

TV28750101Service Manual

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1. PRECAUTION AND NOTICES

1.1. SAFETY PRECAUTIONS

This TV is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may cause damage to the TV as well as to the user. Carefully go over the following WARNINGS before installing and keep this guide handy.

WARNINGS:

- ◆ This TV should be operated only at the correct power sources indicated on the label on the rear end of the TV. If you're unsure of the power supply in your residence, consult your local dealer or power company.
- ◆ Use only the special power adapter that comes with this TV for power input.
- ◆ Do not try to repair the TV your self as it contains no user-serviceable parts. This TV should only be repaired by a qualified technician.
- ◆ Do not remove the TV cabinet. There is high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is unplugged.
- ◆ Stop using the TV if the cabinet is damaged. Have it checked by a service technician.
- ◆ Put your TV only in a clean, dry environment. If it gets wet, unplug the power cable immediately and consult your service technician.
- ◆ Always unplug the TV before cleaning it. Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- ◆ Keep the TV away from magnetic objects, motors, and transformer.
- ◆ Do not place heavy objects on the TV or power cord.

1.2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

1.3. SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. Keep wires away from high voltage, high temperature components and sharp edges.
3. Keep wires in their original position so as to reduce interference.
4. Usage of this product please refer to also user's manual.

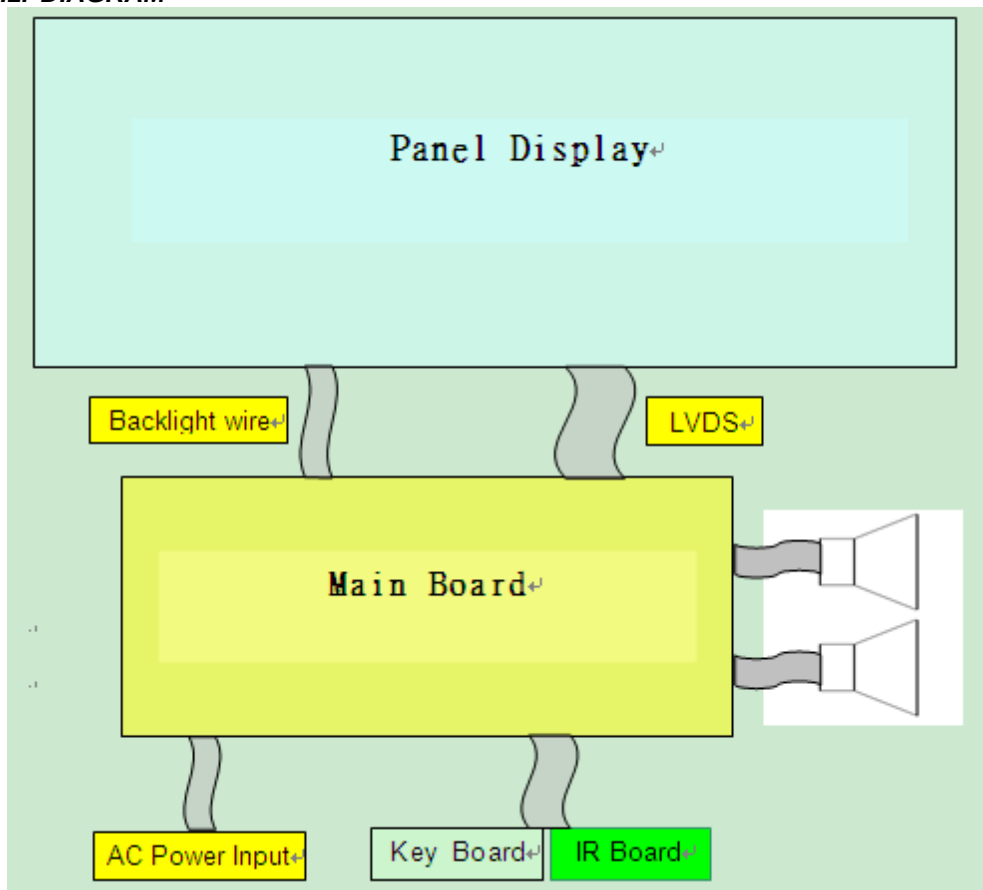
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2. SERVICE TOOL & EQUIPMENT REQUIRED

1. SIGNAL GEN.
2. MULTIMETER
3. OSCILLOSCOPE
4. SCREW DRIVER
5. IRON
6. ABSORBER
7. SOLDER

3. SPECIFICATIONS

3.1. DIAGRAM



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3.2. PRODUCT SPECIFICATIONS

Panel	HV320WHB-F56
Displayable Resolution	HD 1366*768
LCD Display Color	16.7M Color Max.
Viewing Angle	CR ≥ 10 Horizontal: 178° Vertical: 178°
Contrast Ratio	1200:1(typical)
Brightness	160cd/ m2 (min.) 200cd/m ² (typ.)
Response Time	Tr+Tf: 8.0ms(typ.) Tr+Tf: 10ms(max.)
Temperature	Operating: 0°C ~ +40°C Storage: -10°C ~ +60°C
Power	Input Voltage: 100~240 Vac Consumption: 65Watts (Max.)

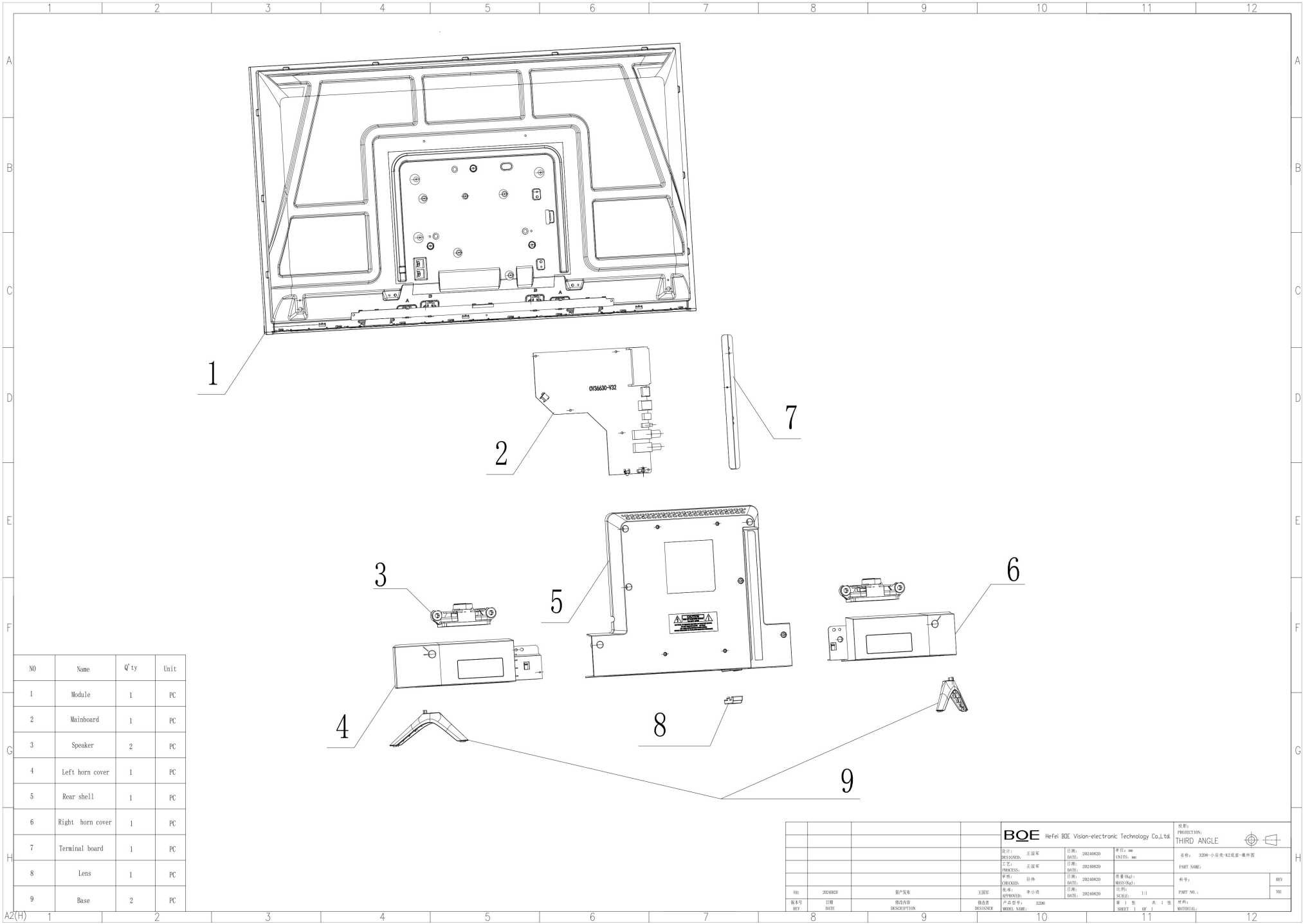
3.3 Function of Board

- 1) Main Board: Control all input signals, Decode the video signal, De-interlace, and send digital signals (LVDS signal) sent from image Board and display; supply LCM backlight power
- 2) Panel: Display all images;
- 3) IR Board: Receive remote operation;
- 4) Key Board : buttons of POWER
- 5) AC Input: 100~240 Vac;

