

TV28760101Service Manual

TABLE OF CONTENTS

	PAGE
1. PRECAUTION AND NOTICES-----	1
1.1. SAFETY PRECAUTIONS -----	1
1.2. PRODUCT SAFETY NOTICE -----	1
1.3. SERVICE NOTES-----	1
2. SERVICE TOOL & EQUIPMENT REQUIRED -----	2
3. SPECIFICATIONS -----	2~3
3.1. DIAGRAM -----	2
3.2. PRODUCT SPECIFICATIONS-----	3
3.3. FUNCTION OF BOARD -----	3
3.4. PART APT TO DECREASE -----	3
4. EXPLODED VIEW AND PARTS LIST -----	4
5. BLOCK DIAGRAM -----	5
6. MAIN BOARD SERVICE CHART -----	6~9
7. SCHEMATIC DIAGRAM -----	10~17
8. TROUBLE SHOOTING FLOW CHART -----	18~30

TV28760101Service Manual

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.

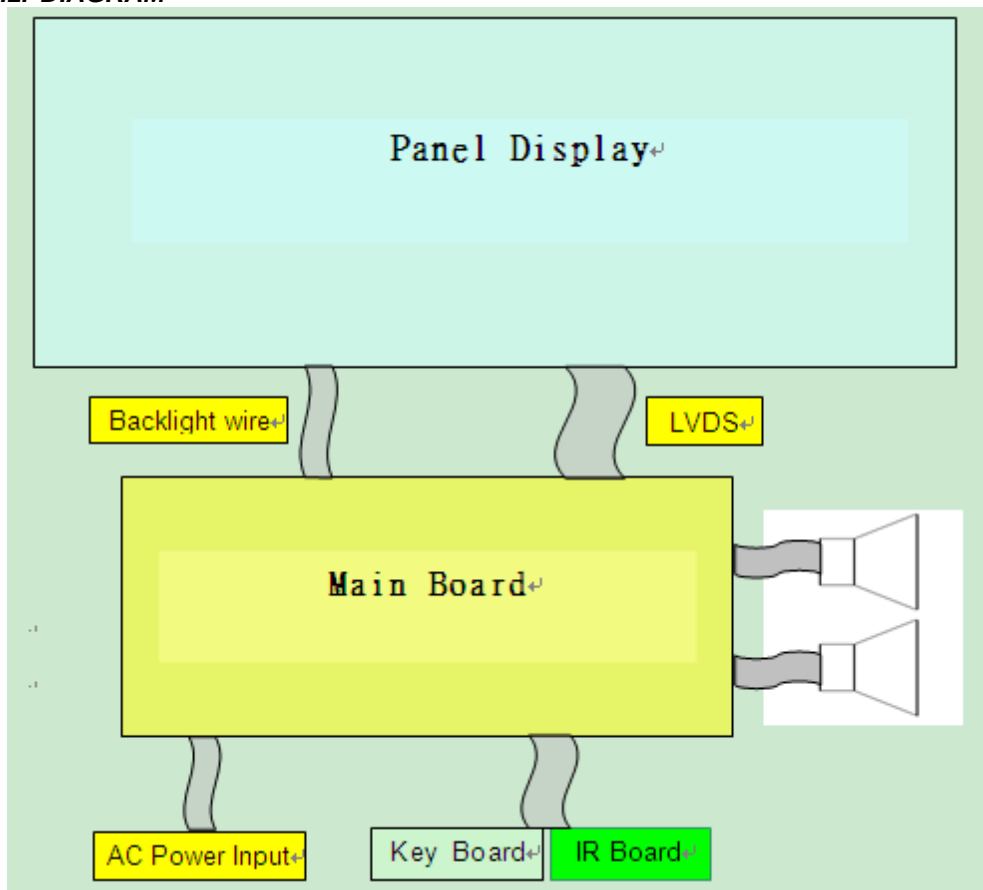
TV28760101Service Manual

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



TV28760101Service Manual

3.2. PRODUCT SPECIFICATIONS

Panel	HV400FHB-F11
Displayable Resolution	HD 1920*1080
LCD Display Color	16.7M Color Max.
Viewing Angle	CR $\geq$ 10 Horizontal: 178° Vertical: 178°
Contrast Ratio	1000:1(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: 75Watts (Max.)

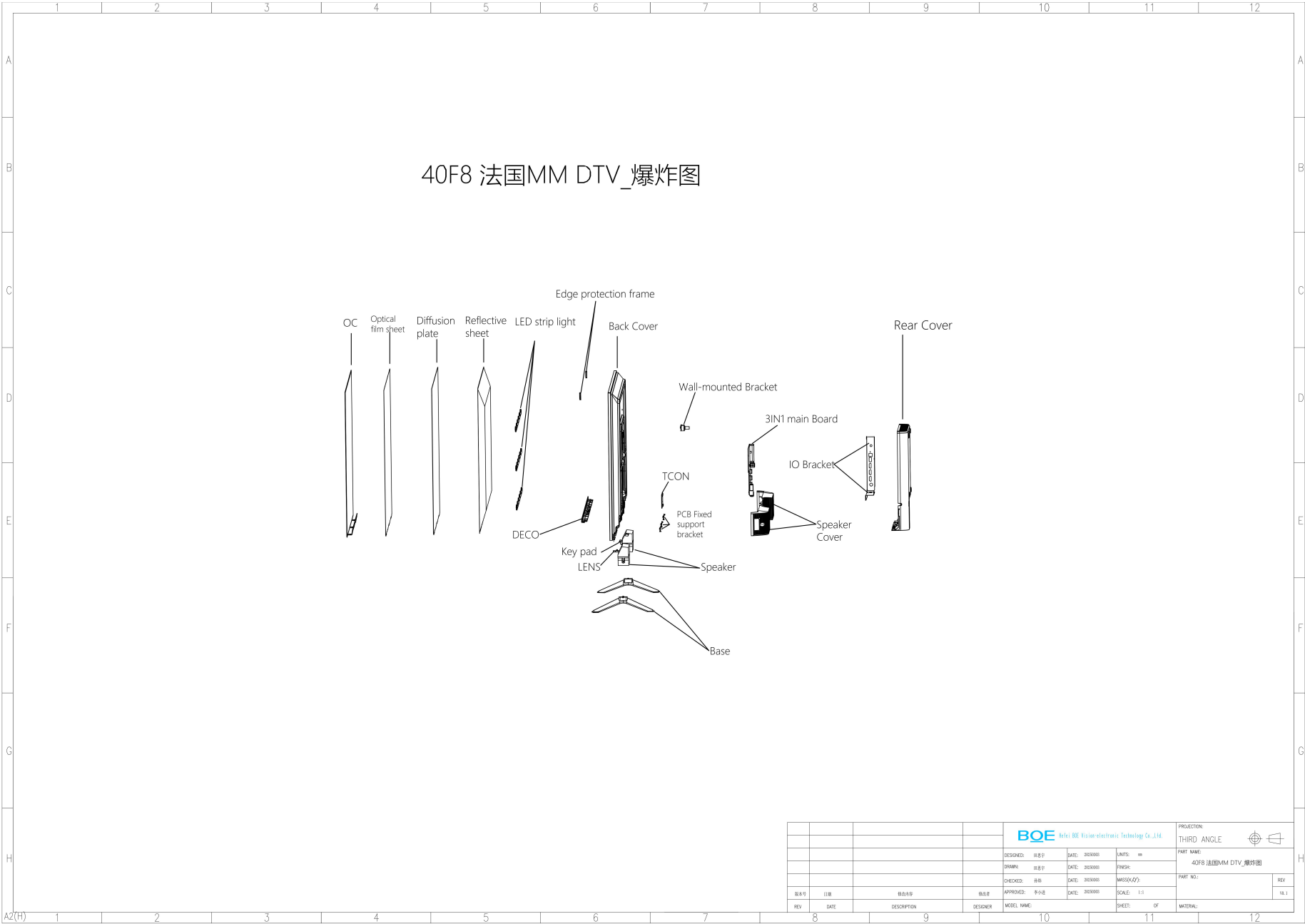
3.3 Function of Board

- 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;

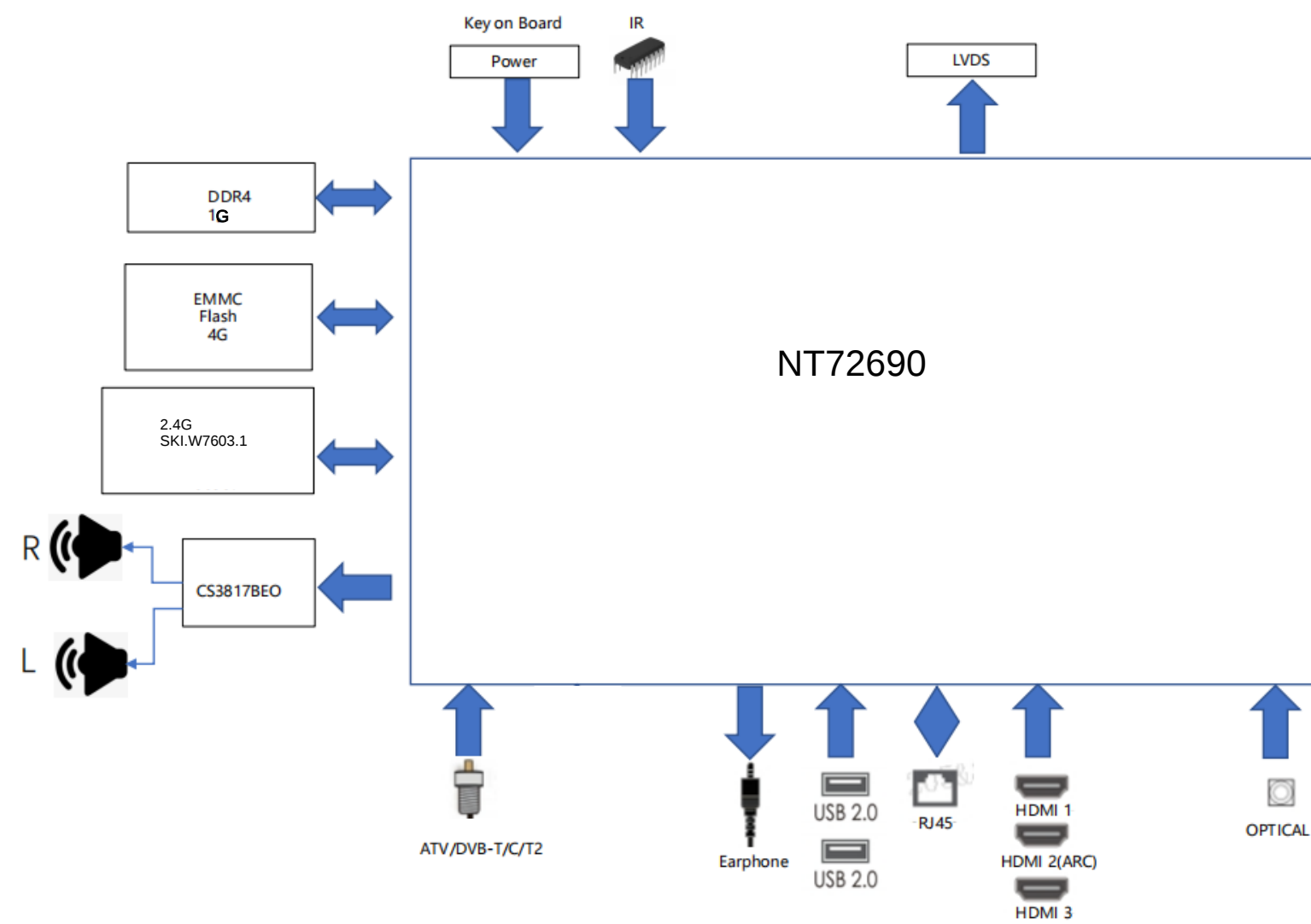
3.4 Part apt to decrease

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

4. EXPLODED VIEW AND PARTS LIST



5. BLOCK DIAGRAM



TV28760101Service Manual

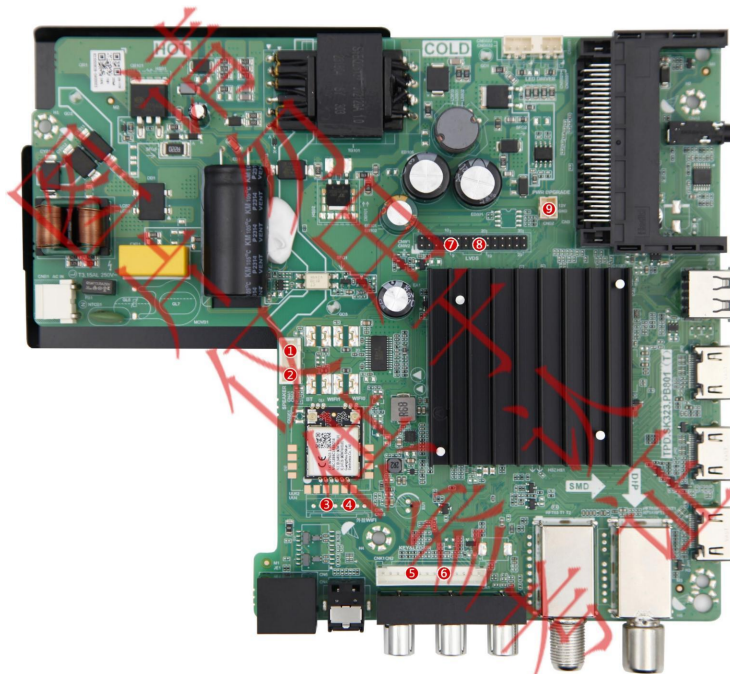
6. MAIN BOARD SERVICE CHART

MAIN BOARD

Side I/O:

