Hisense | TV

U7~~U7~~U7Q Series

a mis en forme

SERVICE MANUAL

Hisense Visual Technology Co.，Ltd.

Contents

1. Precautions

BEFORE YOU REPAIR THE LCD TV, PLEASE READ CAREFULLY THE SAFETY PRECAUTIONS IN THIS MANUAL.

USE ONLY MANUFACTURER SPECIFIED REPLACEMENT PARTS WHEN YOU REPAIR.

USE OF NON-AUTHORIZED PARTS WILL VOID THE MANUFACTURE'S WARRANTY.

HISENSE'S AUTHORIZED AFTER-SALES SERVICE PROVIDERS ARE ALWAYS HIGHLY RECOMMENDED TO PERFORM ANY REPAIR.

Proper repair is important to both of your safety and the safe, reliable operation of all Hisense Equipment. The repair procedures recommended by Hisense and described in this Service Manual are effective methods of performing repair operations. Some of these repair operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to you. The possibility exists that improper repair methods may damage the equipment and cause personal injury.

It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. It is strongly suggested that repair should be performed by an experienced electronics technician trained in the proper television safety and service methods and procedures. In case of any uncertainty about the operation instruction when you repair, please resort to authorized after-sales service providers of Hisense.

Hereafter throughout this manual.

1-1. Warning

1. Critical components having special safety characteristics are identified with a ⚠ by the Ref. No. in the parts list. Use of non-manufacturer's recommended parts may create shock, fire, or other hazards. Under no circumstances should the original design be modified or altered without written permission. Hisense assumes no liability, express or implied, arising out of any unauthorized modification of design.
2. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, be sure to use anti-static table mats and properly use a grounding wrist strap. Keep components and tools also at this same potential.

   IMPORTANT: Always disconnect the power cord from AC outlet before replacing parts or modules.
3. To prevent electrical shock, use only a properly grounded 3 prong outlet or extension cord.
4. When replacement parts are required, be sure to use replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards and will void the manufacturer's warranty.
5. Safety regulations require that after a repair the set must be returned to its original condition. In addition, prior to closing set, check that:

- All wire harnesses and flex cables are properly routed and secured with factory tape and/or mounted cable clamps.
- All cables and connectors are properly insulated and do not have any bare wires/lead exposed.

6. a) Do not supply a voltage higher than that specified to this product. This may damage the product and may cause a fire.

b) Do not use this product:

- In high humidity areas
- In an area where any water could enter or splash into the unit.

High humidity and water could damage the product and cause fire.

c) If a foreign substance (such as water, metal, or liquid) gets inside the panel module, immediately turn off the power. Continuing to use the product may cause fire or electric shock.

d) If the product emits smoke, and abnormal smell, or makes an abnormal sound, immediately turn off the power. Continuing to use the product, it may cause fire or electric shock.

e) Do not pull out or insert the power cable from/to an outlet with wet hands. It may cause electric shock.

f) Do not damage or modify the power cable. It may cause fire or electric shock.

g) If the power cable is damaged, or if the connector is loose, do not use the product. Otherwise, this can lead to fire or electric shock.

h) If the power connector or the connector of the power cable becomes dirty or dusty, wipe it with a dry cloth. Otherwise, this can lead to fire.

i) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

1-2. Notes

Notes on Safe Handling of the LCD panel and during the repair.

The work procedures shown with the Note indication are important for ensuring the safety of the product and the servicing work. Be sure to follow these instructions.

- Before starting the work, secure a sufficient working space.
- At all times when adjusting and checking the product, be sure to turn OFF the POWER Button and disconnect the power cable from the power source of the TV during servicing.
- To prevent electric shock and breakage of PC board, start the servicing work at least 30 seconds after the main power has been turned off. Especially when installing and removing the power board, start servicing at least 2 minutes after the main power has been turned off.
- While the main power is on, do not touch any parts or circuits other than the ones specified. If any connection other than the one specified is made between the measuring equipment and the high voltage power supply block, it can result in electric shock or may trip the main circuit breaker when installing the LCD module in, and removing it from the packing carton, be sure to have at least two persons perform the work.
- When the surface of the panel comes into contact with the cushioning materials, be sure to confirm that there is no

foreign matter on top of the cushioning materials before the surface of the panel comes into contact with the cushioning materials. Failure to observe this precaution may result in the surface of the panel being scratched by foreign matter.

- Be sure to handle the circuit board by holding the large parts as the heat sink or transformer. Failure to observe this precaution may result in the occurrence of an abnormality in the soldered areas.
- Do not stack the circuit boards. Failure to observe this precaution may result in problems resulting from scratches on the parts, the deformation of parts, and short-circuits due to residual electric charge.
- Perform a safety check when servicing is completed. Verify that the peripherals of the serviced points have not undergone any deterioration during servicing. Also verify that the screws, parts and cables removed for servicing purposes have all been returned to their proper locations in accordance with the original setup.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert you to important safety information in the repair literature.

2. Exploded View

a mis en forme : Police :(Par défaut) Arial, 18 pt

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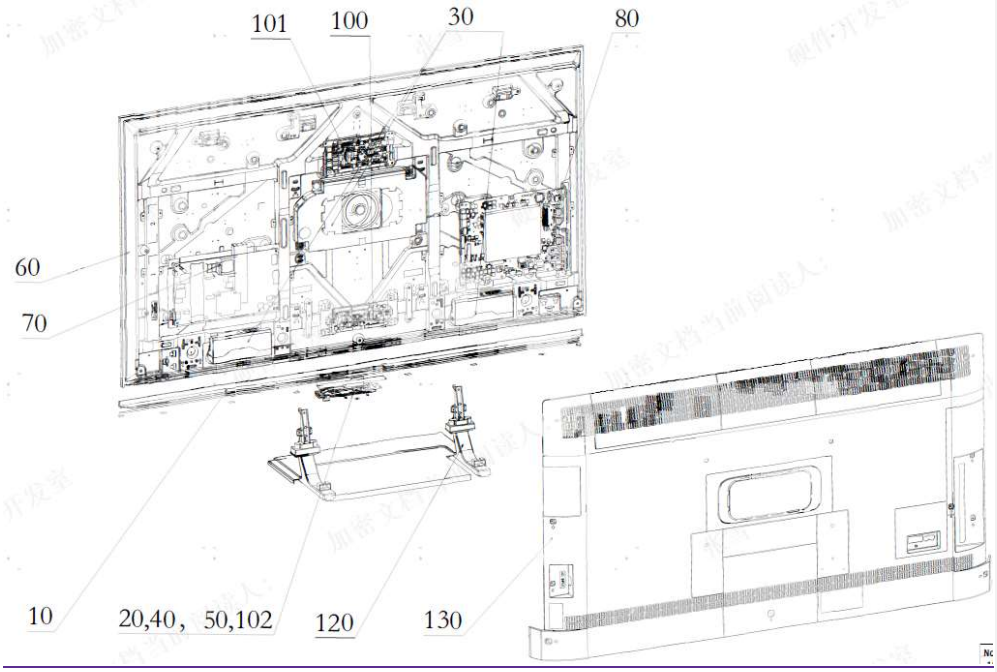
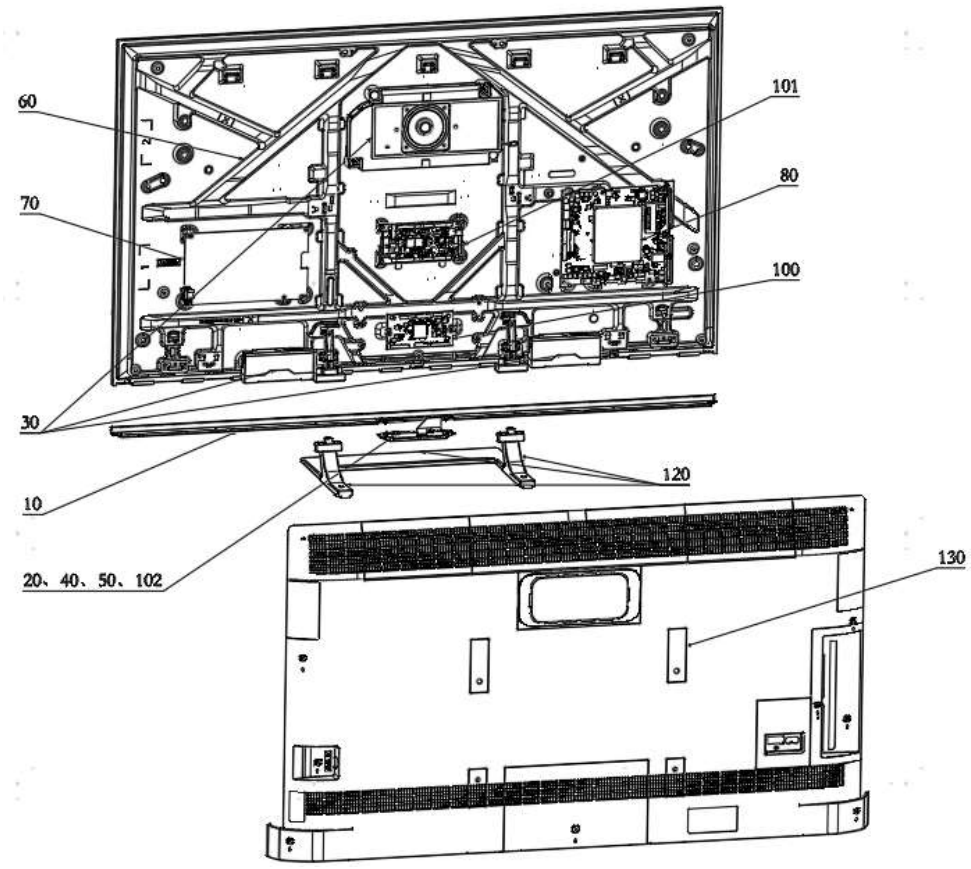


10	Front cover	**80**	Main board
20, 40, 50,102	Key/Button/**WiFi** board/IR board	**100**	T-CON adapter board/ T-CON board
30	Speakers set	**120**	Stand unit
60	TV Panel	**130**	Back cover
70	Power board		

55

a mis en forme : Bordure : Bas: (Simple, Automatique, 0,75 pt Épaisseur du trait, Par rapport au texte : 3 pt Espacement des bordures :)

a mis en forme : Normal, Pas de saut de page avant



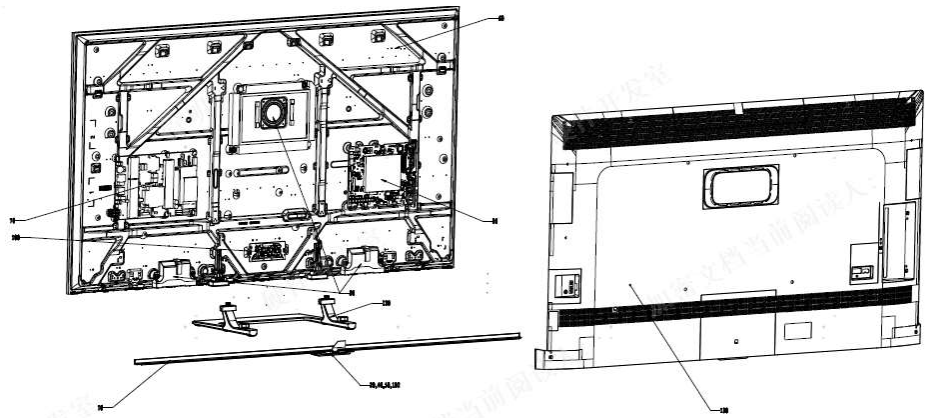
10	Front cover	80	Main board
20, 40, 50,102	Key/Button/**WiFi** board/IR board	100	T-CON adapter board/ T-CON board
30	Speakers set	120	Stand unit
60	TV Panel	130	Back cover
70	Power board		