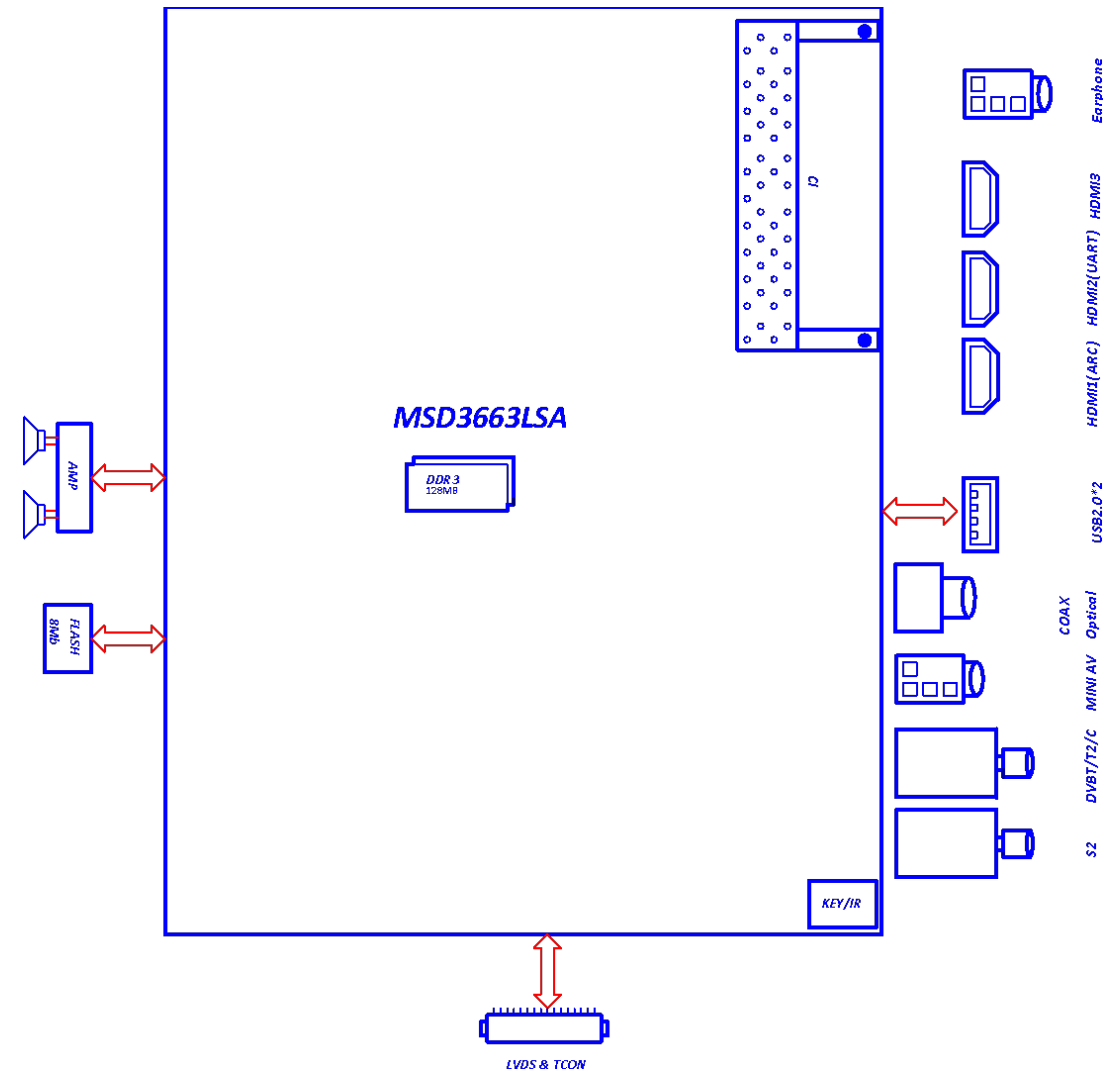
3.4 Part apt to decrease

- 1) Bezel, Rear Cover and Panel;
- 2) Terminal of all plugs.

4. EXPLODED VIEW AND PARTS LIST



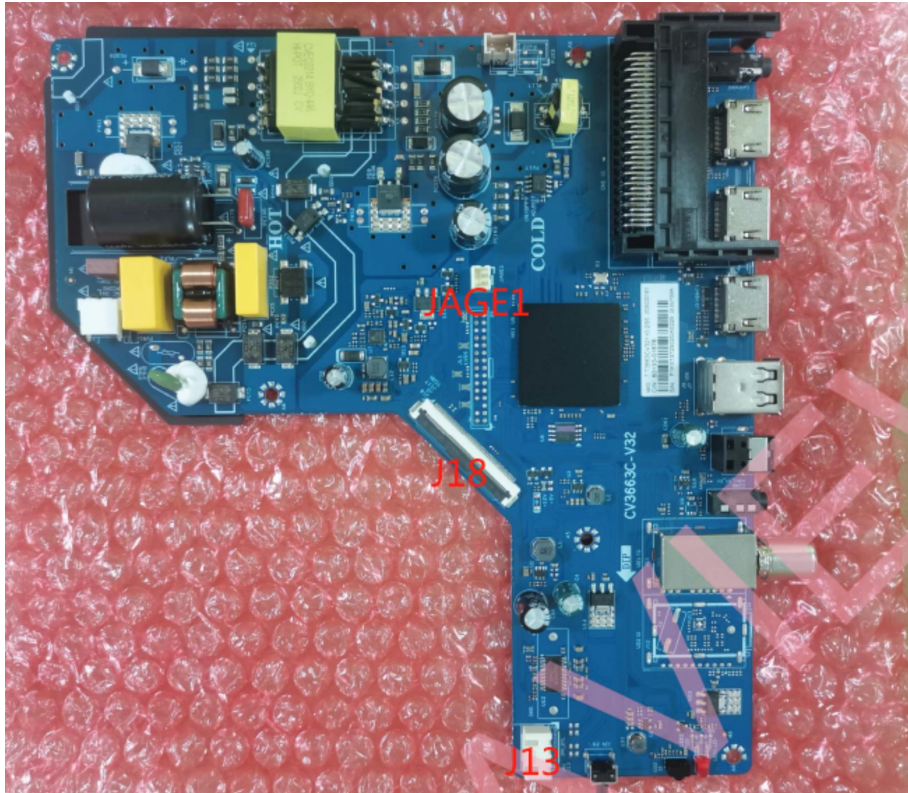
5. BLOCK DIAGRAM



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6. MAIN BOARD SERVICE CHART

MAIN BOARD



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MAIN BOARD INTERFACE DEFINITION

J13 SPEAKER CONNECTOR(4PIN/2.54/BTL)



NO.	SYMBOL	DESCRIPTION
1	ROUT+	Audio R+ Channel Output
2	ROUT-	Audio R- Channel Output
3	LOUT-	Audio L- Channel Output
4	LOUT+	Audio L+ Channel Output

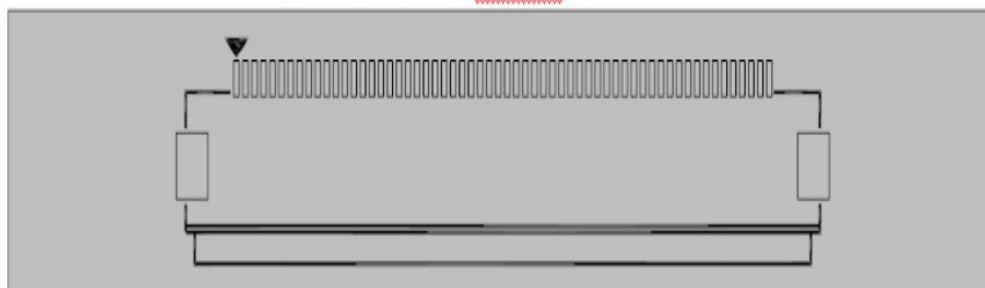
JAGE1 POWER SUPPLY CONNECTOR (2PIN/2.0)



NO.	SYMBOL	DESCRIPTION
1	+12V	Power Aging Connector
2	GND	Ground

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J18 MINI LVDS INTERFACE(60PIN/0.5/FFC) (nimiLVDS)



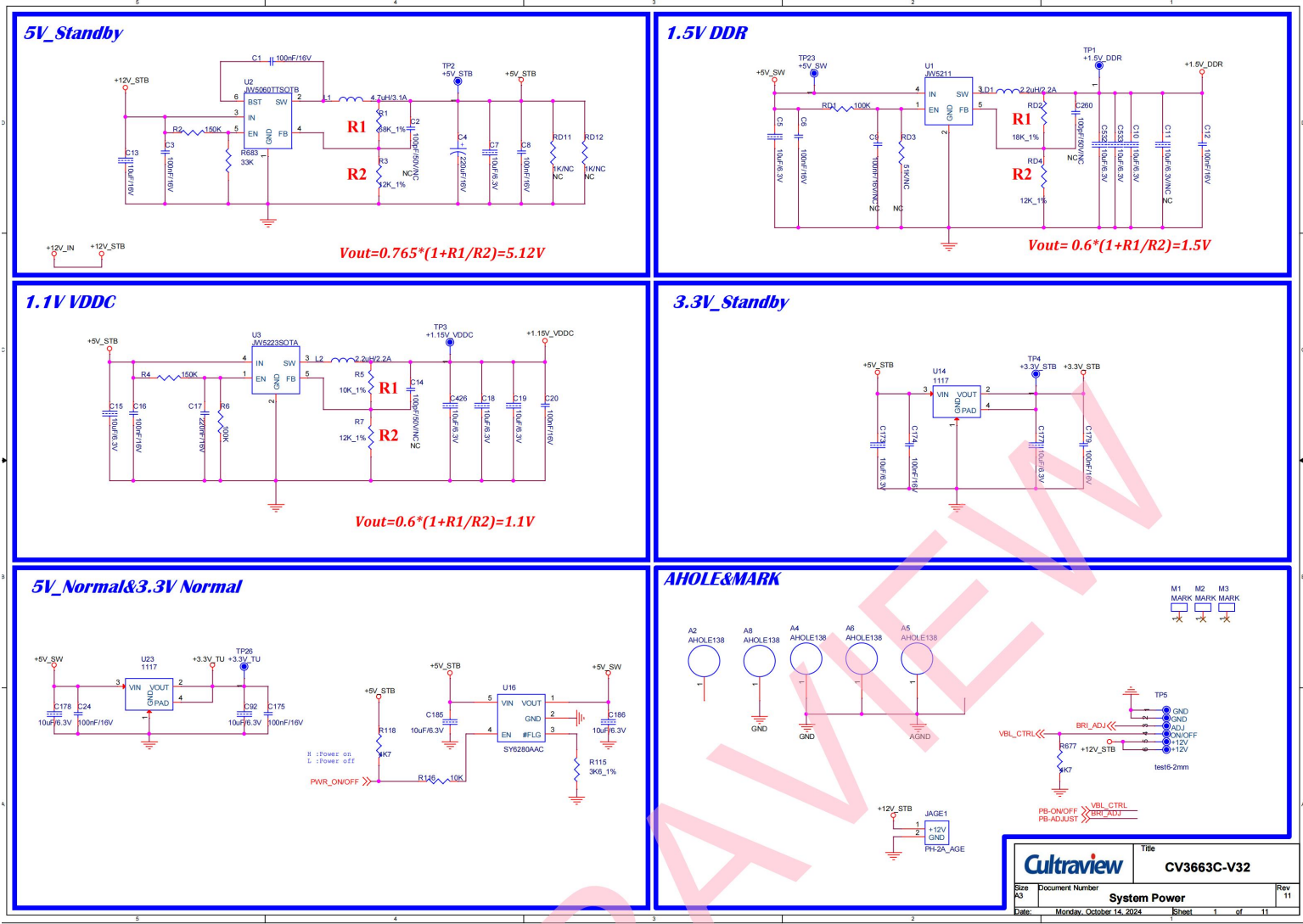
NO.	SYMBOL	DESCRIPTION
1	GND	GROUND
2	mLV0P	Differential inputs (<u>mini-LVDS</u>) for 8-bit RGB data and control signal
3	mLV0N	
4	mLV1P	
5	mLV1N	
6	mLV2P	
7	mLV2N	
8	GND	GROUND
9	<u>mLVCLKP</u>	Differential inputs (<u>mini-LVDS</u>) for 8-bit RGB data and control signal
10	<u>mLVCLKN</u>	
11	GND	GROUND
12	mLV3P	Differential inputs (<u>mini-LVDS</u>) for 8-bit RGB data and control signal
13	mLV3N	
14	mLV4P	
15	mLV4N	
16	mLV5P	
17	mLV5N	
18	GND	GROUND

