.2±0.1
●	4-256-393-12	SCREW, +PSW M3X6 W12	2	0.4±0.05
●	4-472-518-11	SCREW, +PSW M3X6	20	0.4±0.05

CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-014-887-11	FLEXIBLE FLAT CABLE 51P	CN6800(BM5S22)-CN5(TCON)(1)
2	1-014-886-11	FLEXIBLE FLAT CABLE 41P	CN6801(BM5S22)-CN7(TCON)(1)
3	1-014-885-11	FLEXIBLE FLAT CABLE 25P	CN1200(BM5S22)-CN102(HY1)(1)
4	1-014-884-11	FLEXIBLE FLAT CABLE 20P	CN3803(BM5S22)-WIFI(1)
5	1-014-918-11	CONNECTOR ASSY 6P	CN6613(BM5S22)-SPK-EX(1)
6	1-014-916-11	CONNECTOR ASSY 20P	CN1700(BM5S22)-CN6401(G93G)(1)
7	1-014-917-11	CONNECTOR ASSY 28P	CN6601(G93G)-CN6(TCON)-CN8(TCON)(1)

OTHER PARTS

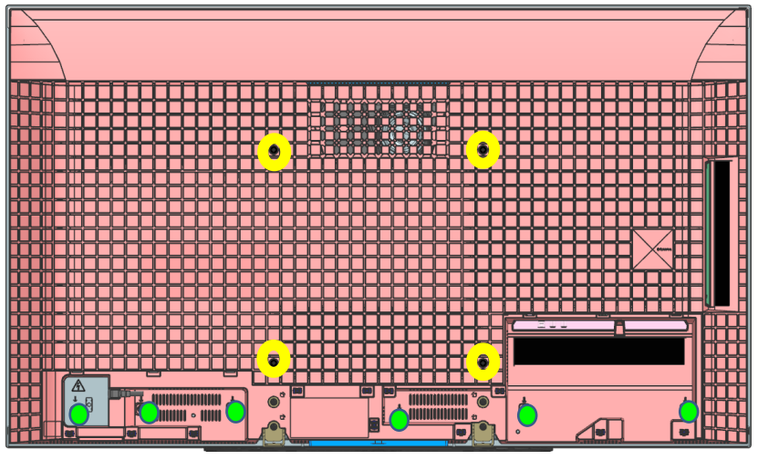
PART NO.	DESCRIPTION	UCM	REMARKS
4-535-064-61	ASSY,FALL LOCK,BELT LL	•	-
5-035-707-01	BAG, SCREW (ML LIO) A	•	Including SCREW, +PSW M5X12XW10 (Qty 8) & SCREW, CS M4X11 (Qty 4)
4-262-708-04	CLAMPER, CABLE	•	-
⚠ 1-849-274-11	POWER-SUPPLY CORD (WITH CONN.)	•	-
1-013-685-22	REMOTE COMMANDER (RMF-TX900U)	•	-
*5-039-051-11	REFERENCE GUIDE	•	-
*5-037-332-11	SETUP GUIDE	•	-
7-600-031-97	TAPE (3M 1350FB-1)15MMX66M BLK	•	-

REAR COVER

1. Remove screws from the rear cover

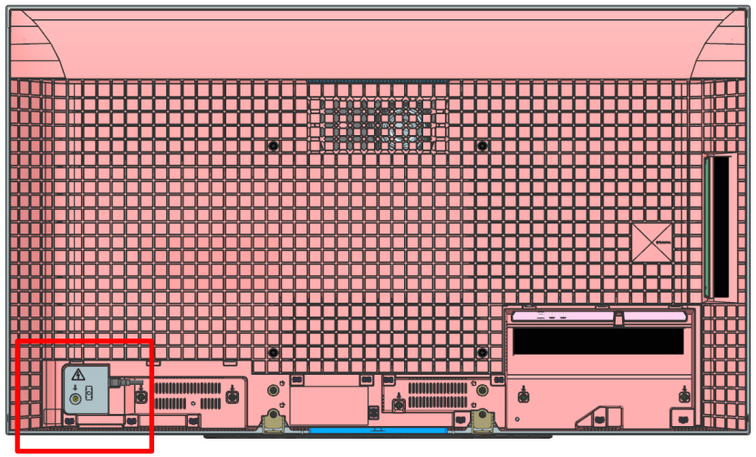
Ornament Screw M6	4 pcs
Step screw M3	6 pcs

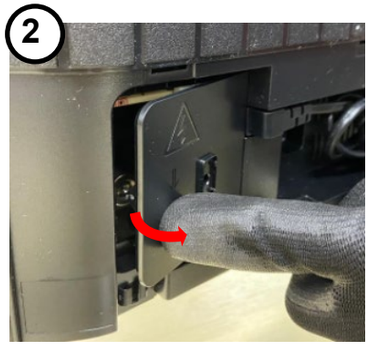
Total screws is 10 pcs

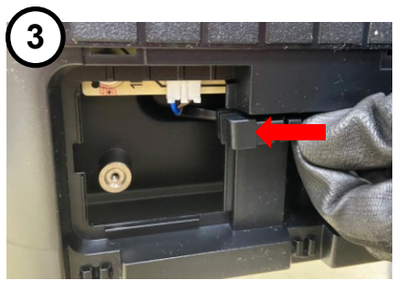


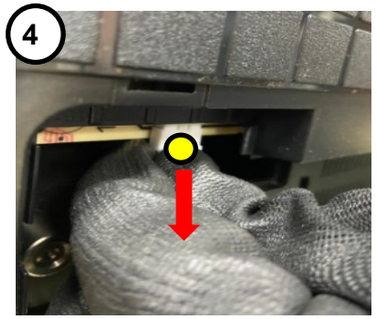
2. Remove AC Connector

1. Use finger to slot into AC cover screw hole
2. Pull out the AC cover then remove it
3. Slide AC Cable to left side until detach from rear cover
4. Remove the connector by push yellow area & slide down while still push yellow point









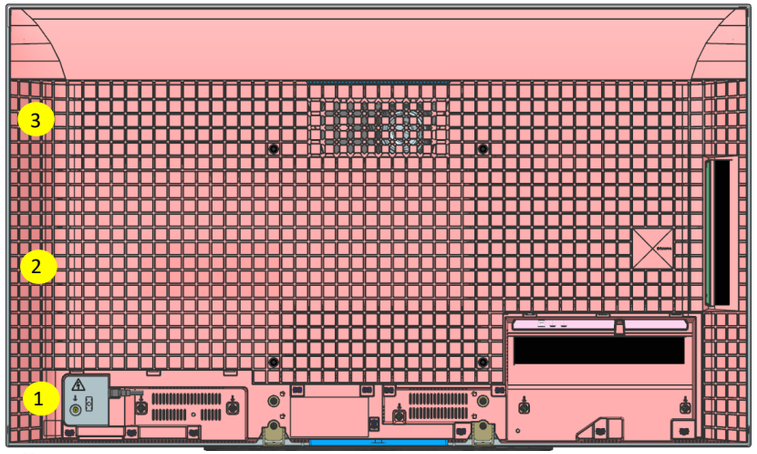
REAR COVER

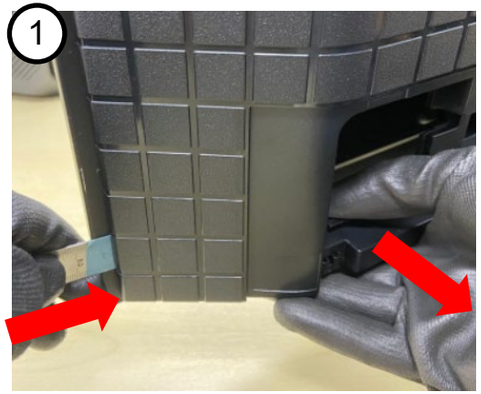
3. Unhook left side hook

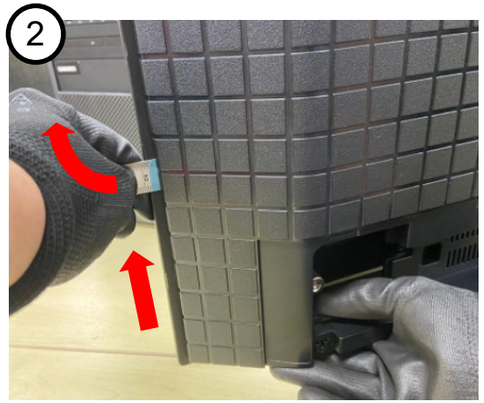
1. Use 1 hand to pull the rear cover, until creating gap between rear cover & back chassis, then slide in the ruler
2. Slide up ruler until hook 1 location, then rotate the ruler to front of TV until hear pop-out sound, that indicate the hook is disassemble
3. Slide up ruler to hook 2 location, then repeat same as step 2 above
4. Slide up ruler to hook 3 location, then repeat same as step 2 above

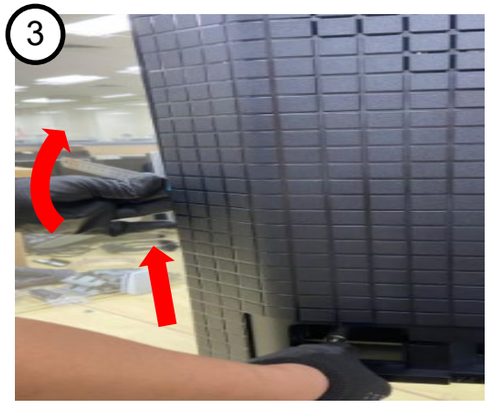
Notes :

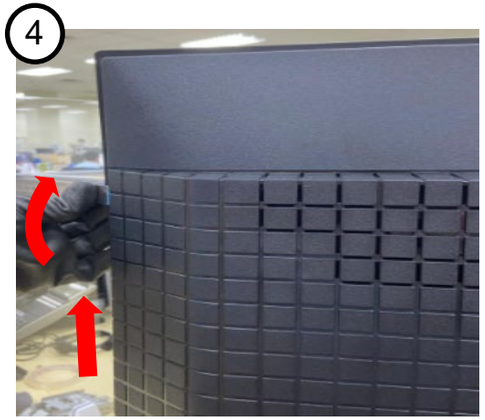
i. Refer to page 30 for specific hook location
ii. Ruler or jig to release corner hook
iii. Wrap ruler with tape to prevent scratch