标准配置一	欧洲, 3 路 HDMI , 不带 MHL , 2 路 USB , 光纤端子
FUNCTIONS	【PB801_A1】RJ45,OPTICAL OUT,CVBS/AUDIO IN,DVB-S/S2,ATV/DVB-T/C/T2,HDMI#3,HDMI#2,HDMI#1,USB#1/USB#2,EARPHONE OUT
Notes	Onboard 高频头: R842 (IEC 头),RT720(F 螺纹头), CI
FRONT VIEW	
SIDE VIEW	

Top View:

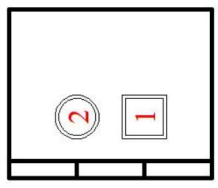


TV28760101Service Manual

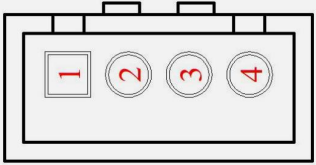
MAIN BOARD INTERFACE DEFINITION

◆ CNB2(2PIN/2.0):POWER SUPPLY FOR UPGRADE CONNECTOR

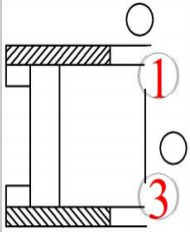
(升级用供电接口)

		
NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	12V	+12V DC Power Supply

◆ *CNA1(4PIN/2.50): SPEAKER 1 CONNECTOR (喇叭输出接口 1)

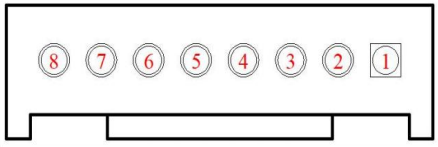
		
NO.	SYMBOL	DESCRIPTION
1	ROUT+	Audio Right Channel Output+
2	ROUT-	Audio Right Channel Output-
3	LOUT-	Audio Left Channel Output-
4	LOUT+	Audio Left Channel Output+

◆ CNB1 (2PIN/7.92): AC INPUT CONNECTOR (交流输入接口)

		
NO.	SYMBOL	DESCRIPTION
1	L	LIVE (火线)
3	N	NEUTRAL (零线)

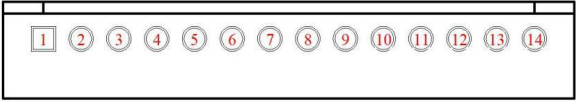
TV28760101Service Manual

◆ *CN5(8PIN/2.0):外挂 WIFI 1 CONNECTOR (外挂 WIFI 接口 1)

		
NO.	SYMBOL	DESCRIPTION
1	WIFI_RESET	WIFI_RESET
2	VCC_WIFI	VCC_WIFI
3	WIFI_DM_IN	WIFI_DM_IN
4	WIFI_DP_IN	WIFI_DP_IN
5	GND	Ground
6	BT_WAKE_HOST	BT_WAKE_HOST
7	WL_WAKE_HOST	WL_WAKE_HOST
8	BT_VSYN	BT_VSYN

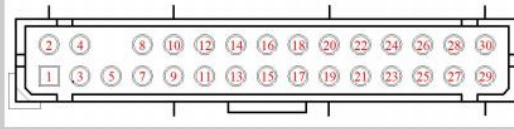
◆ CNK1(14PIN/2.0): KEY&LED&IR 1 CONNECTOR

(按键和 LED 灯和遥控控制接口 1)

		
NO.	SYMBOL	DESCRIPTION
1	GND	Ground
2	K7	Key7(Reserved)
3	K6	Key6
4	K5	Key5
5	K4	Key4
6	K3	Key3
7	K2	Key2
8	K1	Key1
9	K0	Key0
10	GND	Ground
11	IR_IN	IR Receiver, VIH≥2V, VIL≤ 1V, IILmin : 1mA, IIHmin :1mA
12	LED_G_OUT	Green Indicator, VOH≥2V (IOHMAX: 2mA), VOL≤0.8V (IOLMAX: 2mA)
13	LED_R_OUT	Red Indicator, VOH≥2V (IOHMAX: 1.3mA), VOL≤0.8V (IOLMAX: 0.5mA)
14	5V_IR	+5V DC Power Supply for IR

TV28760101Service Manual

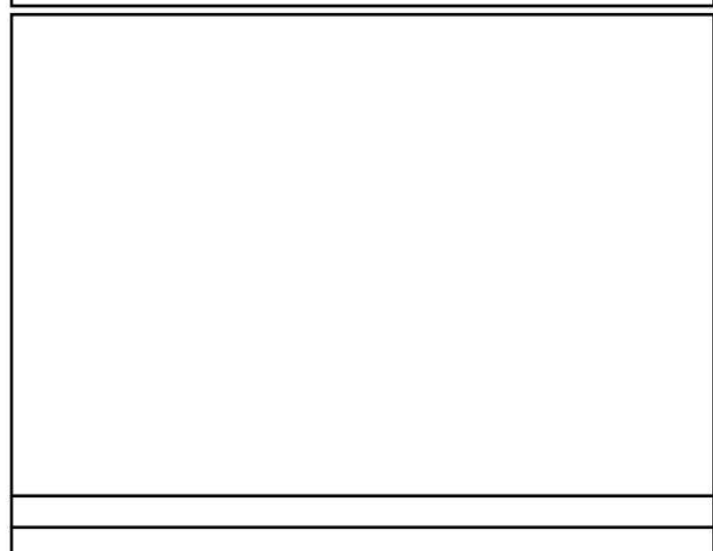
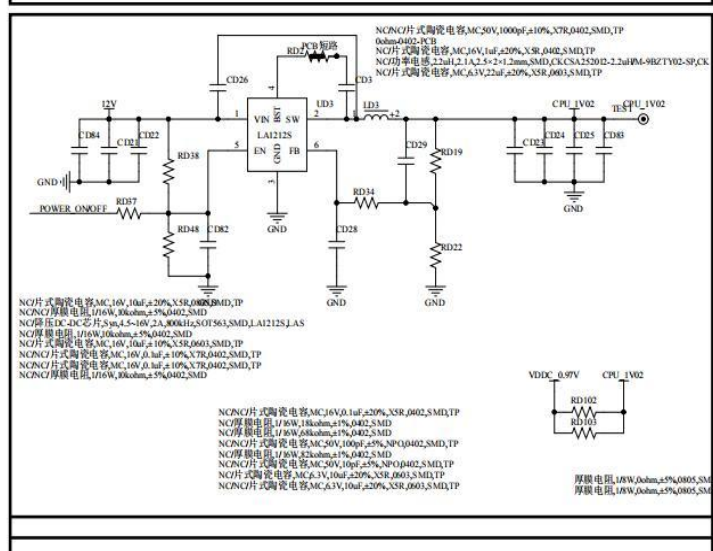
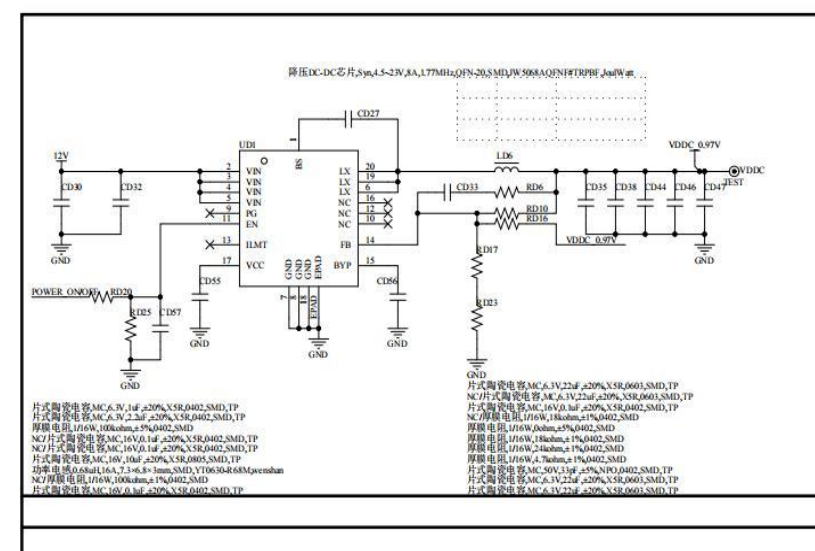
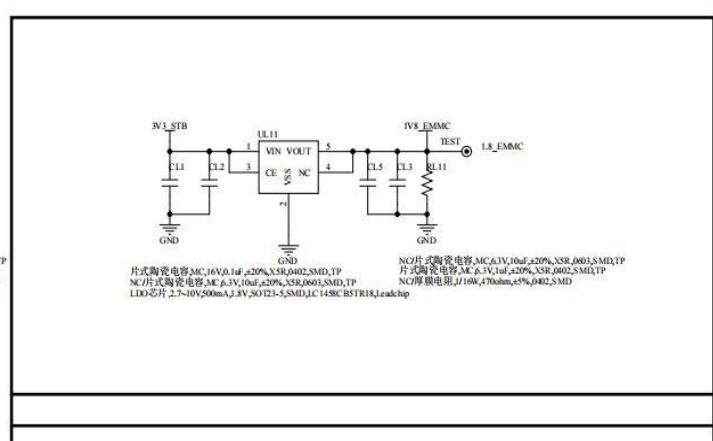
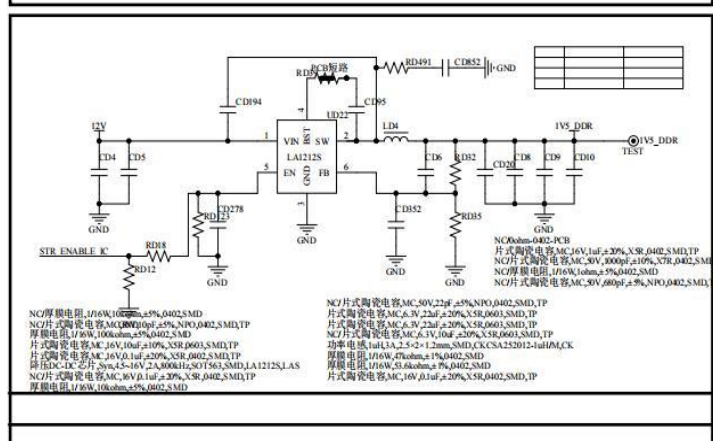
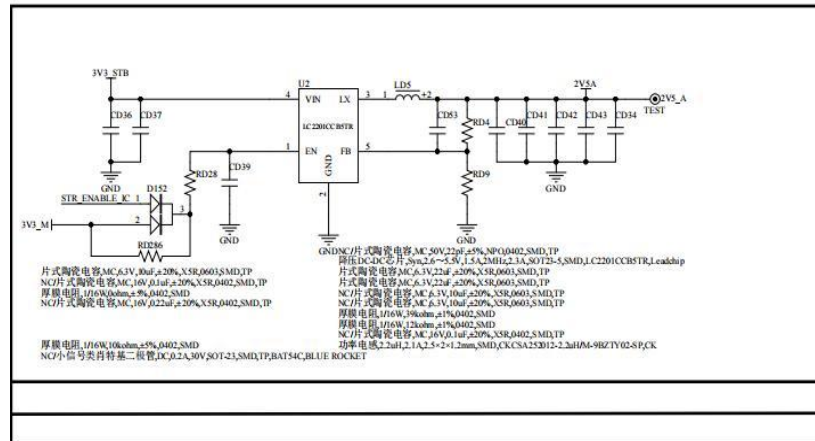
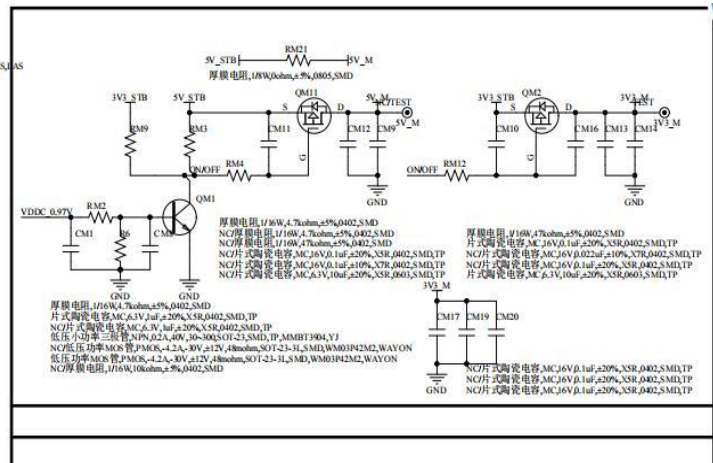
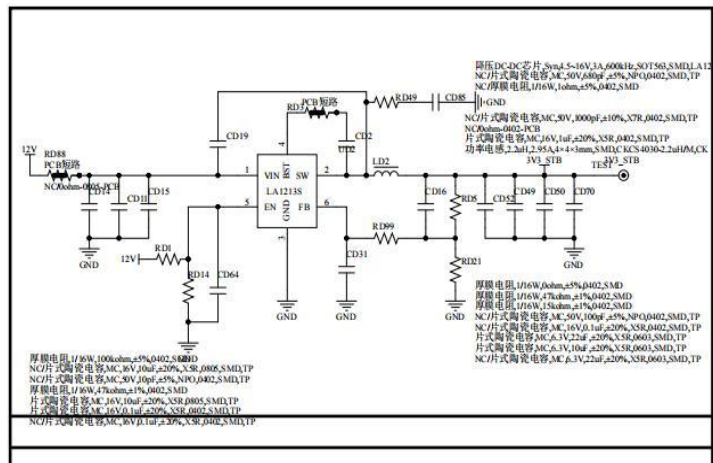
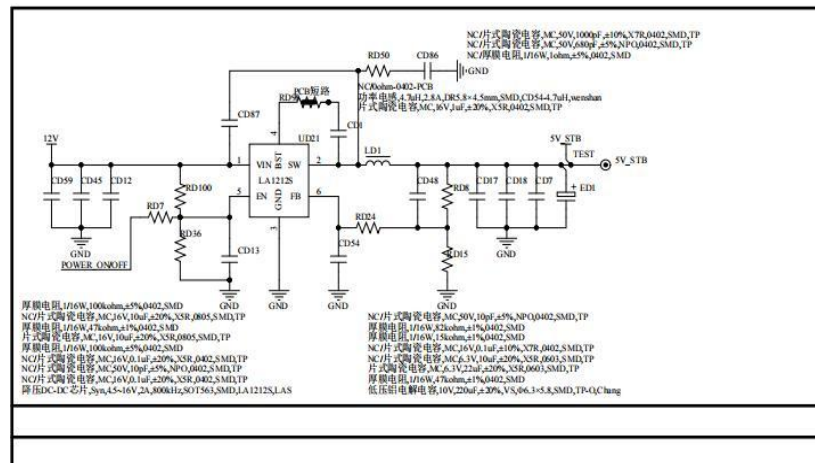
◆ *CNW1 (2×15PIN/2.0): LVDS 1 CONNECTOR (LVDS 接口 1)