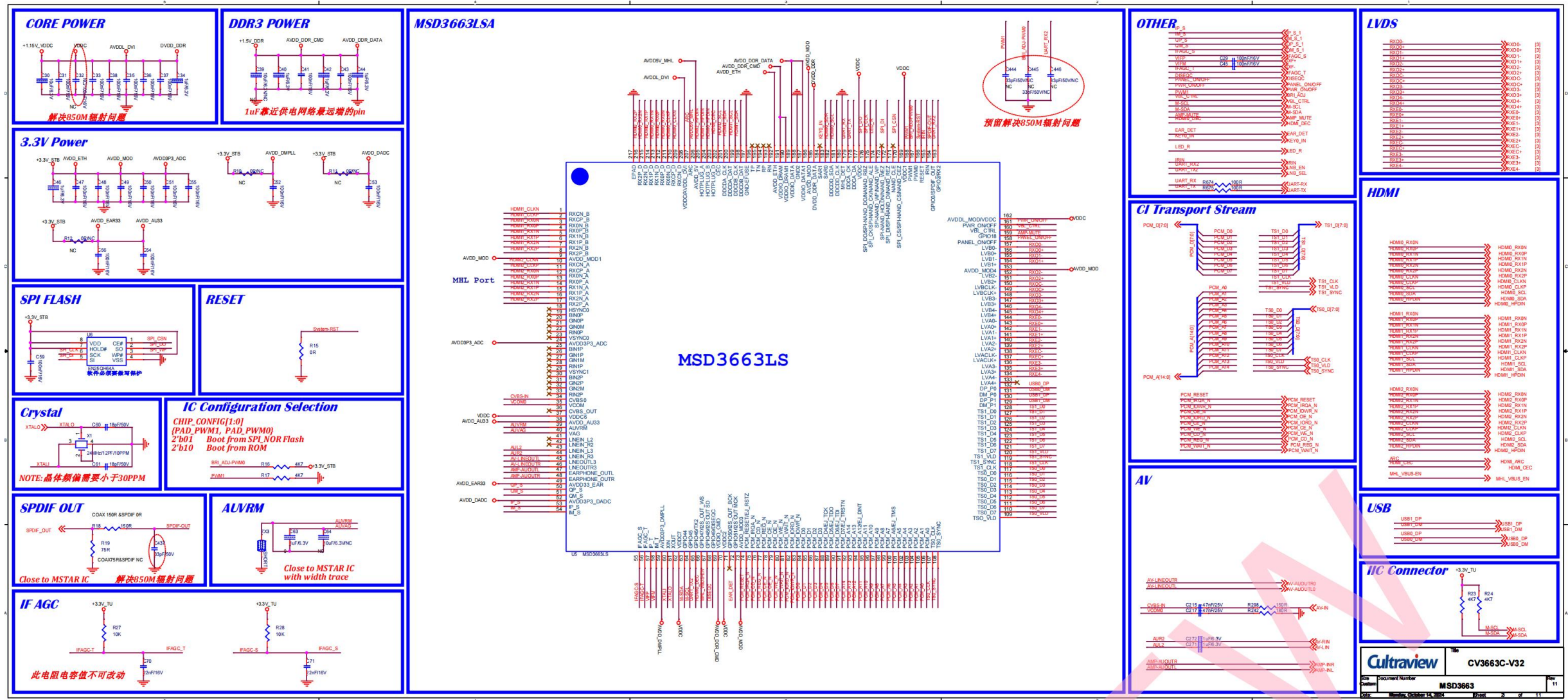
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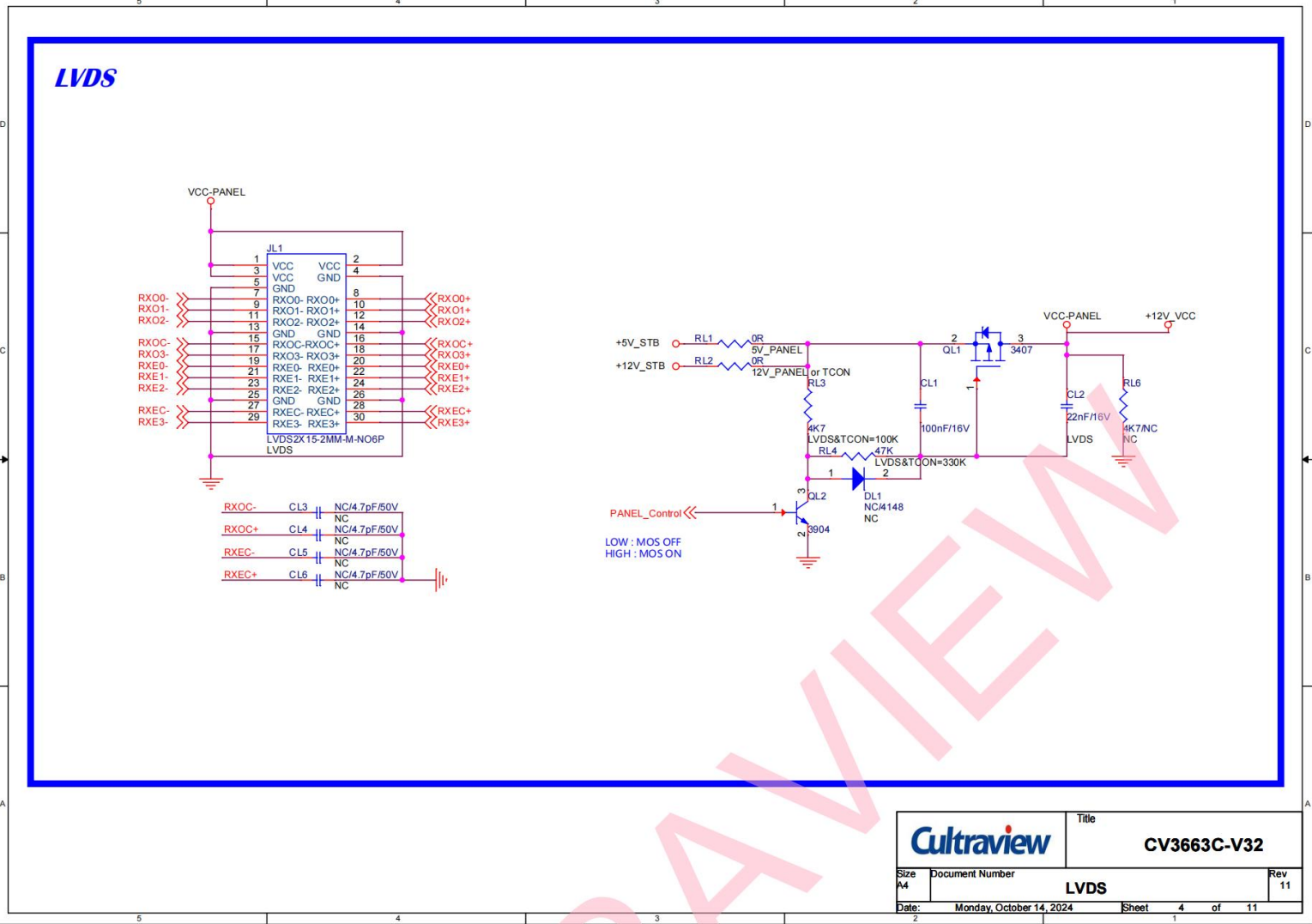
19	GND	
20-33	NC	NO CONNECTION
34	GND	GROUND
35	AVDD	Power supply for analog circuit
36	AVDD	
37	AVDD	
38	VMID	Power supply for analog circuit VMID = 1/2AVDD
39	VMID	
40	PAIRMODE	Selects <u>mini-LVDS</u> input mode: H:6-Pair Mode. (default) L:3-Pair Mode
41	POL	Source driver polarity inversion signal
42	TP	Source driver latch signal
43	NC	NO CONNECTION
44	VCOM	common electrode for LCD
45	VCOM	
46	GREF	Power supply for GAMMA reference
47	VON	Positive power supply for gate
48	VON	
49	GND	GROUND
50	VOFF	Negative power supply for gate
51	VOFF	
52	DVDD	Power supply for digital circuit
53	DVDD	
54	GND	GROUND
55	NC	NO CONNECTION
56	NC	
57	STV1	GOA vertical start pulse1
58	STV0	GOA vertical start pulse0
59	CPV2	GOA clock2 input
60	CPV1	GOA clock1 input