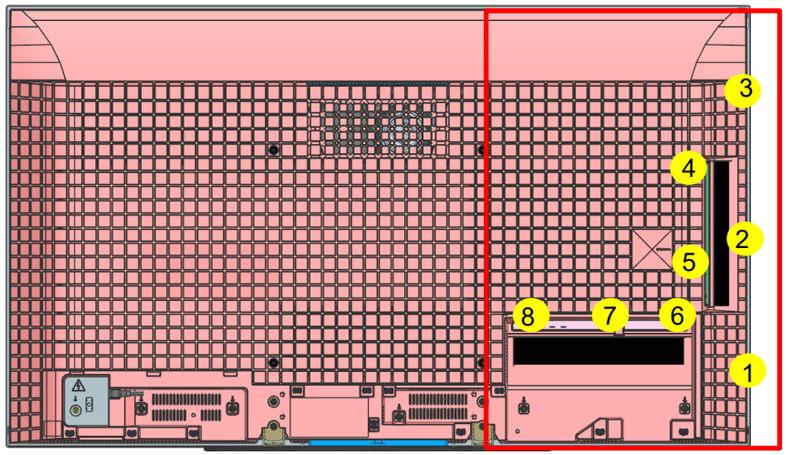


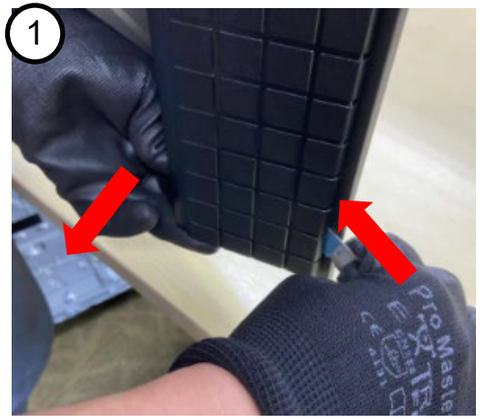


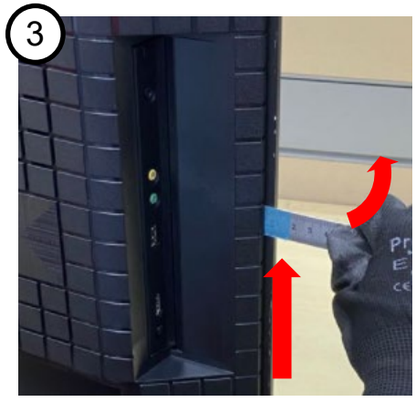
REAR COVER

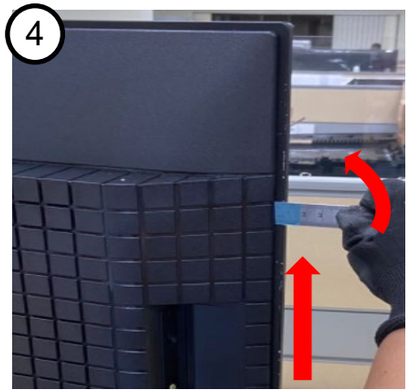
4. Unhook right side hook

1. Use 1 hand to pull the rear cover a little bit, to create gap between rear cover & back chassis then carefully slide in the ruler
2. Slide up ruler until hook 1 location, then rotate the ruler to front of TV until hear pop-out sound that indicate the hook is disassemble
3. Slide up ruler to hook 2 location, then repeat same as step 2 above
4. Slide up ruler to hook 3 location, then repeat same as step 2 above
5. Normally hook 4 5 6 7 8 will detach when disassemble hook 1 & 2 . but if not, then gently pull the rear cover toward back will do







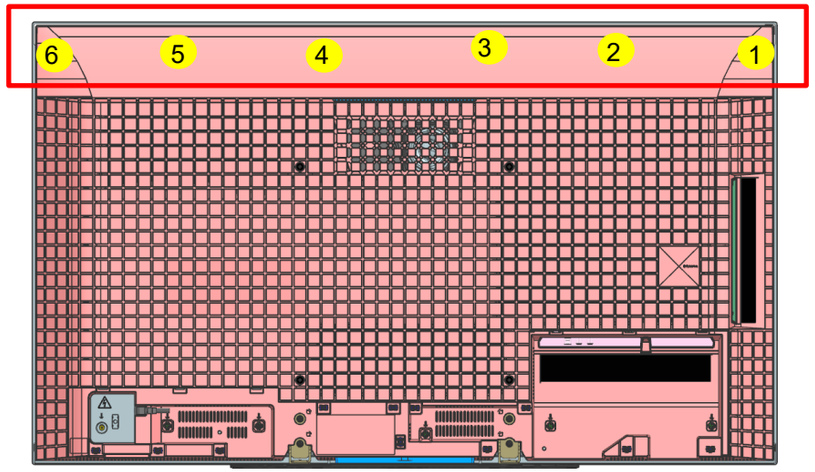


Notes :

i. Refer to page 30 for specific hook location
ii. Ruler or jig to release corner hook
iii. Wrap ruler with tape to prevent scratch

REAR COVER

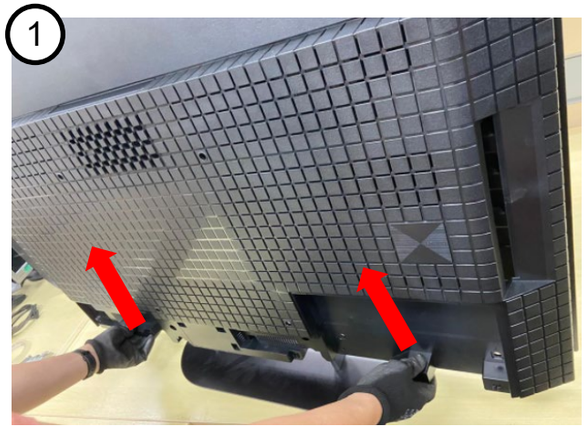
5. Unhook top hook



1. Hold bottom side of rear cover using both hand then push up the rear cover gently toward upside
2. Repeat step 1 gently, until top side of rear cover is detached

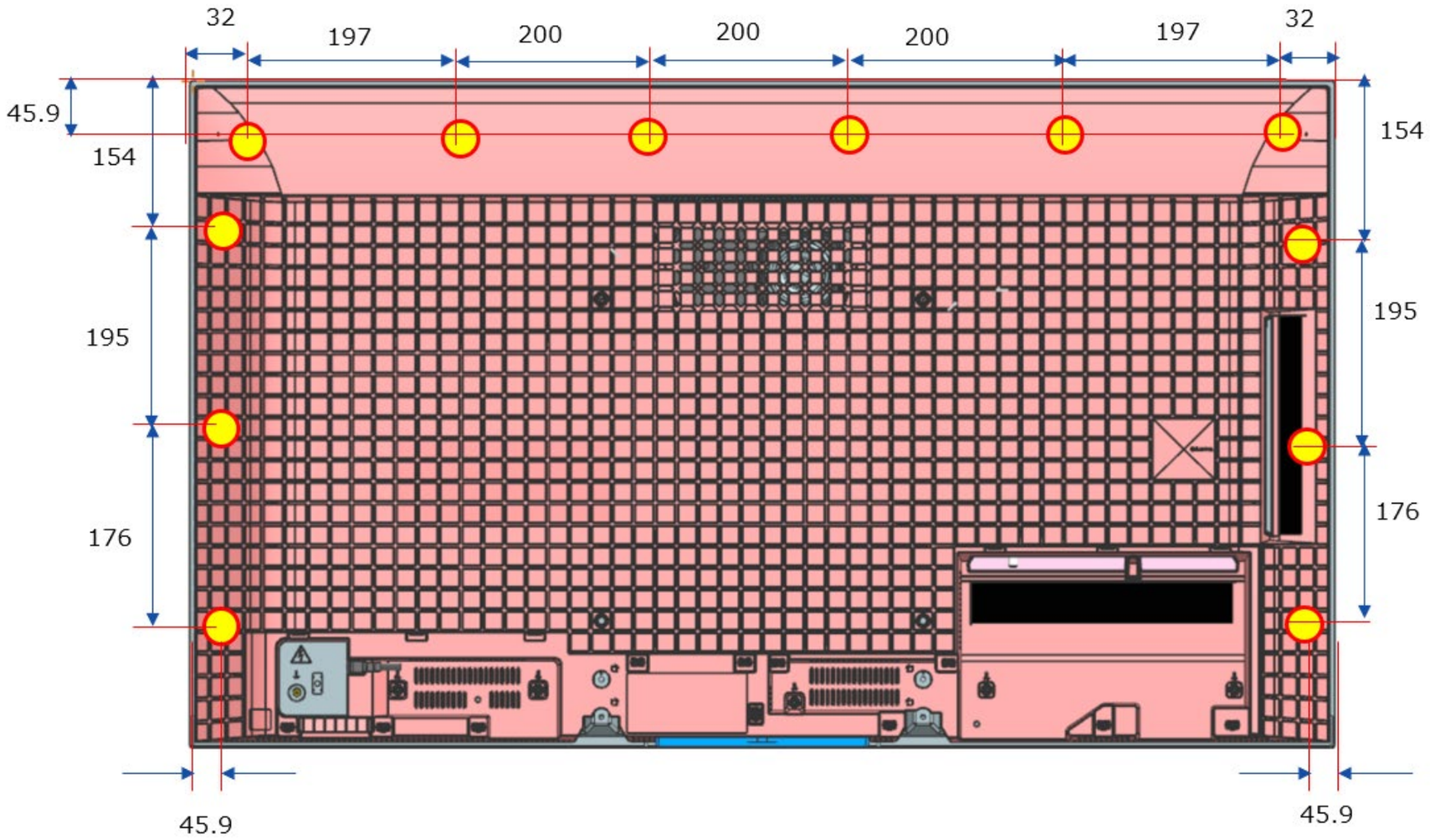
Notes :