65

a mis en forme : Police :(Par défaut) Arial, 18 pt, Gras

a mis en forme : Normal

a mis en forme : Normal, Pas de saut de page avant



10	Front cover	80	Main board
20,50,102	Key/Button/**WiFi** board/IR board	100	T-CON adapter board/ T-CON board
30	Speakers set	120	Stand unit
60	TV Panel	130	Back cover
70	Power board		

a mis en forme : Police :(Par défaut) Arial, 18 pt

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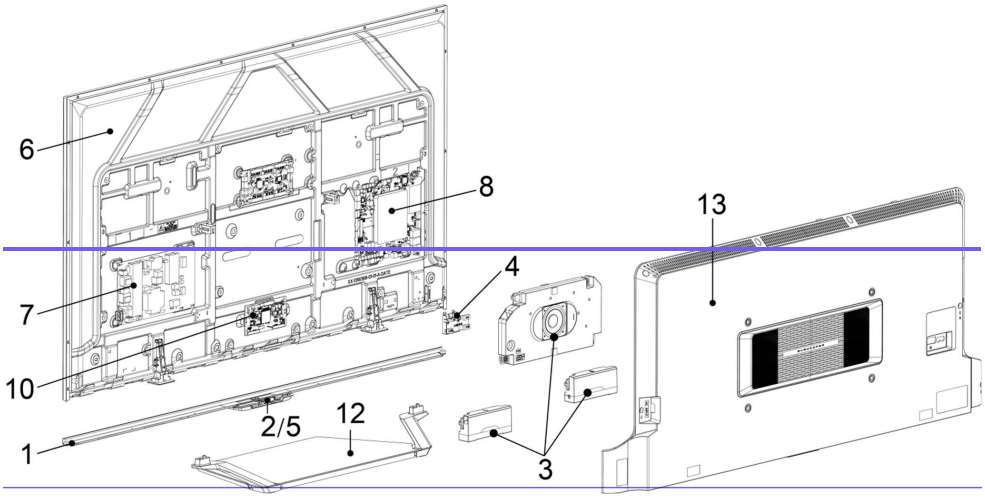
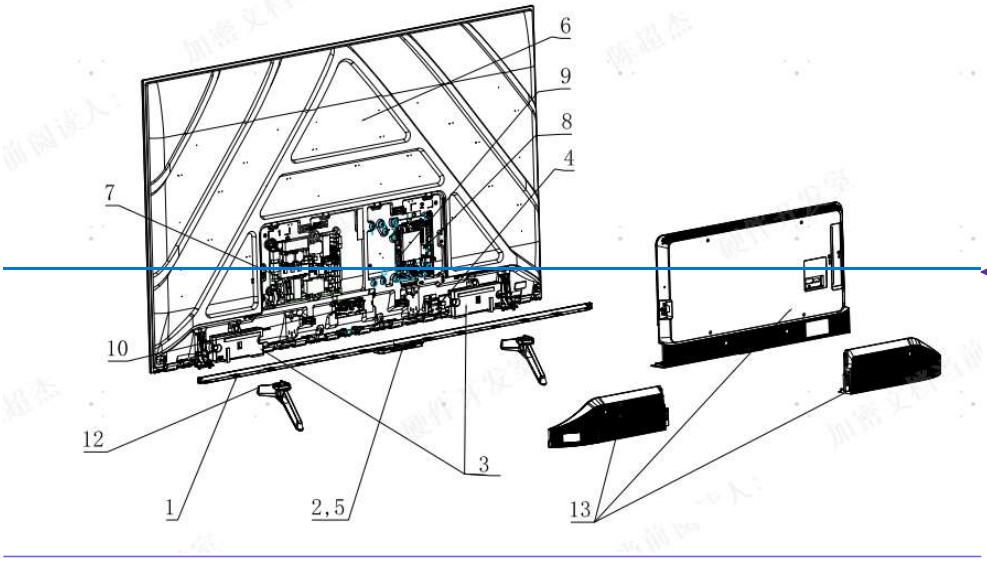
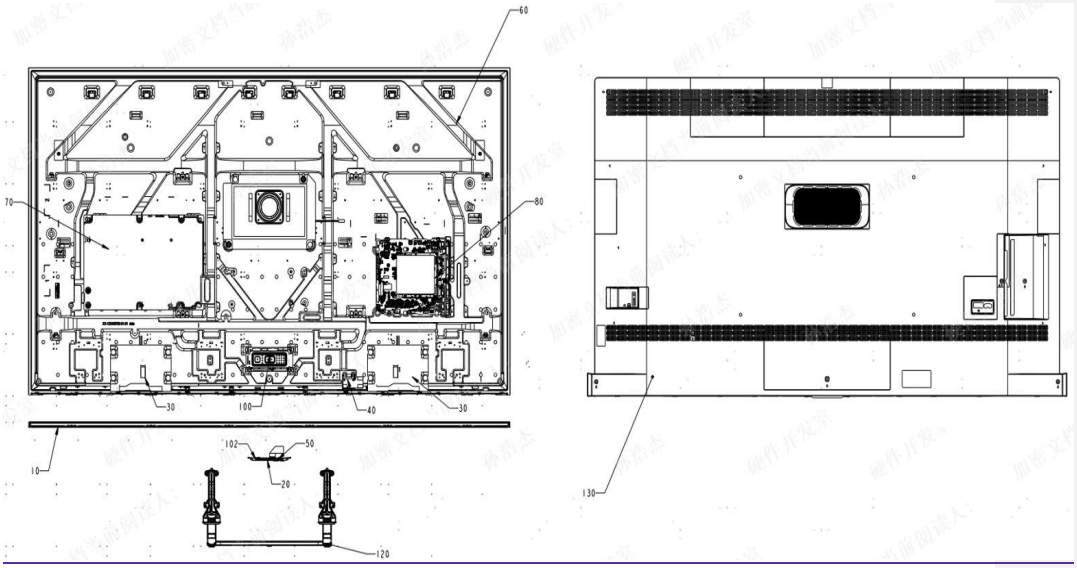
a mis en forme : Police :(Par défaut) +Corps (Calibri), 10,5 pt

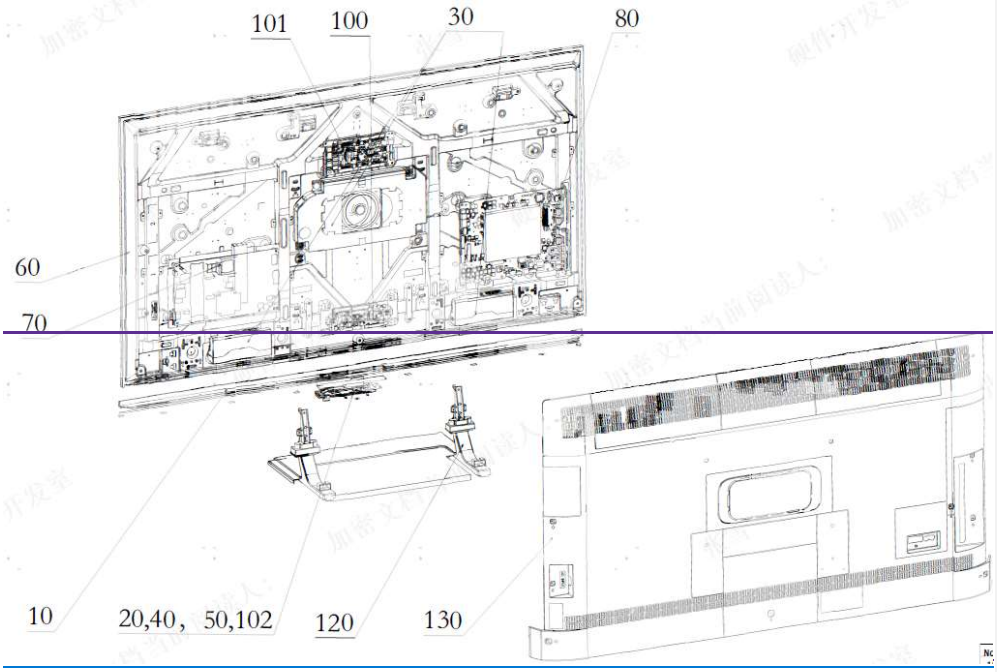
~~55/65/75~~5075





a mis en forme : Gauche





10	Front cover	807	Main boardPower board

20, ~~40~~ 50,102	Key/Button/WiFi board/IR board	100 ~~8~~	T-CON adapter board/ T-CON board~~Main board~~
30	Speakers set	120 ~~10~~	Stand unit~~T-CON adapter board/ T-CON board~~
604	TV Panel~~WIFI broad(N.A.)~~	130 ~~12~~	Back cover~~Stand unit~~
705	Power board~~IR board~~	~~13~~	~~Back cover~~

~~6~~

a mis en forme : Police :Gras

a mis en forme : Normal, Pas de saut de page avant

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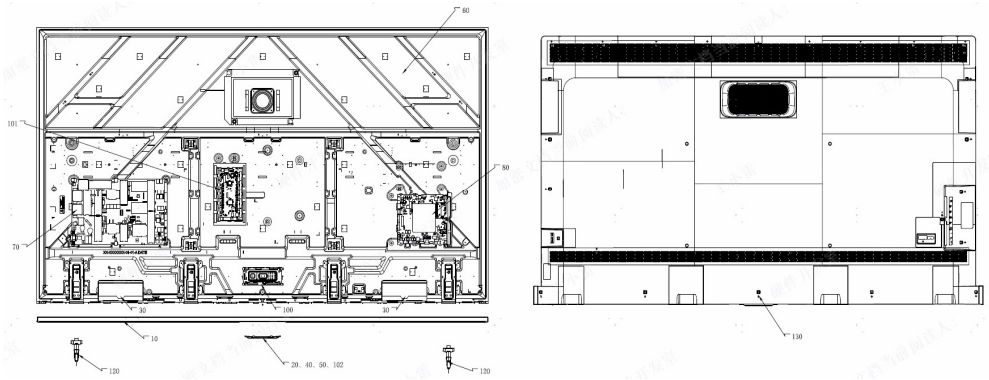

10	Front cover	80	Main board
20	Key board	100	T-CON board
30	Speakers assembly	101	Driver board
40	WiFi broad	102	Back cover
50	IR board	120	Stand unit
60	LCD	130	Back cover
70	Power board		

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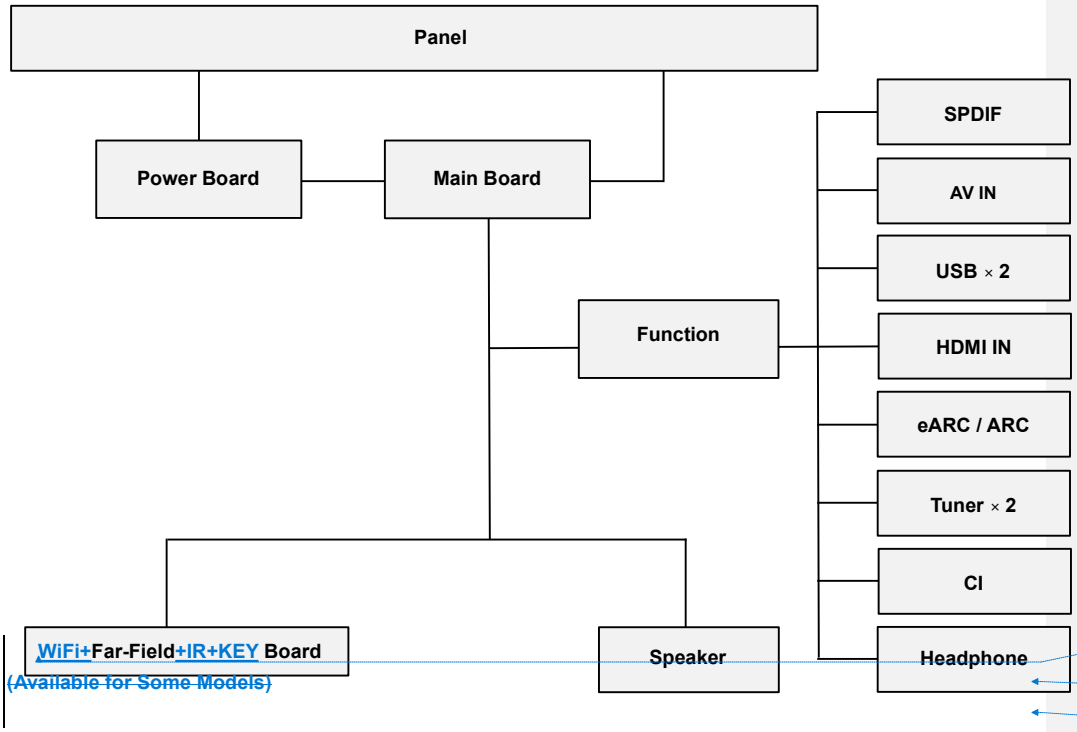
3. List of Necessary Repair and Test Equipment