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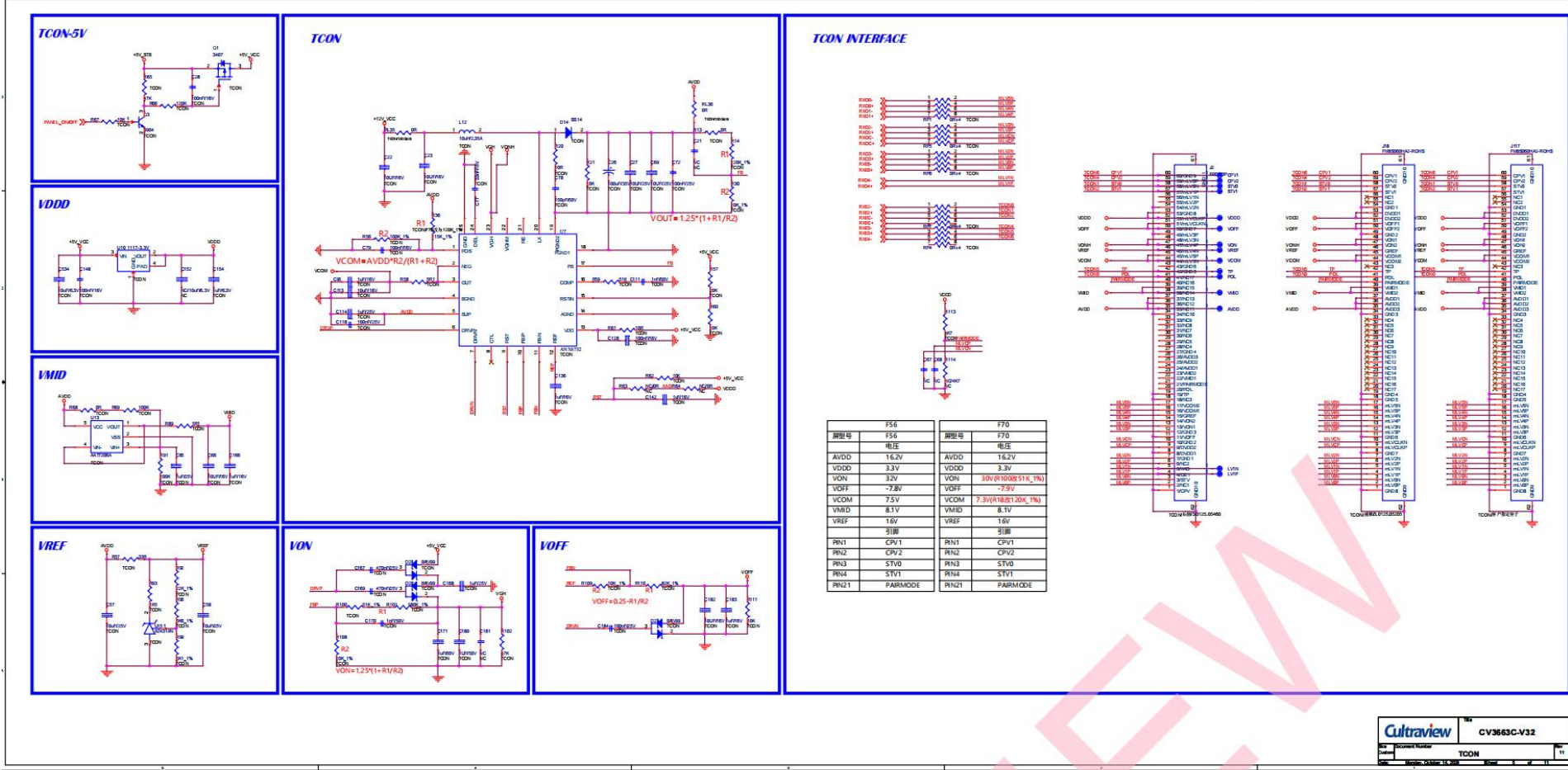
7. SCHEMATIC DIAGRAM