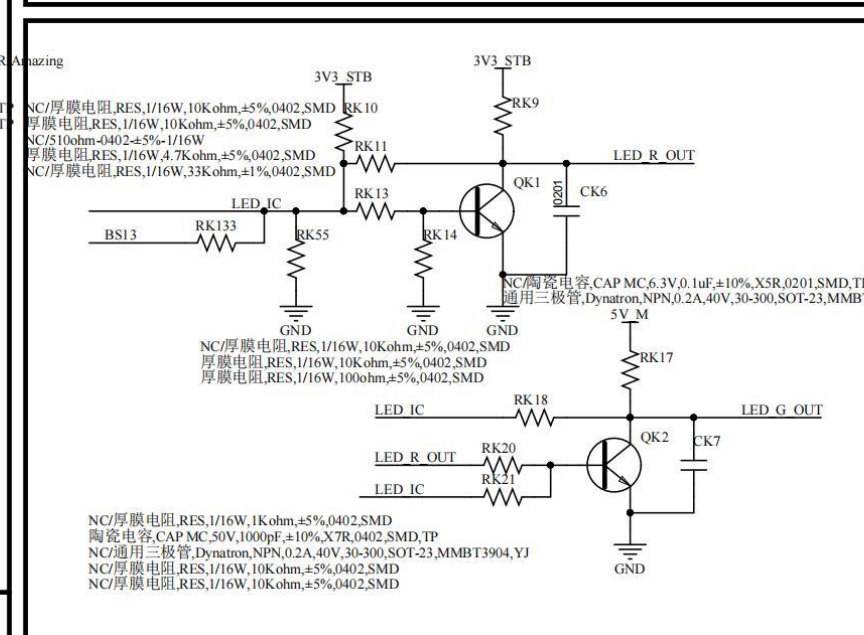
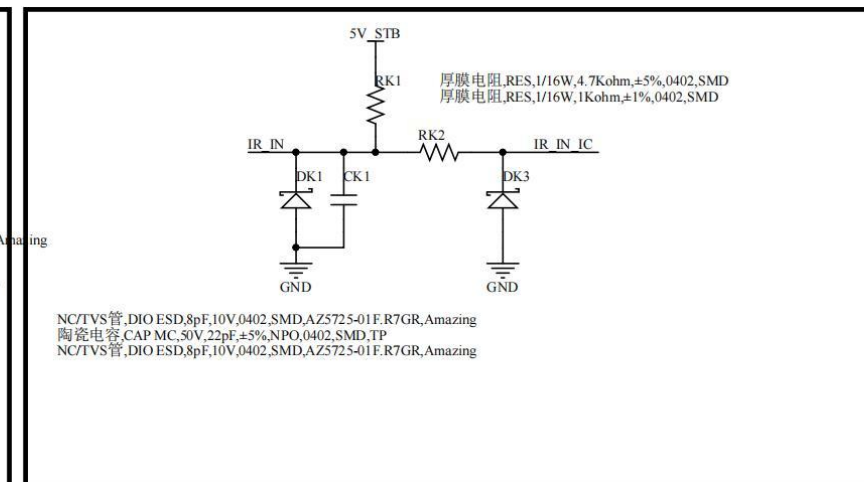
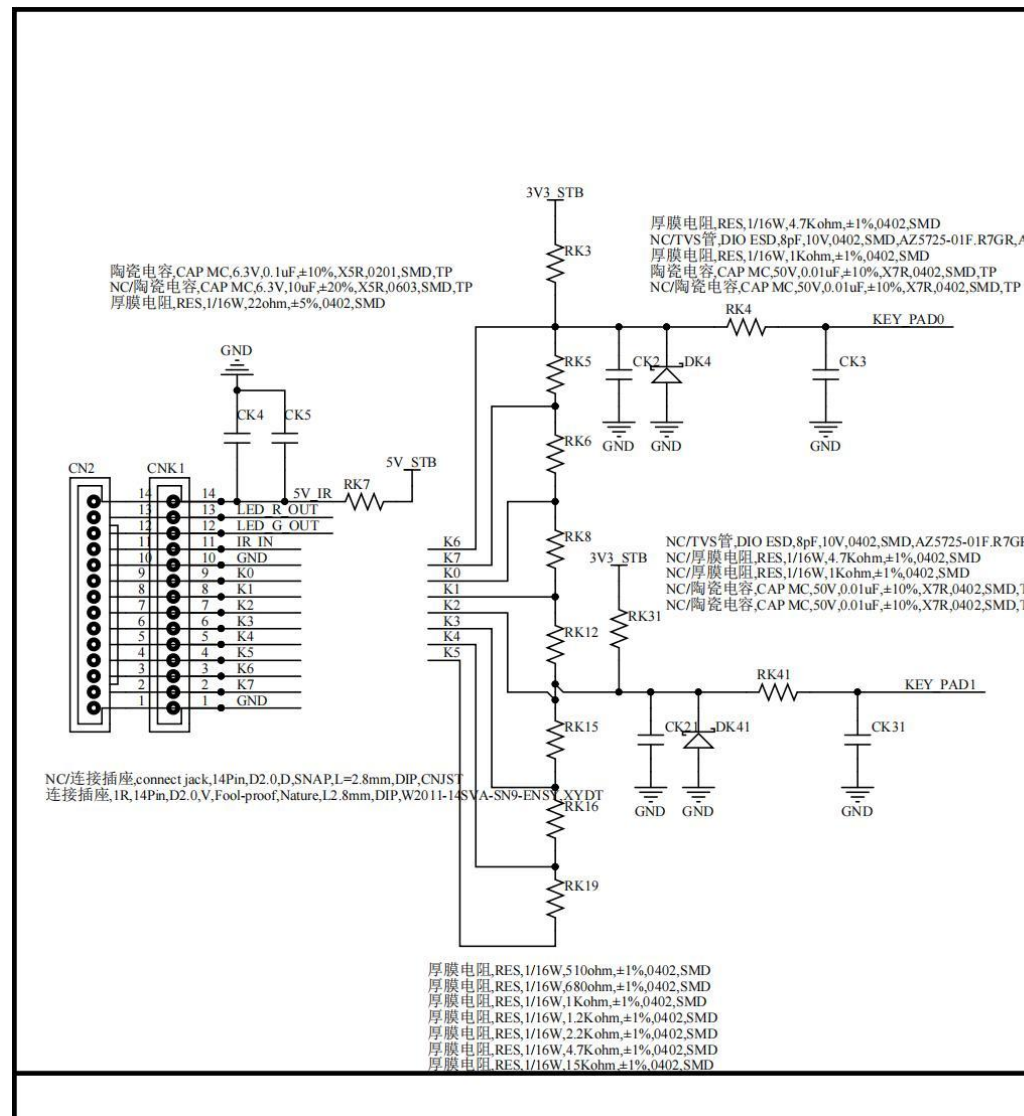
NO.	SYMBOL	DESCRIPTION
1	VCC_PANEL	Power Supply for Panel
2	VCC_PANEL	Power Supply for Panel
3	VCC_PANEL	Power Supply for Panel
4	GND	Ground
5	GND	Ground
7	LVDS_A_0N_IC	LVDS ODD 0- Signal
8	LVDS_A_0P_IC	LVDS ODD 0+ Signal
9	LVDS_A_1N_IC	LVDS ODD 1- Signal
10	LVDS_A_1P_IC	LVDS ODD 1+ Signal
11	LVDS_A_2N_IC	LVDS ODD 2- Signal
12	LVDS_A_2P_IC	LVDS ODD 2+ Signal
13	GND	Ground
14	GND	Ground
15	LVDS_A_CLKN_IC	LVDS ODD Clock- Signal
16	LVDS_A_CLKP_IC	LVDS ODD Clock+ Signal
17	LVDS_A_3N_IC	LVDS ODD 3- Signal
18	LVDS_A_3P_IC	LVDS ODD 3+ Signal
19	LVDS_B_0N_IC	LVDS EVEN 0- Signal
20	LVDS_B_0P_IC	LVDS EVEN 0+ Signal
21	LVDS_B_1N_IC	LVDS EVEN 1- Signal
22	LVDS_B_1P_IC	LVDS EVEN 1+ Signal
23	LVDS_B_2N_IC	LVDS EVEN 2- Signal
24	LVDS_B_2P_IC	LVDS EVEN 2+ Signal
25	GND	Ground
26	GND	Ground
27	LVDS_B_CLKN_IC	LVDS EVEN Clock- Signal
28	LVDS_B_CLKP_IC	LVDS EVEN Clock+ Signal
29	LVDS_B_3N_IC	LVDS EVEN 3- Signal
30	LVDS_B_3P_IC	LVDS EVEN 3+ Signal