Tool type	Illustration (informative example)	Reference
Screwdriver for slotted heads, cross recess or for hex lobular recess heads		ISO 2380, ISO 8764, ISO 10664
Half round nose pliers		ISO 5745
Combination pliers for wire stripping and terminal crimping		
Tweezers		
Utility knife (cutter) with snap-off blades		
Multimeter		
Soldering iron		
Discharge device of capacitor		

4. Wiring and Connection Diagrams



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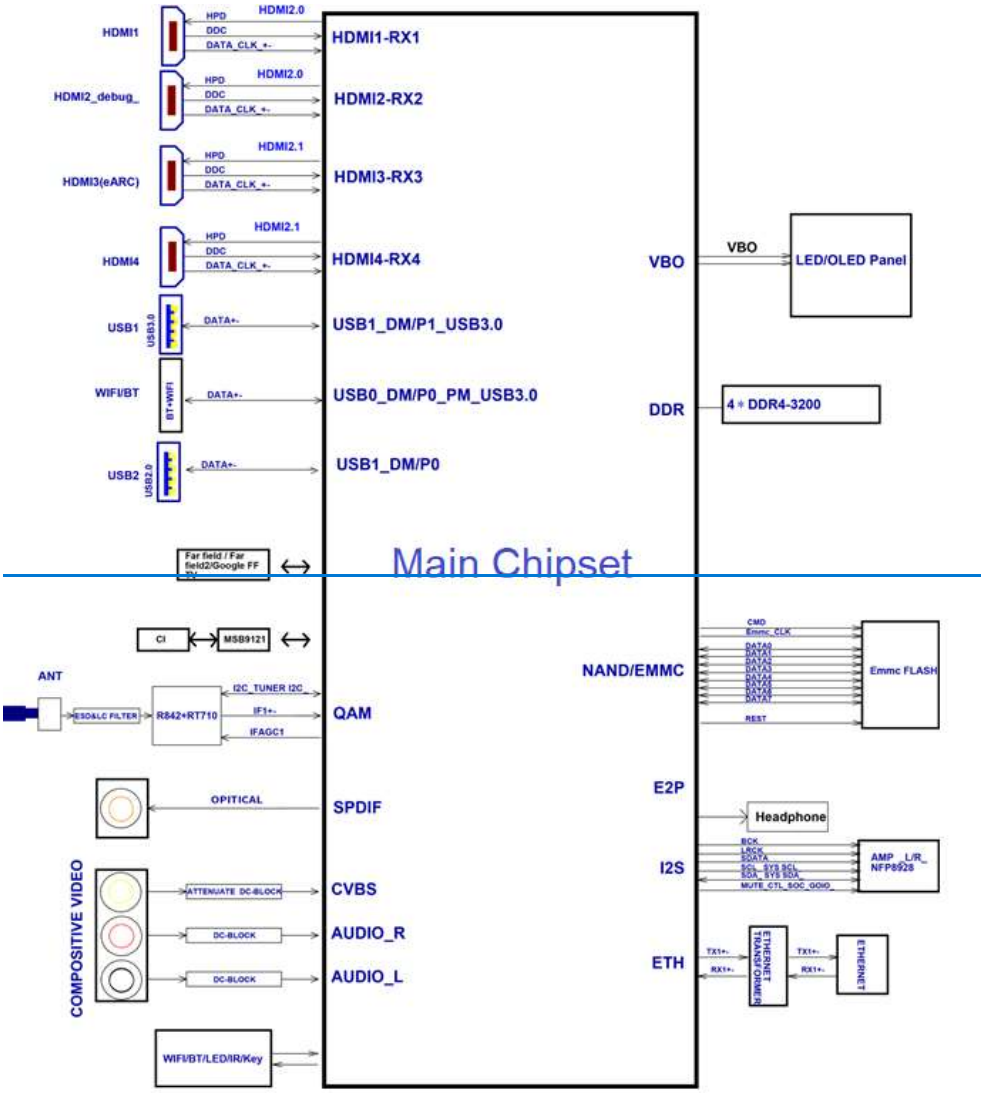
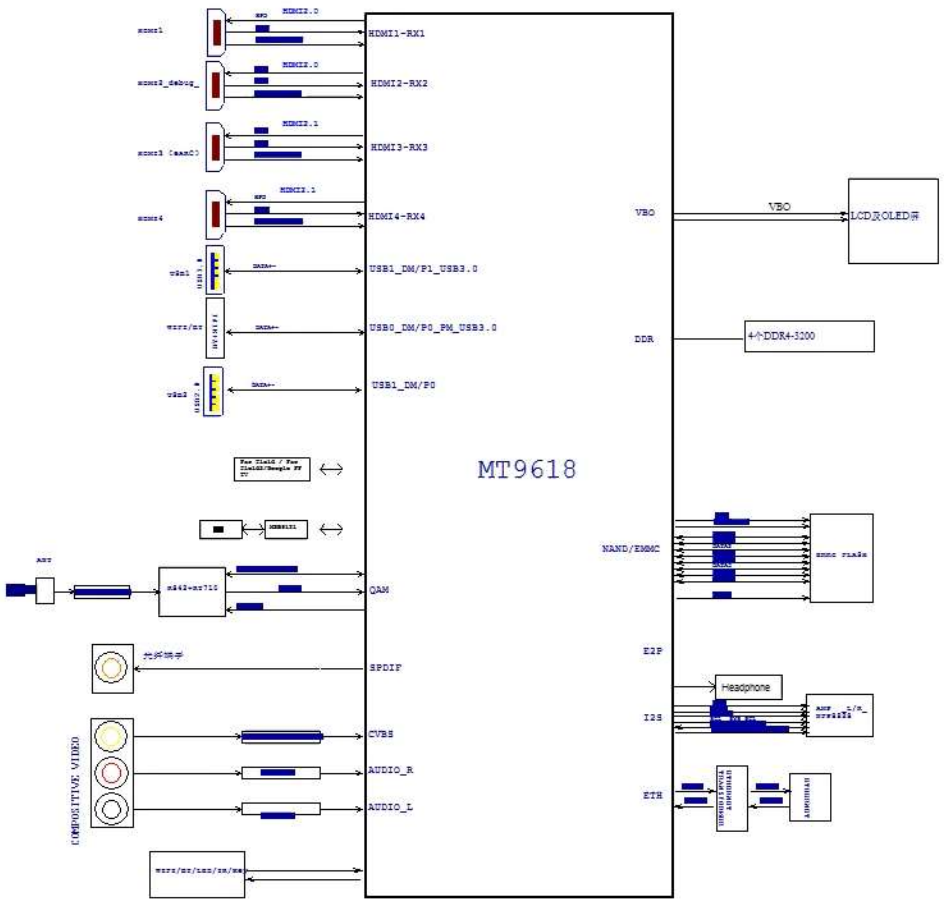
5. Electronic Boards Diagrams

5-1. Block Diagram

- **Mainboard Block Diagram**


HDMI1
HDMI2_debug_
HDMI3(eARC)
HDMI4
USB1
WIFI/BT
USB2
HPD
DDC
DATA_CLK_+-
HDMI2.0
HDMI2.1
DATA+-
HDMI1-RX1
HDMI2-RX2
HDMI3-RX3
HDMI4-RX4
USB1_DM/P1_USB3.0
USB0_DM/P0_PM_USB3.0
USB1_DM/P0
Main Chipset
VBO
LED/OLED Panel
DDR
4 * DDR4-3200
CI
MSB9121
ANT
R842+RT710
QAM
NAND/EMMC
Emmc FLASH
OPITICAL
SPDIF
E2P
Headphone
I2S
AMP L/R NFP892S
COMPOSITIVE VIDEO
CVBS
AUDIO_R
AUDIO_L
ETH
ETHERNET
WIFI/BT/LED/IR/Key

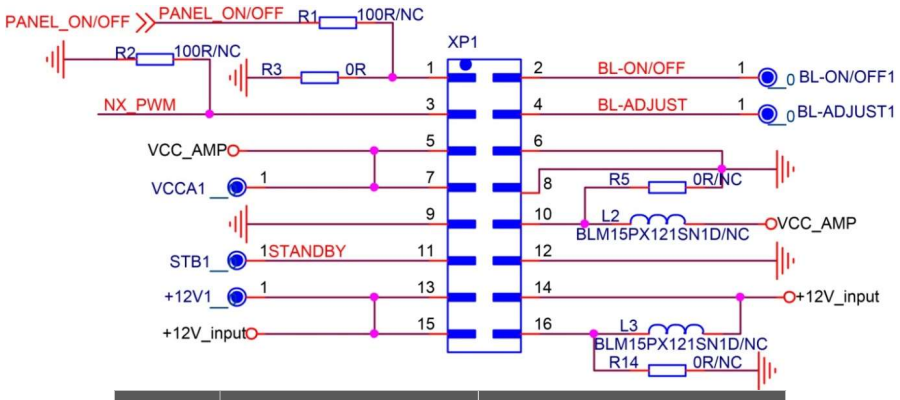

MT9618
HDMI1-RX1
HDMI2-RX2
HDMI3-RX3
HDMI4-RX4
USB1_DM/P1_USB3.0
USB0_DM/P0_PM_USB3.0
USB1_DM/P0
QAM
SPDIF
CVBS
AUDIO_R
AUDIO_L
VBO
DDR
NAND/EMMC
I2S
ETH
Headphone
4个DDR4-3200

5-2. Circuit Diagram and Pin Definition

- Different models of the interfaces may not be the same，according to the actual model to do confirmation.