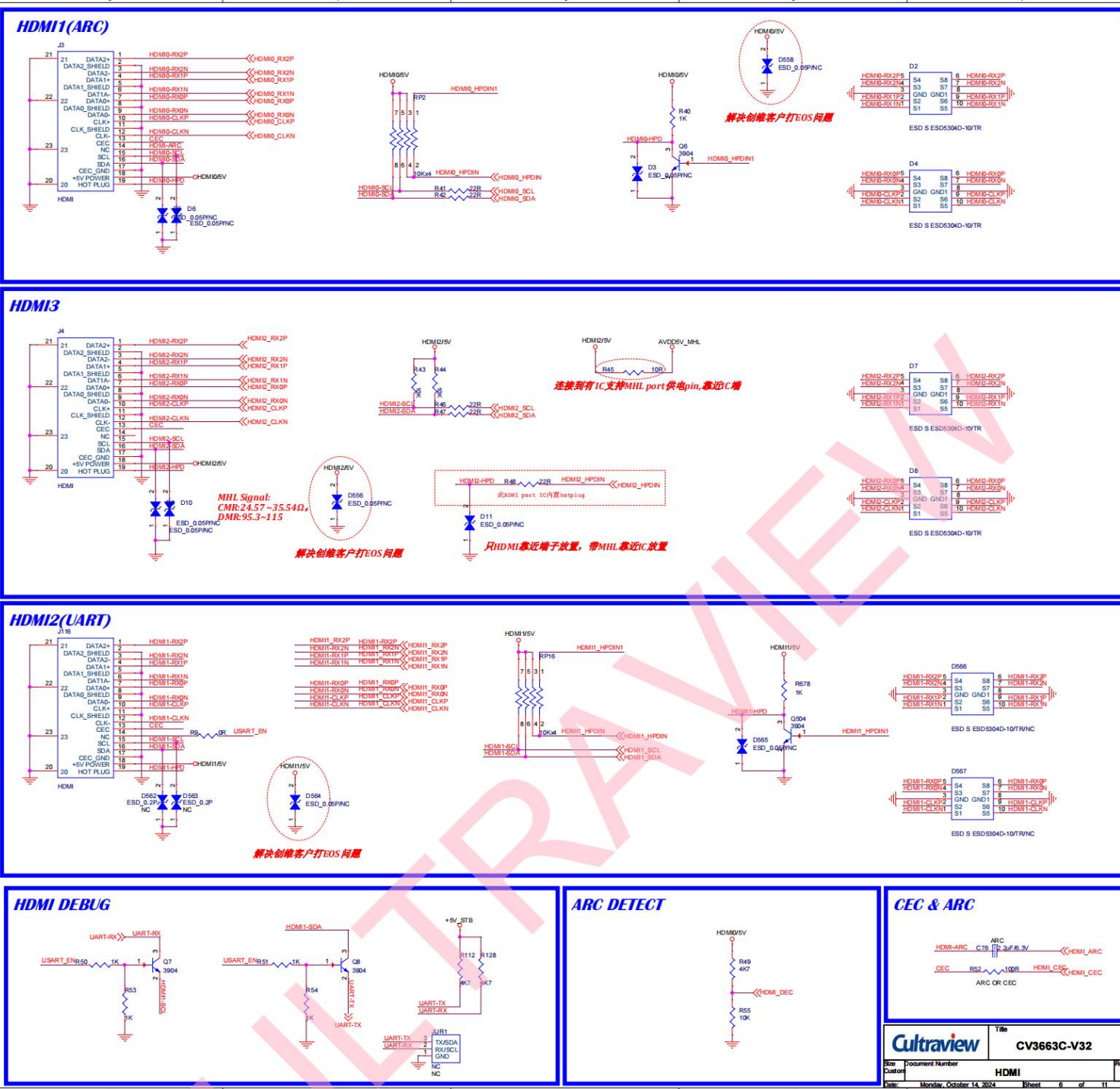




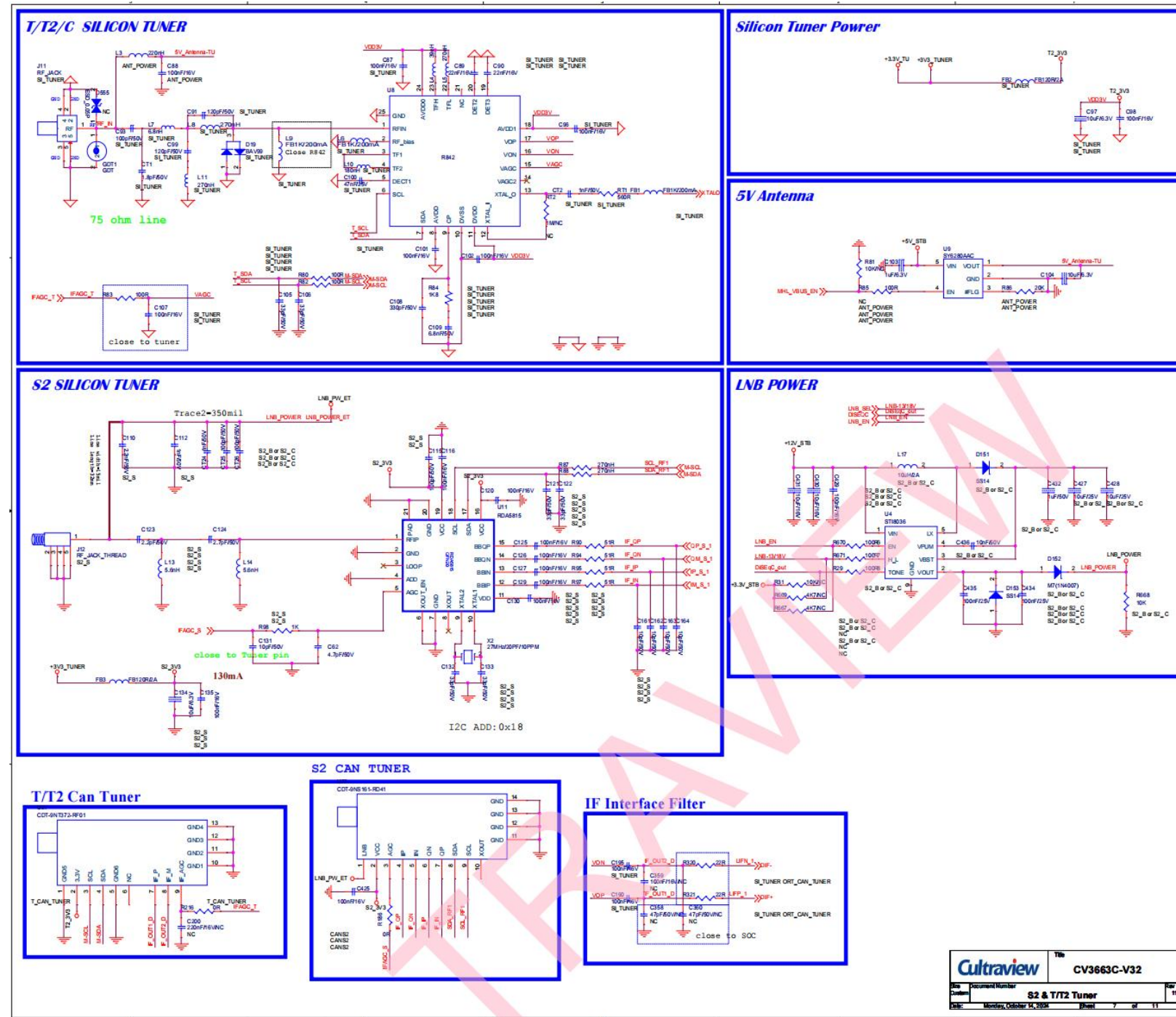
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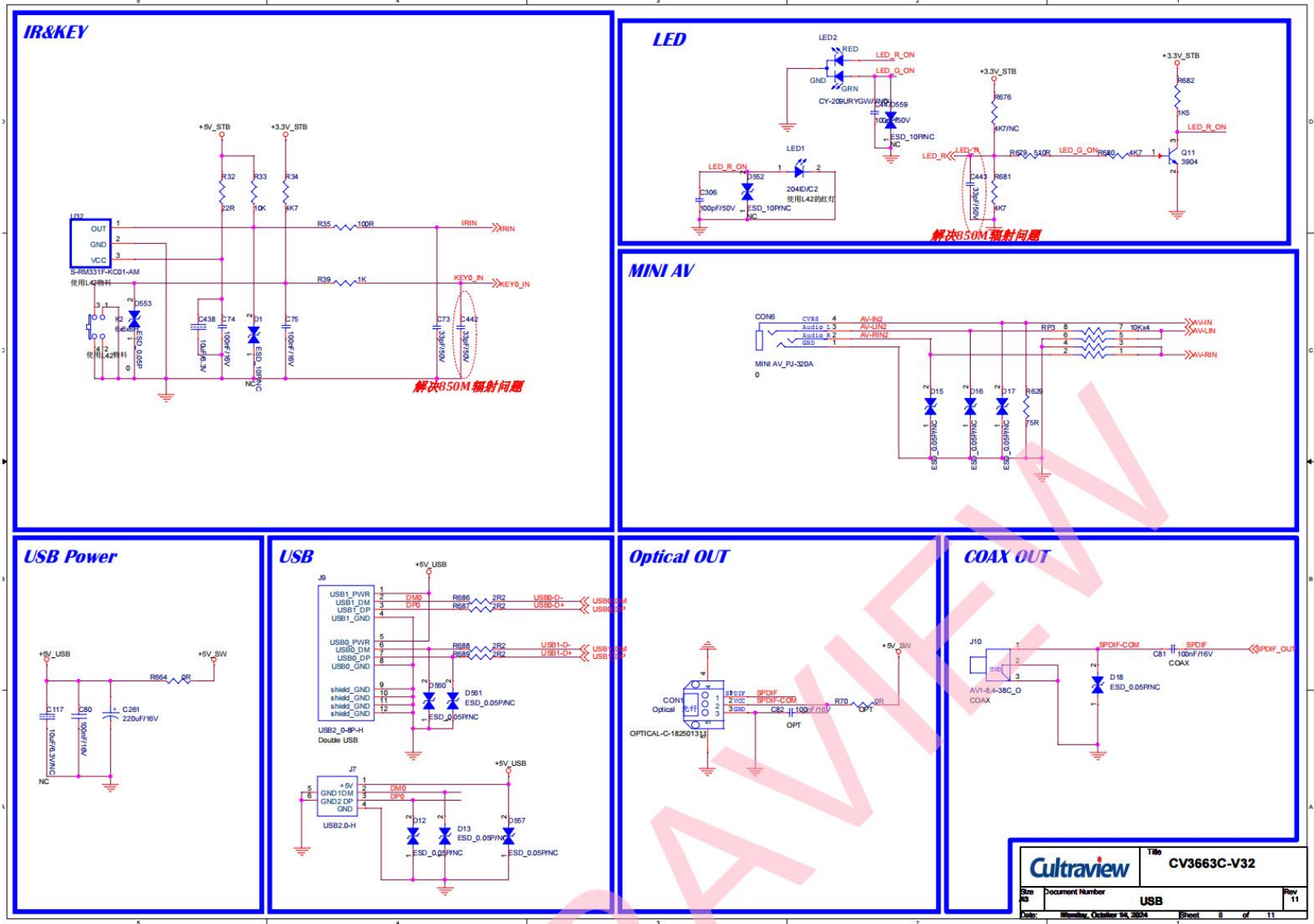
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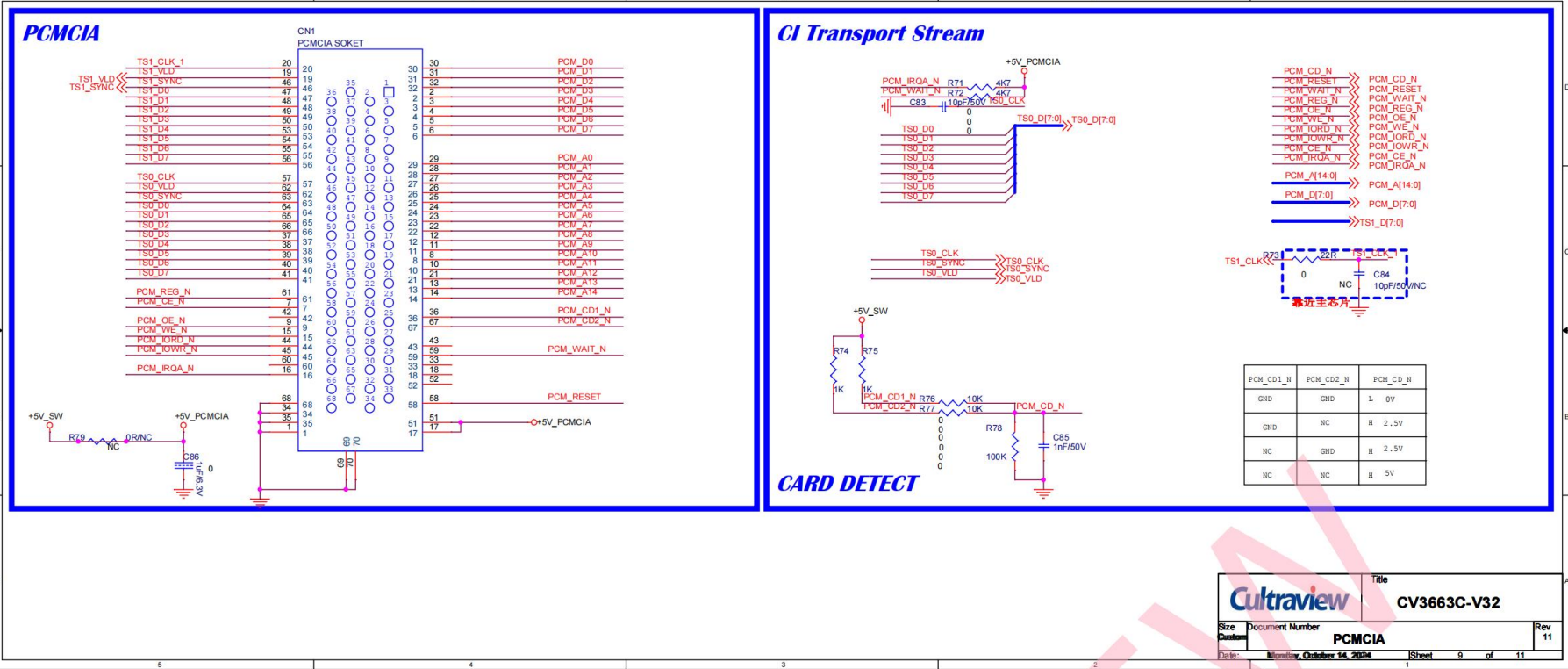


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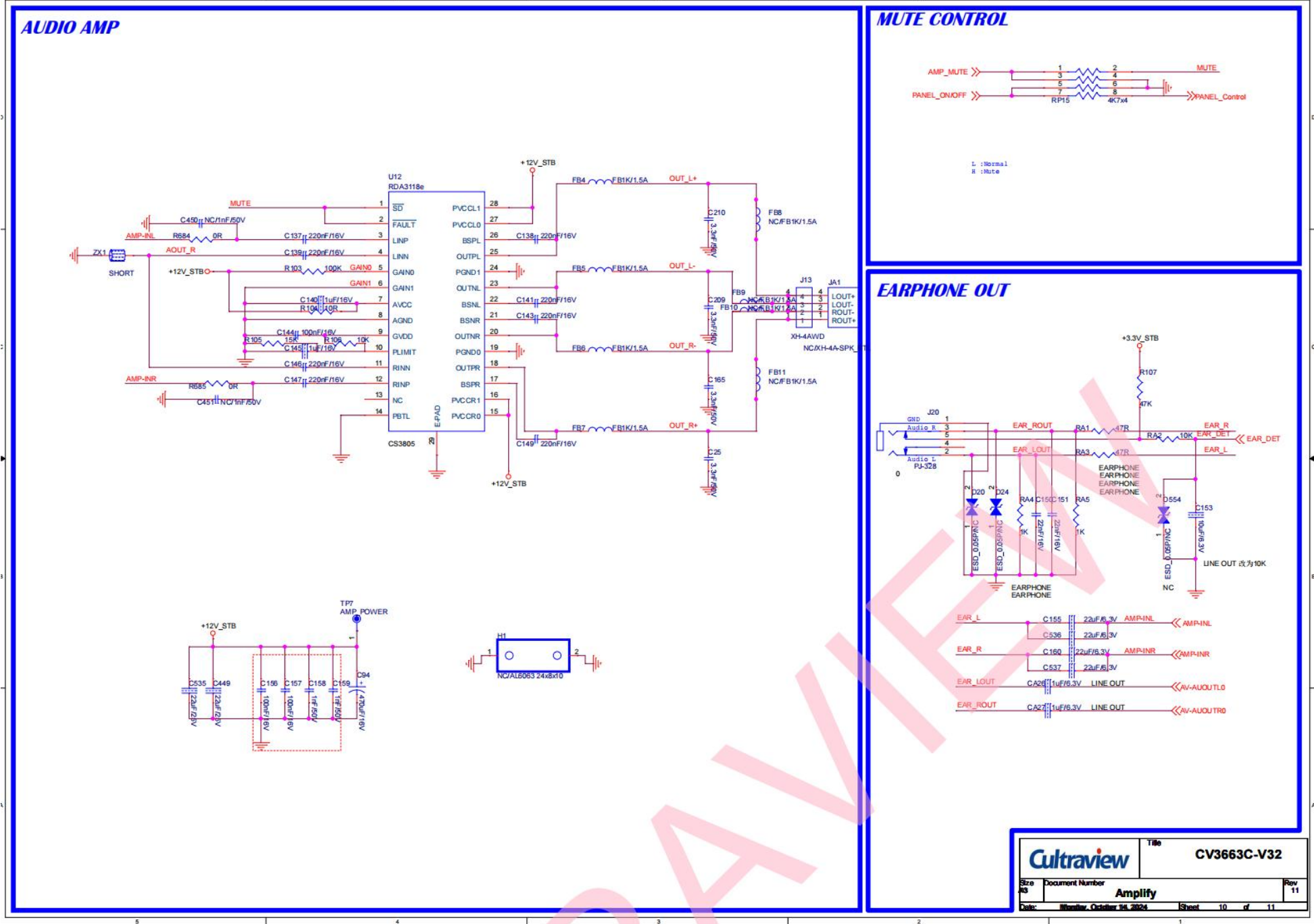


