LED-电视

底板：U57C

型号: UA32D5000PH
UA40D5000PH
UA46D5000PH

UA32D5000PT
UA40D5000PT
UA46D5000PT

维　修　手　册

TFT-LED 电视

UAD5000P***

目录

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1. Precautions

1-1. Safety Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1-1. Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC power jack before servicing.

1-1-2. Servicing the LED TV

1. When servicing the LED TV, Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times.
   Check the calibration of this meter periodically.

1-1-3. Fire and Shock Hazard

Before returning the LED TV to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the LED TV.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistorcapacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
   WARNING : Do not use an isolation transformer during this test.
   Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

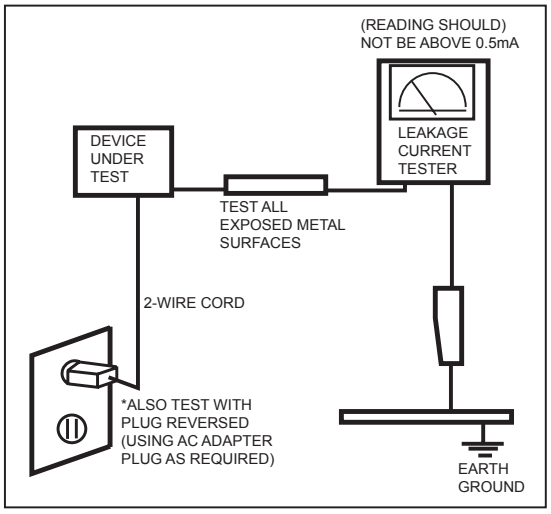


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts.
   The current measured should not exceed 0.5 milliamp.
   Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4. Product Safety Notices

Some electrical and mechanical parts have special safetyrelated characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by ⚠ on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2. Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.
Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.
Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
   (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to theblades of the AC plug.
   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3. Electrostatically Sensitive Devices (ESD) Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the LED TV.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4. Installation Precautions

1. For safety reasons, more than a people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.

2. Product specifications

2-1. Feature & Specifications

Model	UA32D5000P*
Feature	
▶ DTV/ATV, 3-HDMI, 1-Component, 1-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 300 cd/m^2 ▶ High Contrast Ratio : 6,000:1 ▶ Response Time : 6.5ms	

Specifications		
Item	**Description**	
LCD Panel	32 inch FHD	
Scanning Frequency	Horizontal : 50 kHz ~ 75 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	80 MHz (Typ 74.25 MHz)	
Active Display Horizontal/Vertical	27.50 x 15.47 inches (698.4(H) x 392.85(V) mm)	
AC power voltage & Frequency	AC 100 V ~ 240 V, 50/60 Hz	
Power Consumption	Under 80W (Under 0.3 W, Stand by)	
Dimensions Set (W x D x H)	30.2 x 9.4 x 20.9 inches (768 x 240 x 532.1 mm)_with stand 30.2 x 1.2 x 18.4 inches (768 x 29.9 x 468.2 mm)_without stand	
Weight	22.49 lbs (10.2 kg)_with stand 16.45 lbs (7.46 kg)_without stand	
Stand Weight	6 lbs (2.74 kg)	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal Audio Output Power : Each 10 W (Left/Right) - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz AV/Componet/HDMI : 80 Hz ~ 20 kHz	
Note: TruSurround HD, Energy Saving, Anynet+		

Model	UA40D5000P*
Feature	
▶ DTV/ATV, 3-HDMI, 1-Component, 1-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 300 cd/m^2 ▶ High Contrast Ratio : 6,000:1 ▶ Response Time : 9 ms	

Specifications		
Item	**Description**	
LCD Panel	40 inch FHD	
Scanning Frequency	Horizontal : 48 kHz ~ 75 kHz (Automatic) Vertical : 48 kHz ~ 75 kHz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	80 MHz (Typ 74.25 MHz)	
Active Display Horizontal/Vertical	34.87 x 19.61 inches (885.6 (H) x 498.15 (V) mm)	
AC power voltage & Frequency	AC 100 V ~ 240 V, 50/60 Hz	
Power Consumption	Under 100 W (Under 0.3 W, Stand by)	
Dimensions Set (W x D x H)	37.6 x 10.0 x 25.1 inchs (955.8 x 255.0 x 638.5 mm)_with stand 37.6 x 1.2 x 22.6 inchs (955.8 x 29.9 x 574.0 mm)_without stand	
Weight	31.7 lbs (14.36 kg)_with stand 24.4 lbs (11.08 kg)_without stand	
Stand Weight	7.2 lbs (3.28 kg)	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal Audio Output Power : Each 10 W (Left/Right) - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz AV/Componet/HDMI : 80 Hz ~ 20 kHz	
Note: TruSurround HD, Energy Saving, Anynet+		

Model	UA46D5000P*
Feature	
▶ DTV/ATV, 3-HDMI, 1-Component, 1-A/V, D-SUB, 1-USB2.0 ▶ Brightness : 300 cd/m^2 ▶ High Contrast Ratio : 6,000:1 ▶ Response Time : 5.5 ms	

Specifications		
Item	**Description**	
LCD Panel	46 inch FHD	
Scanning Frequency	Horizontal : 45 kHz ~ 75 kHz (Automatic) Vertical : 48 Hz ~ 65 Hz (Automatic)	
Display Colors	16.7M color	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	80 MHz (Typ 74.25 MHz)	
Active Display Horizontal/Vertical	40.08 x 22.55 inches (1018.08 (H) x 572.67 (V) mm)	
AC power voltage & Frequency	AC 100 V ~ 240 V, 50/60 Hz	
Power Consumption	Under 150 W (Under 0.3 W, Stand by)	
Dimensions Set (W x D x H)	43.0 x 10.8 x 28.1 inchs (1091.8 x 275.0 x 714.8 mm)_with stand 43.0 x 1.2 x 25.6 inchs (1091.8 x 29.9 x 650.4 mm)_without stand	
Weight	38.14 lbs (17.3 kg)_with stand 30.29 lbs (13.74 kg)_without stand	
Dimensions Stand (W x D x H)	19.5 x 10.8 x 7.1 inchs (495 x 275 x 181 mm)	
Weight (Stand)	7.85 lbs (3.56 kg)	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C
	Sound	BG, DK, L/L', NICAM, MPEG1, DD, DD+, HE-AAC
Environmental Considerations	Operating Temperature : 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity : 10% ~ 80%, non-condensing Storage temperature : -13˚F ~ 113˚F (-25˚C ~ 45˚C) Storage Humidity : 5% ~ 95%, non-condensing	
Audio Spec.	- MAX Internal Audio Output Power : Each 10 W (Left/Right) - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz AV/Componet/HDMI : 80 Hz ~ 20 kHz	
Note: TruSurround HD, Energy Saving, Anynet+		

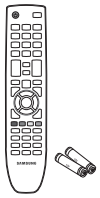
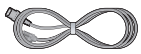
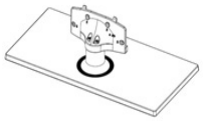
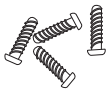
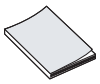
2-2. Detail Factory Option

※ If you replace the main board with new one, please change the factory option as well.
The options you must change are "Type" and "Front Color".