i. Refer to next page for specific hook location

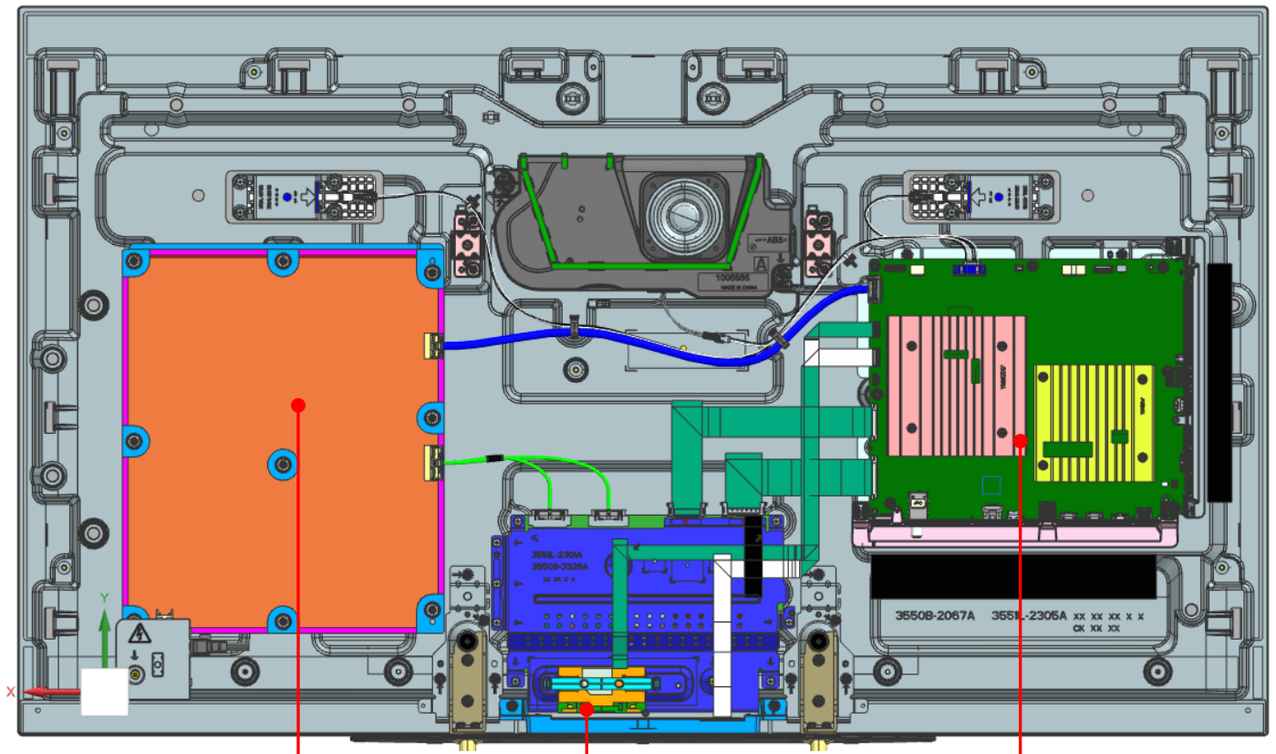


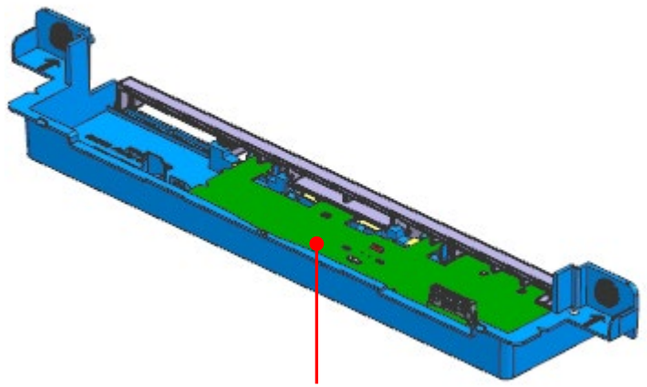
REAR COVER

6. Hooks Positioning

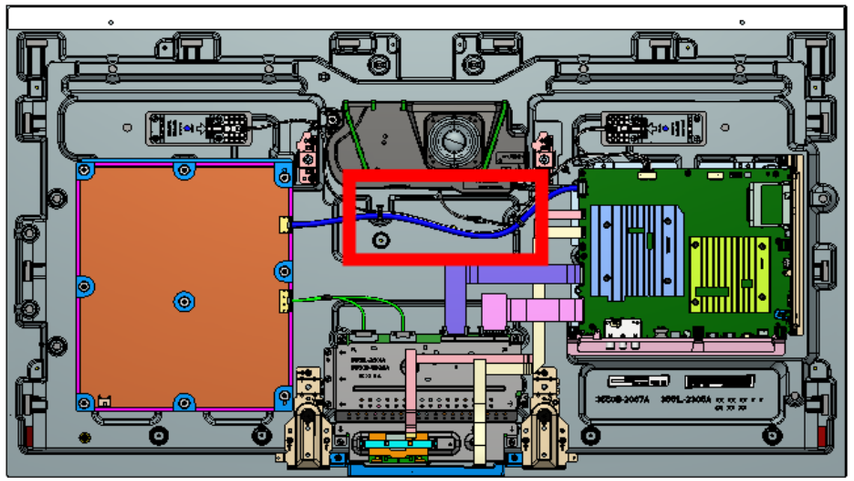


2-2. BOARD LOCATION





WIRE DRESSING



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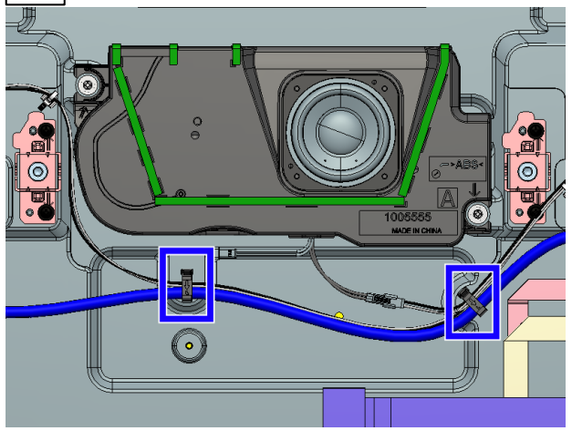

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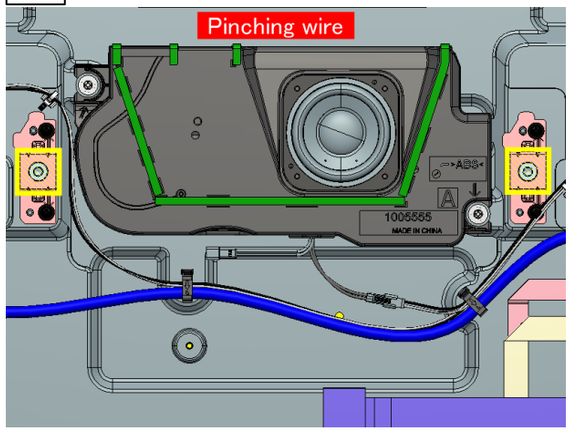

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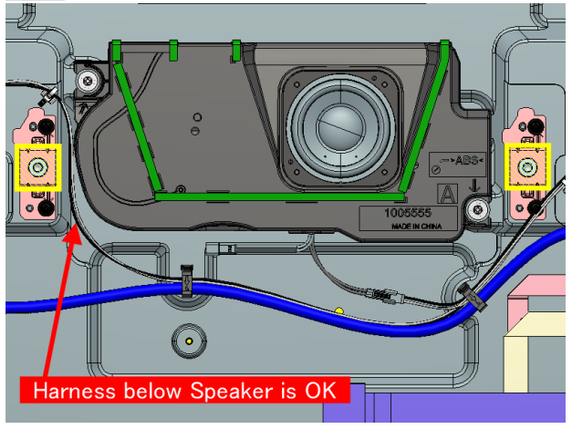
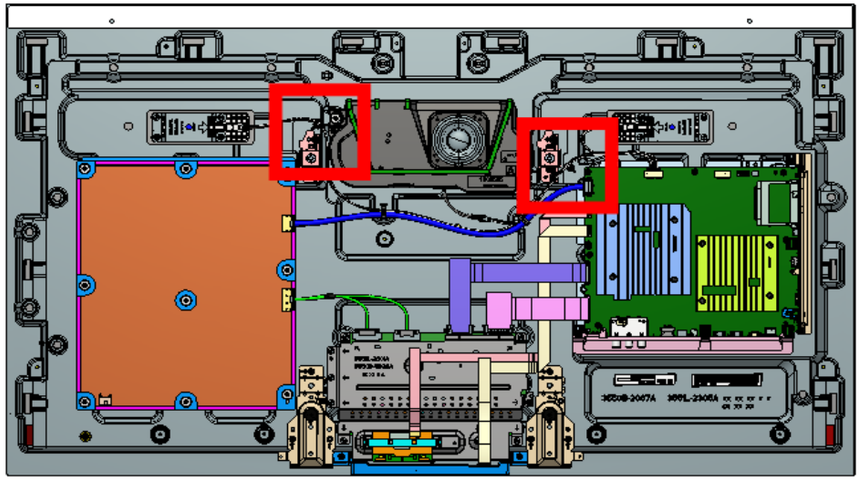


WIRE DRESSING



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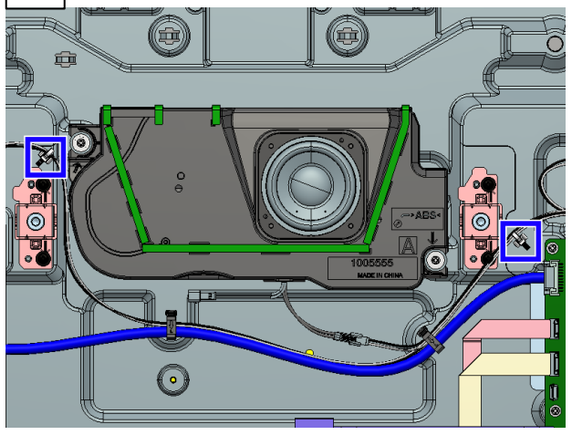

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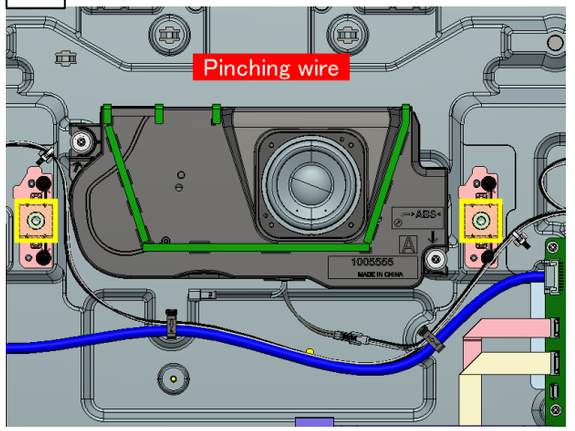

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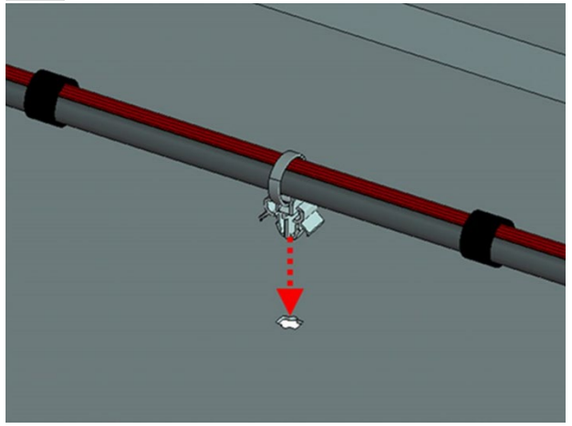
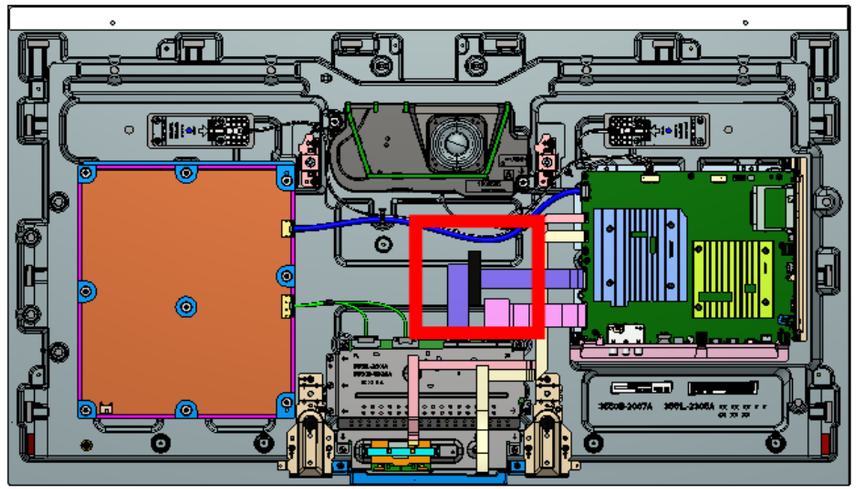


TAPE



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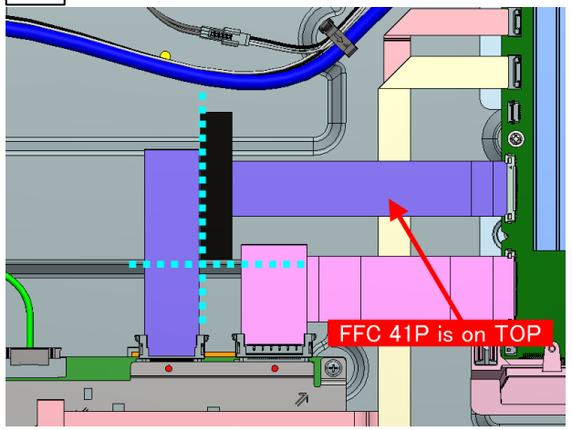