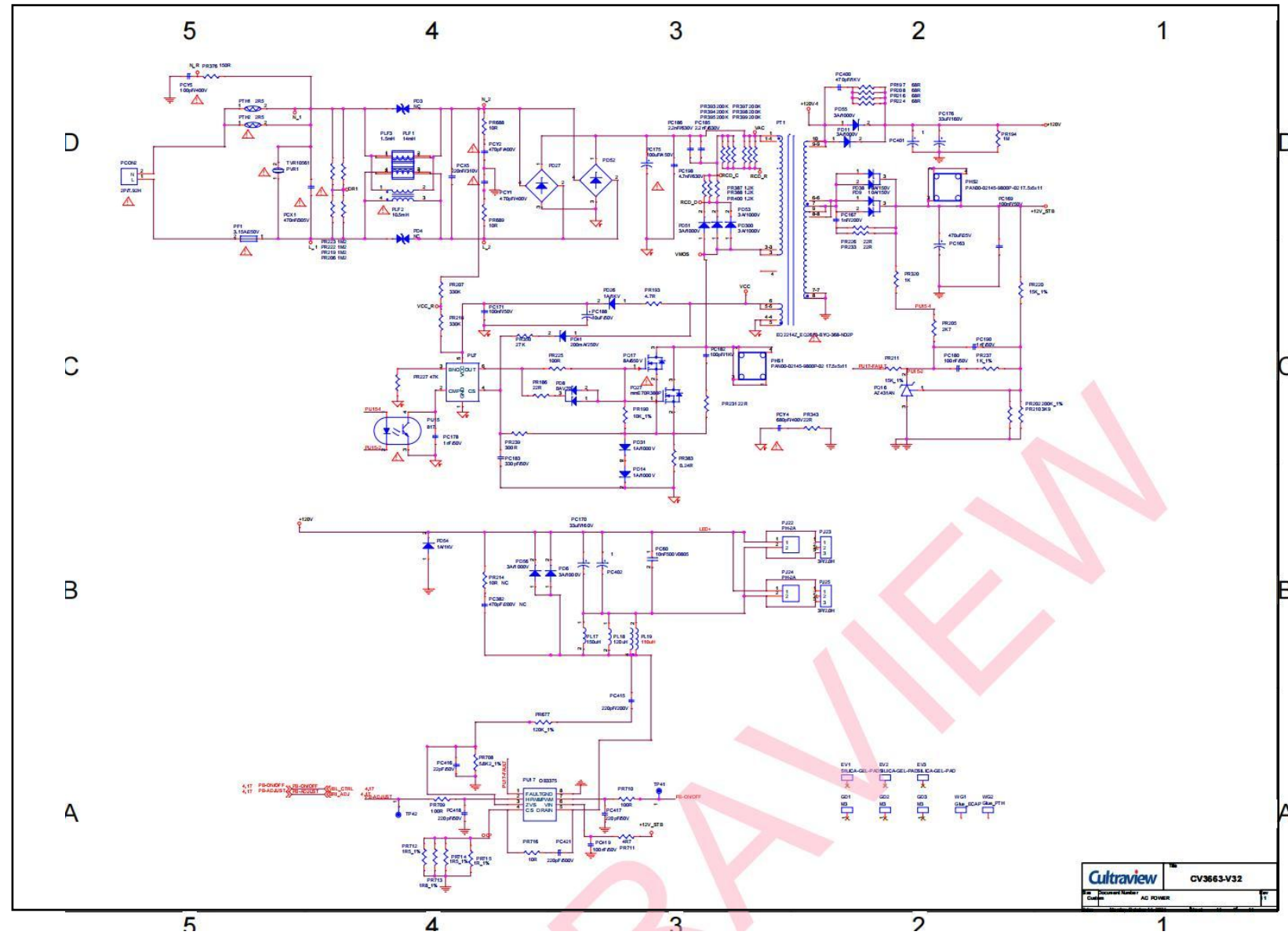
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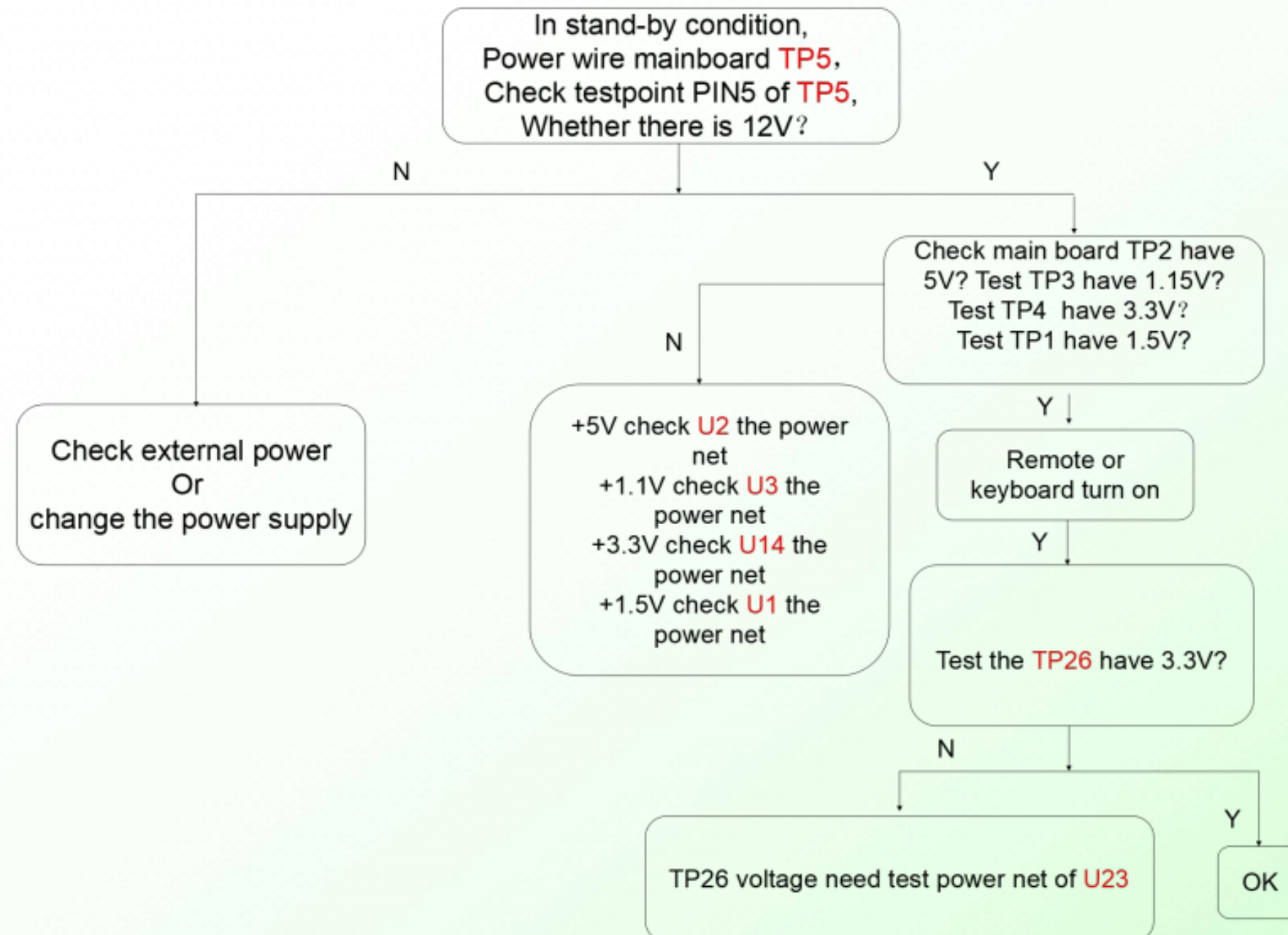
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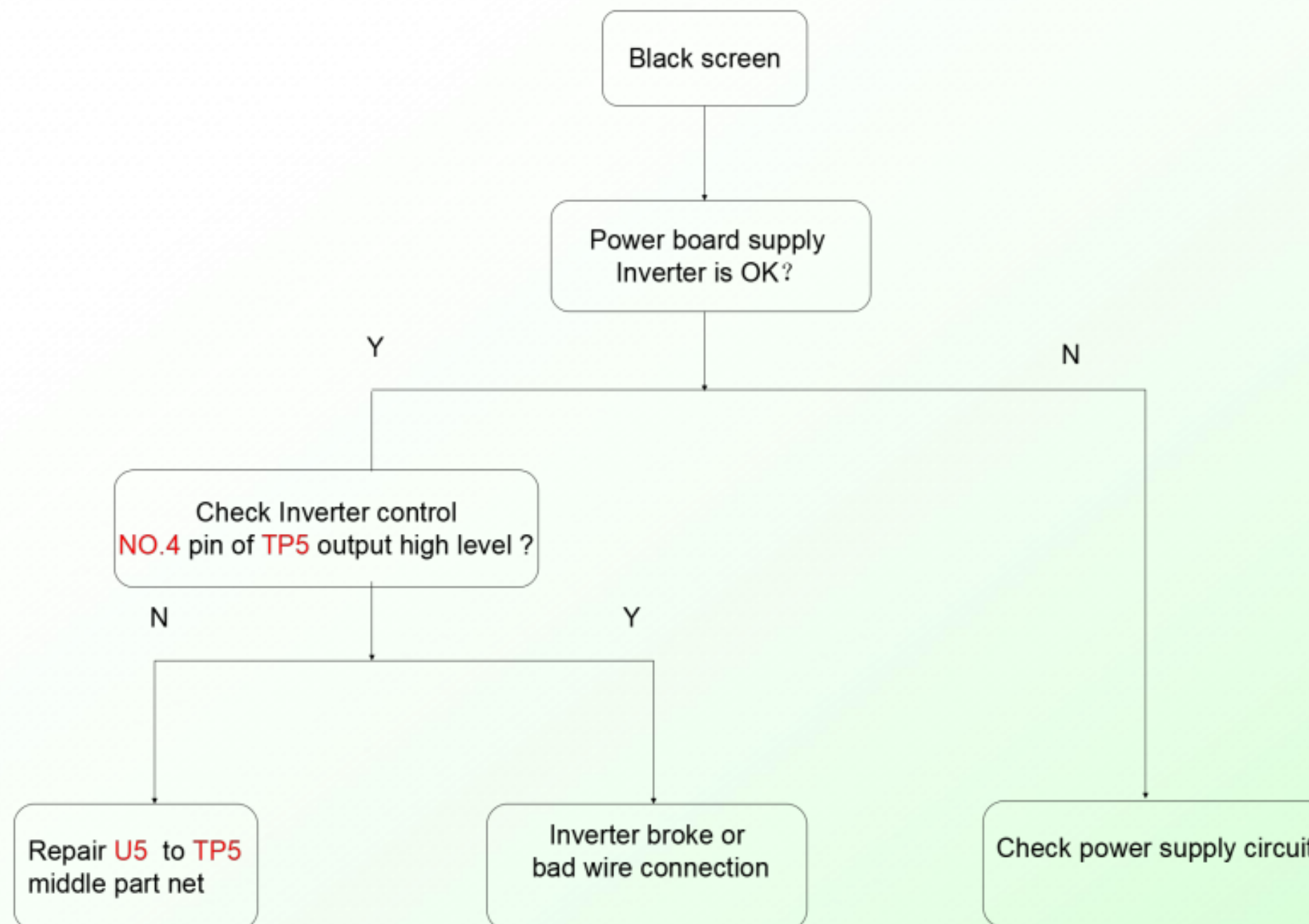