2-2-1. UD5000

Model Name			UA32D5000P*	UA40D5000P*	UA46D5000P*
Panel		Vendor	CHILIN(CMI)	CHILIN(CMI)	CHILIN(CMI)
		CODE	BN07-00989A	BN07-00990A	BN07-00991A
		SPEC	LD320BGC-C1	LD400BGC-C1	LD460BGC-C1
SMPS		Vendor	SEM	DYREL	SEM
		CODE	BN44-00460A	BN44-00422B	BN44-00422A
		SPEC	PSLF800A03A	PD46A0_BDY	PSLF121A03A
1	Factory Reset		-	-	-
2	Type		32P6UFOE	40P6UFOE	46P6UFOE
3	Local set		AD_AU	AD_AU	AD_AU
4	Model		UD5000H	UD5000H	UD5000H
5	TUNER		SEC_TC	SEC_TC	SEC_TC
6	Ch Table		-	-	-
7	Front Color		U-T-R-BLK	U-T-R-BLK	U-T-R-BLK

2-3. Accessories

Product	Description	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	AA59-00478A 4301-000121	Samsung Electronics Service center
	Power Cord	3903-000525	
	Stand	32" : BN90-03128* 40" : BN90-03129* 46" : BN90-03130*	
	Screw 6001-002621 : M4 x L8 6003-001782 : M4 x L12	6003-001782 (G/STAND+C/STAND) 6001-002621 (G/STAND+B/S/LINK)	
	Quick Start Guide	BN68-03404A	
	Cleaning Cloth	BN63-01798B	
	Warranty Card / Registration Card / Safety Guide Manual (Not available in all locations)	BN68-00514K BN68-03019A	

2-4. New Features explanation

2-4-1. Anynet+

■ What is Anynet+? TOOLS

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung TV's remote. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.

✎ For the method of connecting external devices, refer to the supported user manual.

✎ NOTE

- Connect the Optical cable between the DIGITAL AUDIO OUT (OPTICAL) jack on your TV and the Digital Audio Input on the Home Theatre.
- When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theatre's Front Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the DIGITAL AUDIO OUT (OPTICAL) jack on the DVD directly to the Amplifier or Home Theatre, not the TV.
- You can connect only one Home Theatre.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

■ Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the TV.

Anynet+ Menu	Description
View TV	Changes Anynet+ mode to TV broadcast mode.
Device List	Shows the Anynet+ device list.
(device_name) MENU	Shows the connected device menus. E.g. If a DVD recorder is connected, the disc menu of the DVD recorder will appear.
(device_name) TOOLS	Shows the play menu of the connected device. E.g. If a DVD recorder is connected, the play menu of the DVD recorder will appear.
(device_name) Title Menu	Shows the title menu of the connected device. E.g. If a DVD recorder is connected, the title menu of the DVD recorder will appear. ✎ Depending on the device, this menu may not be available.
Recording: (*recorder)	Starts recording immediately using the recorder. (This is only available for devices that support the recording function.)
Stop Recording: (*recorder)	Stops recording.
Receiver	Sound is played through the receiver.

If more than one recording device is connected, they are displayed as (*recorder) and if only one recording device is connected, it will be represented as (*device_name).

■ Setting Up Anynet+

► **Anynet+ (HDMI-CEC)**

Anynet+ (HDMI-CEC) (Off / On): To use the Anynet+ Function, **Anynet+ (HDMI-CEC)** must be set to **On.**

✎ When the **Anynet+ (HDMI-CEC)** function is disabled, all the Anynet+ related operations are deactivated.
Auto Turn Off (No / Yes): Setting an Anynet+ Device to turn off automatically when the TV is turned off.

✎ If **Auto Turn Off** is set to **Yes**, running external devices will turn off at the same time as the TV powers off. However, a device may not turn off if recording is in progress.

✎ May not be enabled depending on the device.

■ Switching between Anynet+ Devices

1. Press the TOOLS button, then select **Anynet+ (HDMI-CEC)**.
2. Anynet+ devices connected to the TV are listed in Device List.

   ✎ If you cannot find a device you want, press the A button to refresh the list.
3. Select a device and press the ENTERE↵ button. You can switch to the selected device.

   ✎ Only when you set **Anynet+ (HDMI-CEC)** to **On** in the **System** menu, the **Device List** menu appears.

   - Switching to the selected device may take up to 2 minutes. You cannot cancel the operation during the switching operation.
   - If you have selected external input mode by pressing the **SOURCE** button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the **Device List**.

■ Recording

You can make a recording of a TV Programme using a Samsung recorder.

1. Select **Recording**.

   ✎ When there are more than two recording devices

   - When multiple recording devices are connected, the recording devices are listed. Select one recording device in the **Device List.**
   - When the recording device is not displayed, select **Device List** and press the A button to searchdevices.
2. Press the **EXIT** button to exit.

   ✎ You can record the source streams by selecting **Recording:** (device_name).

   ✎ Pressing the ∏(REC) button will record whatever you are currently watching. If you are watching video from another device, the video from the device is recorded.

   ✎ Before recording, check whether the antenna jack is properly connected to the recording device. To properly connect an antenna to a recording device, refer to the recording device's users manual.

■ Listening through a Receiver

You can listen to sound through a receiver (i.e Home Theatre) instead of the TV speaker.

1. Select **Receiver** and set to **On**.
2. Press the **EXIT** button to exit.

   ✎ If your receiver supports audio only, it may not appear in the device list.

   ✎ The receiver will work when you have properly connected the optical in jack of the receiver to the DIGITAL AUDIO OUT (OPTICAL) jack of the TV.

   ✎ When the receiver (i.e Home Theatre) is set to **On**, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV (air) signal, the TV will send out 5.1 channel sound to the receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the receiver.

✎ NOTE

- You can only control Anynet+ devices using the TV remote control, not the buttons on the TV.
- The TV remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.