TV28760101Service Manual

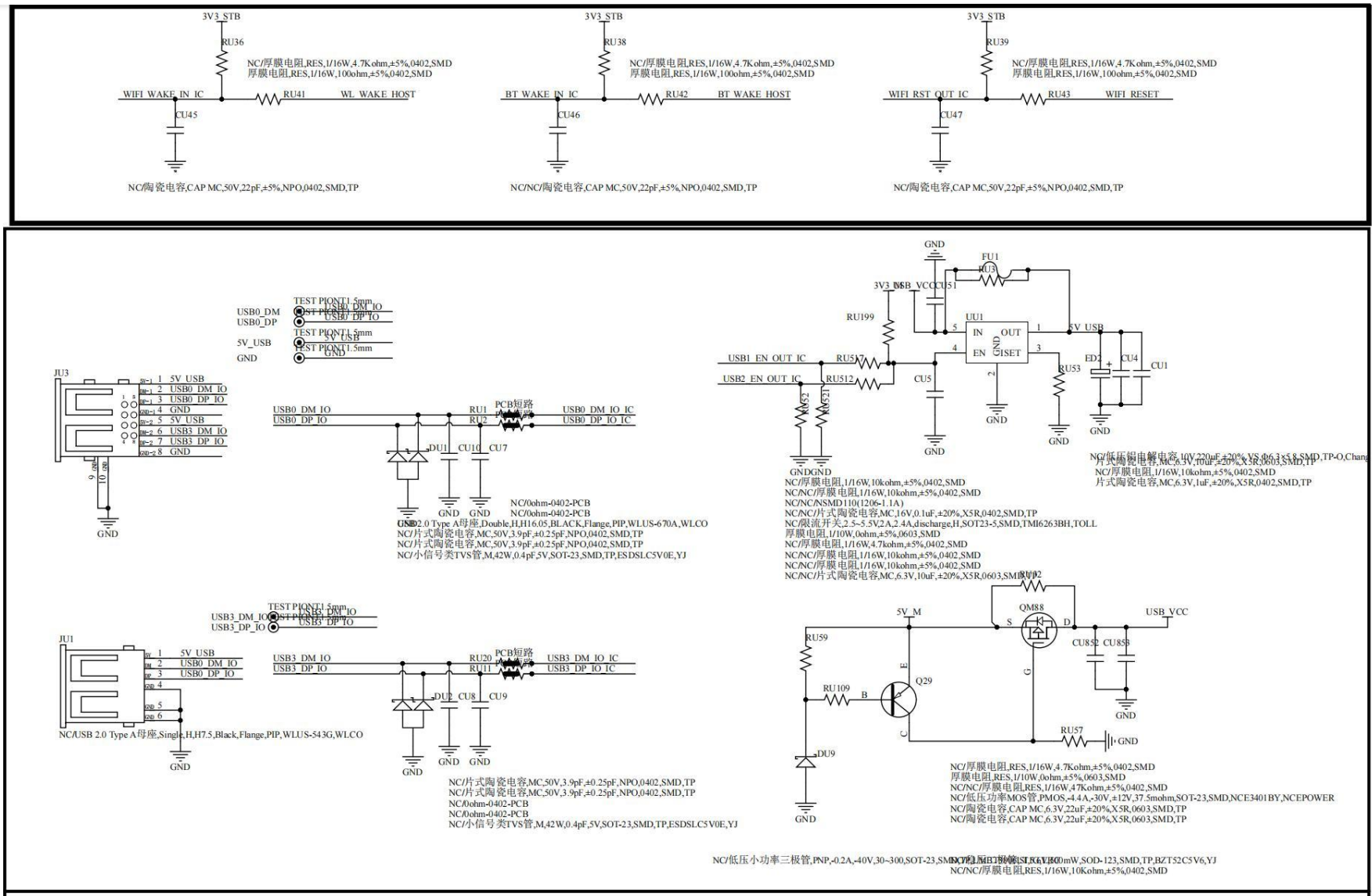
7. SCHEMATIC DIAGRAM



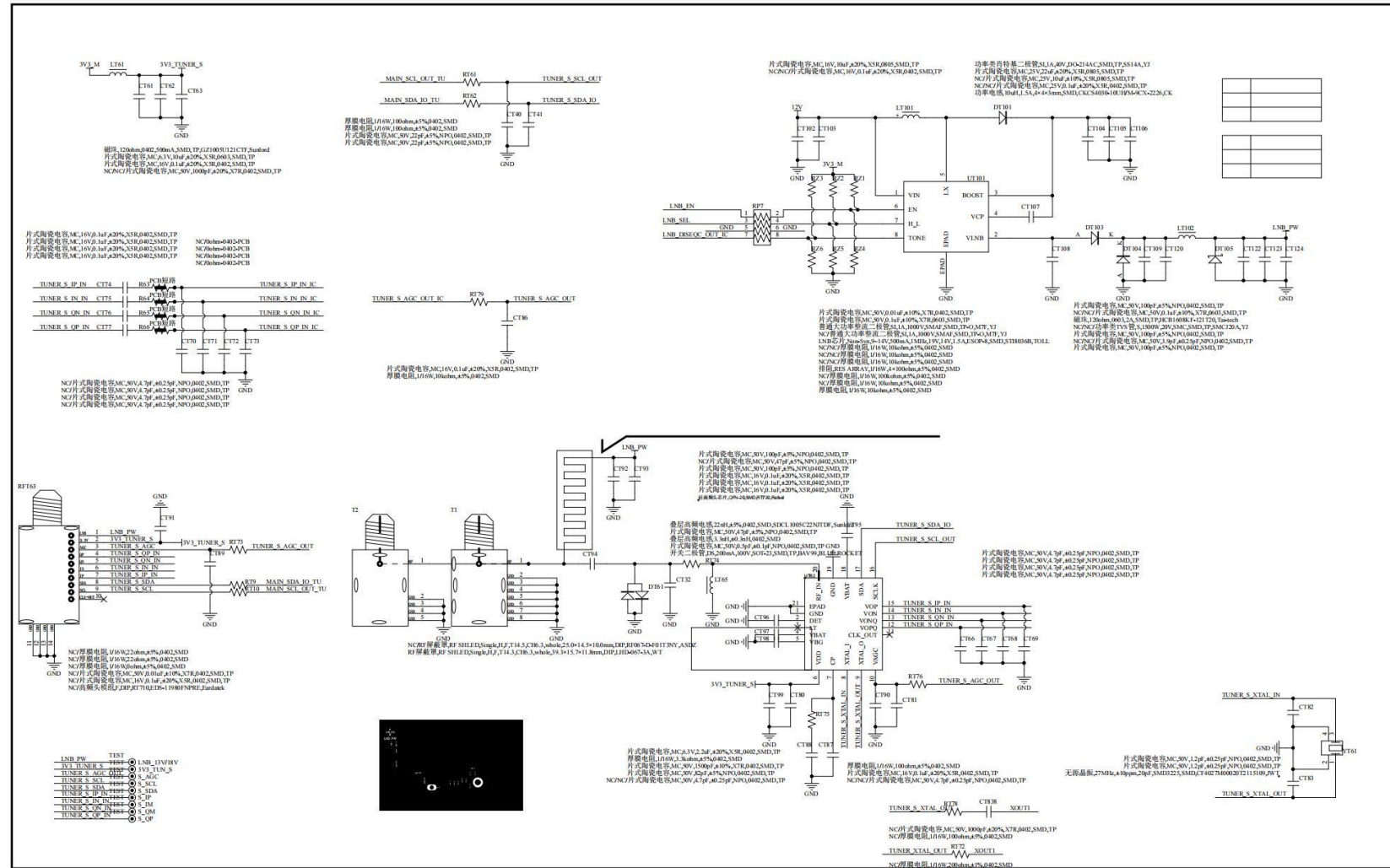
TV28760101Service Manual



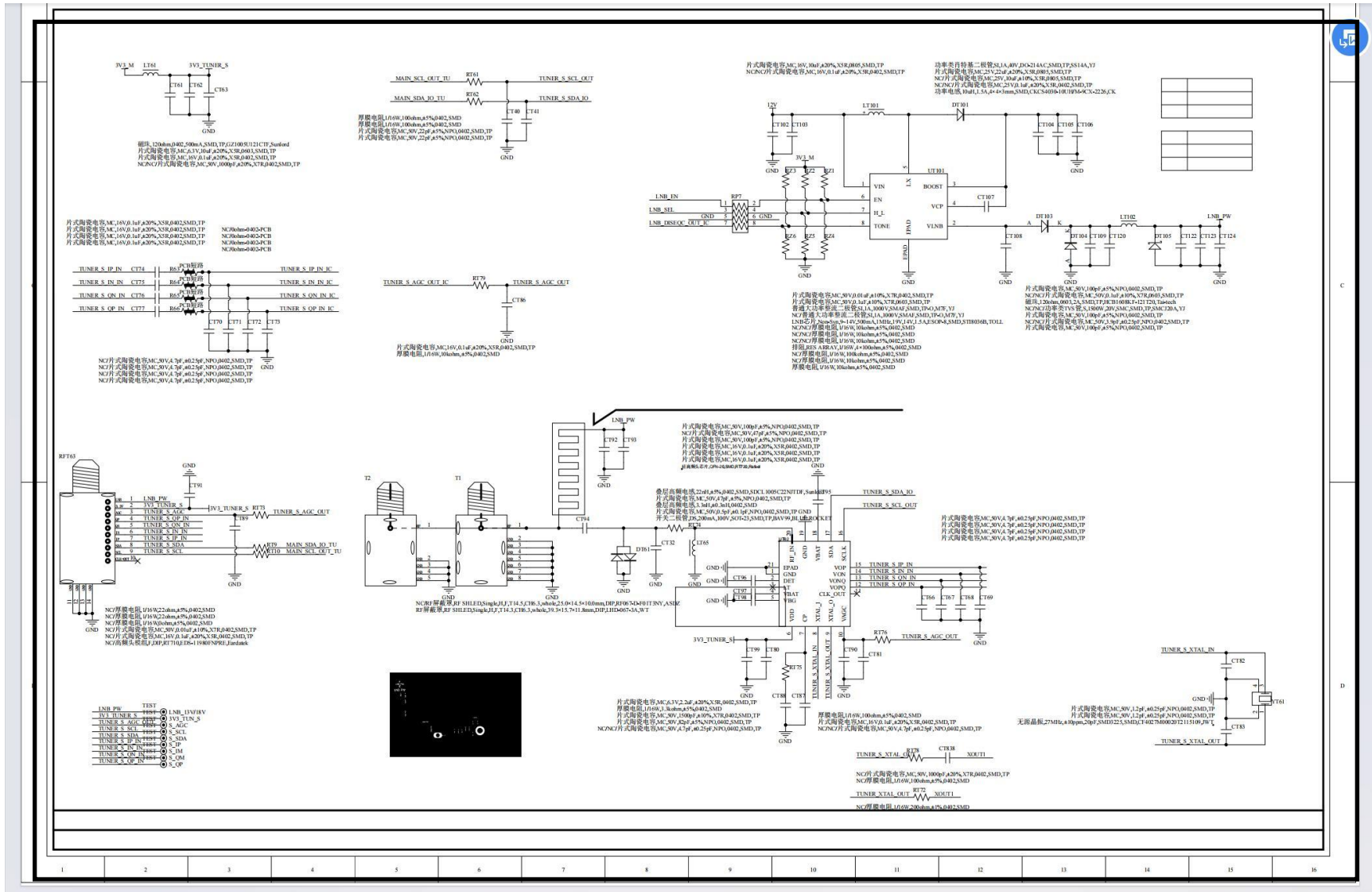
TV28760101Service Manual



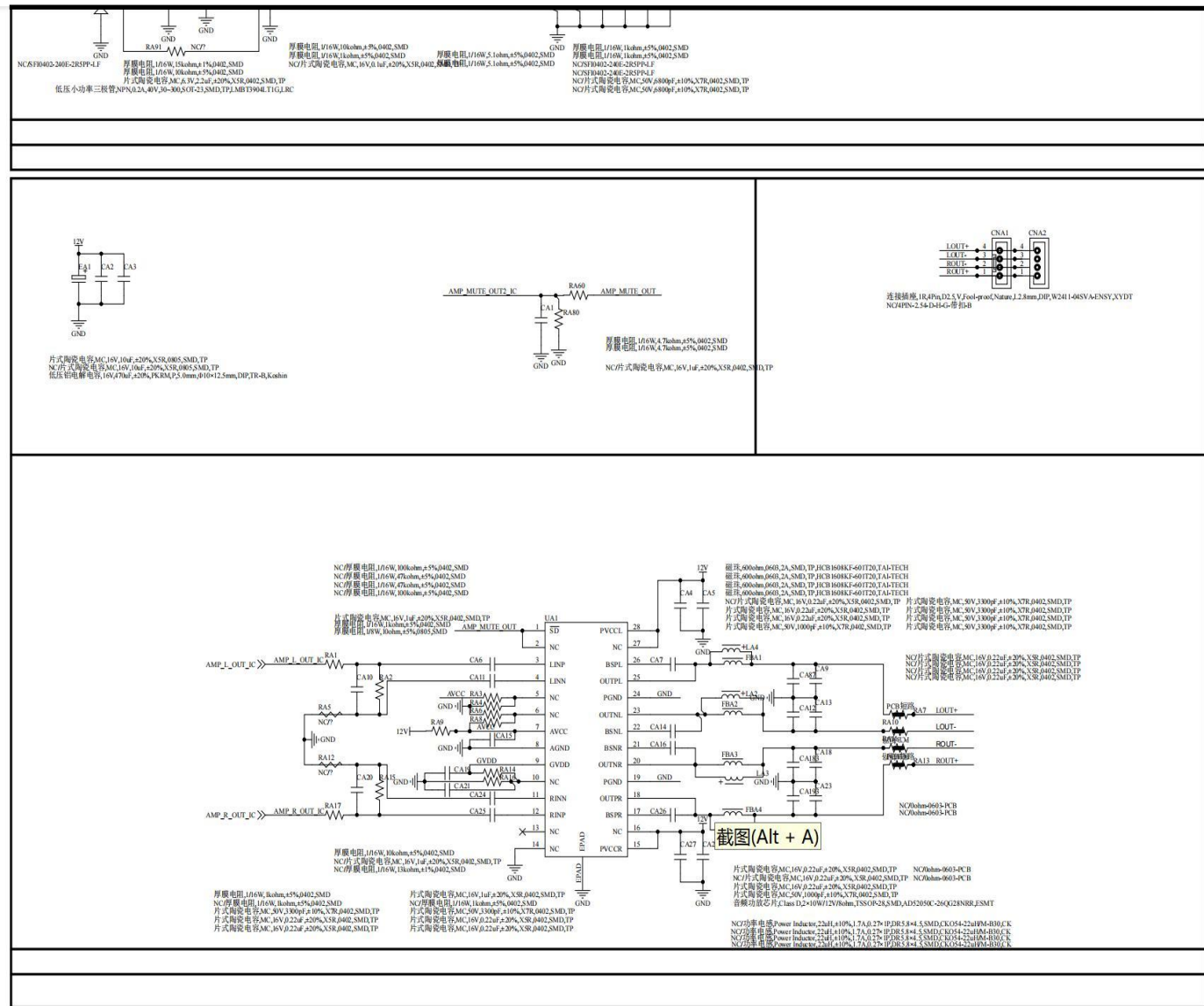