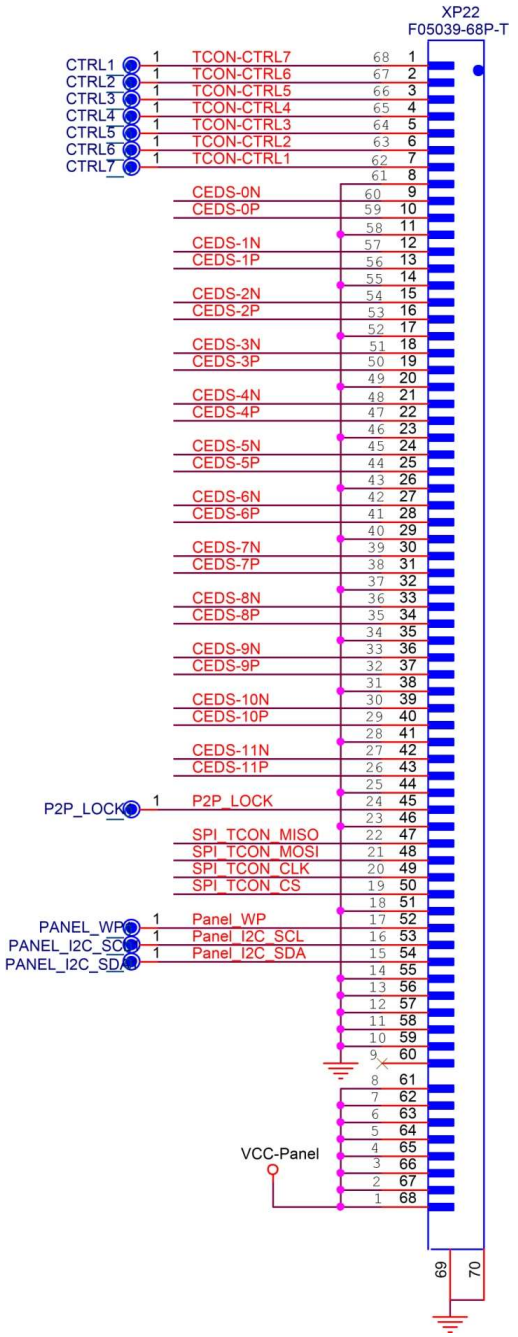
a mis en forme : Surlignage

- **Power Connecter XP1 Circuit Diagram and Pin Definition**

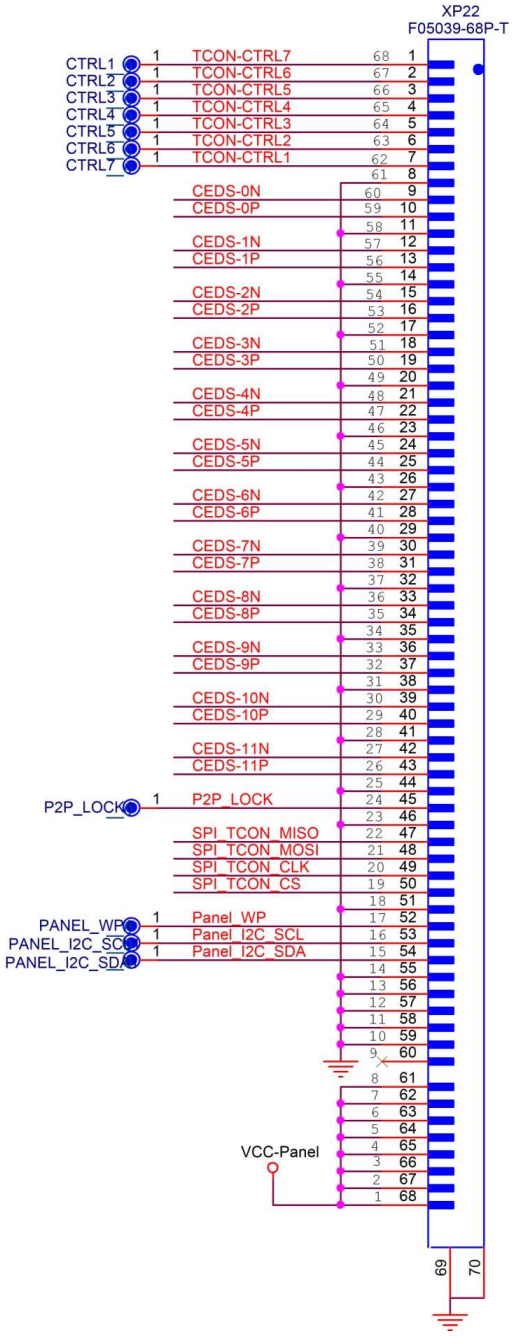


Pin	Definition	Description
1	GND	Ground
2	BL_ON/OFF	2.9~3.4V
3	NX_PWM/NC	NC
4	BL-ADJUST	PWM
5	VCC_AMP	16~22V
6	GND	Ground
7	VCC_ AMP	16~22V
8	GND	Ground
9	GND	Ground
10	VCC_AMP/GND/NC	NC
11	STB	2~3V
12	GND	Ground
13	12VS	11~13V
14	12VS	11~13V
15	12VS	11~13V
16	12VS/GND/NC	NC

■ Panel Connecter: XP22 Circuit Diagram and Pin Definition

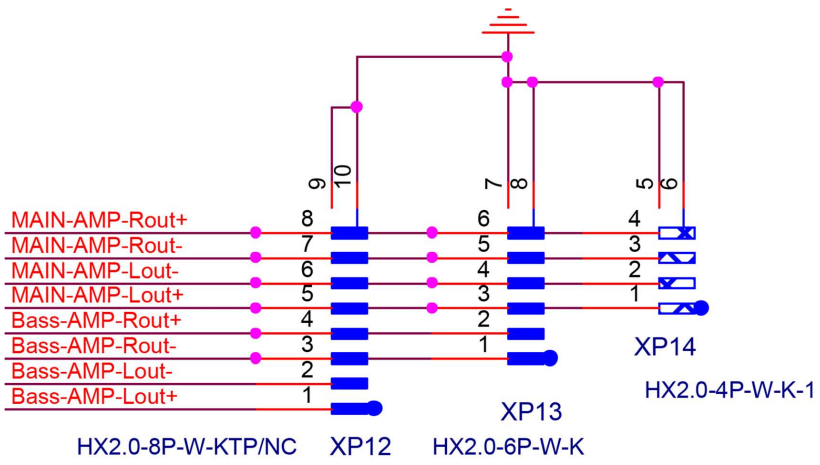


	Definition	Description
1	CTRL7	TCON control7
2	CTRL6	TCON control6
3	CTRL5	TCON control5
4	CTRL4	TCON control4
5	CTRL3	TCON control3
6	CTRL2	TCON control2
7	CTRL1	TCON control1
8	GND	Ground
9	X0B_0P	DATA 0+
10	X0B_0N	DATA 0-
11	GND	Ground
12	X0B_1P	DATA 1+
13	X0B_1N	DATA 1-
14	GND	Ground
15	X0B_2P	DATA 2+
16	X0B_2N	DATA 2-
17	GND	Ground
18	X0B_3P	DATA 3+
19	X0B_3N	DATA 3-
20	GND	Ground
21	X0B_4P	DATA 4+
22	X0B_4N	DATA 4-
23	GND	Ground
24	X0B_5P	DATA 5+
25	X0B_5N	DATA 5-
26	GND	Ground
27	X0B_6P	DATA 6+
28	X0B_6N	DATA 6-
29	GND	Ground
30	X0B_7P	DATA 7+
31	X0B_7N	DATA 7-
32	GND	Ground
33	X0B_8P	DATA 8+
34	X0B_8N	DATA 8-
35	GND	Ground
36	X0B_9P	DATA 9+



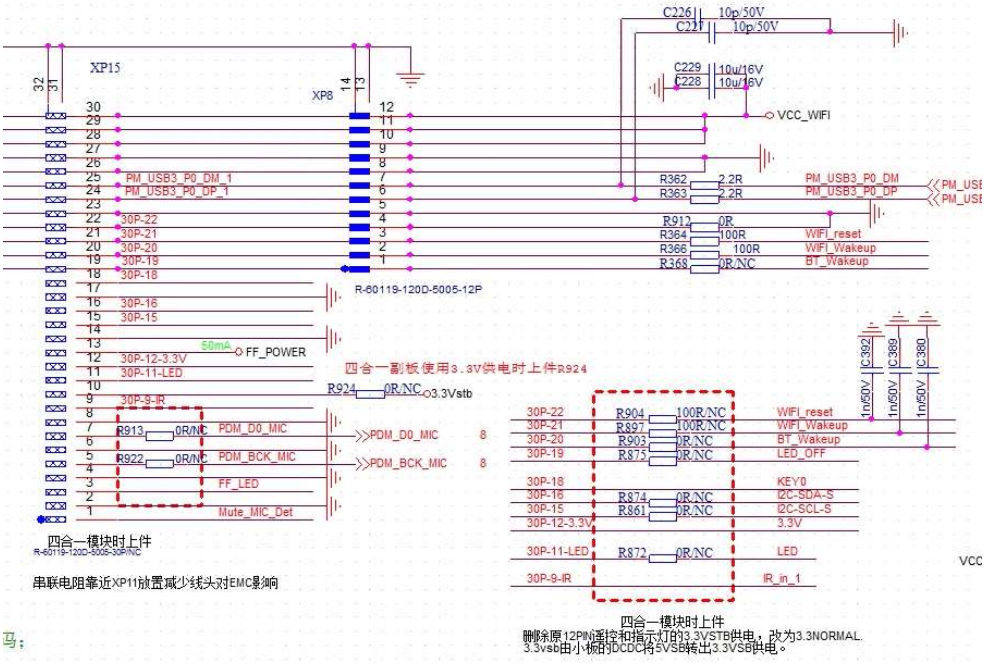
37	X0B_9N	DATA 9-
38	GND	Ground
39	X0B_10P	DATA 10+
40	X0B_10N	DATA 10-
41	GND	Ground
42	X0B_11P	DATA 11+
43	X0B_11N	DATA 11-
44	GND	Ground
45	P2P_LOCK	P2P LOCK
46	GND	Ground
47	SPI_PANEL_MISO	SPI_DATA_I
48	SPI_PANEL_MOSI	SPI_DATA_O
49	SPI_PANEL_CLK	SPI_CLK
50	SPI_Demura_CS	DEMURA_CS
51	GND	Ground
52	T_nWR	Write Production
53	T_SCL	I2C CLK
54	T_SDA	I2C DATA
55	GND	Ground
56	GND	Ground
57	GND	Ground
58	GND	Ground
59	GND	Ground
60	NC	NC
61	12V_PANEL	Power Supply Input Voltage
62	12V_PANEL	Power Supply Input Voltage
63	12V_PANEL	Power Supply Input Voltage
64	12V_PANEL	Power Supply Input Voltage
65	12V_PANEL	Power Supply Input Voltage
66	12V_PANEL	Power Supply Input Voltage
67	12V_PANEL	Power Supply Input Voltage
68	12V_PANEL	Power Supply Input Voltage

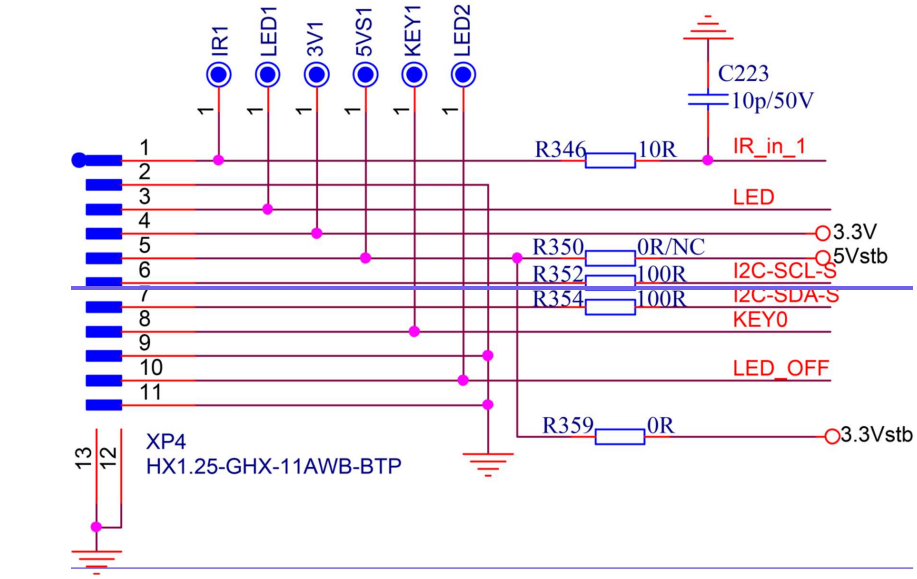
■ **Speaker Connecter: XP1343 Circuit Diagram and Pin Definition**