■ Troubleshooting for Anynet+

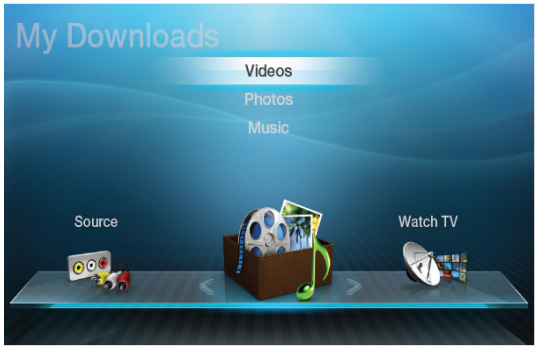
Problem	Possible Solution
Anynet+ does not work.	• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. • Only one receiver (home theatre) can be connected. • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video/Audio/HDMI cable connections. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the **System** menu.
Anynet+ does not work.	• Check whether the TV remote control is in **TV** mode. • Check whether the remote control is Anynet+ compatible. • Anynet+ does not work in certain situations. (Searching channels, operating **My Downloads** or **Plug & Play** (initial setup), etc.) • When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. • Check if the Anynet+ Function of Anynet+ device is set on.
I want to start Anynet+.	• Check if the Anynet+ device is properly connected to the TV and check if the **Anynet+(HDMI-CEC)** is set to **On** in the **System** menu. • Press the TOOLS button to display the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	• Select **View TV** in the Anynet+ menu. • Press the SOURCE button on the TV remote control and select a device other than Anynet+ devices. • Press ∧ CH ∨, CH LIST , PRE-CH, and FAV.CH to change the TV mode. (Note that the channel button operates only when a tuner-embedded Anynet+ device is not connected.)
The message **"Connecting to Anynet+ device..."**appears on the screen.	• You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	• You cannot use the play function when **Plug & Play** (initial setup) is in progress.
The connected device is not displayed.	• Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the **System** menu. • Search Anynet+ devices again. • You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions. • If it is terminated by an abnormal situation such as disconnecting the HDMI cable or power cord or a power failure, please repeat the device scan.
The TV Programme cannot be recorded.	• Check whether the antenna jack on the recording device is properly connected.
The TV sound is not output through the receiver.	• Connect the optical cable between TV and the receiver.

2-4-2. My Contents

■ Using the My Contents

Enjoy photos, music and/or movie files saved on a USB Mass Storage Class (MSC) device and/or your PC.

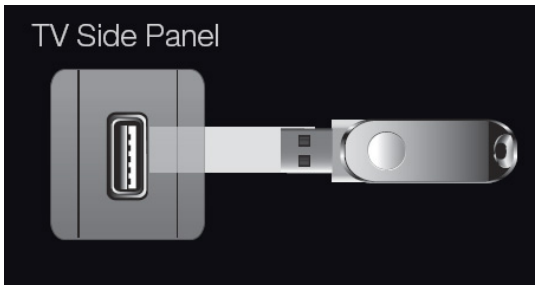
1. Press the **CONTENT** button to select **My Contents**.
2. Press ▲/▼ button to select desired menu **(Videos, Photos, Music)**, then press the **ENTER** ↵ button.



** It may differ depending on the model.*

■ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and/or movie files to the USB jack on the side of the TV.
3. When USB is connected to the TV, popup window appears. Then you can select **Connected Device**.



** It may differ depending on the model.*

It might not work properly with unlicensed multimedia files.

Need-to-Know List before using **My Contents**.

- MTP (Media Transfer Protocol) is not supported.
- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- **My Contents** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers and USB HDD (USB HUB are not supported). Devices should be connected directly to the TV's USB port.
- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- Connect a USB HDD to the dedicated port, USB 1 (HDD) port.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360X8640 pixels.
- For unsupported or corrupted files, the "Not Supported File Format" message is displayed.
- If the files are sorted by Basic View, up to 1000 files can be displayed in each folder.
- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- If more than 2 PTP devices are connected, you can only use one at a time.
- If more than two MSC devices are connected, some of them may not be recognized. A USB device that requires high power (more than 500mA or 5V) may not be supported. If an over-power warning message is displayed while you are connecting or using a USB device, the device may not be recognized or may malfunction.
- If the TV has been no input during time set in Auto Protection Time, the Screensaver will run.

- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when **My Contents** is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.

■ Screen Display

Move to the desired file using the ◄/►/▲/▼ buttons and then press the **ENTER** ↵ or ► (Play) button.
The file is played. **My Contents** screen may differ depending on the way to enter the screen.

Information:
You can ascertain the selected device name, contents mode, folder/ file name, page and sorting list.

File List Section:
You can confirm the files and groups that are sorted by category.

Contents mode / Device name:
You can select the desired Contents mode or Device name. When **PC** is connected, you can select **PC** through PC Share Manager.

Operation Buttons:
- C Yellow (**Edit Mode**); Selects the desired music. The check box is shown in the screen to check the music you want. It is only available in Music.
- ◄◄ (**Jump Page**); Move to next or previous page.
- **Tools**; Displays the option menu.
- **Return**; Move to the previous step.

■ Videos

01. Playing Video

1. Press the ◄/►/▲/▼ button to select the desired video in the file list.
2. Press the **ENTER** button or **(Play)** button.
   - The selected file name is displayed on the top with its playing time.
   - If video time information is unknown, play time and progress bar are not displayed.
   - During video playback, you can search using ◄ and ► button.
   - You can use **(REW)** and **(FF)** buttons during playback.

In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.

● Supported Subtitle Formats

Name	File extension	Format
MPEG-4 time-based text	.ttxt	XML
SAMI	.smi	HTML
SubRip	.srt	string-based
SubViewer	.sub	string-based
Micro DVD	.sub or .txt	string-based

● Supported Video Formats

File Extention	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv	AVI MKV	Divx 3.11/4.x/5.1/6.0	1920 x 1080	6 ~ 30	8	MP3/AC3 /LPCM /ADPCM /DTS Core
		XviD	1920 x 1080	6 ~ 30	8	
		H.264 BP/MP/HP	1920 x 1080	6 ~ 30	25	
		MPEG4 SP/ASP	1920 x 1080	6 ~ 30	8	
		Motion JPEG	640 x 480	6 ~ 30	8	
*.asf	ASF	Divx 3.11/4.x/5.1/6.0	1920 x 1080	6 ~ 30	8	MP3/AC3 /LPCM /ADPCM /WMA
		XviD	1920 x 1080	6 ~ 30	8	
		H.264 BP/MP/HP	1920 x 1080	6 ~ 30	25	
		MPEG4 SP/ASP	1920 x 1080	6 ~ 30	8	
		Motion JPEG	640 x 480	6 ~ 30	8	
*.wmv	ASF	Window Media Video v9	1920 x 1080	6 ~ 30	25	WMA
*.mp4	MP4	H.264 BP/MP/HP	1920 x 1080	6 ~ 30	25	MP3/ADPCM /AAC
		MPEG4 SP/ASP	1920 x 1080	6 ~ 30	8	
		XVID	1920 x 1080	6 ~ 30	8	
*.3gp	3GPP	H.264 BP/MP/HP	1920 x 1080	6 ~ 30	25	ADPCM/AAC /HE-AAC
		MPEG4 SP/ASP	1920 x 1080	6 ~ 30	8	
*.vro	VRO VOB	MPEG2	1920 x 1080	24/25/30	30	AC3/MPEG /LPCM
		MPEG1	1920 x 1080	24/25/30	30	
*.mpg *.mpeg	PS	MPEG1	1920 x 1080	24/25/30	30	AC3/MPEG /LPCM/AAC
		MPEG2	1920 x 1080	24/25/30	30	
		H.264	1920 x 1080	6 ~ 30	25	
*.ts *.tp *.trp	TS	MPEG2	1920 x 1080	24/25/30	30	AC3/AAC /MP3/DD+ /HE-AAC
		H.264	1920 x 1080	6 ~ 30	25	
		VC1	1920 x 1080	6 ~ 30	25	