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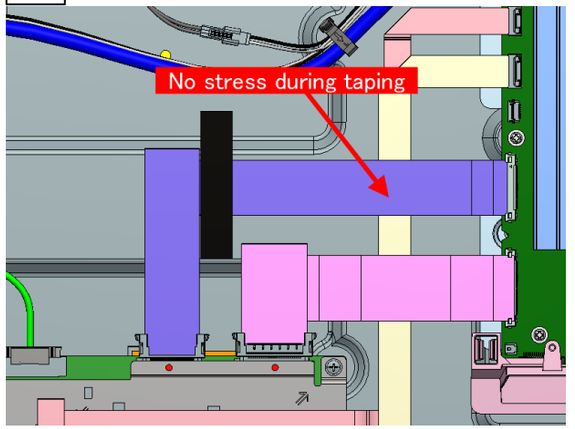
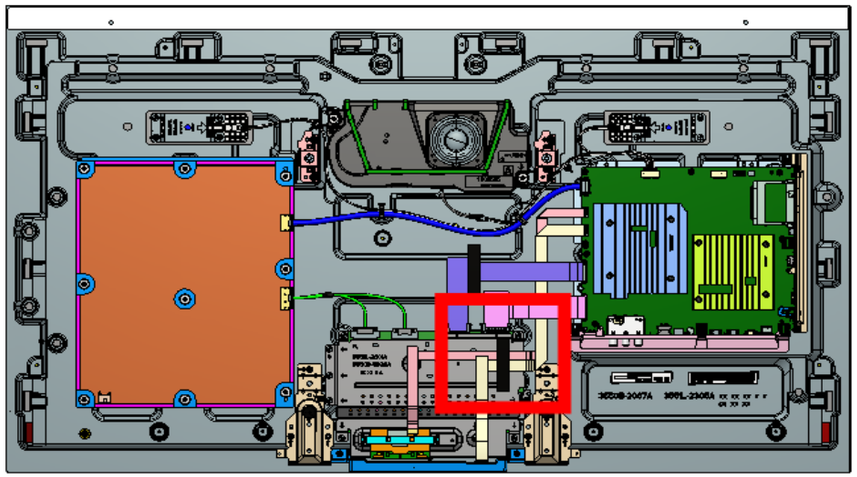


TAPE



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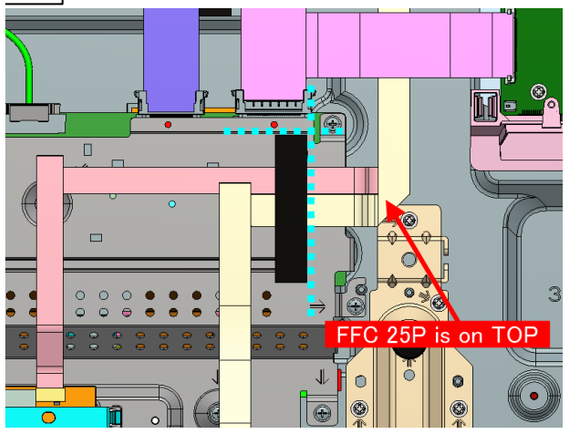

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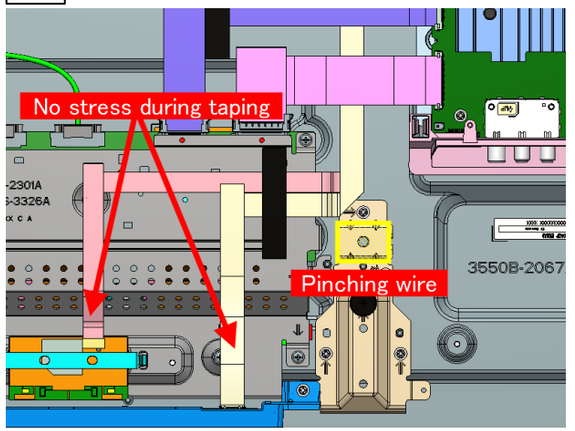

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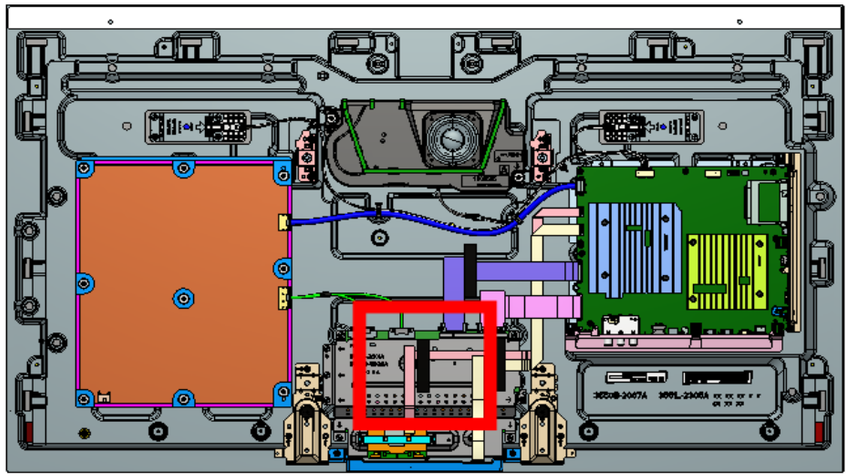

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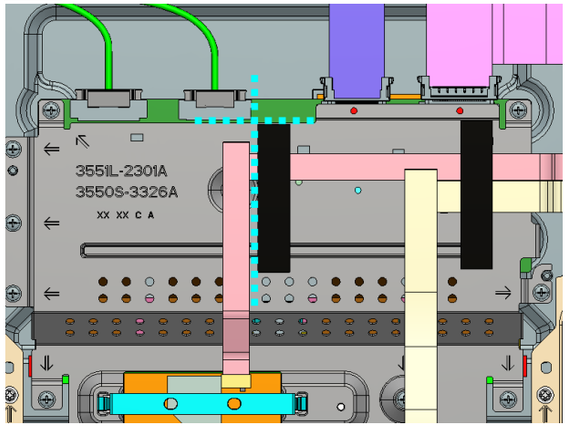

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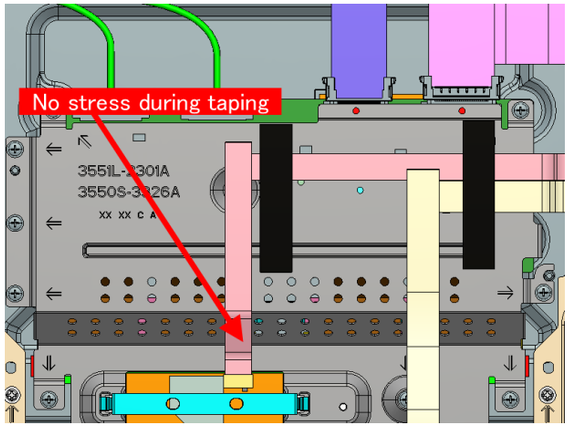

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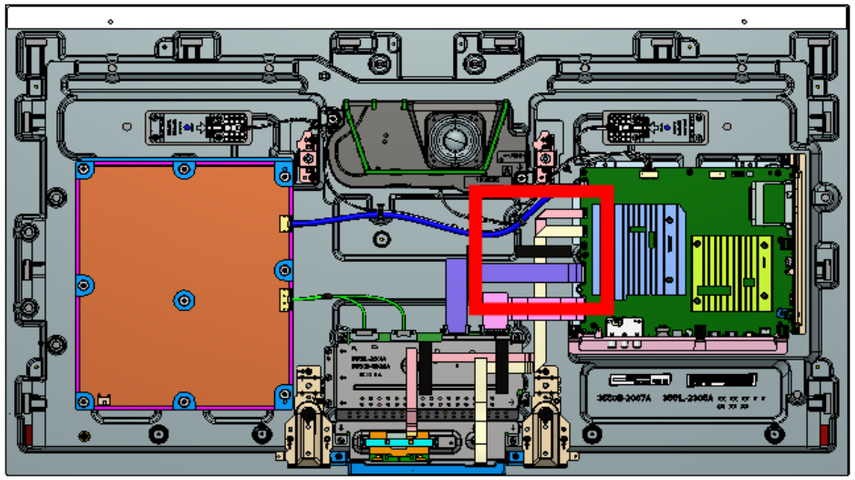

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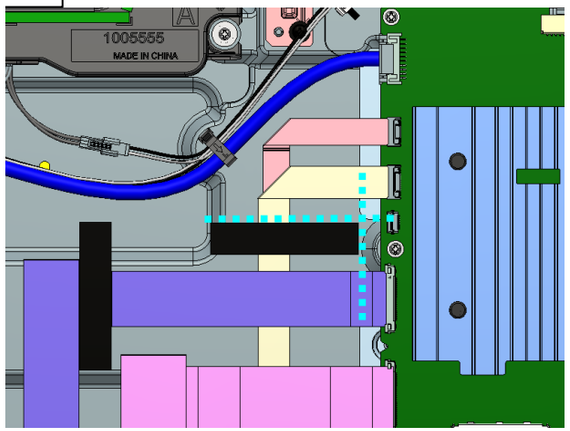

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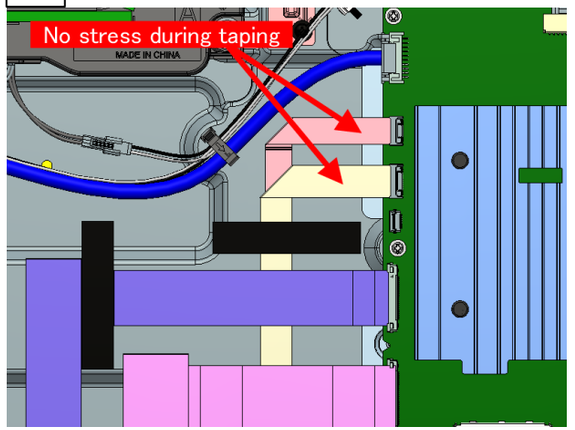
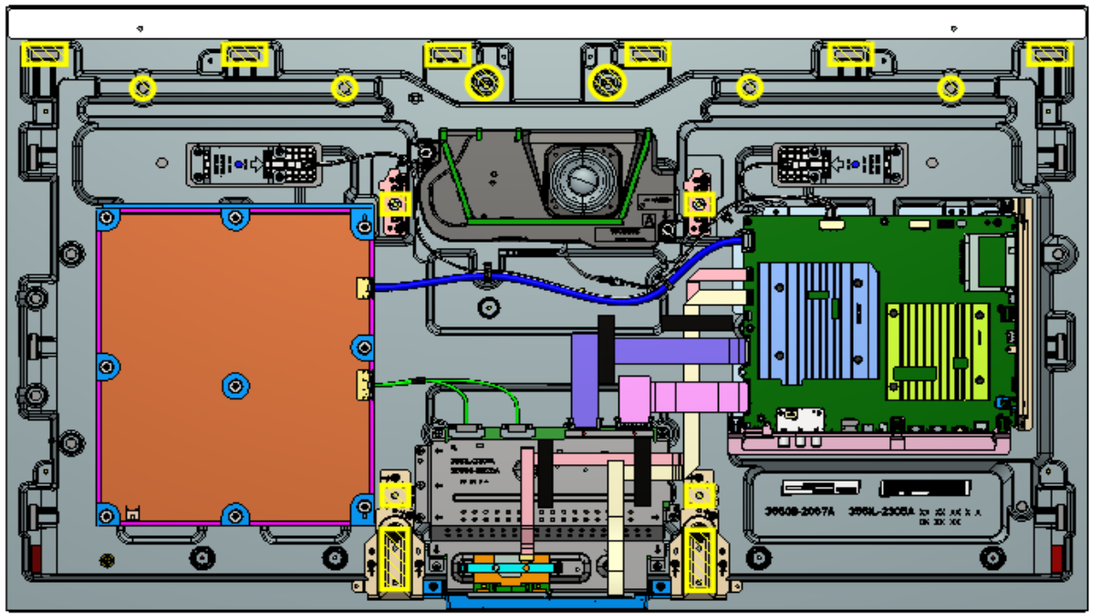