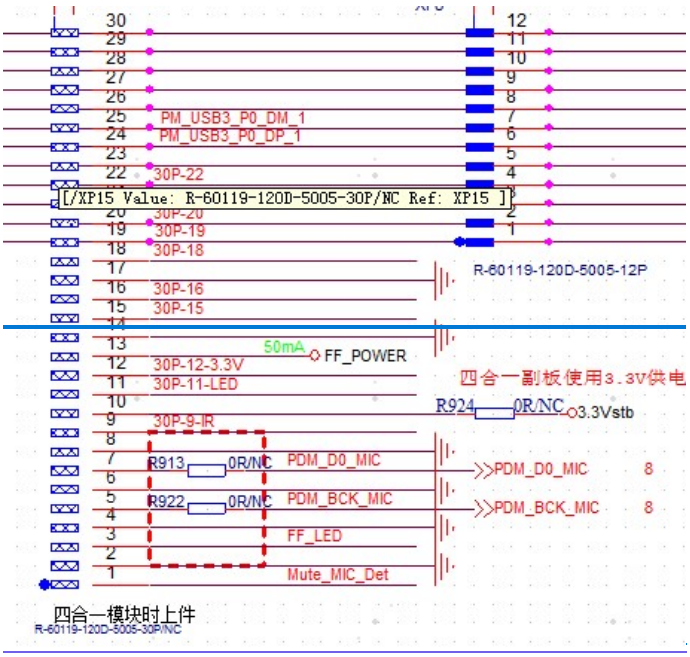


Pin	Definition	Description
1	MAINBass-AMP-LRout-+BASS-AMP-Rout-	LeftWoofer channel+Woofer -
2	MAINBass-AMP-LRout+-BASS-AMP-Rout+	Left-Woofer channel-Woofer +
33	MAIN-AMP-Lout+MAIN-AMP-Rout-MAIN-AMP-Lout+	Left channel+Right channel-Left channel+
44	MAIN-AMP-Lout-MAIN-AMP-Rout+MAIN-AMP-Lout-	Left channel-Right channel+Left channel-
5	MAIN-AMP-Rout-	Right channel-
6	MAIN-AMP-Rout+	Right channel+
5	MAIN-AMP-Rout-	Right channel-
6	MAIN-AMP-Rout+	Right channel+

■ IR/KEY/LED/WIFI/BT Connecter: XP415 Circuit Diagram and Pin Definition



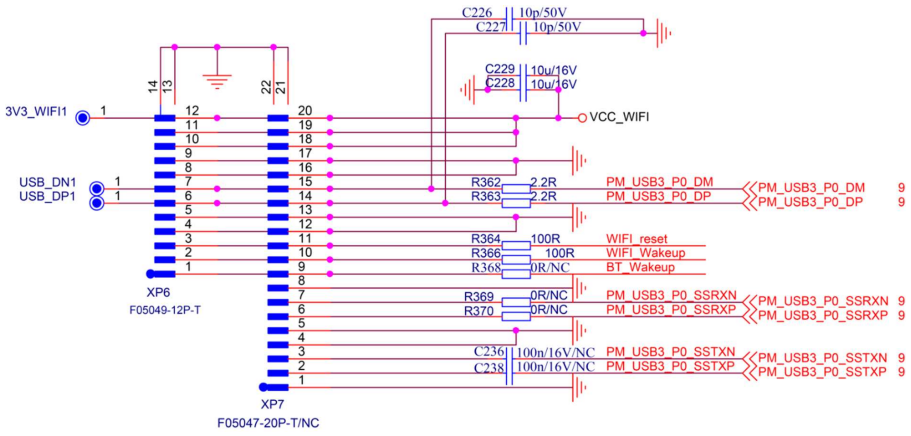




Pin	Definition	Description
1	IR_INMute_MIC_DET/NC	No connectionHigh, 3.0-3.3V Low, 0～0.3V
2	GND	Ground
3	FF_LED/NCLED	No connectionHigh, 3.0-5.0V Low, 0～0.3V
4	GND3.3V	Ground3.0~3.4V
5	PDM_BCK_MIC/NC3.3Vstb	No connection3.0~3.4V
6	GNDI2C-SCL	GroundSCL
7	PDM_D0_MIC/NCI2C-SDA	No connectionSDA
8	GNDKEY	GroundHigh, 3.0-3.3V Low, 0～0.3V
9	IR_INGND	High, 3.0-3.3V Low, 0～0.3VGround
10	3.3Vstb/NC/NCLED-OFF	3.0~3.4VNo connection
11	LEDGND	High, 3.0-5.0V Low, 0～0.3VGround
12	3.3V	3.0~3.4V

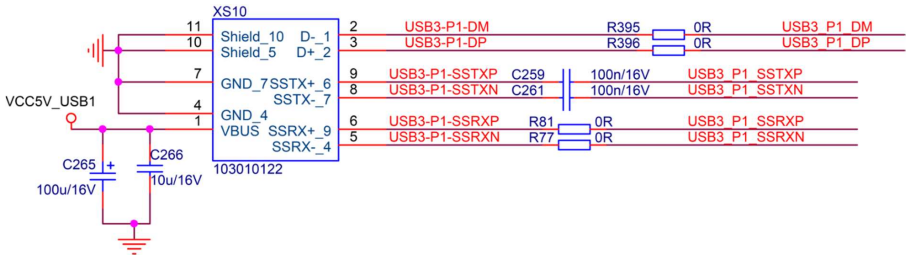
13	FF_POWER/NC	High, 4.5-5.5V Low, 0 ~ 0.3V
14	GND	Ground
15	I2C-SCL	SCL
16	I2C-SDA	SDA
17	GND	Ground
18	KEY	High, 3.0-3.3V Low, 0 ~ 0.3V
19	LED-OFF	No connection
20	BT_WAKE	No connection
21	WiFi_WAKE	High, 3.0-3.3V Low, 0 ~ 0.3V
22	WiFi_reset	High, 3.0-3.3V Low, 0 ~ 0.3V
23	GND	Ground
24	USB DP	Differential Signal
25	USB DM	Differential Signal
26	GND	Ground
27	GND	Ground
28	VCC_WIFI	2.97-3.4V
29	VCC_WIFI	2.97-3.4V
30	VCC_WIFI	2.97-3.4V

■ Wi-Fi/BT Connector: XP6 Circuit Diagram and Pin Definition



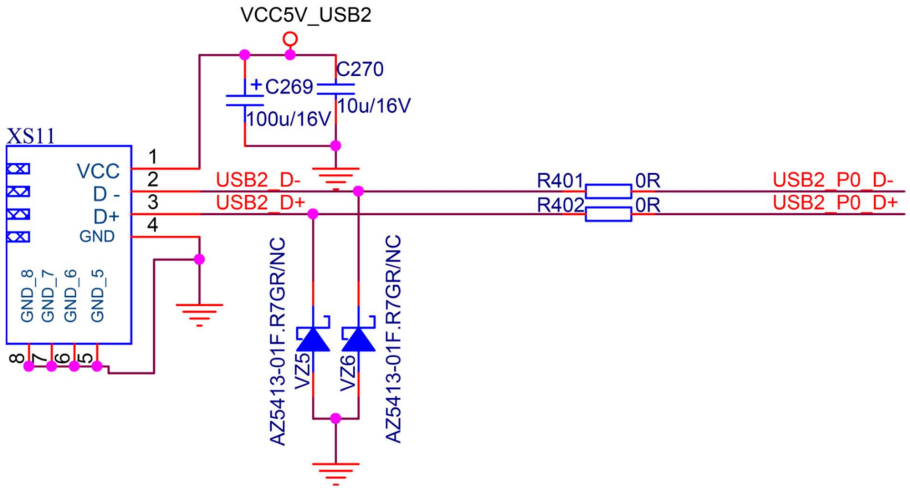
Pin	Definition	Description
12	VCC_WIFI	2.97-3.4V
11	VCC_WIFI	2.97-3.4V
10	VCC_WIFI	2.97-3.4V
9	GND	Ground
8	GND	Ground
7	USB DM	Differential Signal
6	USB DP	Differential Signal
5	GND	Ground
4	GND	Ground
3	WIFI_Reset	H: 3.0~3.4V; L: 0-0.6V
2	WIFI_Wakeup	H: 3.0~3.4V; L: 0-0.6V
1	NC	NC

■ USB1 Connecter: XS10 Circuit and Pin Definition



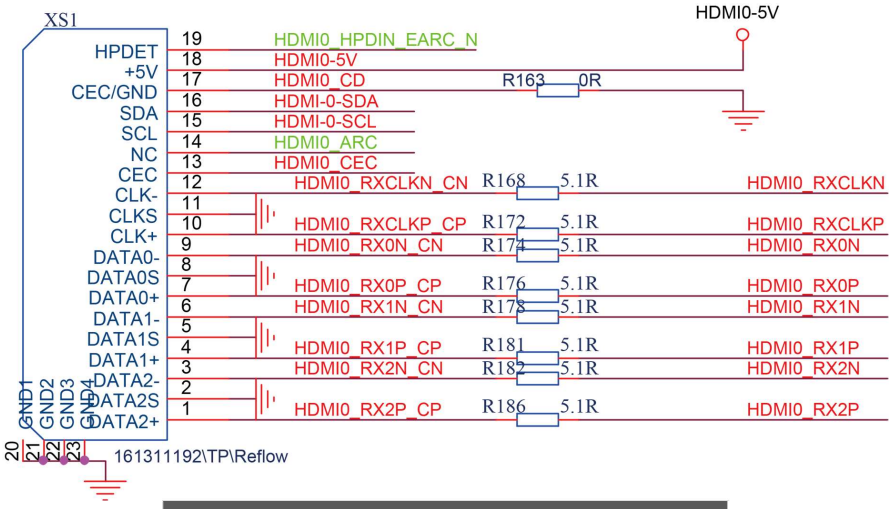
XS10(USB1)		
Pin	**Definition**	**Description**
1	VCC_5V	4.5~5.2V
2	USB3-P1-DM	Differential Signal
3	USB3-P1-DP	Differential Signal
4	GND	Ground
5	USB3-P1-SSRXN	Differential Signal
6	USB3-P1-SSRXP	Differential Signal
7	GND	Ground
8	USB3-P1-SSTXN	Differential Signal
9	USB3-P1-SSTXP	Differential Signal
10	GND	Ground
11	GND	Ground

■ USB2 Connecter: XS11 Circuit and Pin Definition



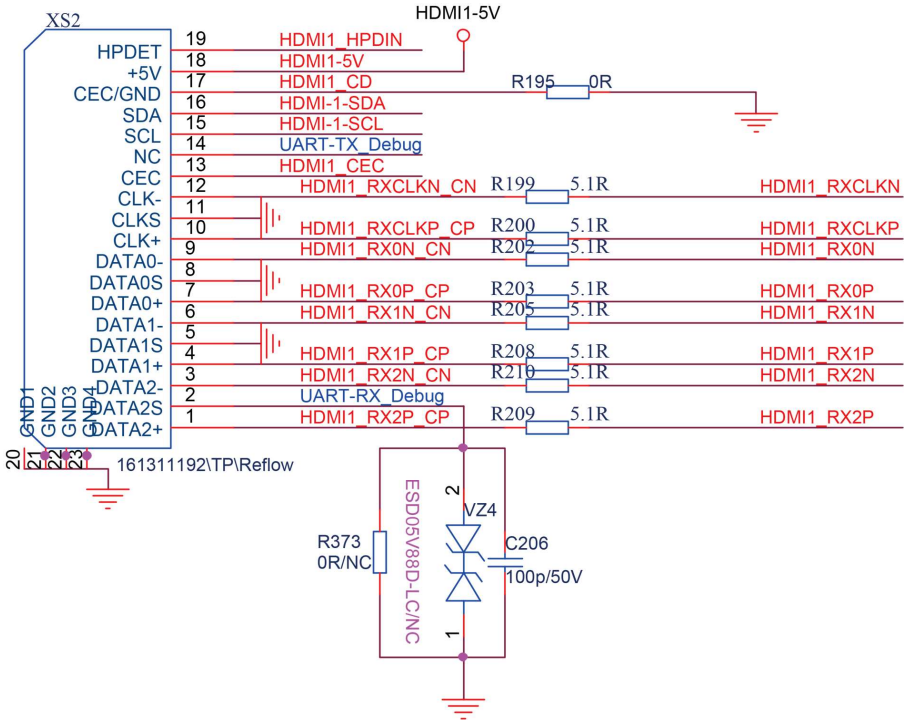
XS11(USB2)		
Pin	**Definition**	**Description**
1	VCC_5V	4.5~5.2V
2	USB_D-	Differential Signal
3	USB_D+	Differential Signal
4	GND	Ground