02. Other Restrictions

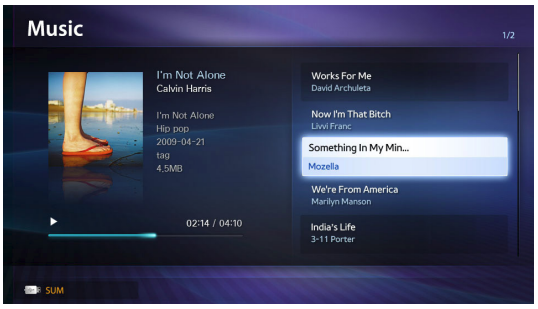
NOTE

- If there are problems with the contents of a codec, the codec will not be supported.
- If the information for a Container is incorrect and the file is in error, the Container will not be able to play correctly.
- Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- When playing the video through network, it may not work depending on the network status.
- The videos over 10Mbps(bit rate) may be interrupted.

Video Decoder	Audio Decoder
• Supports up to H.264, Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • XVID, MPEG4 SP, ASP: – Below 1280 x 720: 60 frame max – Above 1280 x 720: 30 frame max • GMC is not support.	• Supports up to WMA 7, 8, 9, STD, 9 PRO • WMA Lossless, Voice Lossless, Voice is not supported. • WMA sampling rate 22050Hz mono is not supported.

■ Music

01. Playing Music



1. Press the ◄/►/▲/▼ button to select the desired Music in the file list.
2. Press the **ENTER** button or **(Play)** button.
   – You can use **(REW)** and **(FF)** buttons during playback.

Only displays the files with MP3 and PCM file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

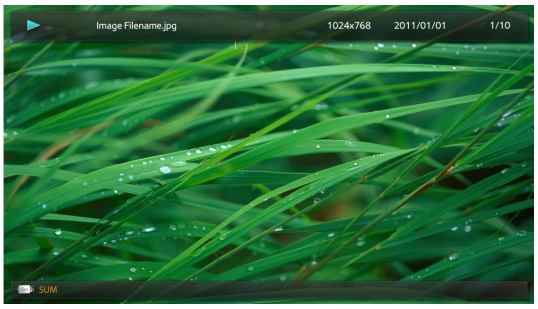
If the sound is abnormal when playing MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

02. Playing selected music

1. Press the **(Edit Mode)** button.
2. Select the desired music.
   – The check box appears to the left of the selected files.
3. Press the **TOOLS** button and select **Play Selected Contents**.
   – You can select or deselect all music pressing the **Select All/Deselect All**.

■ Photos

01. Viewing a Photo (or Slide Show)



1. Press the ◄/►/▲/▼ button to select the desired Music in the file list.
2. Press the **ENTER** button or **(Play)** button.
   - When a selected photo is displayed, press the **ENTER** button to start the slide show.
   - During the slide show, all files in the file list will be displayed in order.

When you press the **(Play)** button in the file list, slide show will be started immediately.

Music files can be automatically played during the Slide Show if the **Background Music** is set to **On**.

The **BGM Mode** cannot be changed until the BGM has finished loading.

■ My Contents - Additional Functions

01. Videos/Music/Photos Play Option menu

During playing a file, press the **TOOLS** button.

Category	Operation	Videos	Music	Photos
Title	You can move the other file directly.	✓		
Time Search	You can search the video using ◀ and ▶ button at one minute interval or entering the number directly.	✓		
Shuffle Mode	You can play the music randomly.		✓	
Repeat Mode	You can play movie and music files repeatedly.	✓	✓	
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can adjust the picture setting.	✓		✓
SRS TheaterSound	You can adjust the sound setting.	✓	✓	✓
Subtitle Language	You can enjoy video in one of supported languages as required. The function is only enabled when stream-type files which support multiple audio formats are played.	✓		
Subtitle Setting	You can play the video with Subtitles. This function only works if the subtitles are the same file name as the video.	✓		
Start Slide Show/Pause Slide Show	You can start or pause a Slide Show.			✓
Slide Show Speed	You can select the slide show speed during the slide show.			✓
Background Music	You can on/off background music when watching a Slide Show.			✓
Background Music Setting	You can select background music when watching a Slide Show.			✓
Zoom	You can zoom into images in full screen mode.			✓
Rotate	You can rotate images in full screen mode.			✓
Information	You can see detailed information about the played file.	✓	✓	✓

3.拆卸和重新组装

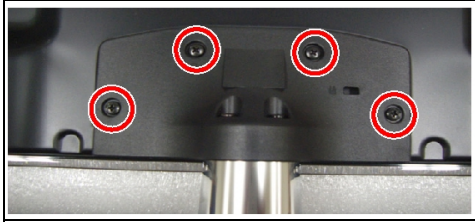
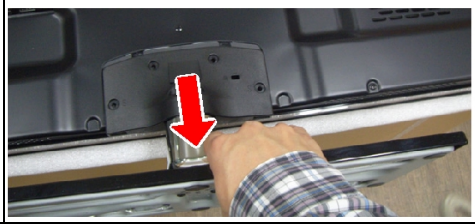
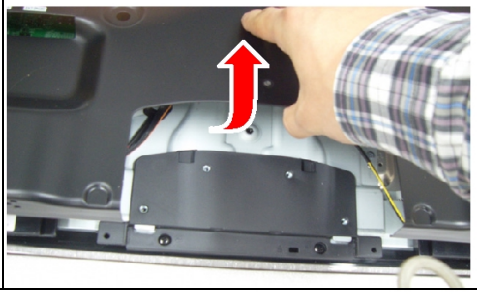
维修手册的这一章叙述LED 电视的拆卸和重新组装步骤。