TV28760101Service Manual



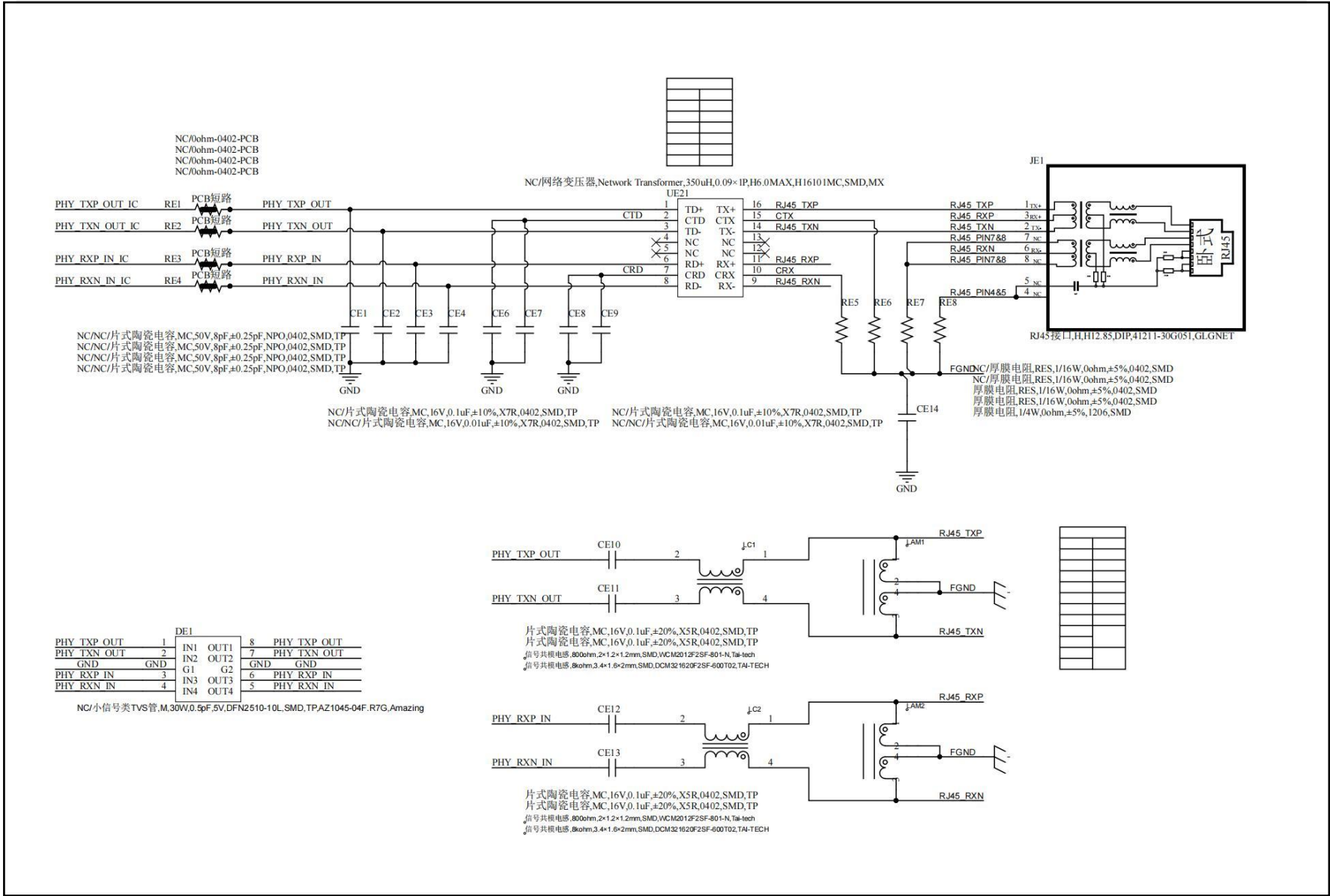
TV28760101Service Manual

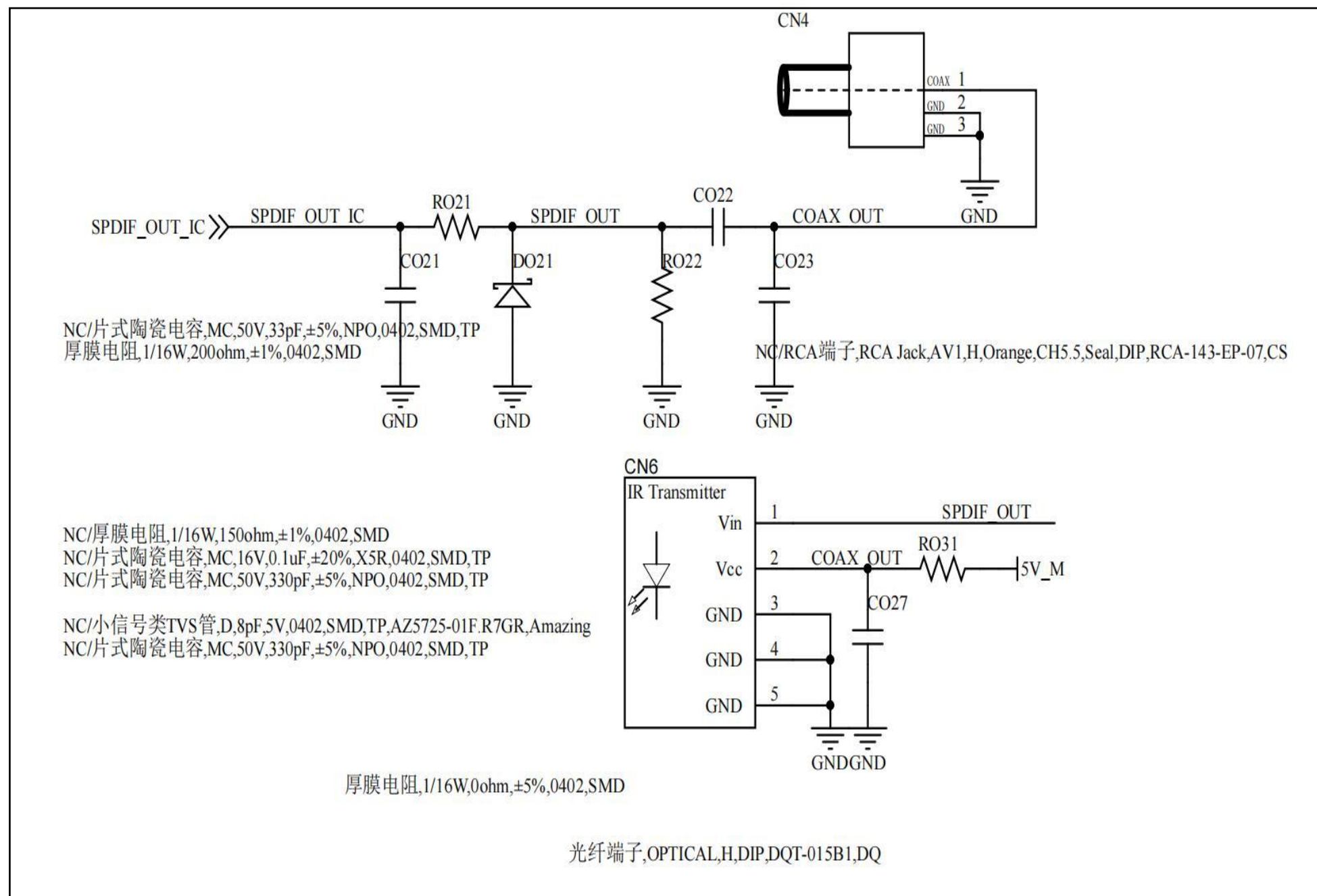


TV28760101Service Manual



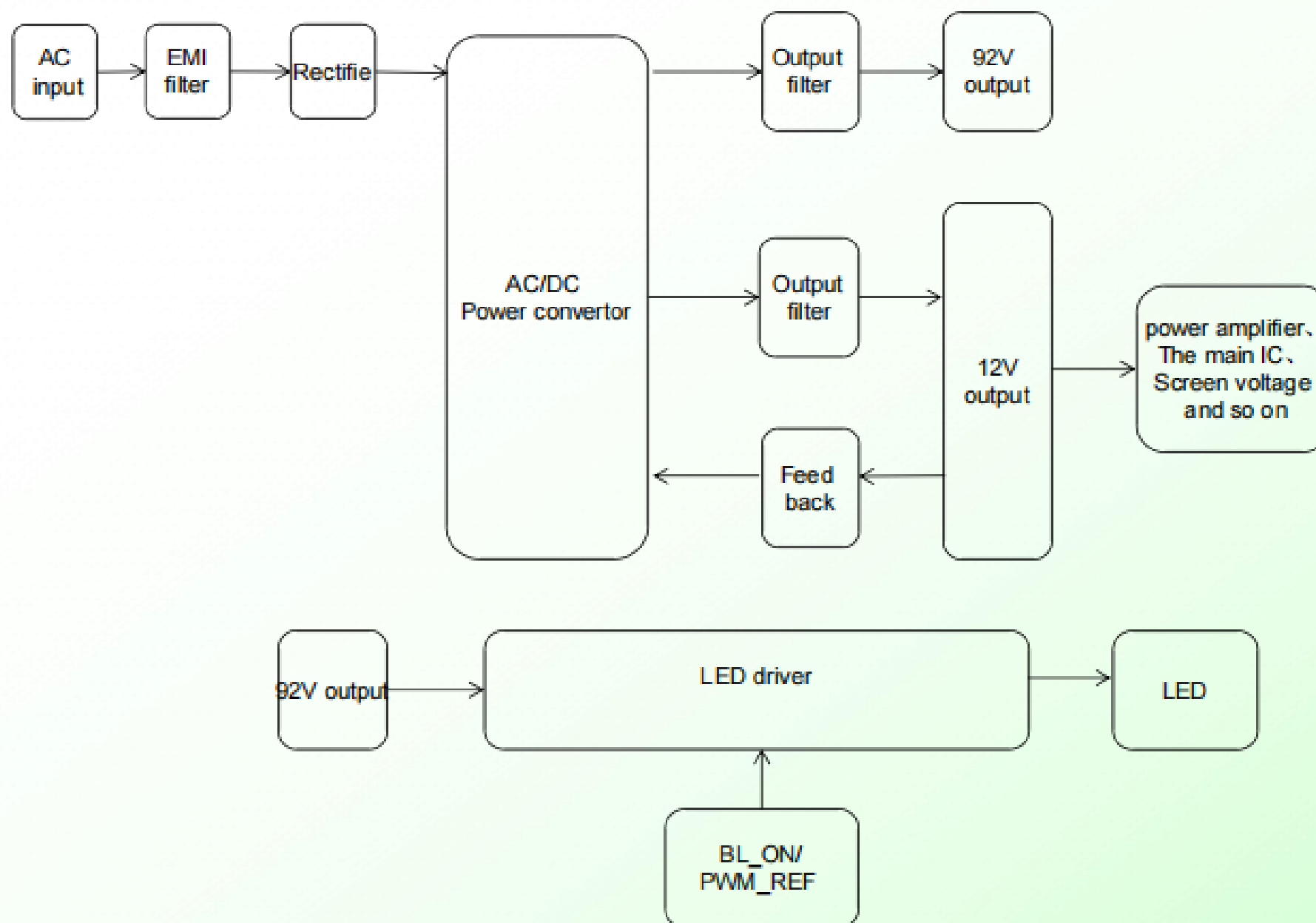
TV28760101Service Manual