■ HDMI1 Connecter: XS1 Circuit and Pin Definition



XS1 (HDMI1)		
Pin	**Definition**	**Description**
1	HDMI0_RX2P_CP	DATA2+
2	GND	Ground
3	HDMI0_RX2N_CN	DATA2-
4	HDMI0_RX1P_CP	DATA1+
5	GND	Ground
6	HDMI0_RX1N_CN	DATA1-
7	HDMI0_RX0P_CP	DATA0+
8	GND	Ground
9	HDMI0_RX0N_CN	DATA0-
10	HDMI0_RXCLKP_CP	CLK+
11	GND	Ground
12	HDMI0_RXCLKN_CN	CLK-
13	HDMI0_CEC	CEC
14	HDMI0_ARC	No connection this series
15	HDMI-0-SCL	SCL
16	HDMI-0-SDA	SDA
17	HDMI0_CD	CEC Ground
18	HDMI0-5V	+5V Power
19	HDMI0_HPDIN_EARC_N	HDMI_HPD this series

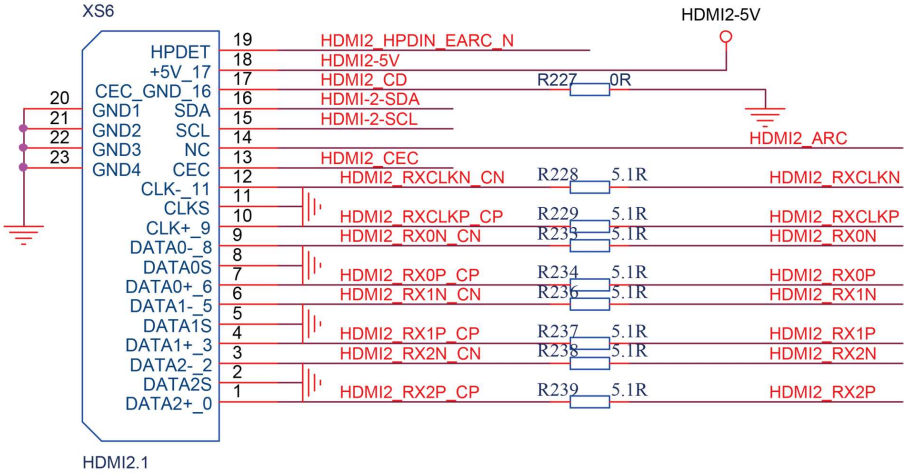
■ HDMI2/Debug Connecter: XS2 Circuit and Pin Definition



XS2 (HDMI2)		
Pin	**Definition**	**Description**
1	HDMI1_RX2P_CP	DATA2+
2	UART-RX_Debug/GND	Ground
3	HDMI1_RX2N_CN	DATA2-
4	HDMI1_RX1P_CP	DATA1+
5	GND	Ground
6	HDMI1_RX1N_CN	DATA1-
7	HDMI1_RX0P_CP	DATA0+
8	GND	Ground
9	HDMI1_RX0N_CN	DATA0-
10	HDMI1_RXCLKP_CP	CLK+

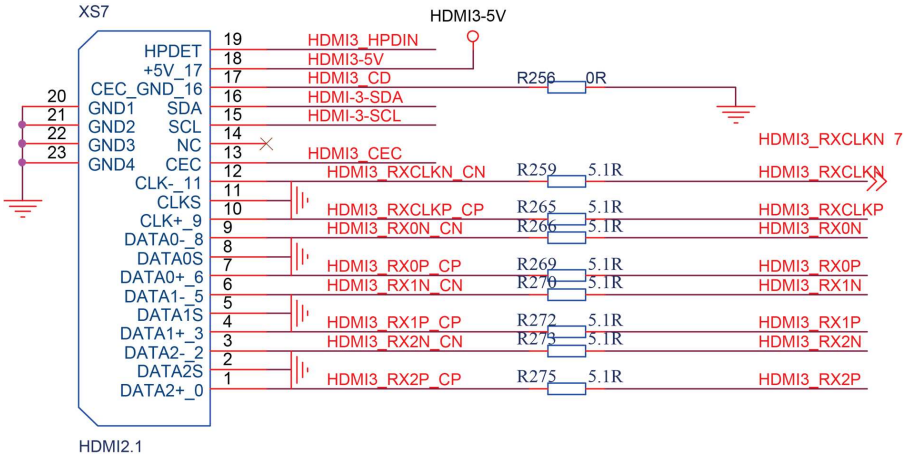
XS2 (HDMI2)		
Pin	**Definition**	**Description**
11	GND	Ground
12	HDMI1_RXCLKN_CN	CLK-
13	HDMI1_CEC	CEC
14	UART-TX_Debug/NC	NC
15	HDMI-1-SCL	SCL
16	HDMI-1-SDA	SDA
17	HDMI1_CD	CEC Ground
18	HDMI1-5V	+5V Power
19	HDMI1_HPDIN	HDMI_HPD

■ HDMI3 Connecter: XS6 Circuit and Pin Definition



XS6 (HDMI3)		
Pin	Definition	Description
1	HDMI2_RX2P_CP	DATA2+
2	GND	Ground
3	HDMI2_RX2N_CN	DATA2-
4	HDMI2_RX1P_CP	DATA1+
5	GND	Ground
6	HDMI2_RX1N_CN	DATA1-
7	HDMI2_RX0P_CP	DATA0+
8	GND	Ground
9	HDMI2_RX0N_CN	DATA0-
10	HDMI2_RXCLKP_CP	CLK+
11	GND	Ground
12	HDMI2_RXCLKN_CN	CLK-
13	HDMI2_CEC	CEC
14	HDMI2_ARC	eARC+
15	HDMI-2-SCL	SCL
16	HDMI-2-SDA	SDA
17	HDMI2_CD	CEC Ground
18	HDMI2-5V	+5V Power
19	HDMI2_HPDIN_EARC_N	eARC-

■ HDMI4 Connecter: XS7 Circuit and Pin Definition



XS7 (HDMI4)		
Pin	Definition	Description
1	HDMI3_RX2P_CP	DATA2+
2	GND	Ground
3	HDMI3_RX2N_CN	DATA2-
4	HDMI3_RX1P_CP	DATA1+
5	GND	Ground
6	HDMI3_RX1N_CN	DATA1-
7	HDMI3_RX0P_CP	DATA0+
8	GND	Ground
9	HDMI3_RX0N_CN	DATA0-
10	HDMI3_RXCLKP_CP	CLK+
11	GND	Ground
12	HDMI3_RXCLKN_CN	CLK-
13	HDMI3_CEC	CEC
14	NC	NC
15	HDMI-3-SCL	SCL
16	HDMI-3-SDA	SDA
17	HDMI3_CD	CEC Ground
18	HDMI3-5V	+5V Power
19	HDMI3_HPDIN	HDMI_HPD

6. Factory/Service OSD Menu and Adjustment

NOTE: This part must be performed by an experienced electronics technician trained in the proper TV safety and service methods and procedures.

6-1. How to Enter the Factory OSD Menu

1. Power TV on with remote control (RC).
2. Press ☰ / ☰ button on the RC to call up **Menu** option.
3. Go to **Settings** option and press **OK** button to open detailed menu.
4. Go to **Sound > Speakers > Balance**, input the figure **1 9 6 9** in sequence on RC.
5. TV will show a **M** on the top left of the screen, then press ☰ / ☰ button again, the factory menu will appear.
6. Press "**Power**" button on RC to power off and on TV, it will exit factory OSD menu.

6-2. Factory OSD Menu

Factory OSD menu list: If you want to learn more about TV, you'd better read it but would not adjust the value please. The factory menu maybe has difference for diverse market and customer.

Options:

	Factory menu	Description	Remark
Menu	**White Balance**	White Balance data adjusting, different source has different WB values. Before adjusting, please change to desired source.	
	Channel init	TV Produce signal preset, during the factory produce using.	
	Option	Items can choose	
	Soft version	Current software version information	
	Version	Software version information	
	MAC Adr	MAC address information	
	HDCP2.2 key	HDCP2.2 key information	
	ESN	The TV's electronic Serial number	
	WIDEVINE key	WIDEVINE key code	
	Service No.	LTDNXXXXXXY-P0001	

White Balance	**BIN B1** ⟷	**Can choose B1/B2/B3/B4/B5/B6**
	R Gain 128	High Brightness Red
	G Gain 128	High Brightness Green
	B Gain 128	High Brightness Blue
	R Offset 128	Low Brightness Red
	G Offset 128	Low Brightness Green
	B Offset 128	Low Brightness Blue

Channel init	**Huang Dao**	**TV produce signal preset, during the factory produce using.**
	Qing Dao	
	Gui Yang	
	……	

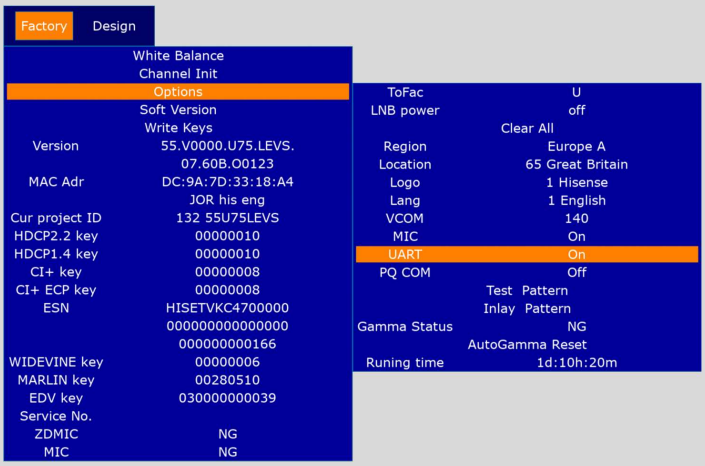
Option	**ToFAC M/U**	**"M" used in factory product "U" used in user state**
	LNB power	13/14;18/19;Power off

	Clear all	Initial the TV, EEPROM reset
	Region	Choose the region
	Country	Choose the country
	Logo	Choose the customer logo
	Language	Choose the language
	VCOM	Panel voltage
	UART	On/Off (when choose "on" then can serial port connect with Tool successfully)
	PQ COM	On/off
Write keys	CI+	If CI+ key code lost, you can write.
	MAC	If MAC key code lost, you can write.
	HDCP2.2	If HDCP key code lost, you can write.
	Netflix	If Netflix key code lost, you can write.
	Widevine	If Widevine key code lost, you can write.

Note:

- The factory menu maybe has difference for diverse market and customer, above factory menu only for reference.
- If it's needed to debugging or capture log through UART serial port, UART option should be "on".