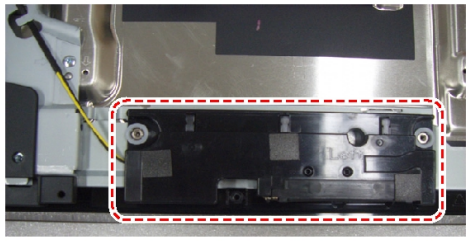
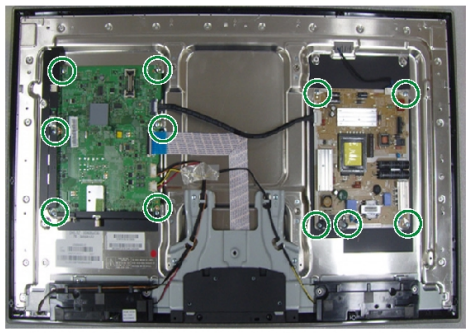
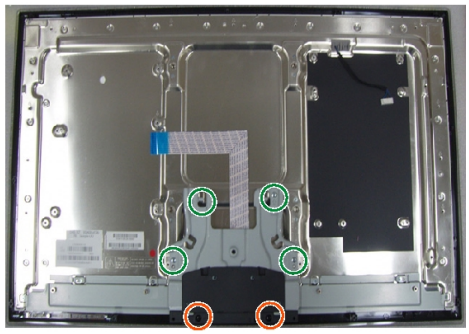
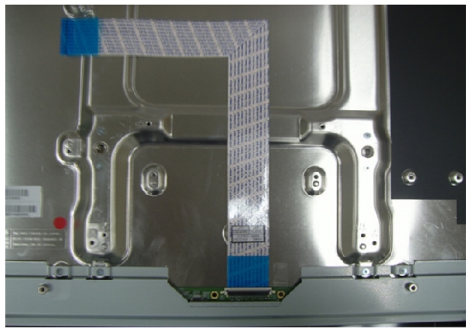
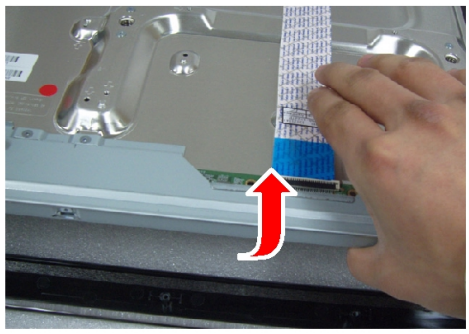
⚠ **警告：本 LED 电视包含静电敏感器件，处理这些部件时应小心。**

3-1.拆卸和重新组装

⚠ **小心：1. 拆卸前，请断开 LED 电视的电源。**

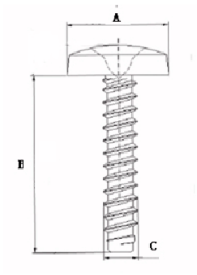
2. 小心按如下步骤进行；不得使用其它金属工具拆卸机箱。

说明		图片说明	螺钉
1.	将电视面朝下放置在垫有软垫的桌面上。 拆卸底座上的 4 个螺钉（机械类型）。 拆卸底座。		
			 6001-002621 (机械)
			
2.	拆卸后盖上的螺钉。 • 32"：拆卸11个螺钉。 (机械类型：2个) • 40" ：拆卸16个螺钉。 (机械类型：4个) • 46"：拆卸20个螺钉。 (机械类型：5个)		 6003-001782  6001-002671 (机械)
3.	提起后盖。		

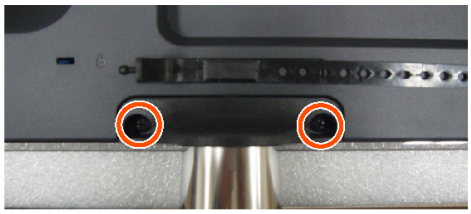
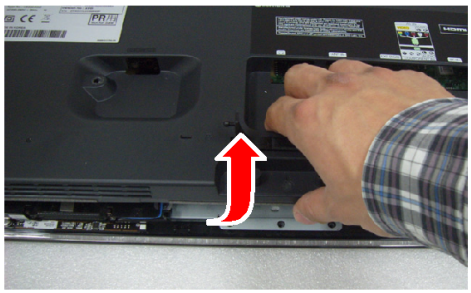
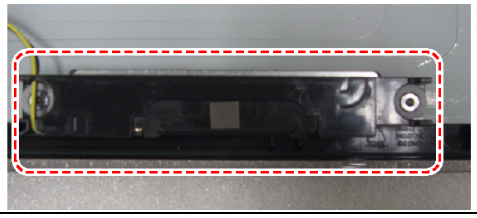
说明		图片说明	螺钉
4.	拆卸左右两侧的扬声器。		
5.	拆卸主板上的 6 个螺钉。 拆卸 SMPS 板上的 5 个螺钉。		 6001-002653 (机械)
6.	拆卸底座架及导杆上的 6 个螺钉。（机械类型：4 个）		 6001-002653 (机械)  6003-001782
7.	拆卸底座链接。		
8.	提起屏板。		

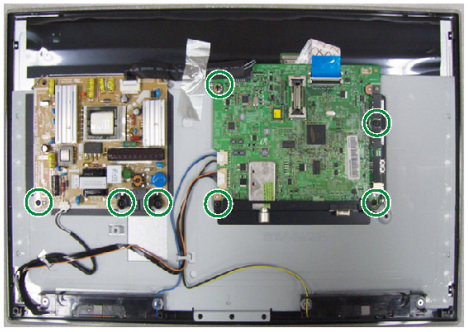
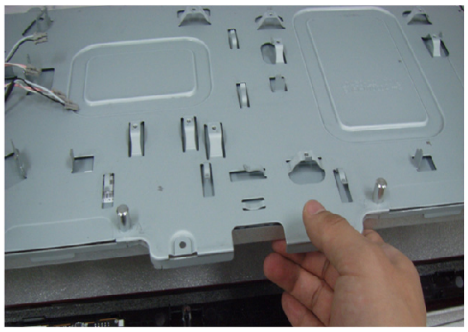
※ 重新组装步骤与拆卸步骤相反。

螺钉尺寸

代码	A (mm)	B (mm)	C (mm)	
6001-002621	8.0 ± 0.2	7.7 ± 0.3	3.83 ~ 3.98	
6003-001782	8.2 ± 0.4	11.7 ± 0.3	3.81 ~ 3.91	
6001-002671	7.3 ± 0.2	3.00 ± 0.02	5.7 ~ 6.0	
6001-002653	7.3 ± 0.2	3.00 ± 0.02	5.7 ~ 6.0	

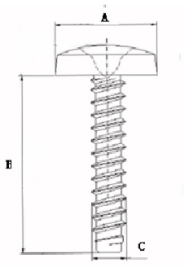
■ UD5000

说明		图片说明	螺钉
1.	将电视面朝下放置在垫有软垫的桌面上。 拆卸底座上的 4 个螺钉。 • 22"：拆卸2个螺钉。 • 27"：拆卸3个螺钉。 拆卸底座。		
			 6003-001782
			