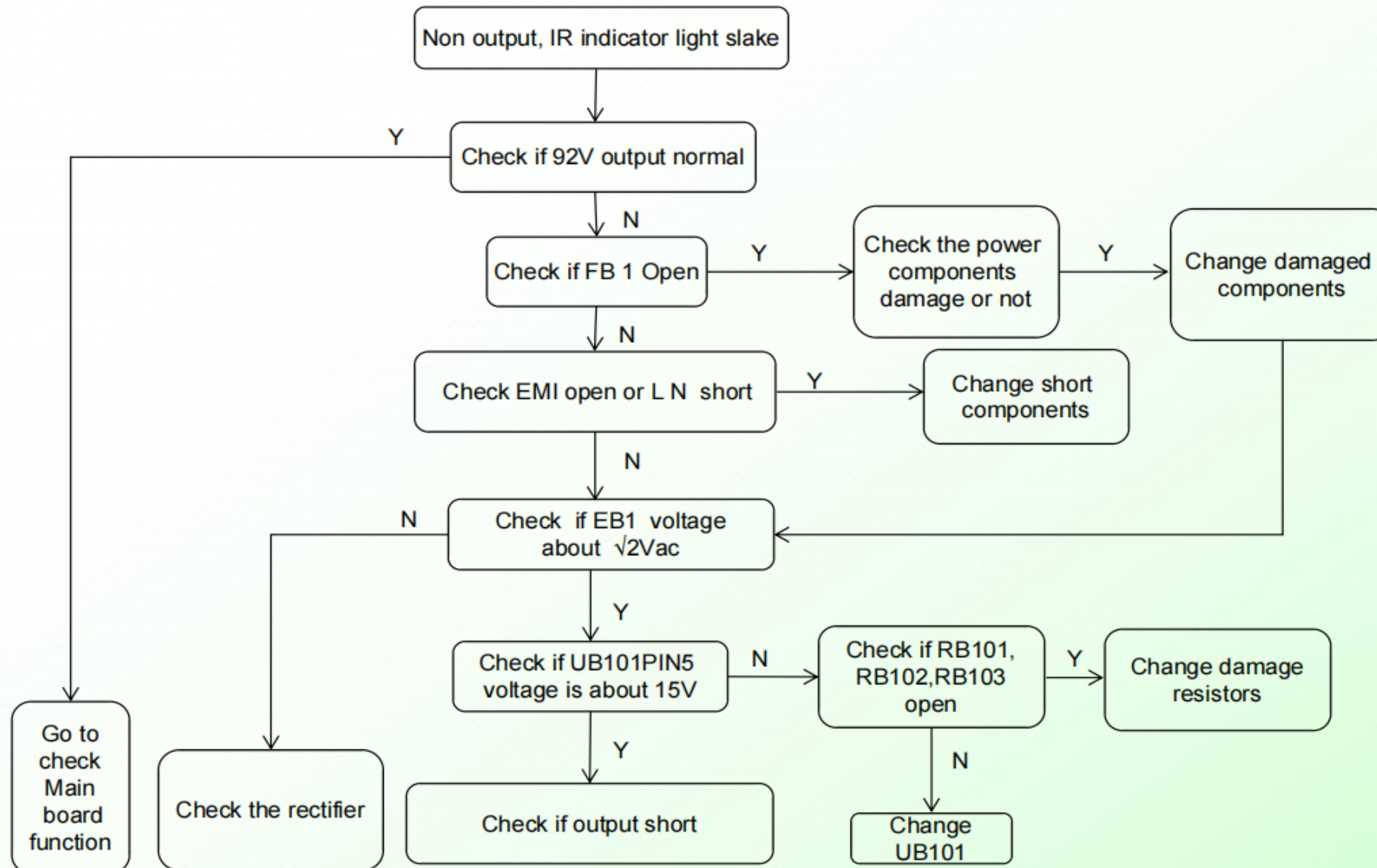


8. TROUBLE SHOOTING FLOW CHART

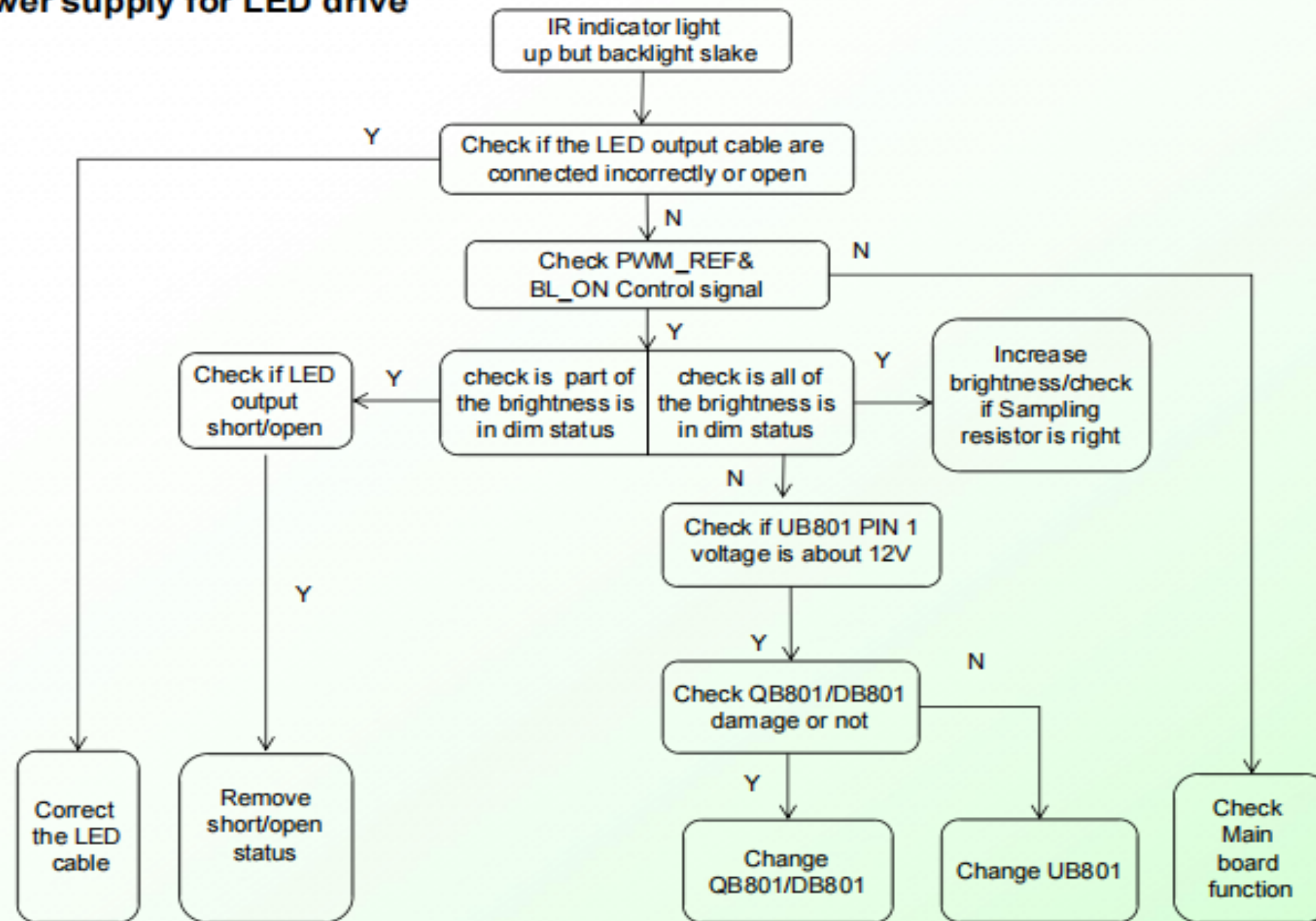
1. Power circuit diagram



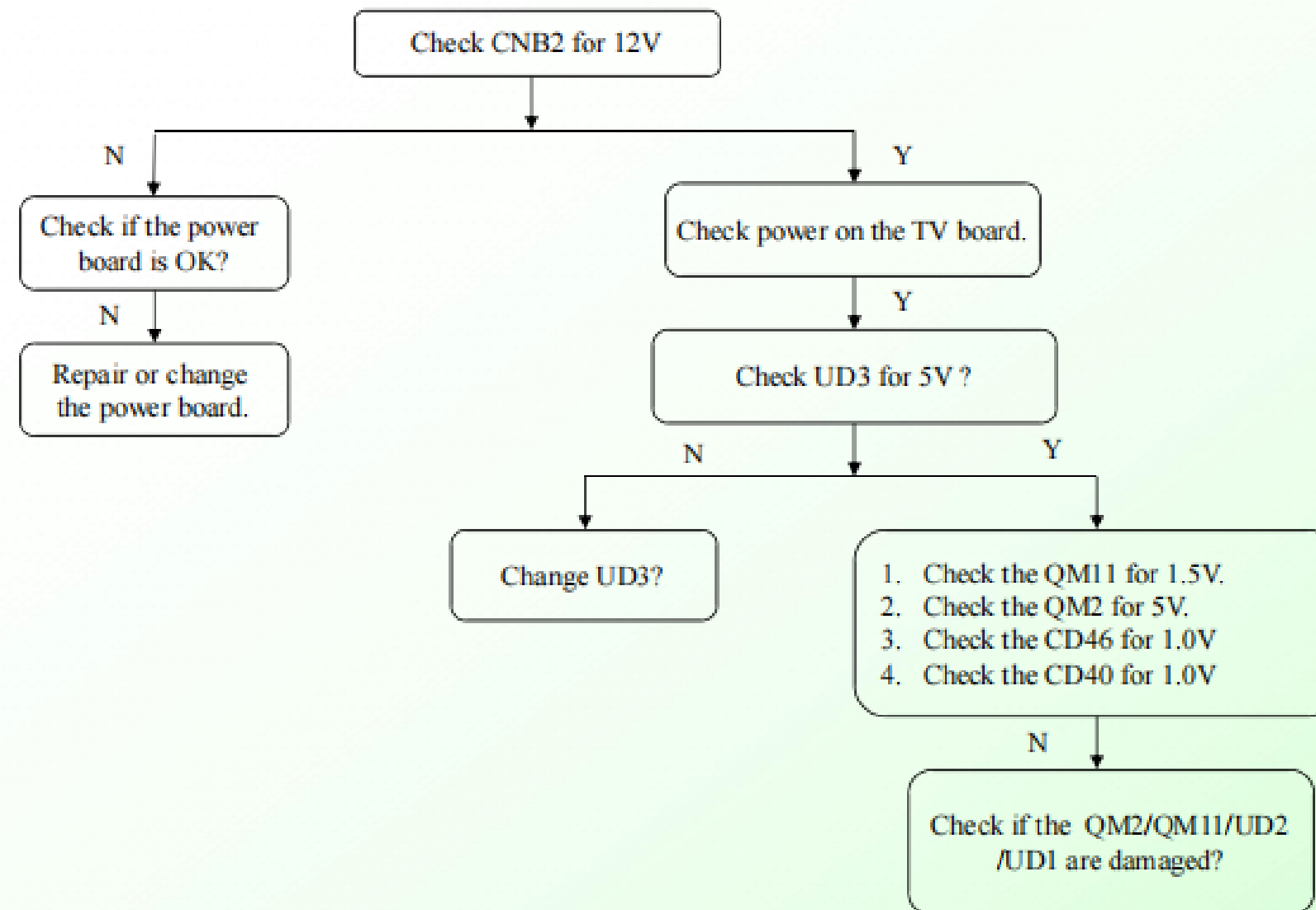
2.Power Supply Trouble 1



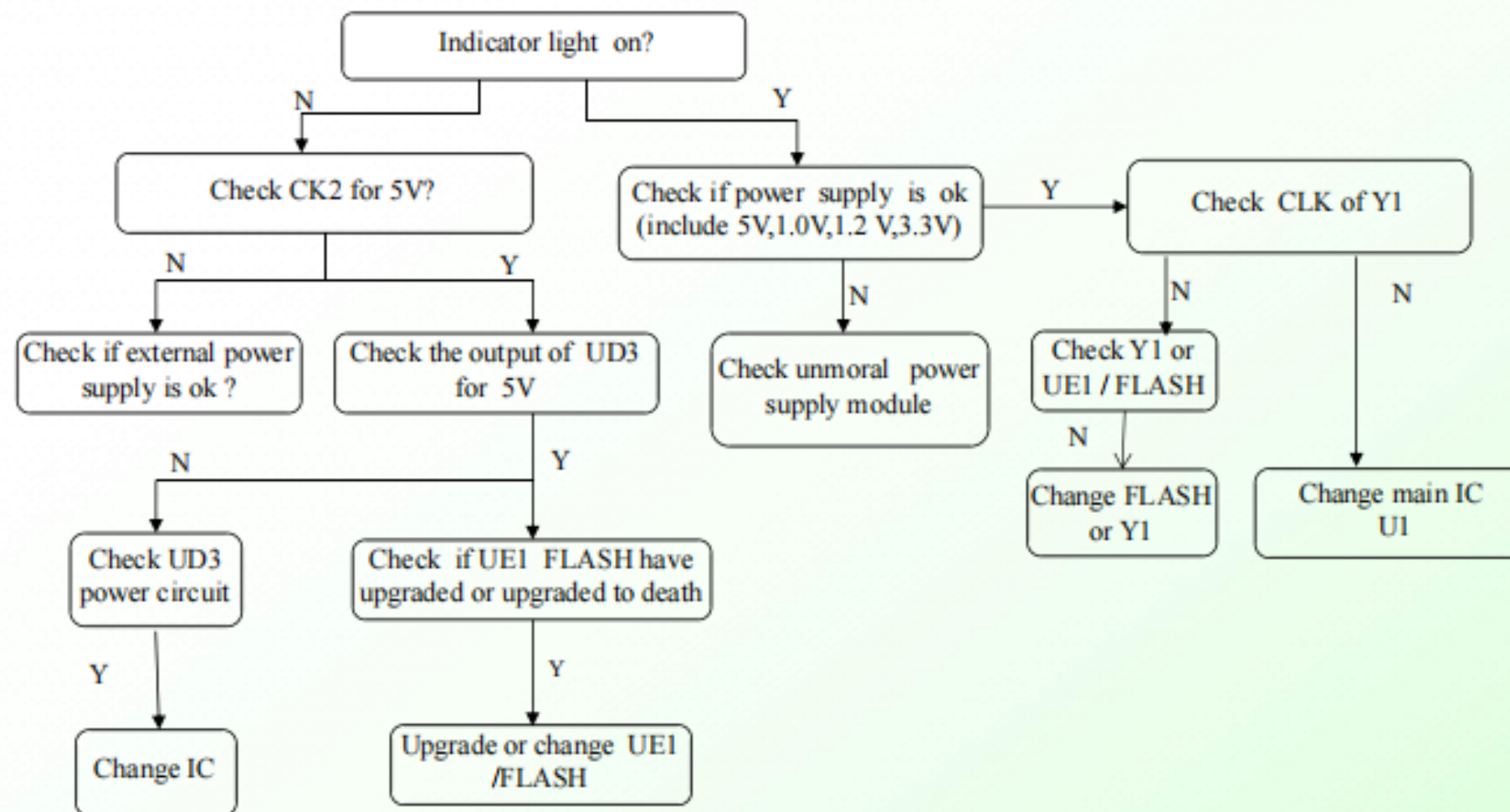
3.Power supply for LED drive