8. TROUBLE SHOOTING FLOW CHART

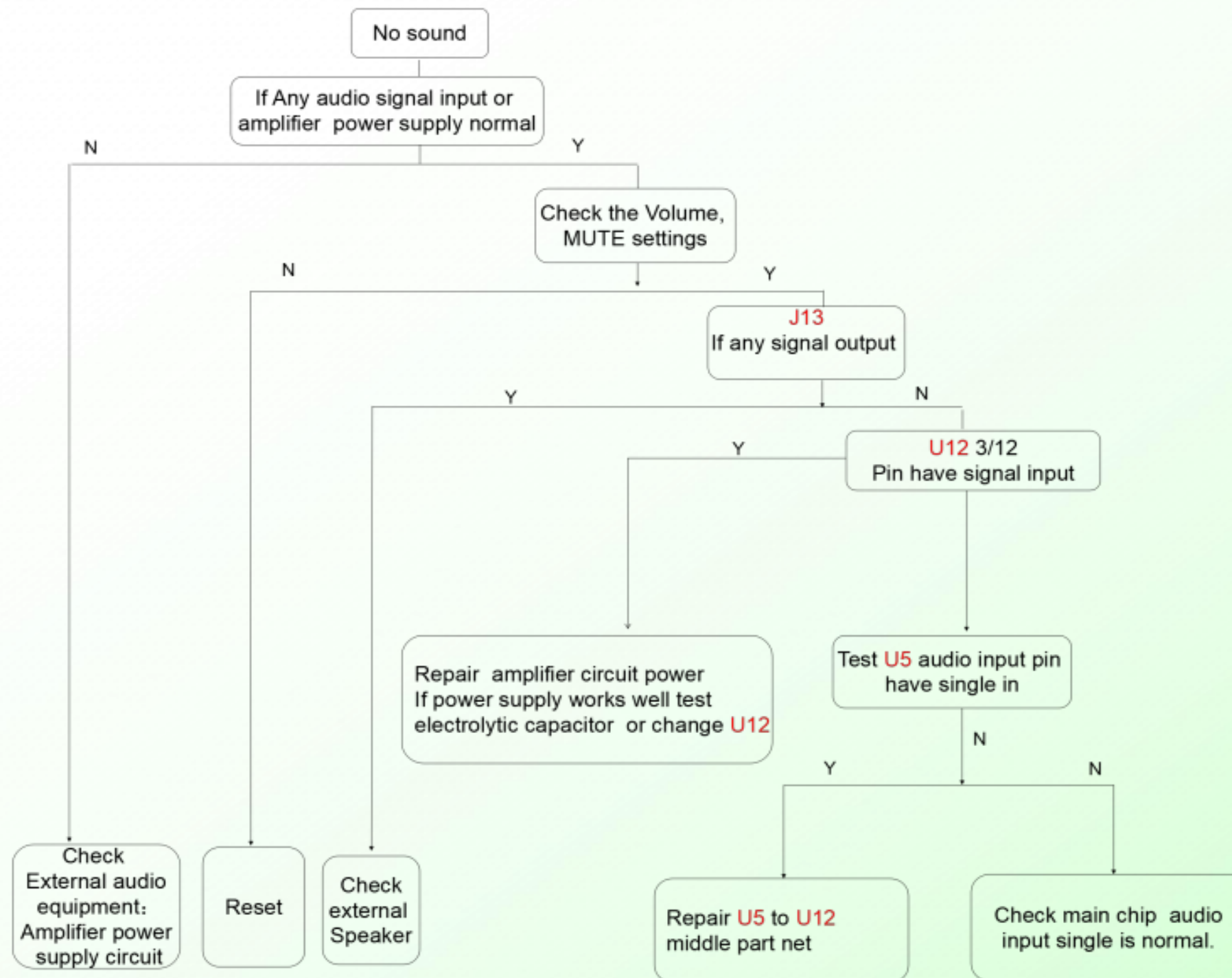
1. Power Units Problem Solving



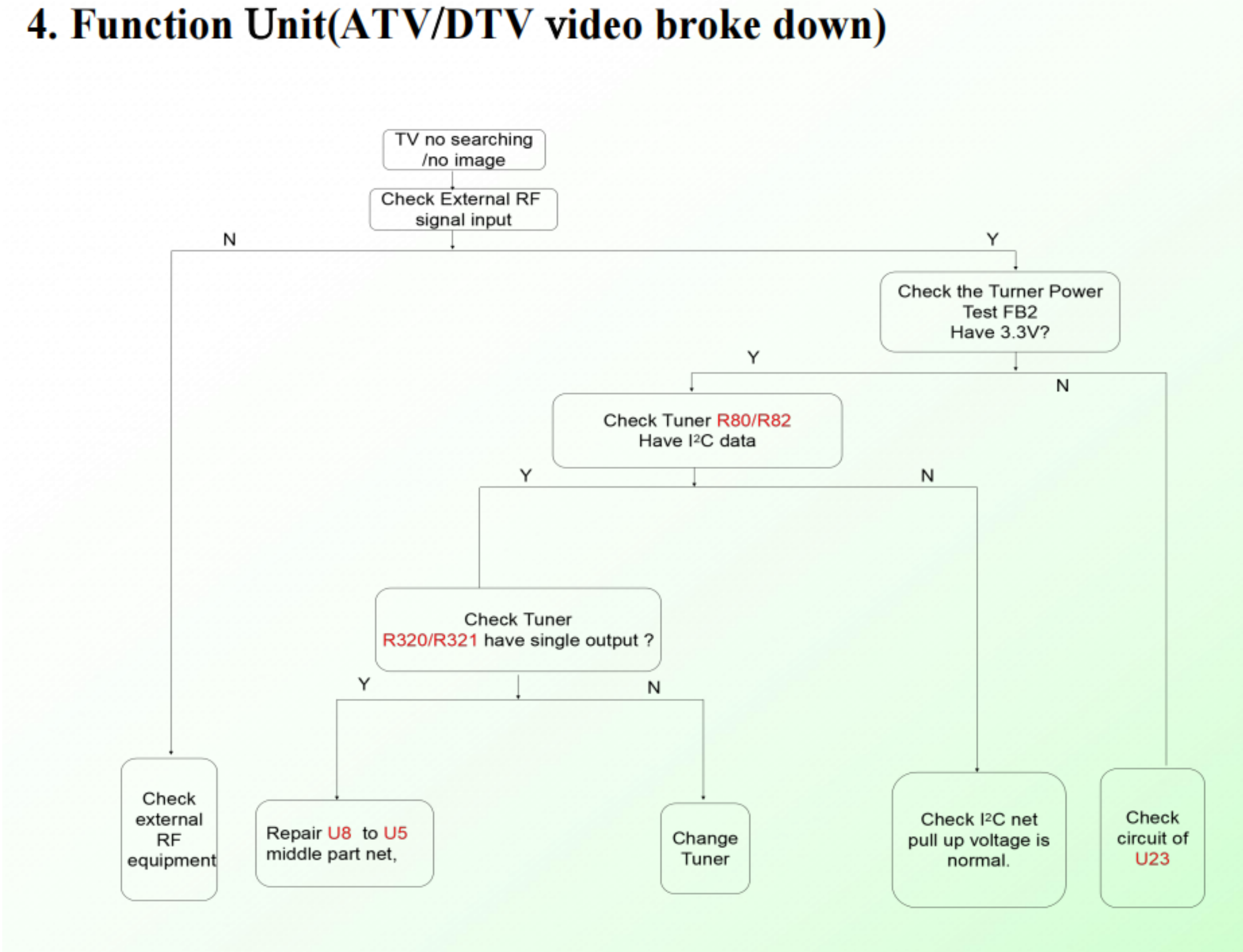
2. Display Unit (black screen)