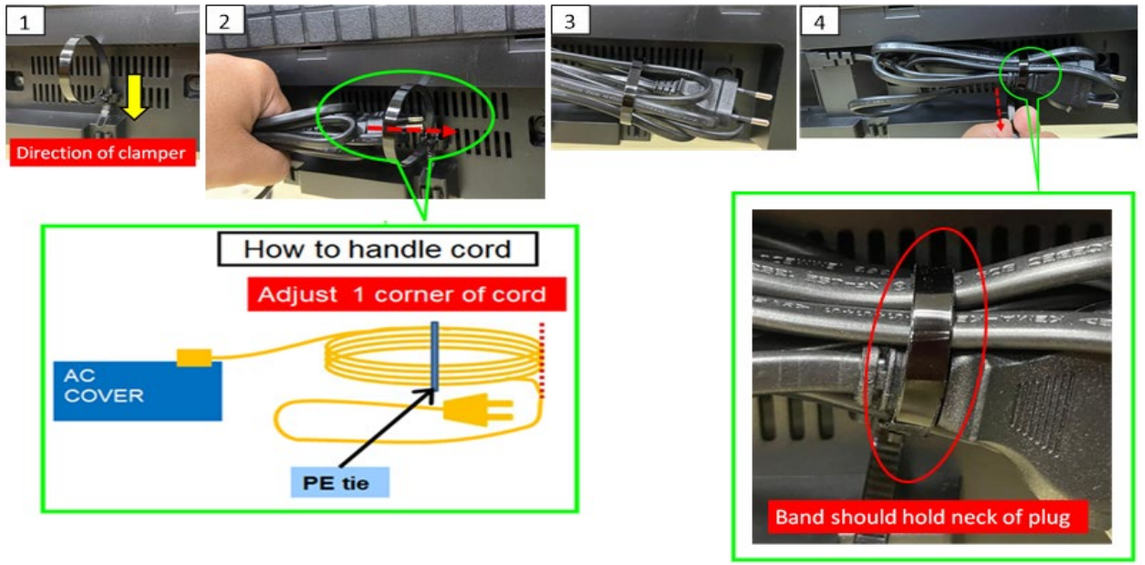
INFORMATION

Keep harness away from inhibit area.



WIRE DRESSING

1. Make sure of the direction of clamper.
2. Let bundled cord into clamper.
3. AC plug in front side.
4. Pull band to the left tightly.