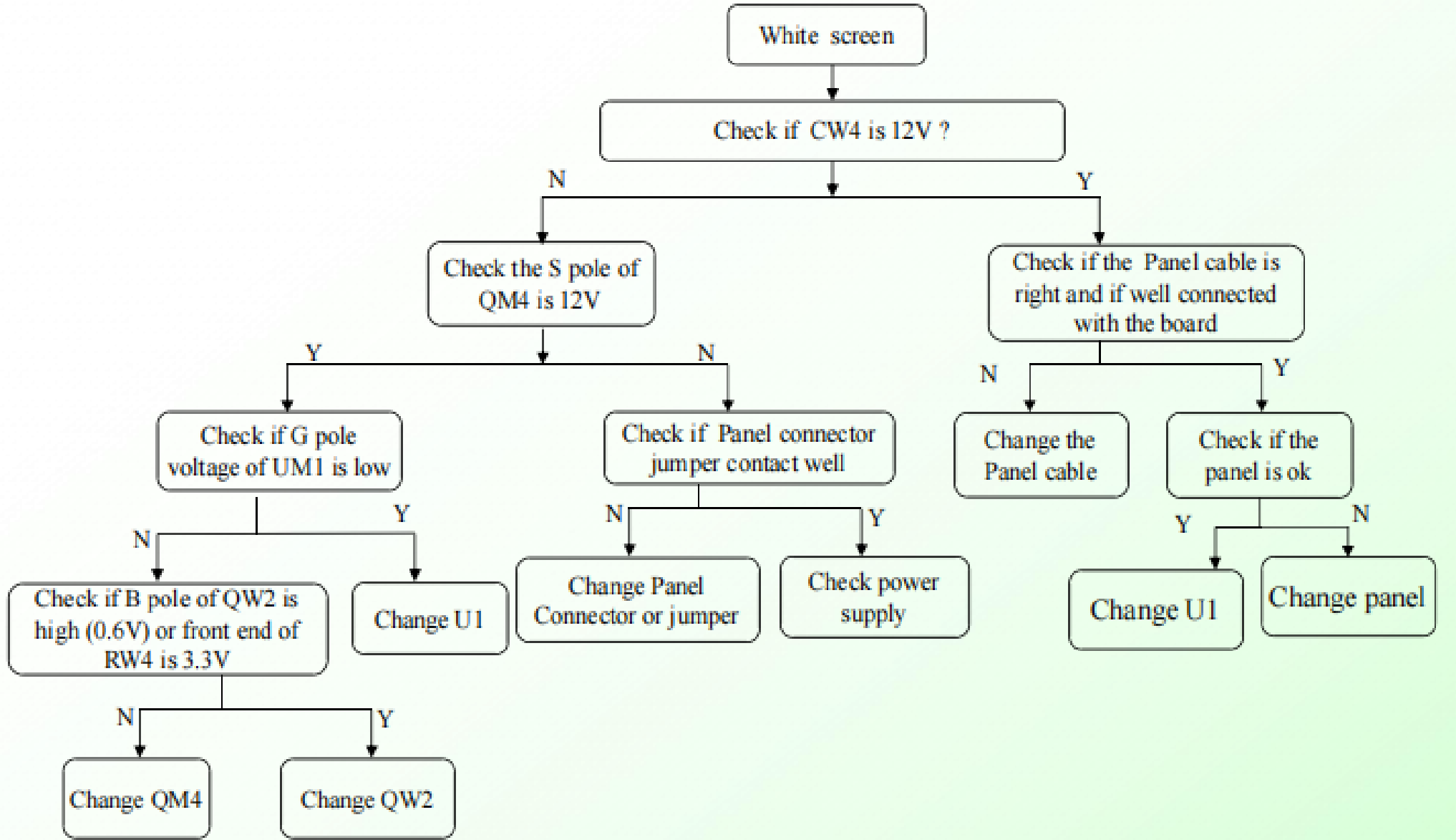
4. Power Troubleshooting



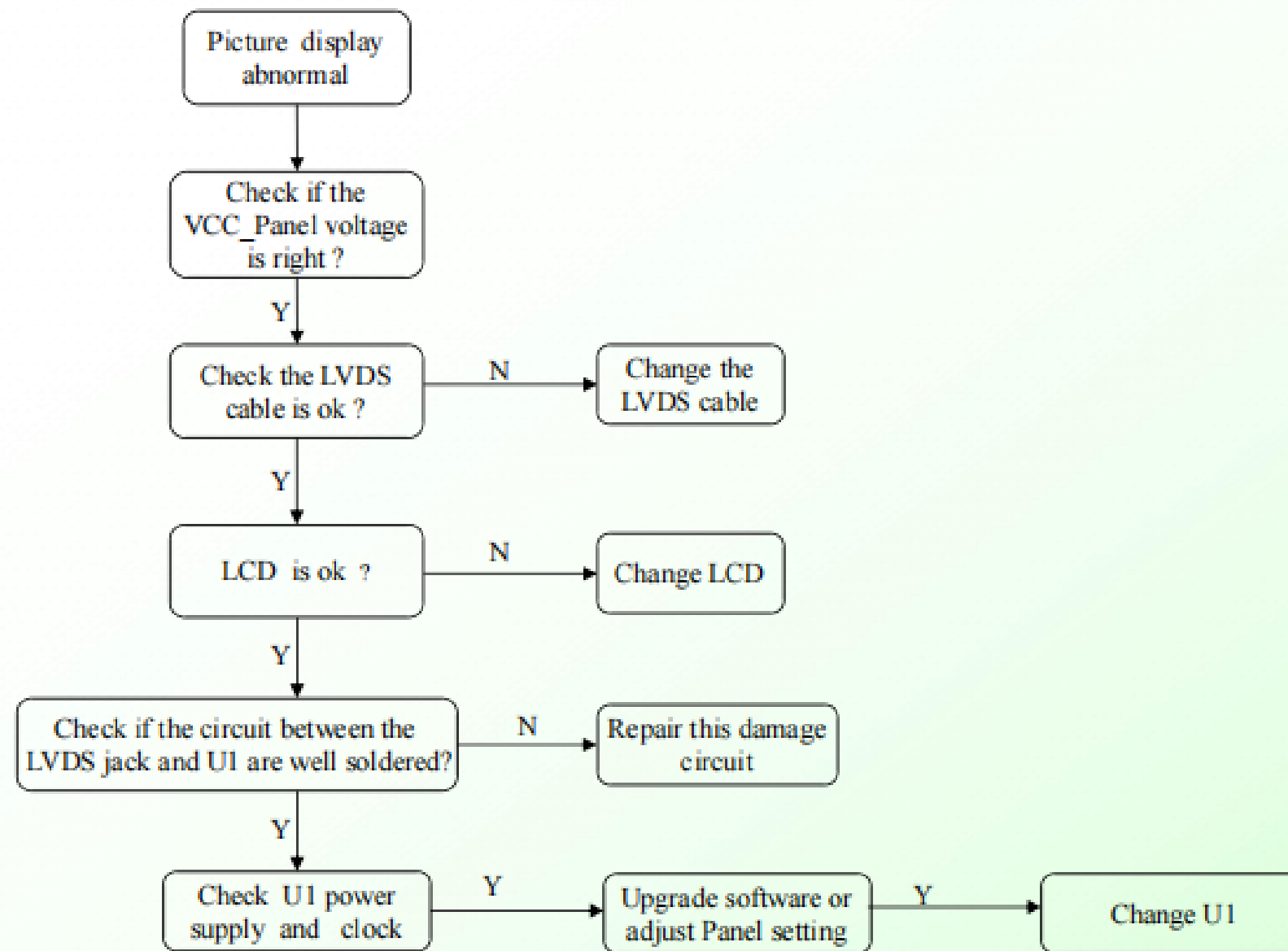
5. Display Troubleshooting (blank screen or show nothing)



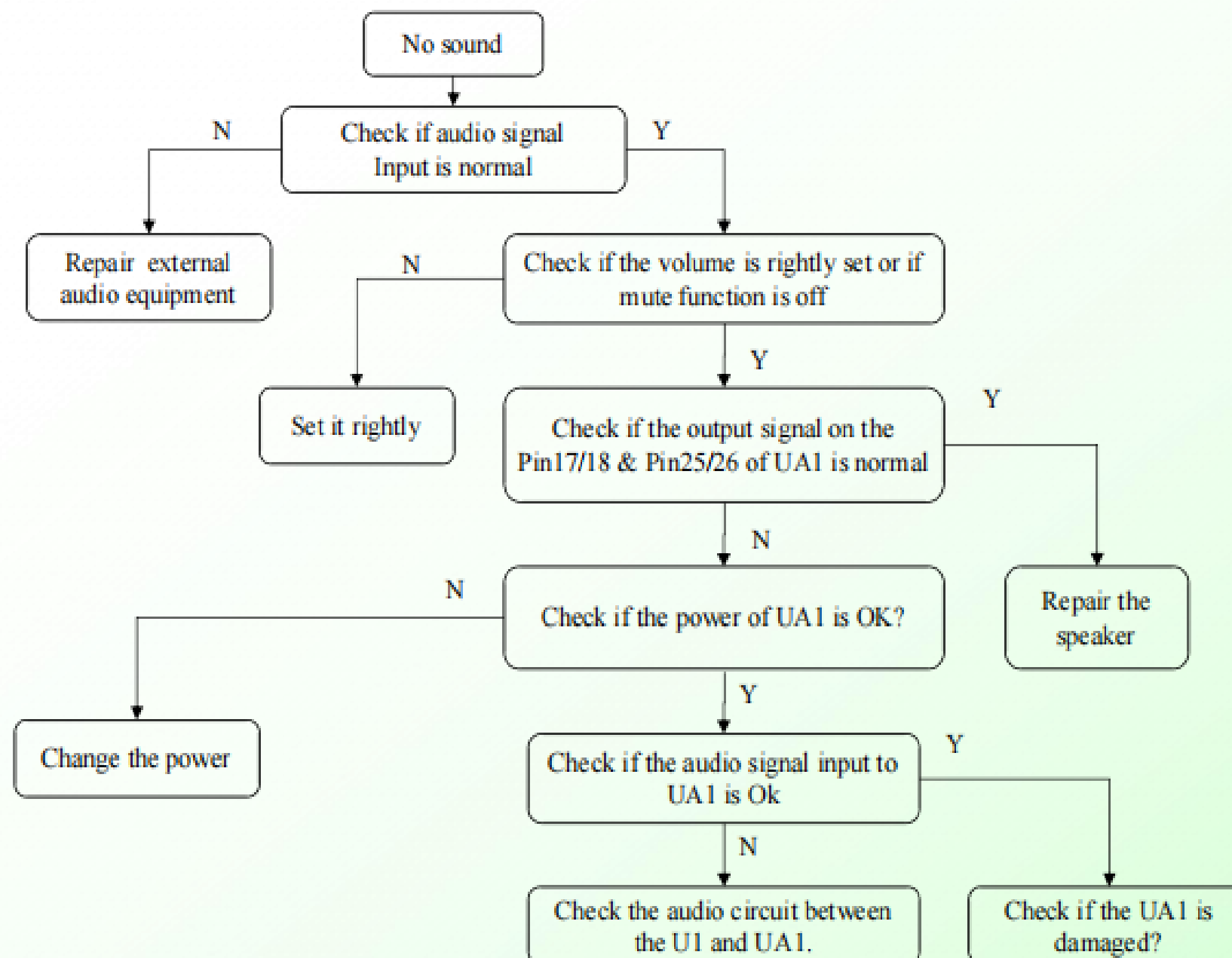
6. Display Troubleshooting (white screen)