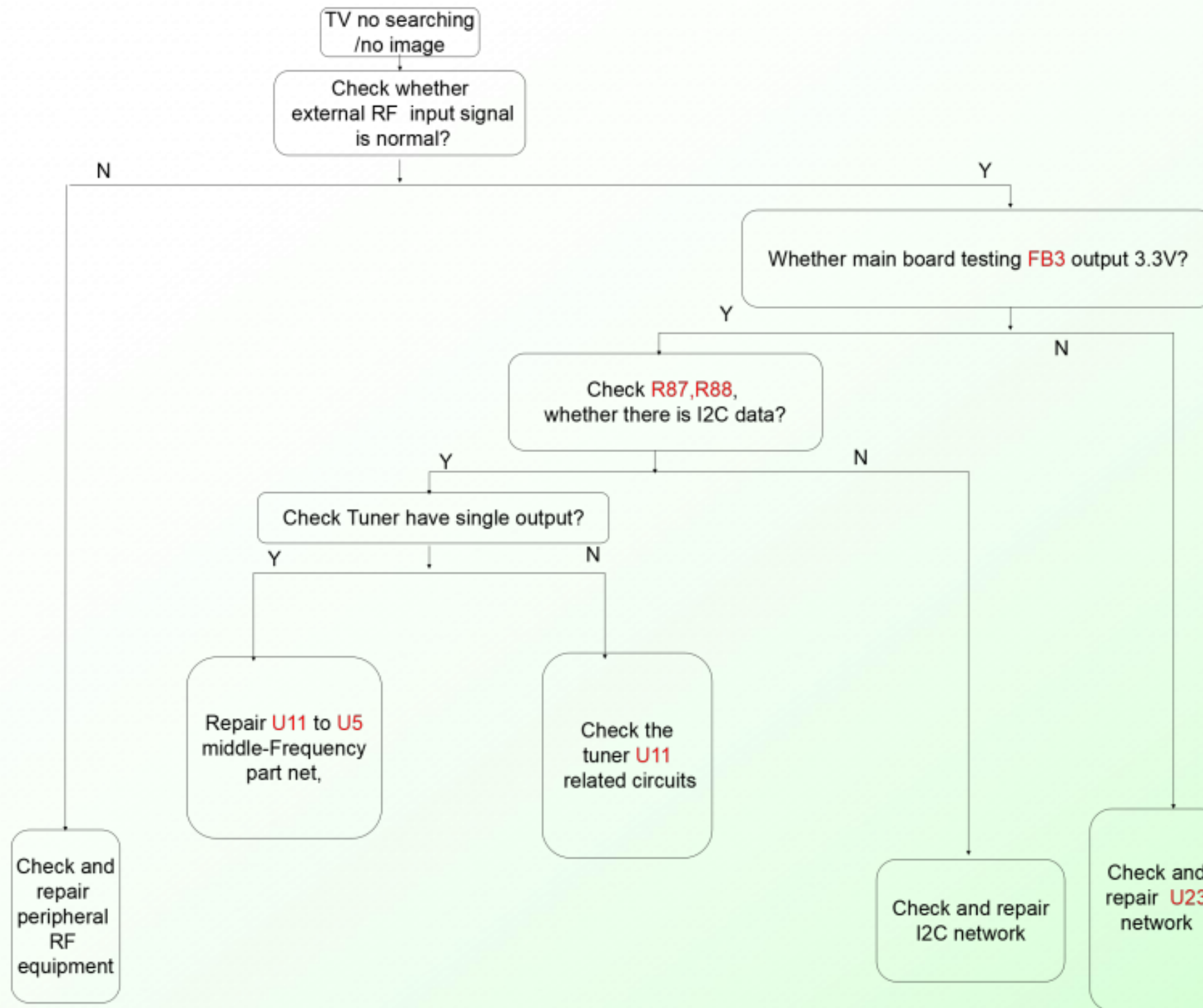
3. Audio Unit (no sound)



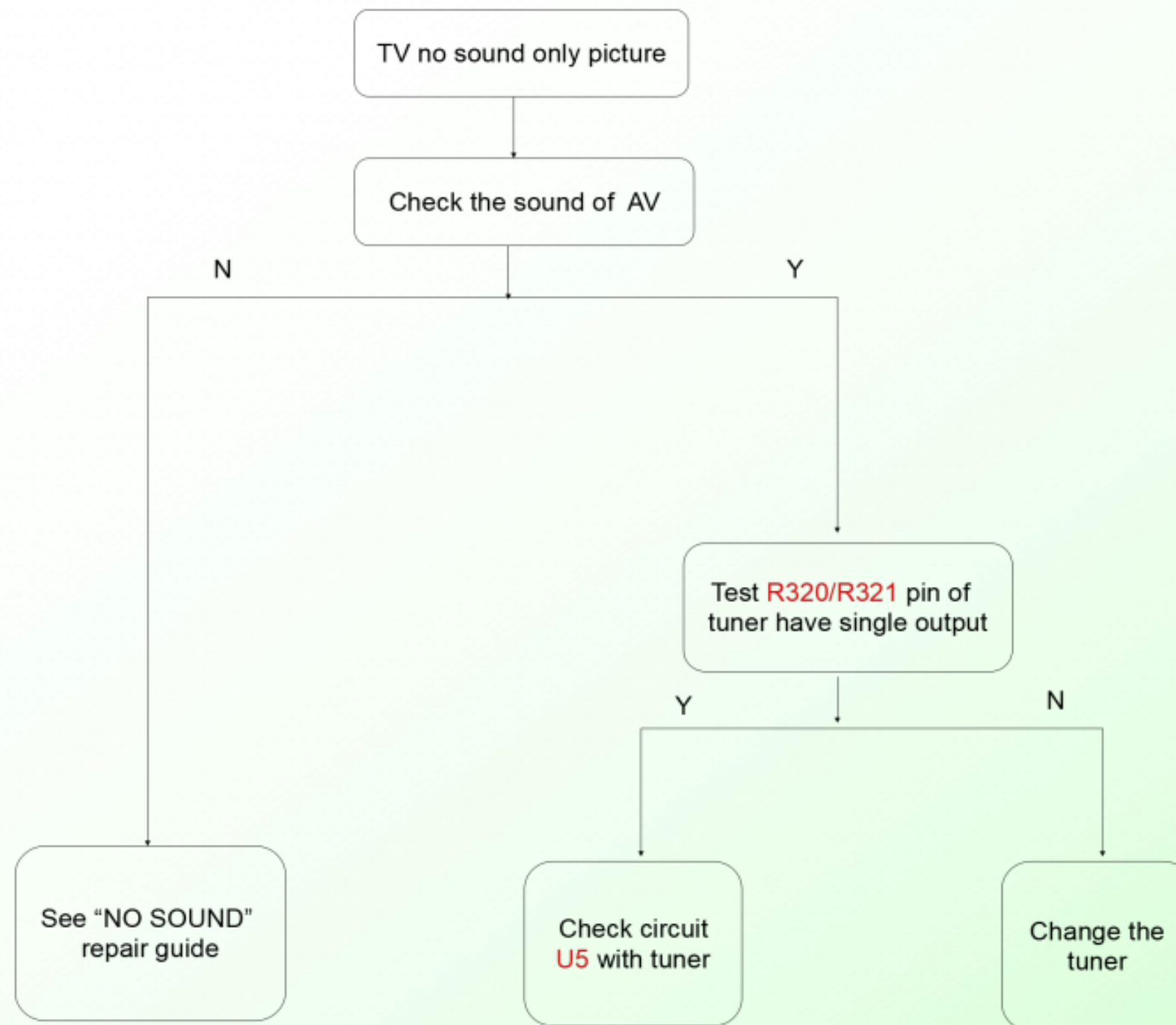
4. Function Unit(ATV/DTV video broke down)



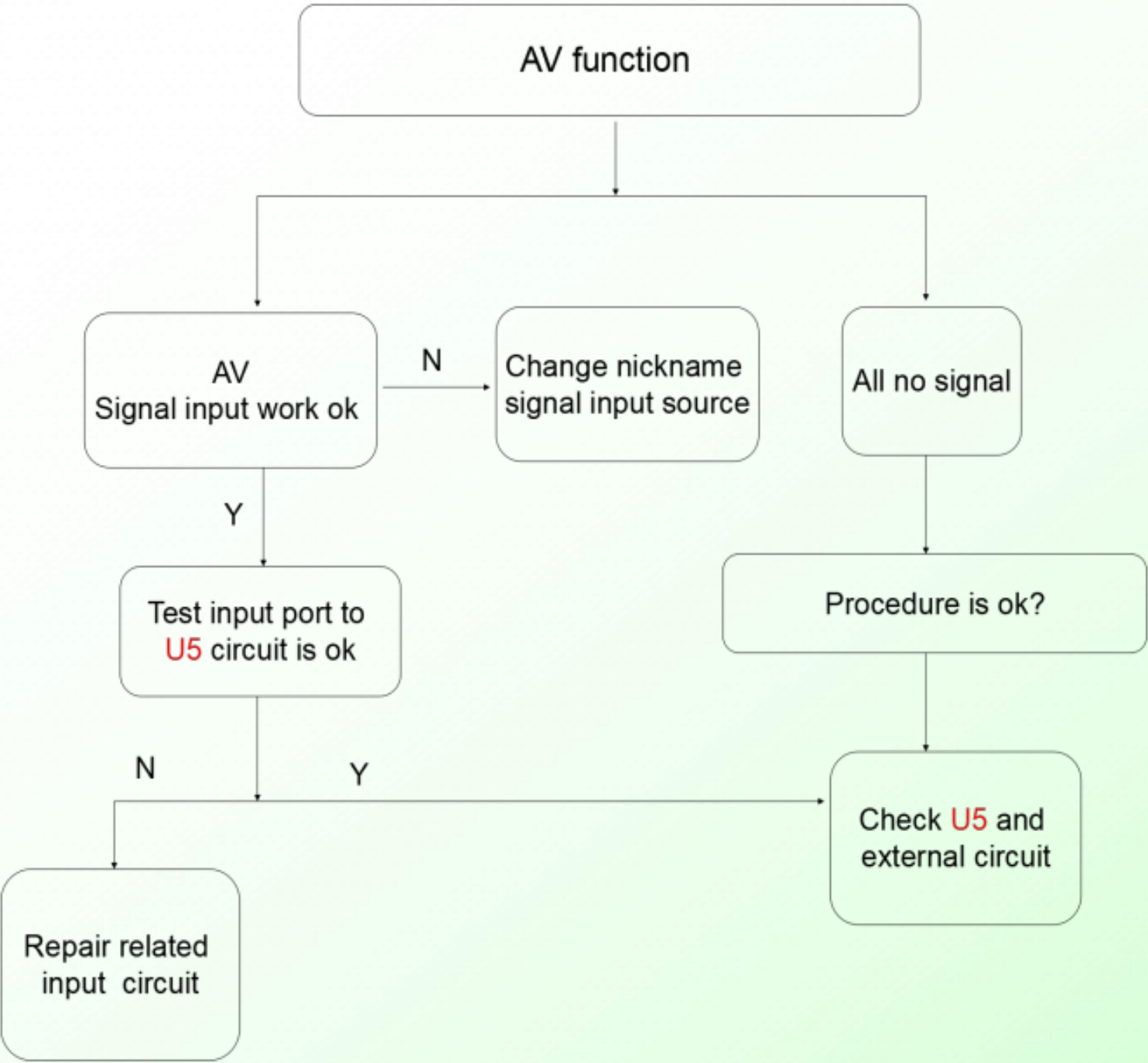
5. S2 Function unit (DTV video broke down)



6. Function Unit (ATV/DTV with the image but no sound)



8. Function (AV)



8. Function (AV)