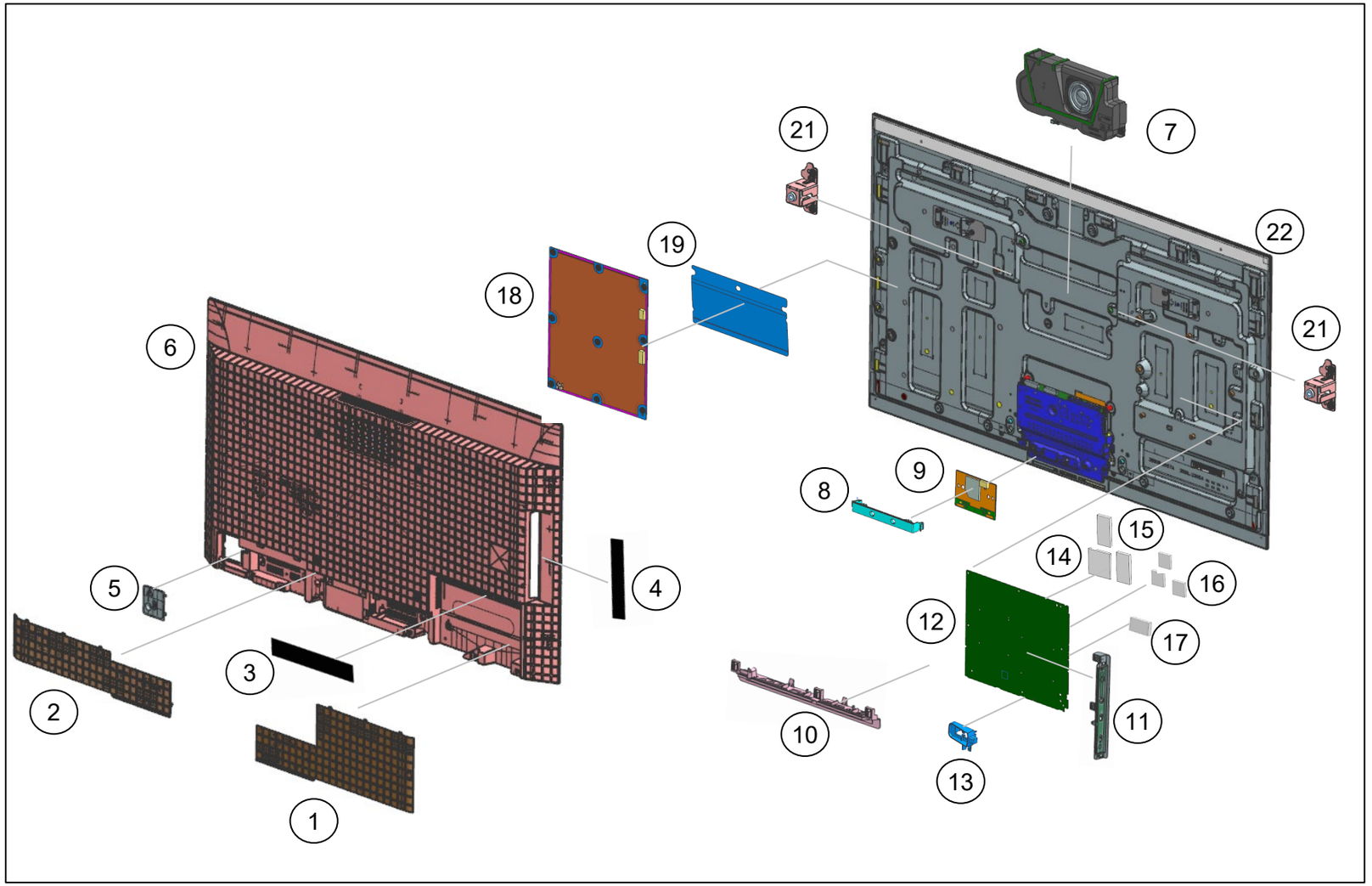


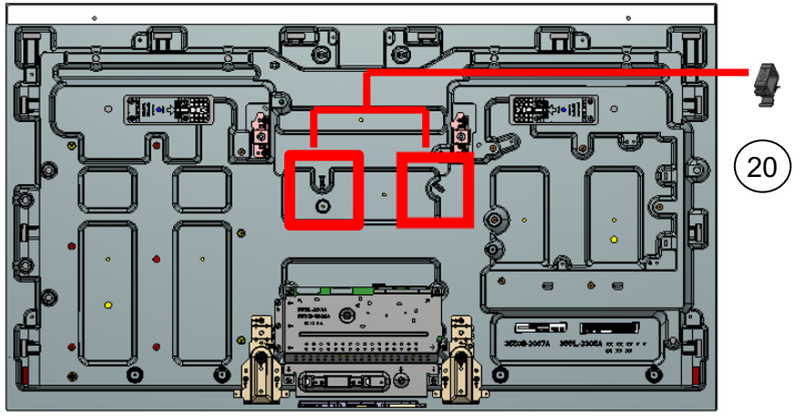
SECTION 2: XR-48A90K

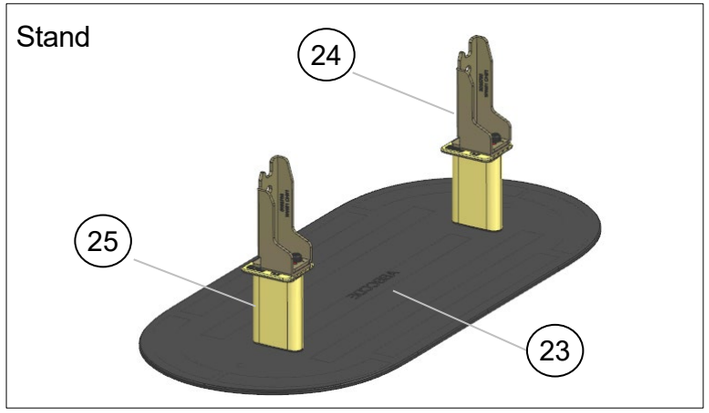
2-4. EXPLODED VIEW AND PART LIST

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



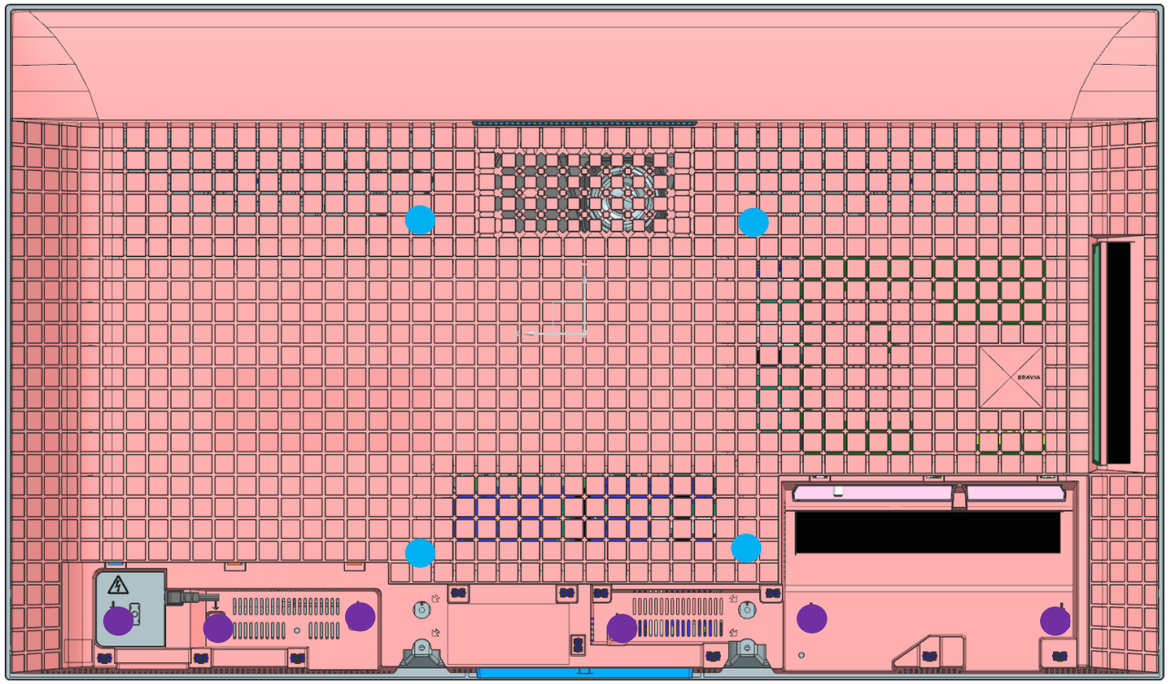


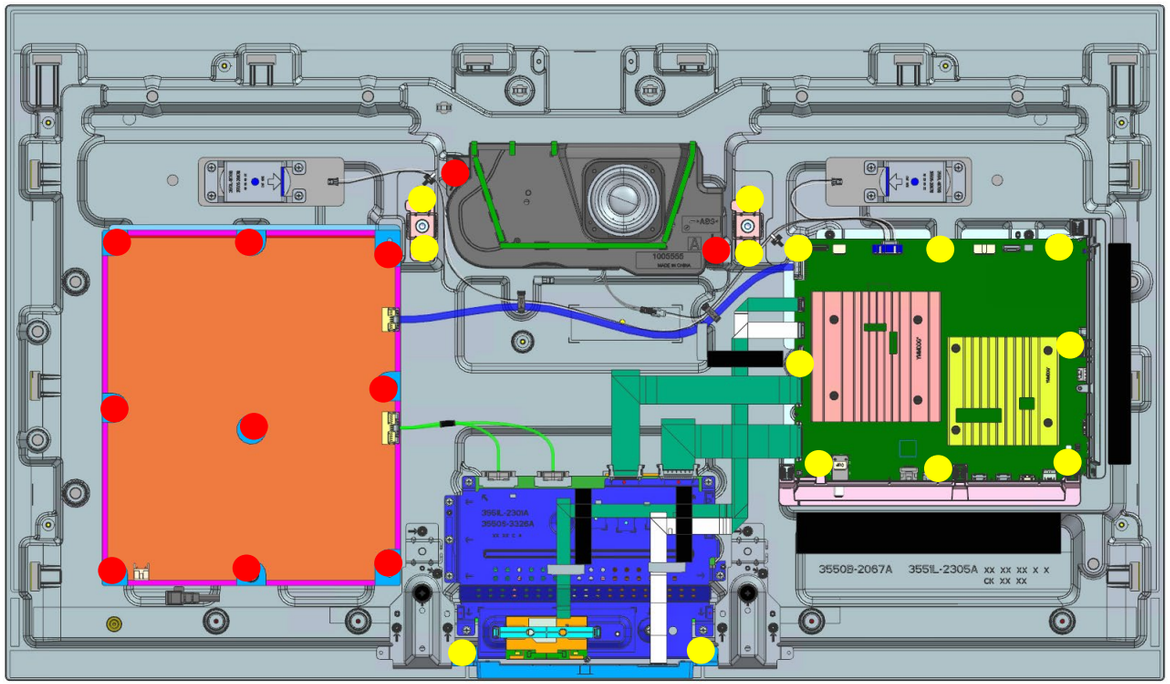


SET PART LIST

REF. NO	PART NO.	DESCRIPTION	UCM
1	5-033-673-01	TERMINAL COVER (M LIO)	•
2	5-033-674-01	COVER AC (M LIO)	•
3	5-036-141-01	LABEL, UNDER TERMINAL (BM5S22)	•
4	5-036-145-31	LABEL, SIDE TERMINAL (BM5S22)	•
⚠ 5	4-745-608-01	AC COVER (AT)	•
⚠ 6	5-033-649-01	REAR COVER (M LIO) A	•
7	1-005-555-32	SP-BOX ASSY,FY20 D40-WF-DRN	•
8	5-009-258-21	BRACKET, WIFI(BNN)	•
9	1-005-419-32	WLAN/BT MODULE(11AC)FXC	•
10	4-724-146-14	BRACKET, UNDER (BM2A)	•
11	5-036-017-21	BRACKET SIDE(SGT)	•
12	A-5044-985-A	COMPL SVC BM5S22B_FL_UCMX	•
13	5-023-281-02	KEY,TOP(SGT)	•
14	5-011-960-01	SHEET, THERMAL(LMN TCON)	•
15	5-023-557-01	SHEET THERMAL(BM5S21 DDR)	•
16	4-699-975-02	SHEET,THERMAL(5567H)	•
17	5-020-359-01	SHEET, THERMAL CSOT (APL)	•
⚠ 18	1-010-088-21	G93G- STATIC CONVERTER(TV)	•
⚠ 19	5-015-816-01	SHT, INSULATION (DRN M)	•
20	2-650-770-31	SLIDE, CLAMP	•
21	*5-023-713-01	BRACKET, VESA(3L LMN)	•
⚠ 22	1-014-957-11	OLED PANEL(L48EAQP1B)	•
23	5-035-696-01	STAND BASE (ML LIO) A	•
24	5-035-705-01	NECK STD (ML LIO) A	•
25	5-035-702-01	STAND ARM (ML LIO) A	•

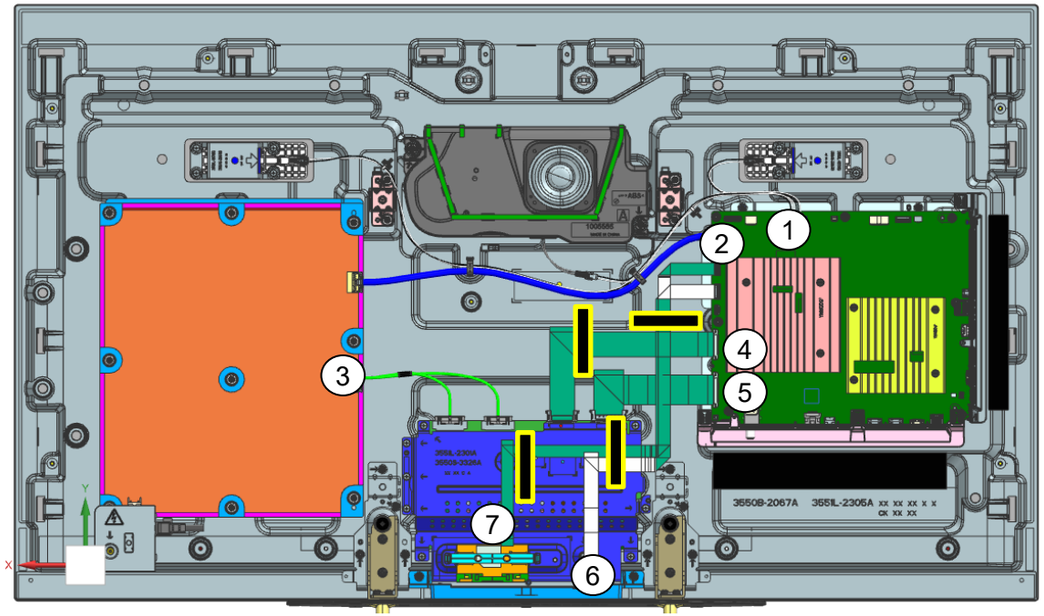
SCREW





REMARKS	P/N	DESCRIPTION	QTY	TORQUE (N.m)
●	4-256-393-12	SCREW, +PSW M3X6 W12	11	0.4 ± 0.05
●	4-472-518-11	SCREW, +PSW M3X6	14	0.4 ± 0.05
●	4-268-126-02	SCREW, ORNAMENTAL M6X12	4	1.2 ± 0.1
●	4-579-926-01	SCREW M3X3.0 STEP	6	0.4 ± 0.05

CONNECTOR



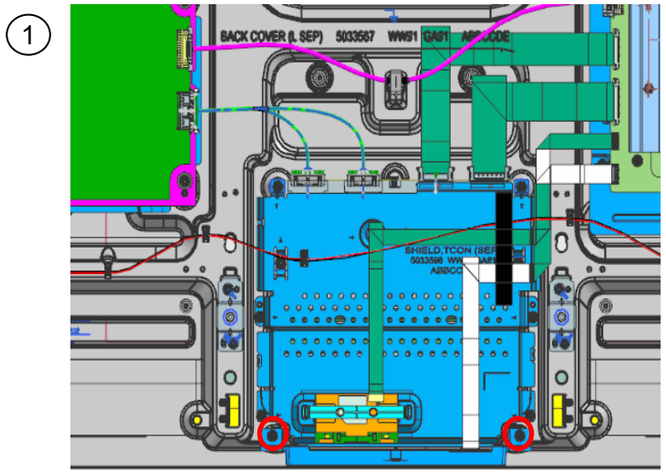
REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-014-688-11	CONNECTOR ASSY 6P	CN6613(BM5S22)-SPK-EX(1)
2	1-014-689-11	CONNECTOR ASSY 20P	CN1700(BM5S22)-CN6401(G93G)(1)
3	1-014-690-11	CONNECTOR ASSY 28P	CN6601(G93G)-CN6(TCON)-CN8(TCON)(1)
4	1-014-695-11	FLEXIBLE FLAT CABLE 41P	CN6801(BM5S22)-CN7(TCON)(1)
5	1-014-697-11	FLEXIBLE FLAT CABLE 51P	CN6800(BM5S22)-CN5(TCON)(1)
6	1-014-693-11	FLEXIBLE FLAT CABLE 25P	CN1200(BM5S22)-CN102(HY1)(1)
7	1-014-691-11	FLEXIBLE FLAT CABLE 20P	CN3803(BM5S22)-WIFI(1)

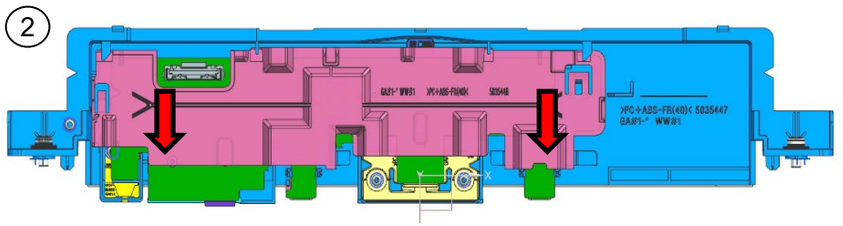
OTHER PARTS

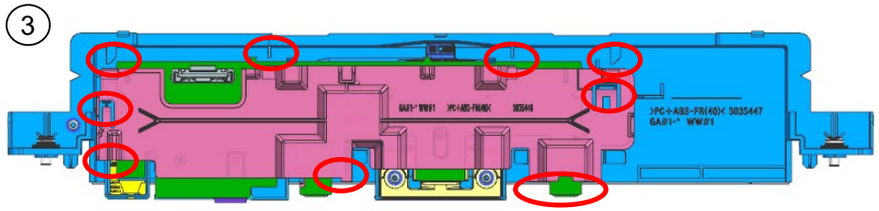
PART NO.	DESCRIPTION	UCM	REMARKS
4-535-064-61	ASSY,FALL LOCK,BELT LL	•	-
5-035-707-01	BAG, SCREW (ML LIO) A	•	Including SCREW, +PSW M5X12XW10 (Qty 8) & SCREW, CS M4X11 (Qty 4)
4-262-708-04	CLAMPER, CABLE	•	-
⚠ 1-849-274-11	POWER-SUPPLY CORD (WITH CONN.)	•	-
1-013-685-22	REMOTE COMMANDER (RMF-TX900U)	•	-
*5-039-051-11	REFERENCE GUIDE	•	-
*5-037-332-11	SETUP GUIDE	•	-
7-600-031-97	TAPE (3M 1350FB-1)15MMX66M BLK	•	-