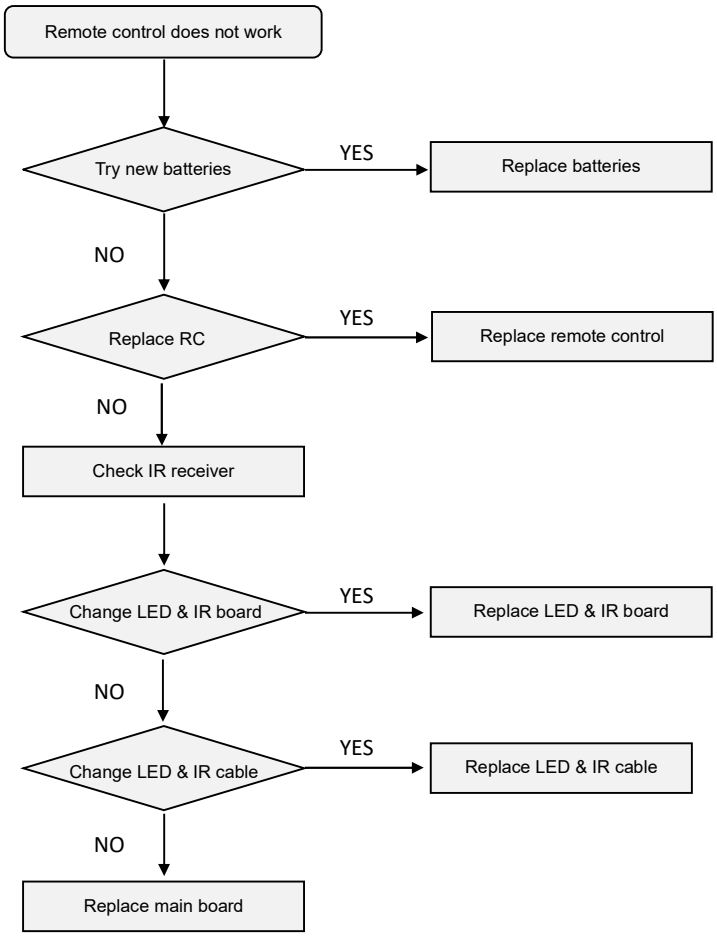
  Menu: Factory > Options > UART > On



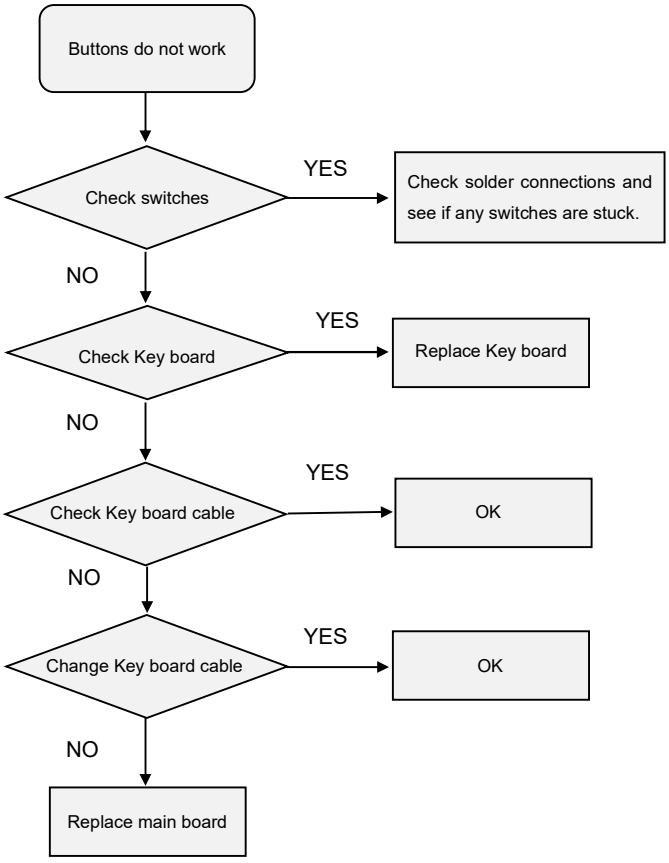
  If finish the debugging with UART serial, UART choose "Off"

7. Trouble Shooting

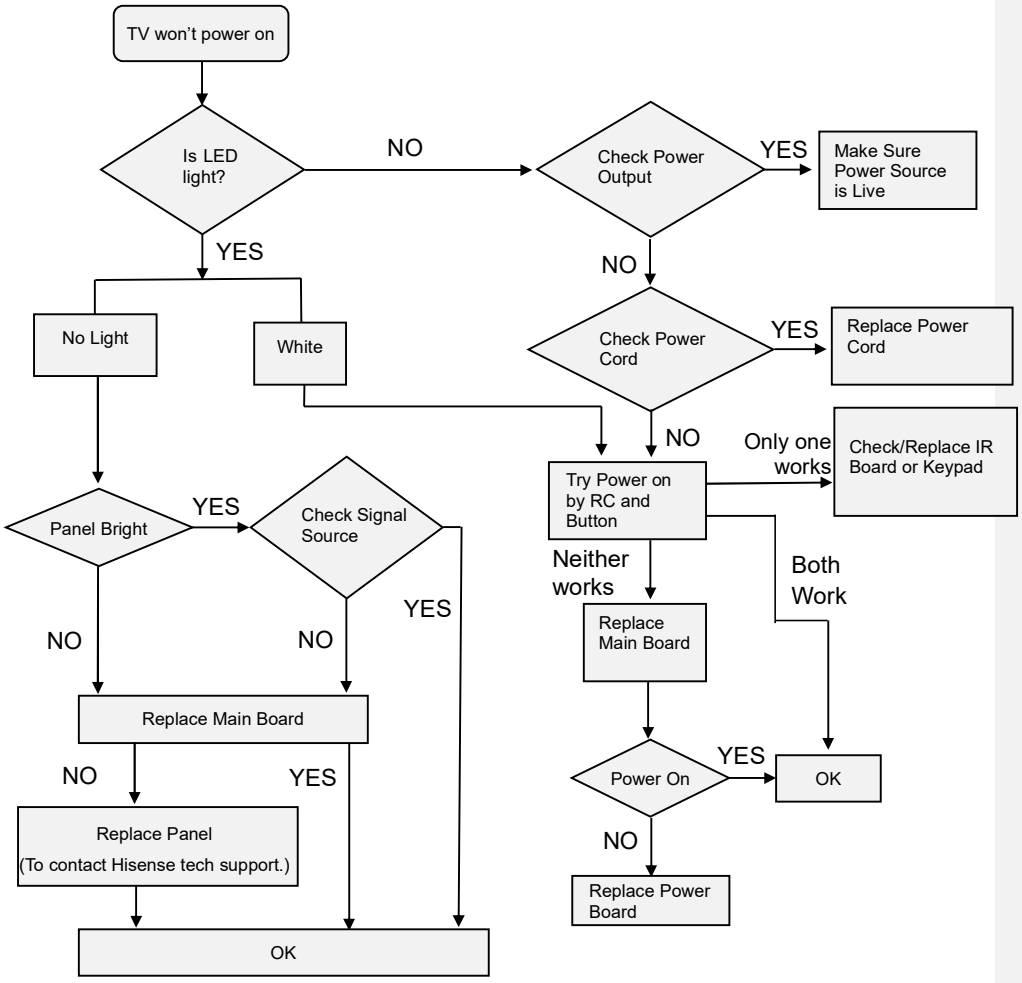
7-1. Trouble Shooting for Remote Control



7-2. Trouble Shooting for Function Key



7-3 TV Won't Power On



Notice:

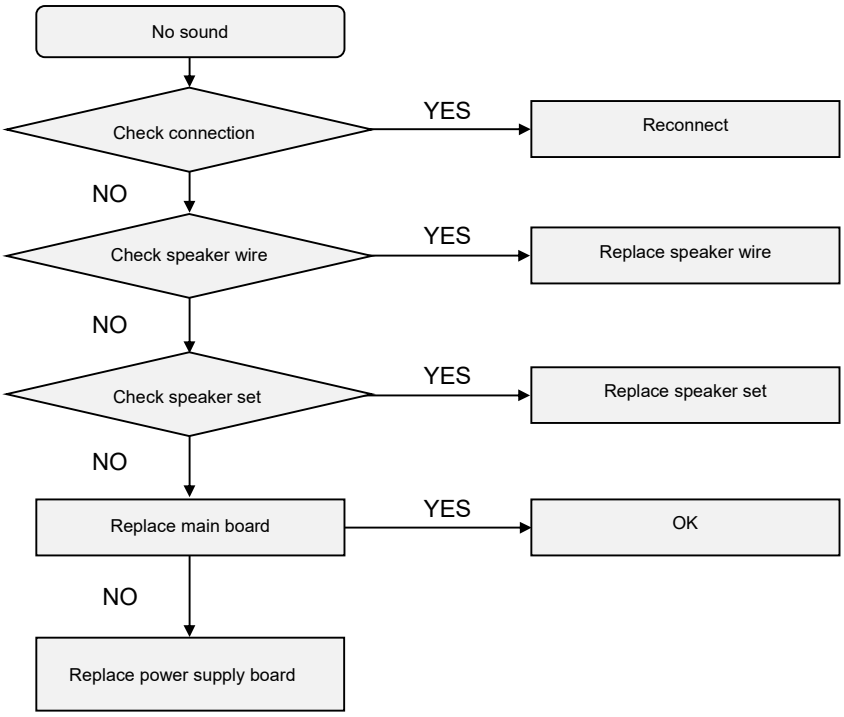
U7 E7 PRO series for Europe market:

- When TV works normally, the led indication light is off.
- When TV is in standby mode, the led indication light is white.

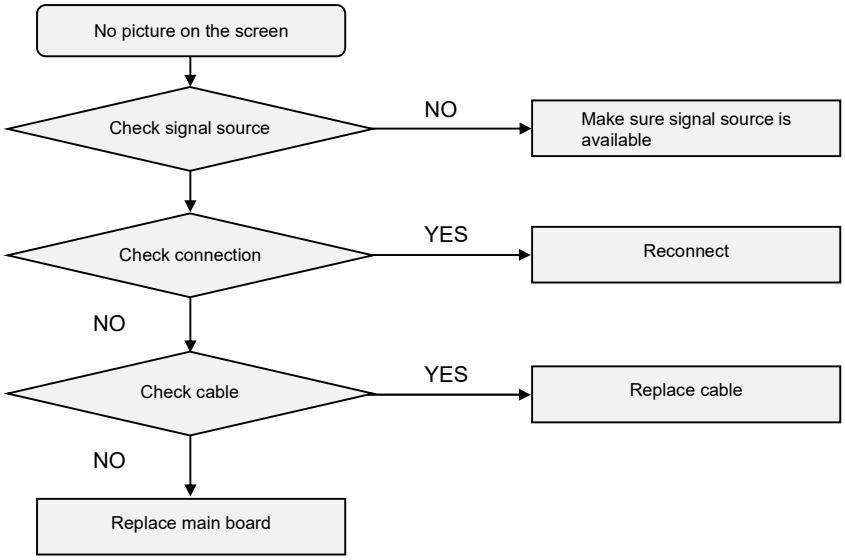
a mis en forme : Surlignage

a mis en forme : Surlignage

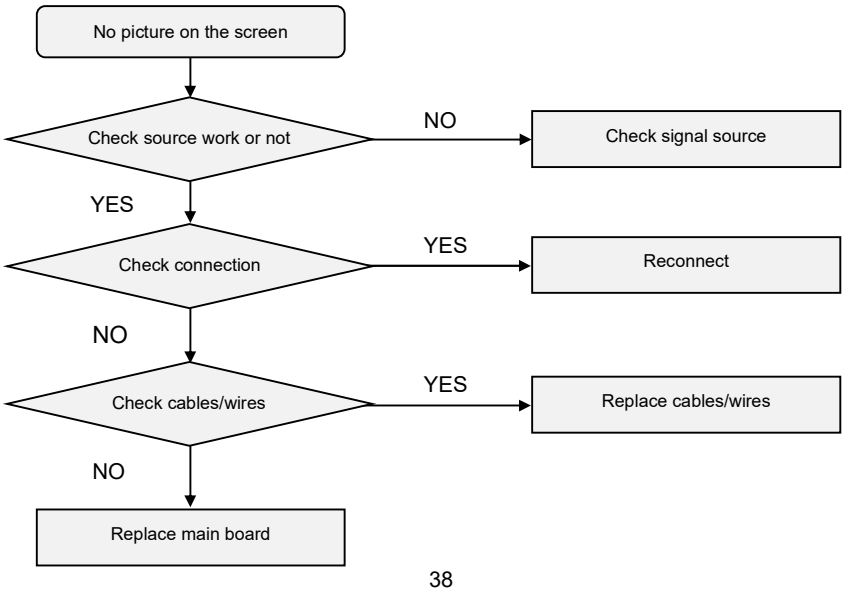
7-4. Trouble Shooting for Audio



7-5. Trouble Shooting for TV/ HDMI Input



7-6. Trouble Shooting for Video Input



8. Diagnostic Fault and Error Codes

8-1. Self Diagnosis

Press / button on your remote control and select **Settings** > **Support** > **Self Diagnosis**. When the TV malfunctions, you can perform some self-diagnosis to find the problem.