2.	拆卸后盖上的螺钉。		 6003-001782
3.	提起后盖。		
4.	拆卸左右两侧扬声器。		

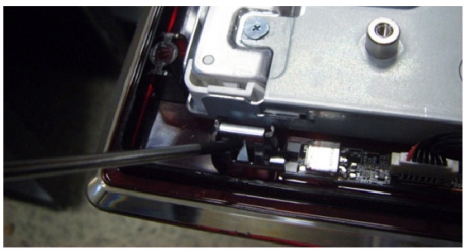
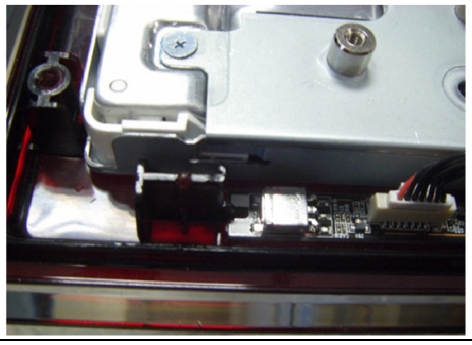
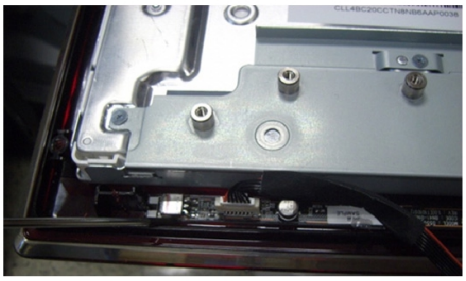
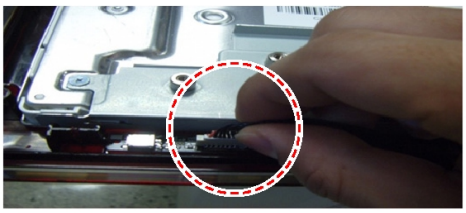
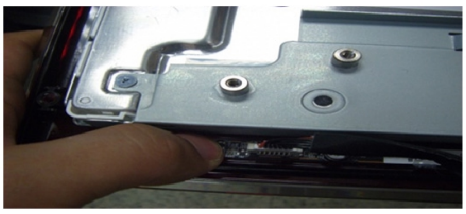
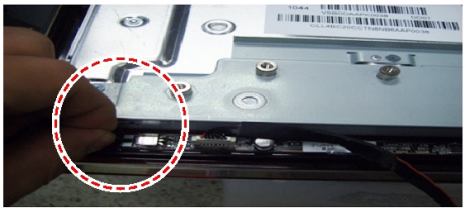
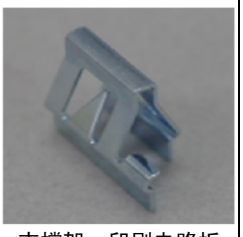
说明		图片说明	螺钉
5.	拆卸主板上的 4 个螺钉。 拆卸SMPS板上的3个螺钉。		 6003-000115
6.	拆卸底座链接。		
7.	提起屏板。		

※ 重新组装步骤与拆卸步骤相反。

螺钉尺寸

代码	A (mm)	B (mm)	C (mm)	
6003-001782	8.2±0.4	11.7±0.3	3.81~3.91	
6003-000115	6.3-0.5	5.6±0.4	2.85~2.95	

■ 如何更换功能板

说明		图片说明	螺钉
1.	拆卸锁扣夹片。	 	
2.	将功能板加热并将其卸下。		
3.	更换新的功能板。	 	 功能板 (BN96-16729*)
4.	锁定夹片。		 支撑架，印刷电路板 (BN61-07248A)

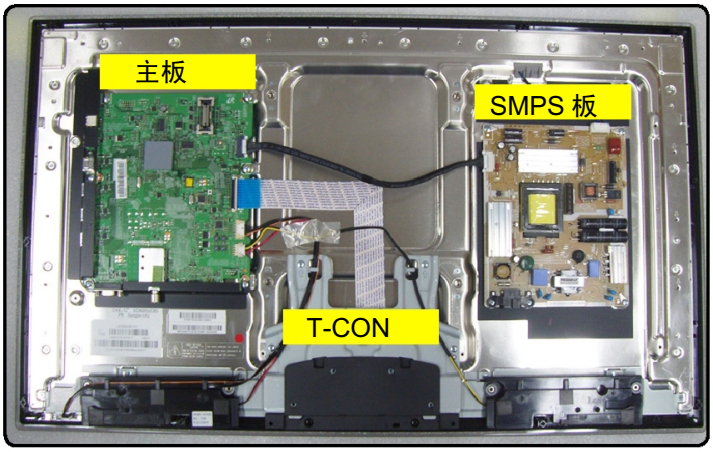
4.故障排除

4-1.故障排除

4-1-1.预前检查

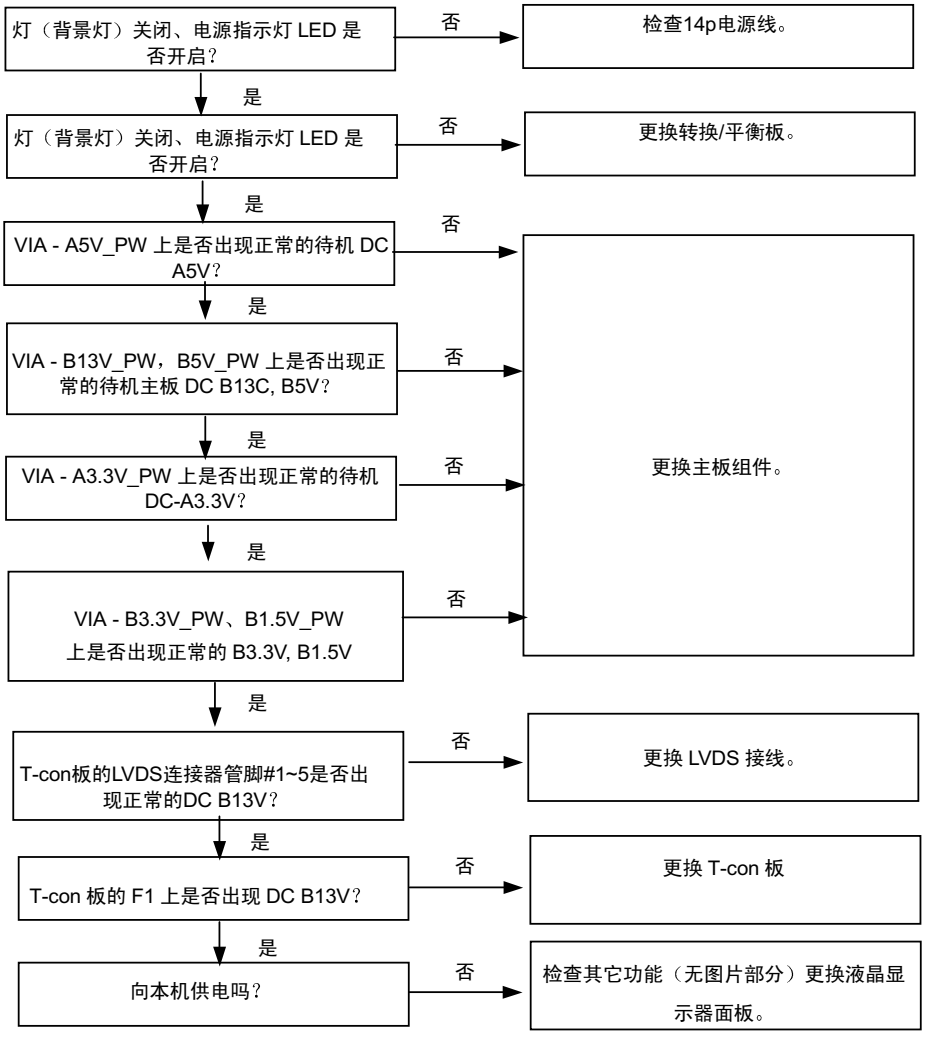
1. 首先检查各电缆连接情况。
   - 检查是否有烧坏或损坏的接线。
   - 检查接线是否断开，或连接处太松。
   - 检查是否依据连接图连接接线。