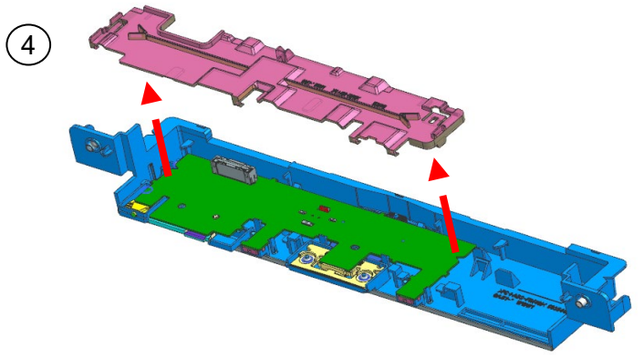
DISASSEMBLE SMART CORE

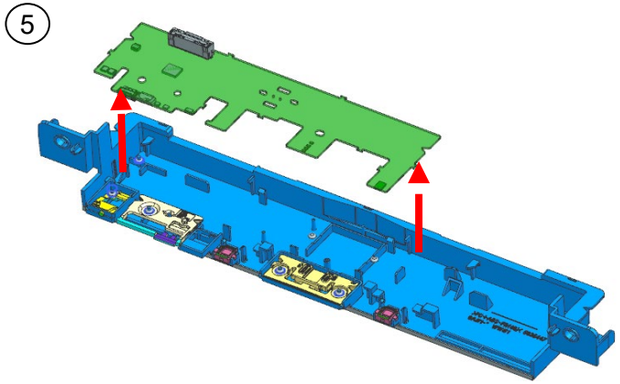
1. Remove screws quantity 2pcs.
2. Slide the Cover Top
3. Confirm all the hooks area are released
4. Open the Cover Top
5. Open the H-Board

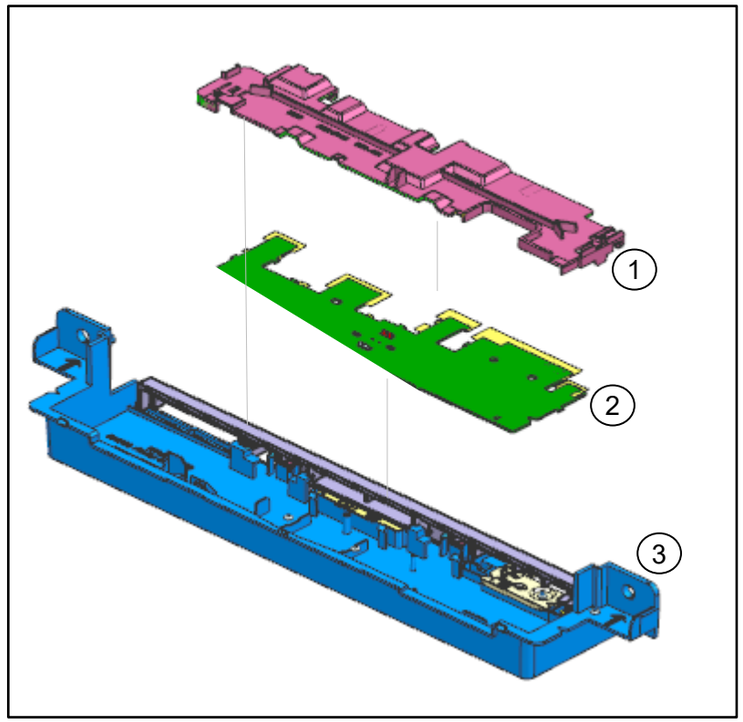












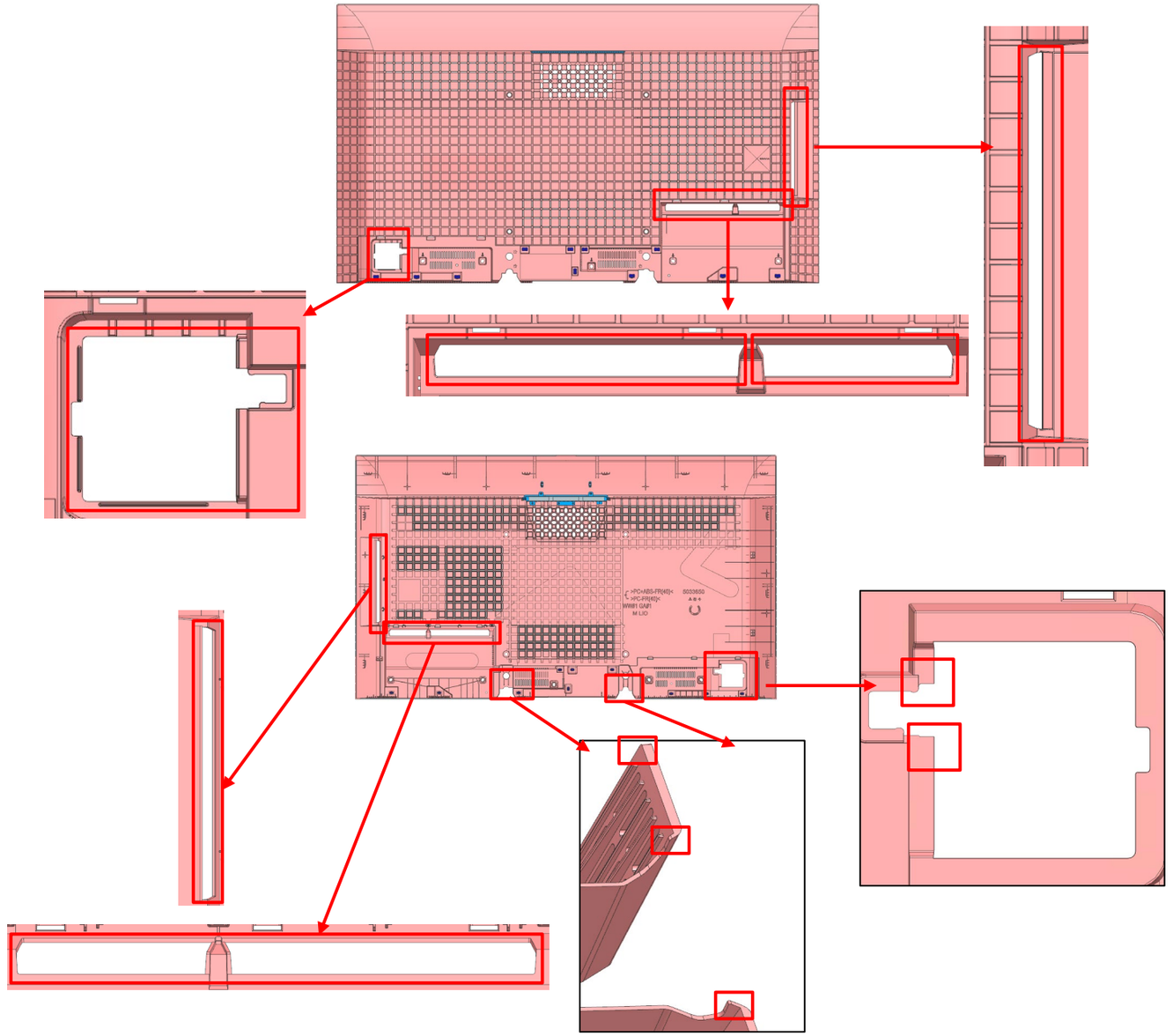
REF. NO	PART NO.	DESCRIPTION
1	*5-035-448-11	COVER,TOP (SEP)
2	A-5042-390-A	FL_HY1_MIC_WW_EV_OS_PR MOUNT
3	5-036-863-31	COVER,BTM (SEP) A

APPENDIX

SHARP EDGE

Recommended Precautions

- Use fabric glove or equivalent while handle the Rear Cover

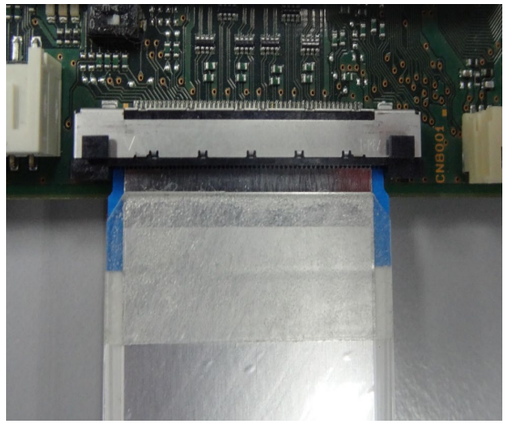


: Sharp edge location

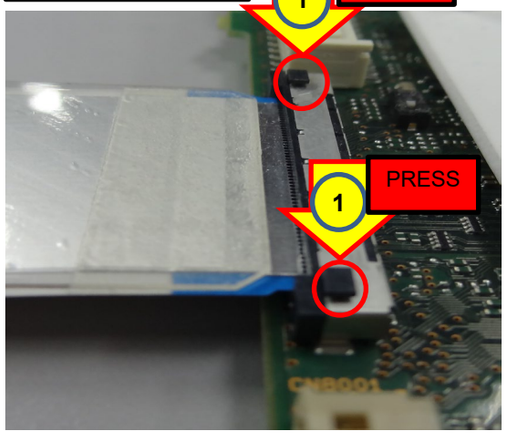
Hook position may vary according to inch

WITHDRAWAL OF 41P / 51P FFC CONNECTOR (TYPE 1)

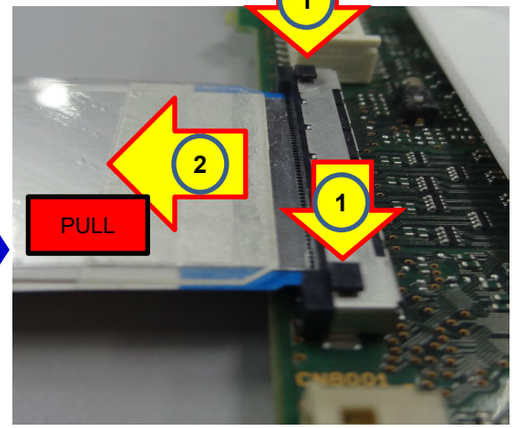
Initial condition



Step 1



Step 2

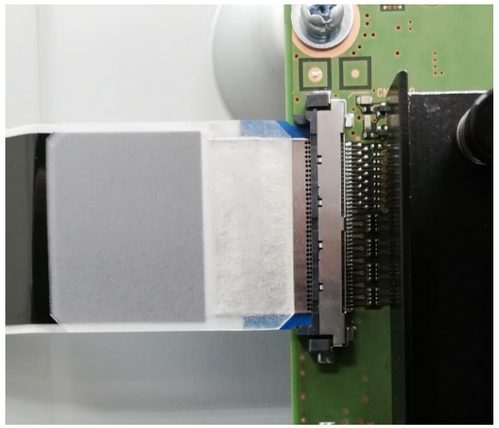


1. Press the release lock button downward at same time (highlighted in red).
2. Pull FFC in straight direction while pressing both release lock button at the same time.

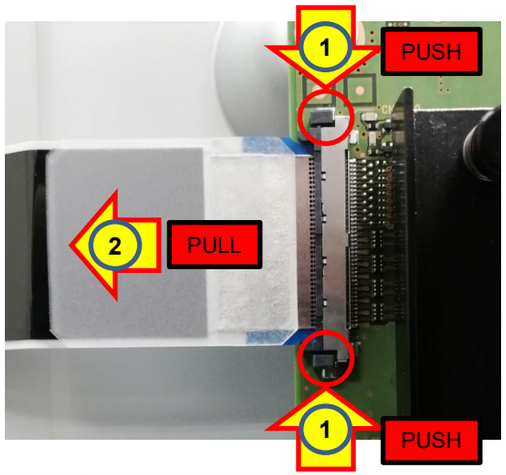
Note: FFC as in image is only for reference purpose. Actual FFC outlook may vary by each vendor.

WITHDRAWAL OF 41P / 51P FFC CONNECTOR (TYPE 2)

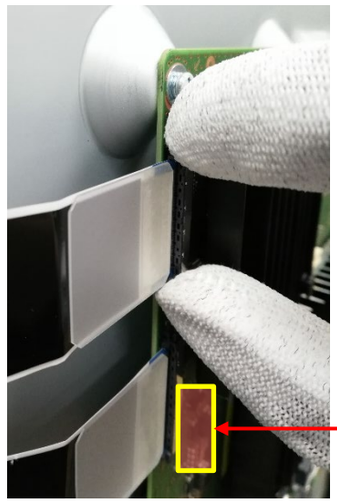
Initial condition



Step 1 & 2



Caution



Ensure fingers does **NOT** touch parts on board and tuner connector when pushing the side locks.