■ Picture Test

Press / button on your remote control and select **Settings** > **Support** > **Self Diagnosis** > **Picture Test**.

When performing the Picture Test, a test picture will be shown on screen. Select OK to start the test. Picture Test displays a high-definition picture that you can examine for flaws or faults. Please check the picture carefully for up to 10 seconds. If the test picture does not appear or there is noise or distortion, the TV may have a problem.

Problem	Possible Solutions
The picture is distorted.	• The compression of video content may cause picture distortions, especially in fast moving pictures from sports programmes and action movies. • If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction. • Mobile phones used close to the TV (within 1m) may cause noise on analogue and digital channels.
The picture is blurry or flickering, or cuts out momentarily.	• Press / button on your remote control and select **Settings** > **Picture** > **Picture Mode Settings** > **Sharpness**. You can try to increase or decrease the **Sharpness**. • If you use an external antenna, check the direction, position and connection of the antenna. • Adjust the direction of your antenna or reset or fine tune the channel.
The picture appears red, purple, pink and other colours.	• Press / button on your remote control and select **Settings** > **Picture** > **Picture Mode Settings** > **Expert Settings** > **White Balance**. You can try to increase or decrease the **White Balance**.
Picture is distorted or appears wavy.	• Some electrical appliances may affect the TV. If you turn off the appliance and the interference goes away, then move it further away from TV. • Insert the power plug of the TV into another power outlet.

■ Sound Test

Press / button on your remote control and select **Settings > Support > Self Diagnosis > Sound Test**.

When performing the Sound Test, a test sound will be played with the TV Speaker. Select OK to start the test. Please listen to

the sound carefully to check whether you can hear the sound problem. If the TV plays the Sound Test melody without distortion, there may be a problem with an external device or the broadcast signal's strength.

Problem	Possible Solutions
Picture is normal, but no sound.	• Check the volume settings. • Check if 'Mute' mode is set to on. • Check the volume control of the device (cable or satellite box, DVD, Blu-ray, etc.) connected to your TV.
The speakers are making an odd sound.	• Make sure that the audio cable is connected to the correct audio output connector on the external device. • For antenna or cable connections, check the signal information. • A low signal level may cause sound distortions.
Sound is distorted.	• Some electrical appliances may affect the TV. If you turn off the appliance and the interference goes away, then move it further away from TV. • Insert the power plug of the TV set into another power outlet.
Sound is distorted or cuts out momentarily.	• If you use an external antenna, check the direction, position and connection of the antenna. • Adjust the direction of your antenna or reset or fine tune the channel.

■ Network Connection Test

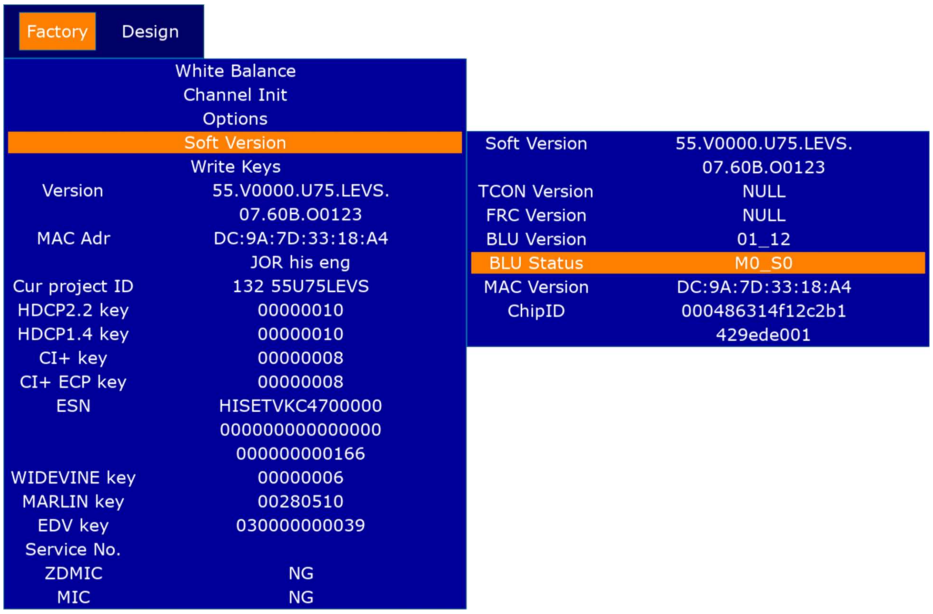
Press / button on your remote control and select **Settings > Support > Self Diagnosis > Network Connection Test**.

When performing a Network Connection Test, the test will confirm whether your TV is connected to network via the TV screen. If the network test is successful but you still have problems using online services, please contact your Internet provider.

Problem	Possible Solutions
The TV cannot connect to apps.	• Make sure the TV has a network connection. • Press / button on your remote control and select **Settings > Support > Self Diagnosis > Network Connection Test**. • Contact your Internet service provider.
The wireless network connection failed.	• Make sure your wireless modem/router is on and connected to the Internet.
The wireless network signal is too weak.	• Position your wireless router, modem router, or access point in a central location. Avoid putting it in a corner.

■ Fault code in factory mode (ULED)

Enter the "BLU (Backlight Unit) Status" option in the factory menu and find out the corresponding fault type based on the following fault codes.



BLU Status

Bit-7	Bit-6	Bit-5	Bit-4	Bit-3	Bit-2	Bit-1	Bit-0
Reserved	Reserved	Reserved	LED DS-Short	LED Short	LED Open	L/D Error	Driver IC Error

Driver IC Error: fault error for backlight control driver.

9. Software Upgrade/Reset

NOTE: This part 9.1.2 and 9.1.3 must be performed by an experienced electronics technician trained in the proper Television safety and service methods and procedures.

9-1. USB Upgrade

■ Main software upgrade directly with USB

The main software can be upgraded with USB disk. It includes two modes: user mode and factory mode. Take 55U75LEVS for example.

9-1-1. TV in user mode

a) Decompress MTK_9618_EU_GD_pkg_YYYYMMDD.tar.gz (YYYYMMDD is the year/month/day when the software is being built, such as MTK_9618_EU_GD_pkg_20231201.tar.gz) and copy usb_MTK_9618_EU_GD.bin file to the USB root directory. Please make sure there are no other "*.bin" files in the root directory of USB disk.

b) AC power off the TV, insert the USB disk to the USB 2.0 port, TV in standby status, next long press the **Power** key. If **USB Upgrade Checking** is shown on TV, it means TV successfully enters upgrading status.

c) It will cost about 2 minutes while the TV is trying to load the software. After that **USB Upgrade Checking** will be displayed and upgrade process bar will indicate the progress. It needs about 5 minutes to complete the whole software upgrade.

d) After upgrade, TV can automatically reboot.

Please find the French version guideline below:

https://hisense.fr/wp-content/uploads/2021/10/Comment-mettre-a-jour-le-firmware-de-mon-televiseur-hisense-par-usb-19102021.pdf

9-1-2. TV in factory mode

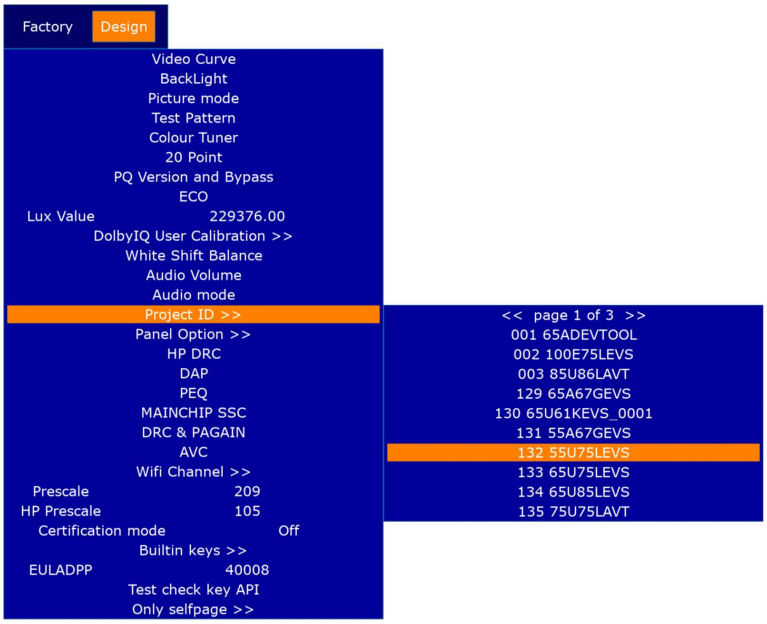
a) If TV is in factory mode, only have difference from chapter 9.1.1 b. as following. Others are same.

b) TV is in factory mode, only AC power off TV and insert the USB disk, next AC power on, TV can identify automatically to update, till call up **USB Upgrade Checking** interface, update process bar is 1%.

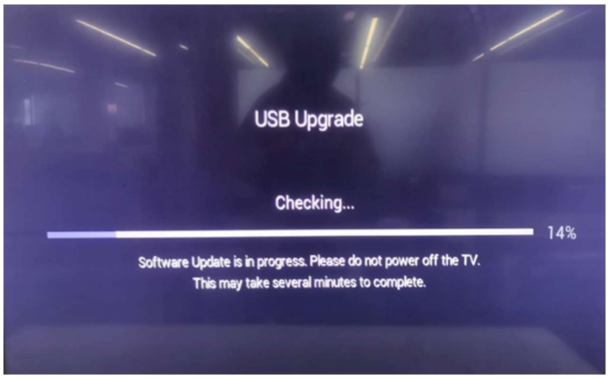
9-1-3. After upgrading successfully, we must ensure the TV mode is running correctly.

Paths: **Factory > Design > Project ID**

Once choose another TV mode, one must AC power off and power on the TV to reboot.



Firgure-1: Upgrading software



9-2. Reset to Factory Default

Press / button on your remote control and select **Settings > Support > Reset to Factory Default**.

Restore your TV to the factory default. Reset will clear your personal settings, information and data. Enter the PIN code on-screen to enable the Factory Reset.

10. User Maintenance Instructions

1. Choose a good location for the television, in a clean place, away from sources of heat (sun, radiators, fireplaces), plants (pollen, dust, water) and the ground (risk of knocks, dust).
2. Clean the screen after switching off and unplugging the television and avoid glass sprays and other household cleaning agents.
3. It is recommended to clean the panel after it has cooled down. There are certain risks in thermal cleaning. When the surface temperature of the panel is high, using colder tools to clean it may cause the POL polarizing layer to shrink sharply, resulting in abnormal pictures.
4. It is recommended to use soft dry fiber cloth for cleaning. Alcohol can be used with non-woven cloth to wipe. Other corrosive cleaners cannot be used.
5. Do not use hard objects to scratch the screen, as they can easily scratch the screen.
6. Do not place cloth, paper or other materials over the openings on the top, sides or bottom of the appliance.
7. Switch off the television after use (unless the manufacturer’s operating instructions advise against it, as is usually the case for OLED television) and unplug it if it is not going to be used for (if it is an OLED television, leave it on standby before unplugging it).
8. Store the remote control carefully, do not expose it to liquids and check the condition of the remote control batteries regularly to prevent corrosion of the contacts.