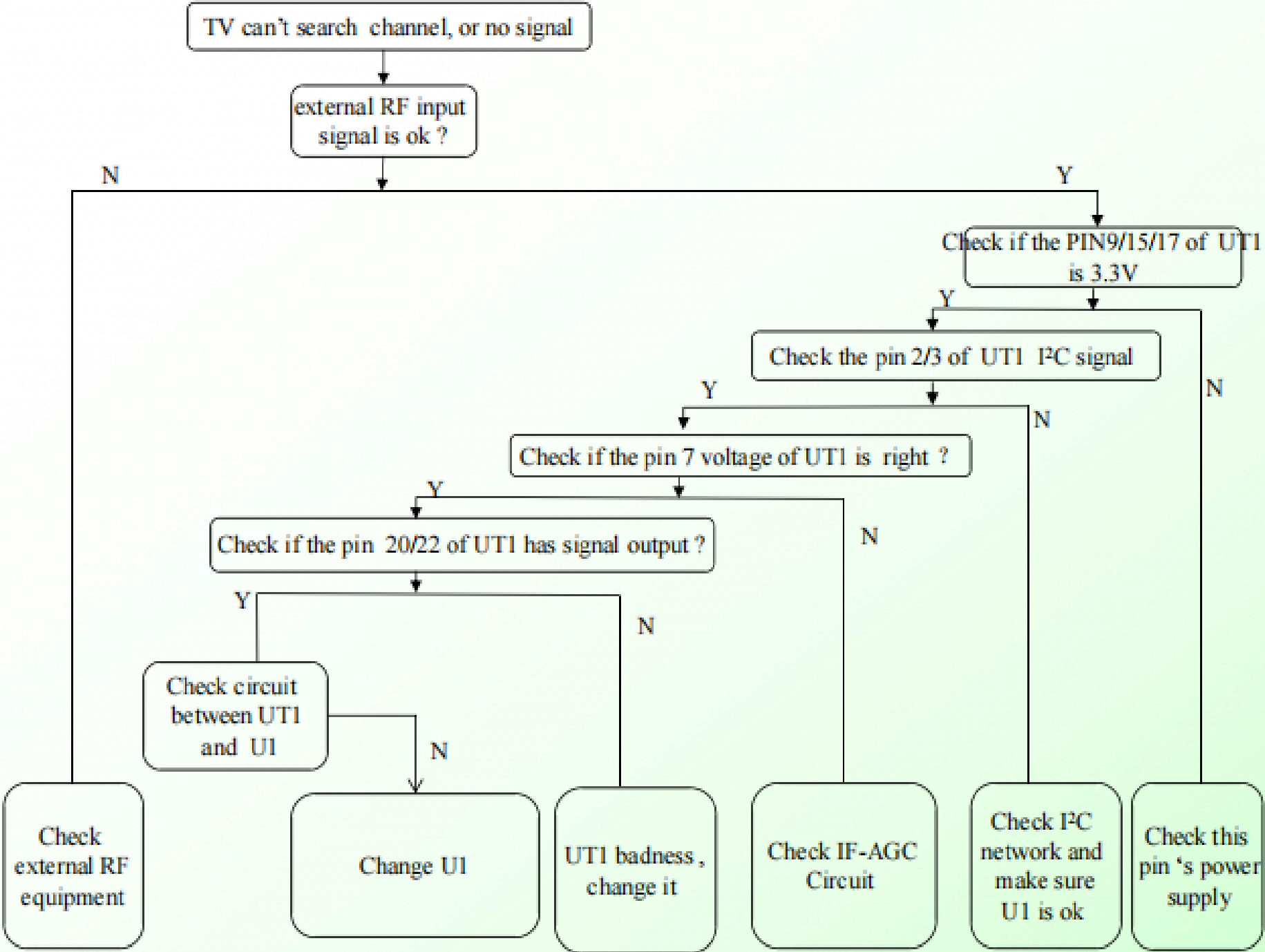
7. Display Troubleshooting (picture badness)



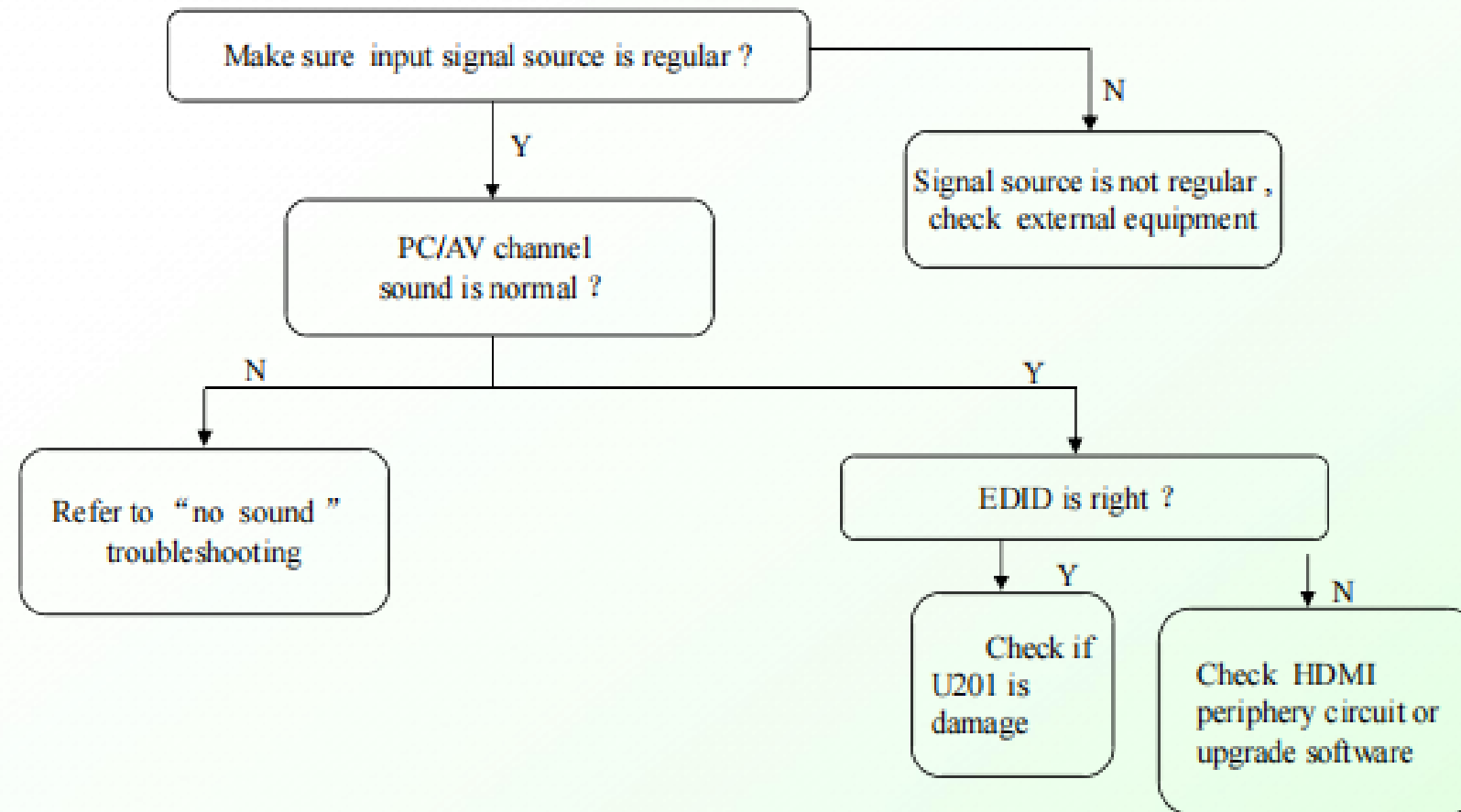
8. Audio Troubleshooting (no sound)



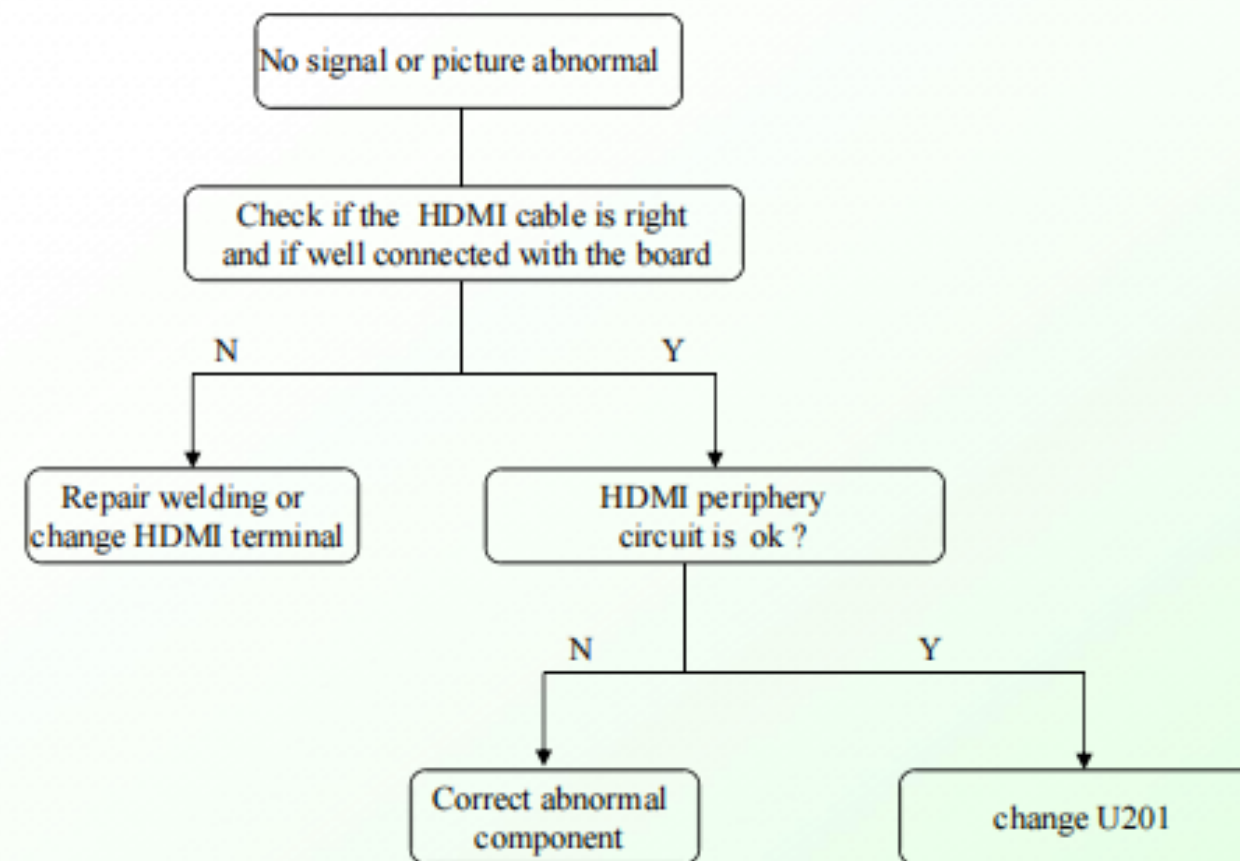
9. Function Troubleshooting (TV fault)



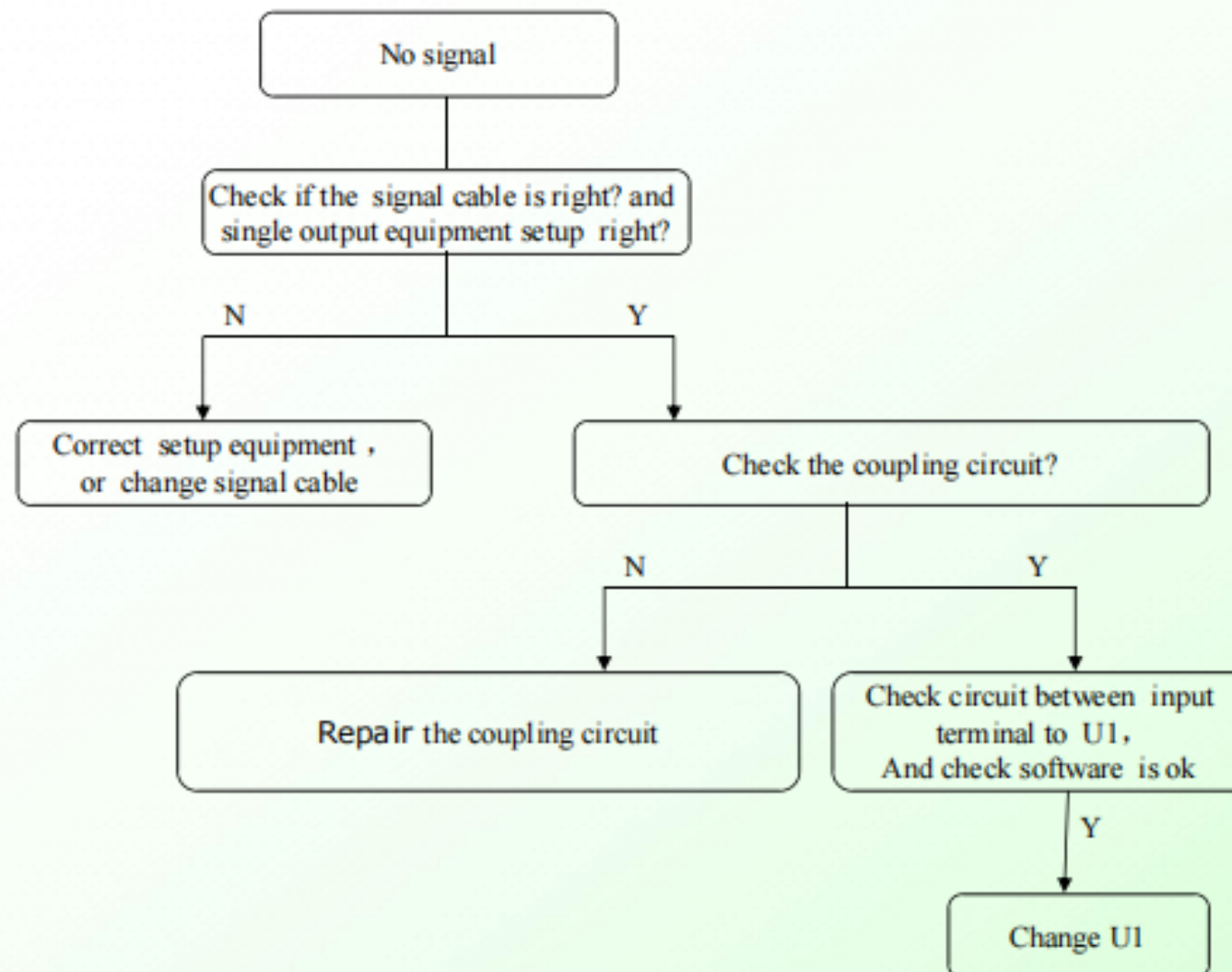
10. Function Troubleshooting (HDMI no sound)



11. Function Troubleshooting (HDMI no picture)



12. Function Troubleshooting (CVBS no signal)



13. Function Troubleshooting (other)