2. 检查主板的电源输入。

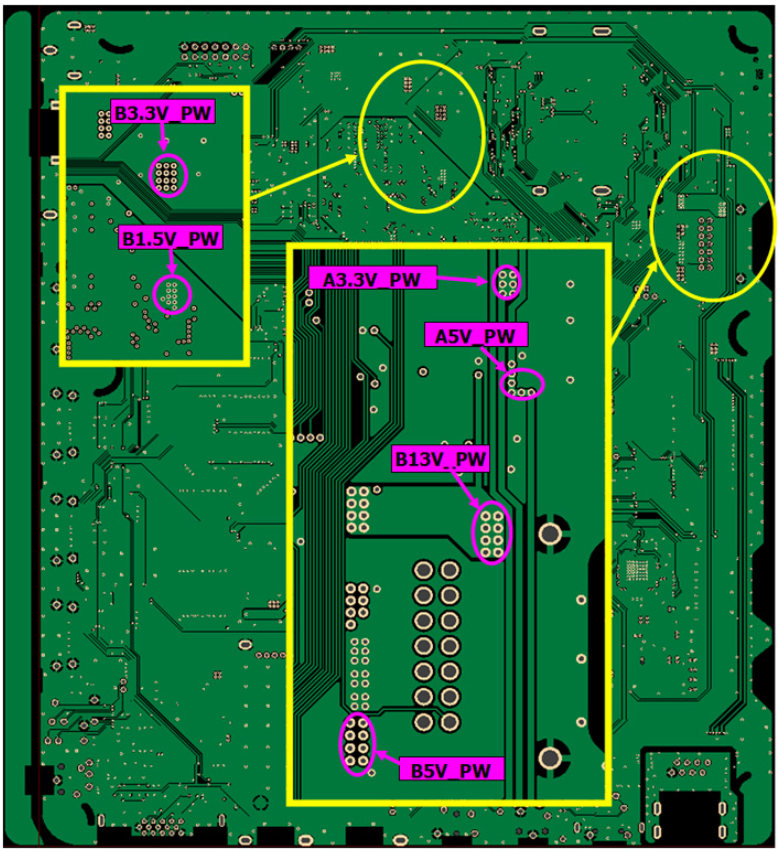


4-1-2. X5：UD5000(32",40",46")

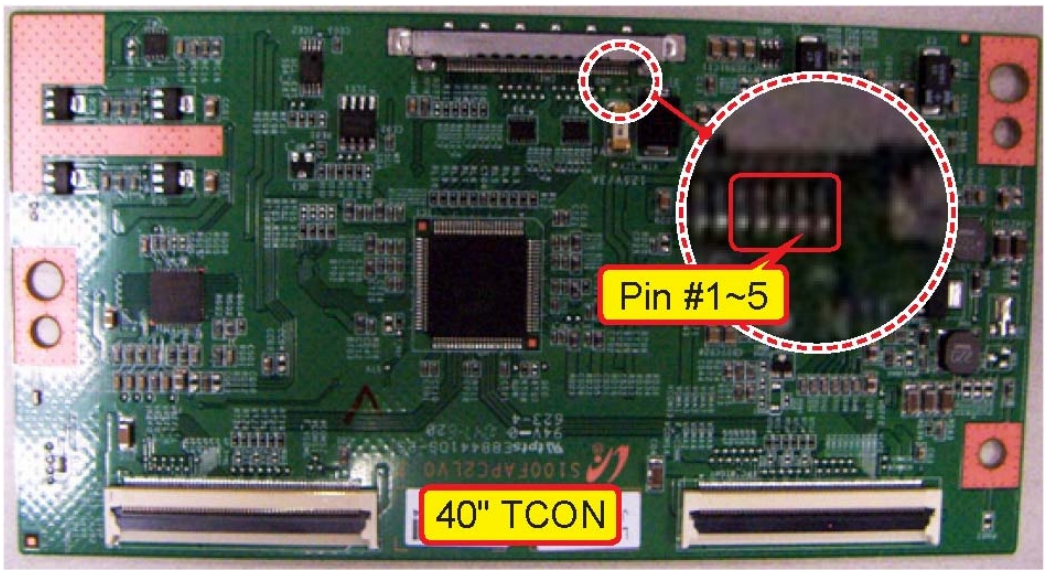
■ 未通电

征兆	-当连接电源线时，前面板上的 LED 指示灯未工作。 -当连接电源线时，SMPS 继电器未工作。 -本机似乎损坏。
主要检查点	如果接线连接不当或主板或 SMPS 有故障，当连接电源线时，前面板上的 IP 继电器或 LED 指示灯不工作。在这种情况下，检查下列各项： -检查本机内部接线连接状态。 -检查各零件的保险丝。 -检查 SMPS 的输出电压。 -更换主板。
诊断	
小心	在 IP 板上工作之前，必须断电。