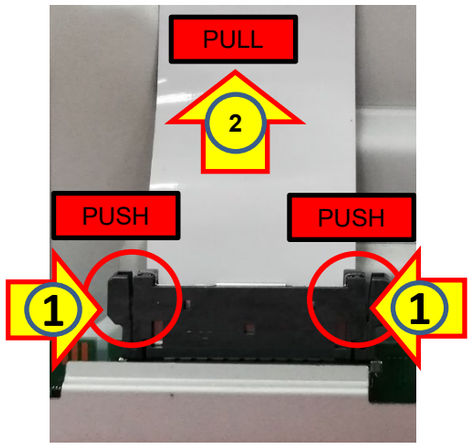
1. Push the side-release lock buttons inward (highlighted in red).
2. Pull-out FFC in straight direction while pushing side-release lock buttons at the same time.

Note: FFC as in image is only for reference purpose. Actual FFC outlook may vary by each vendor.

WITHDRAWAL OF 41P / 51P FFC CONNECTOR (TYPE 3)

Initial condition

Step 1 & 2



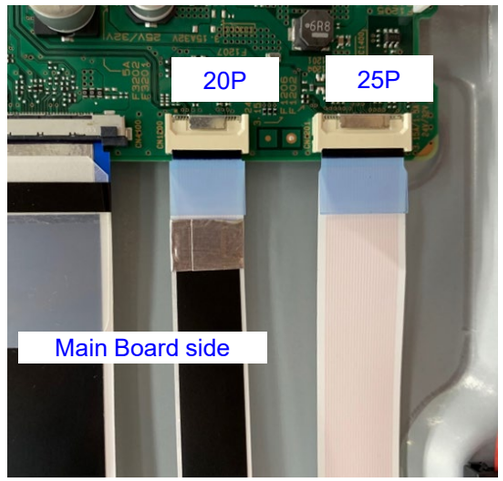
1. Push the side-release lock buttons inward (highlighted in red).
2. Pull-out FFC in straight direction while pushing side-release lock buttons at the same time.

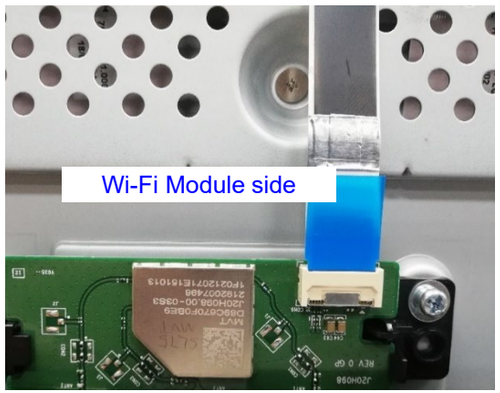
Note: FFC as in image is only for reference purpose.
Actual FFC outlook may vary by each vendor.

Remark: Refer to Board Location and Connector Diagram

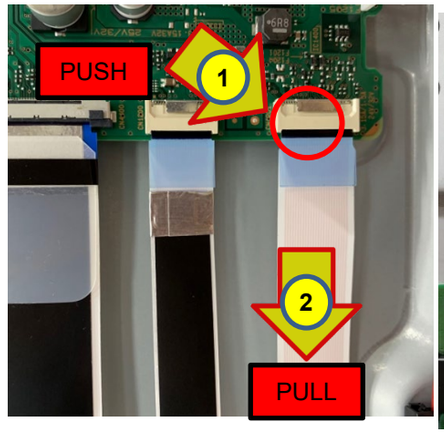
WITHDRAWAL OF 20P / 25P FFC CONNECTOR

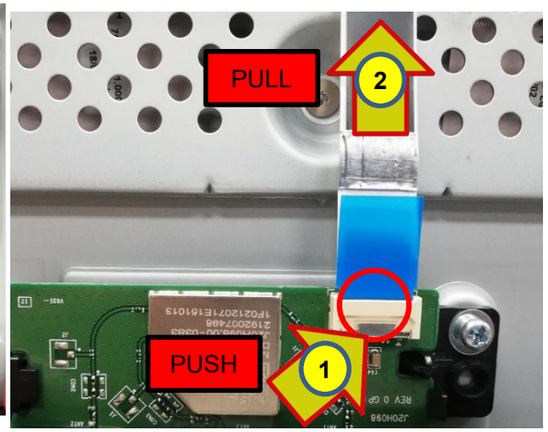
Initial condition





Step 1 & 2

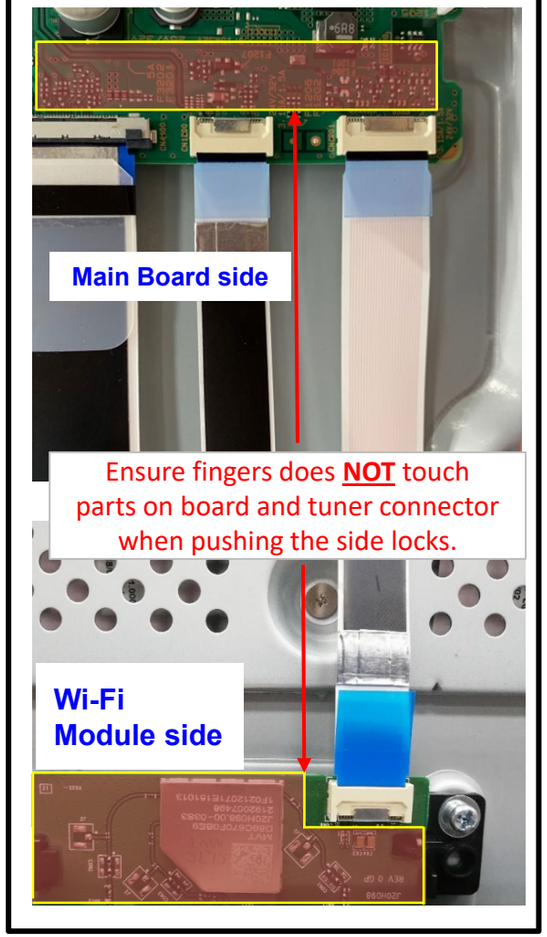




1. Push the side-release lock buttons inward (highlighted in red).
2. Pull-out FFC in straight direction while pushing side-release lock buttons at the same time.

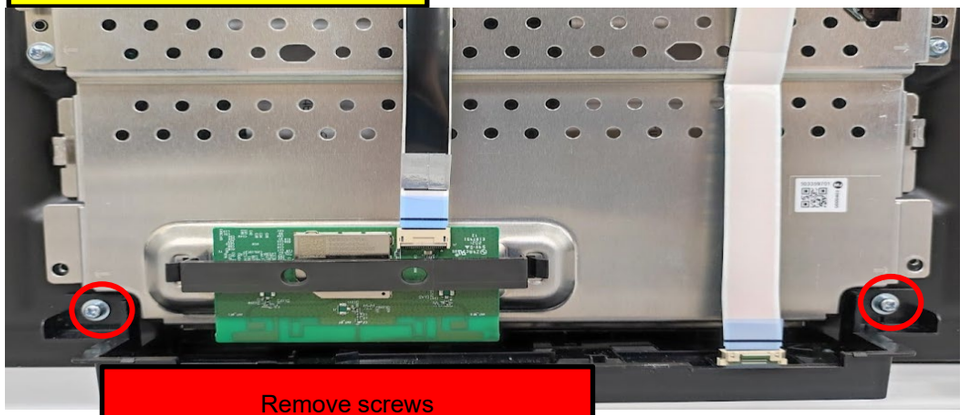
Note: FFC as in image is only for reference purpose.
Actual FFC outlook may vary by each vendor.

Caution

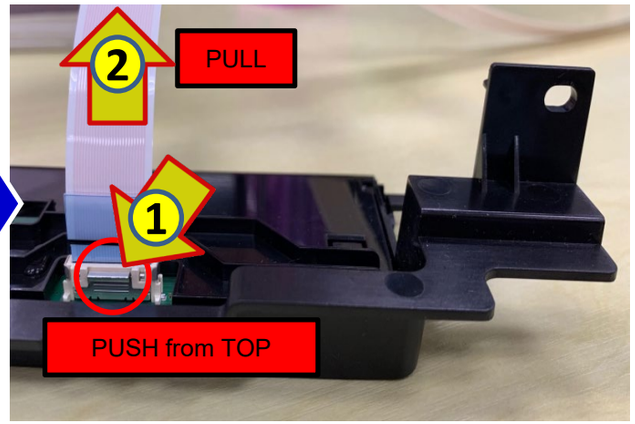


WITHDRAWAL OF 25P FFC CONNECTOR

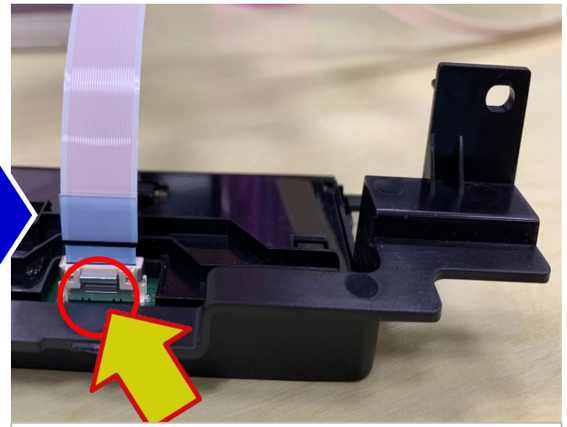
Pre-Step Before FFC Removal



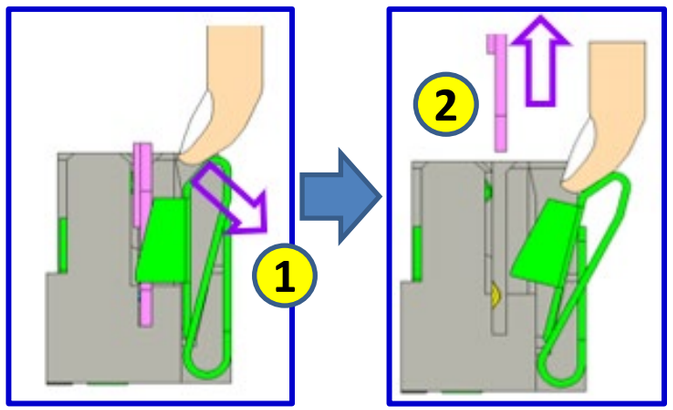
Step 1 & 2



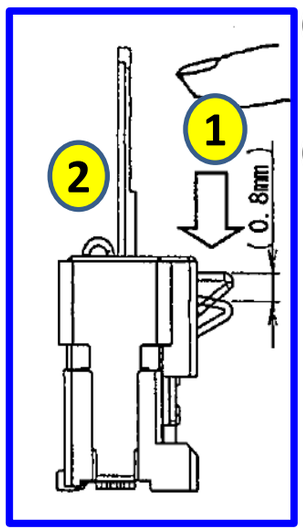
Caution



Do **NOT** push from side as connector will break due to excessive force applied.



Remark: Release lock mechanism might be different.
(depends on connector types)



1. Push the side-release lock buttons inward (highlighted in red).
2. Pull-out FFC in straight direction while pushing side-release lock buttons at the same time.

Note: FFC as in image is only for reference purpose.
Actual FFC outlook may vary by each vendor.