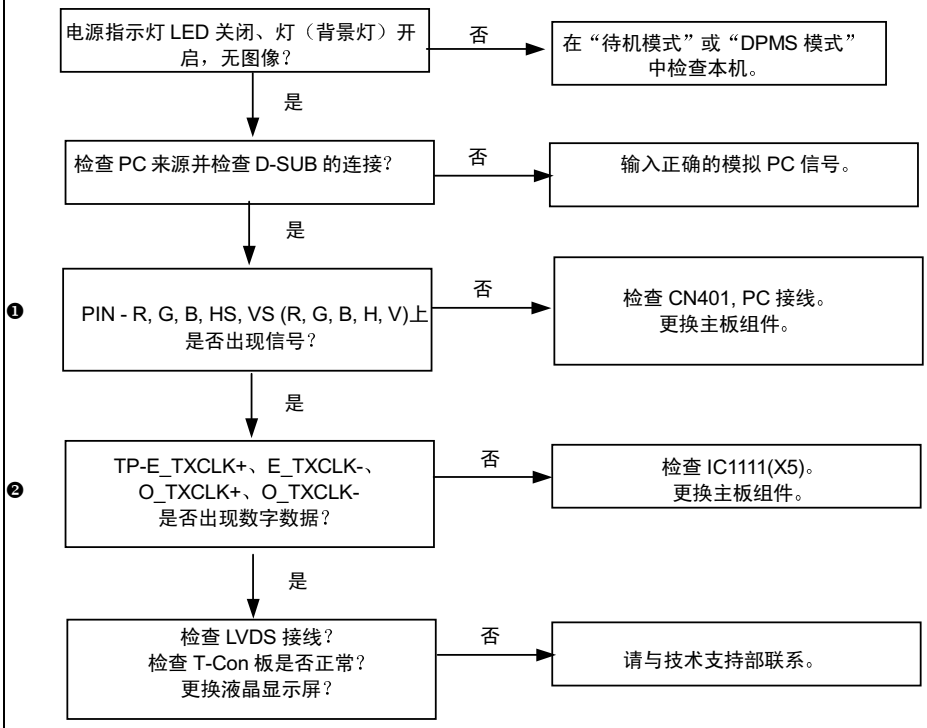
主板_底部



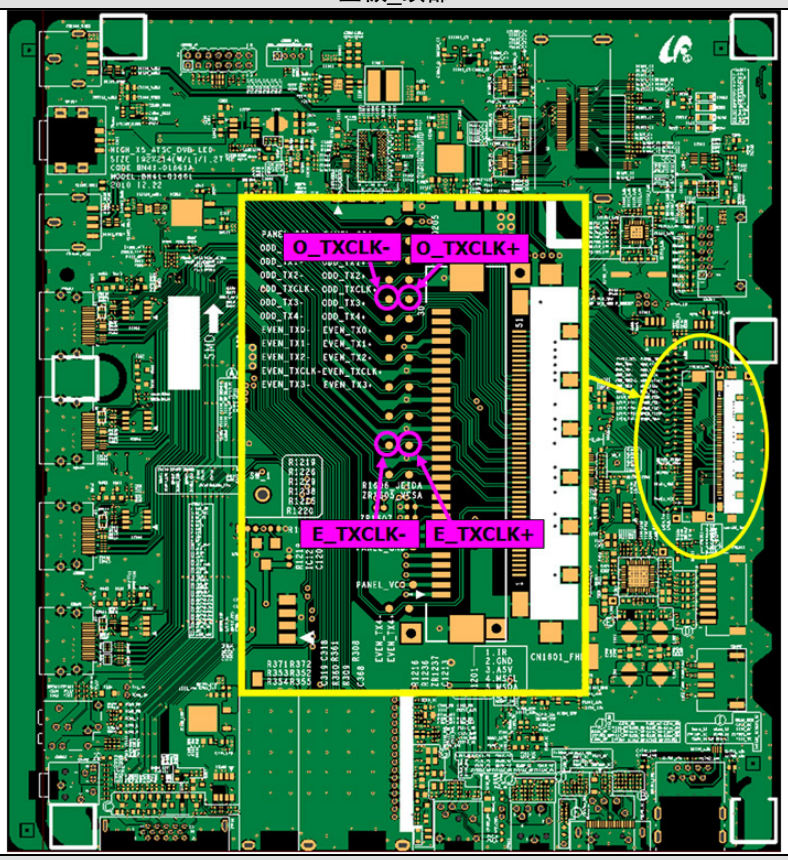
TCON_顶部



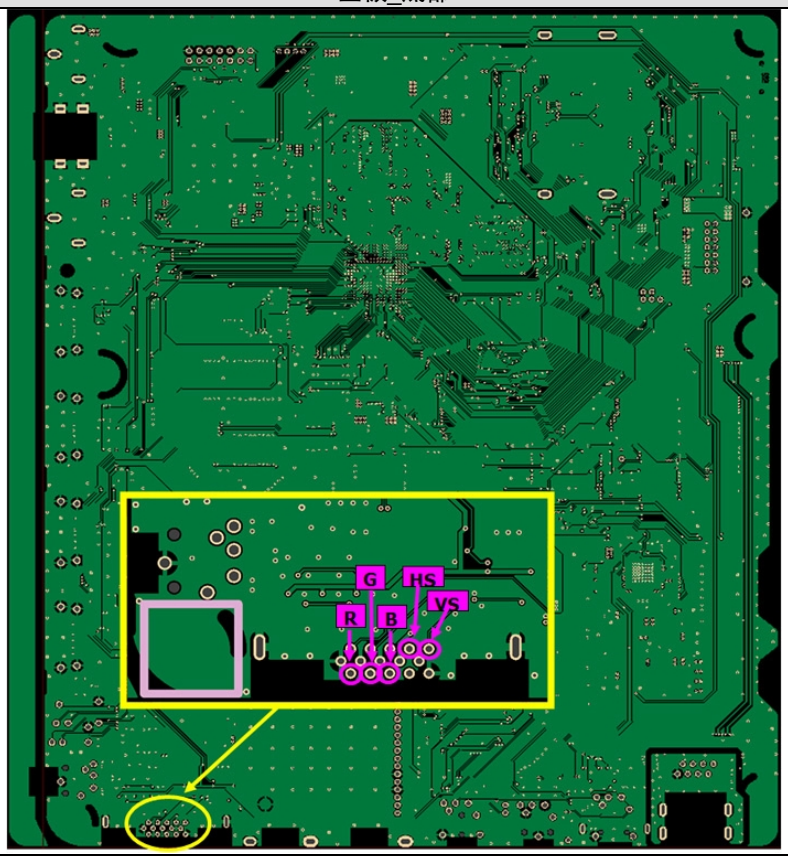
■ 无图像（模拟 PC 信号）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查PC来源。 -检查Arsenal,检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

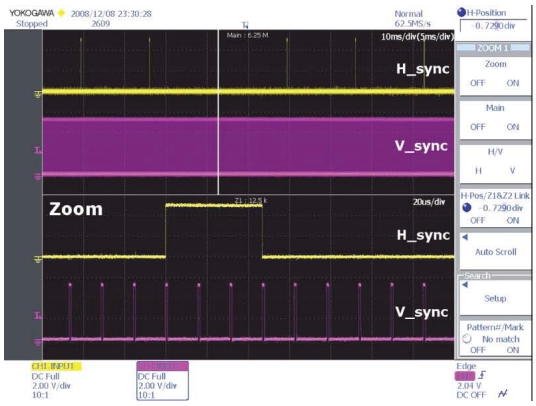


主板_底部

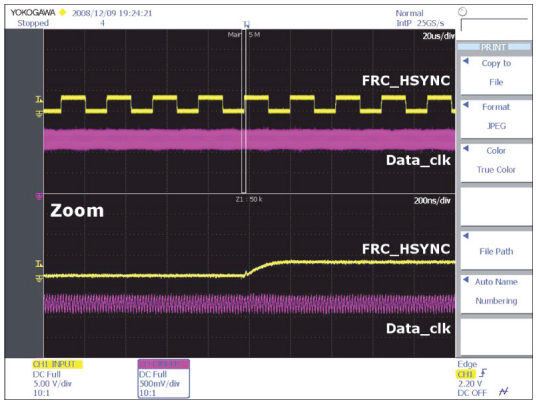


■ 波形

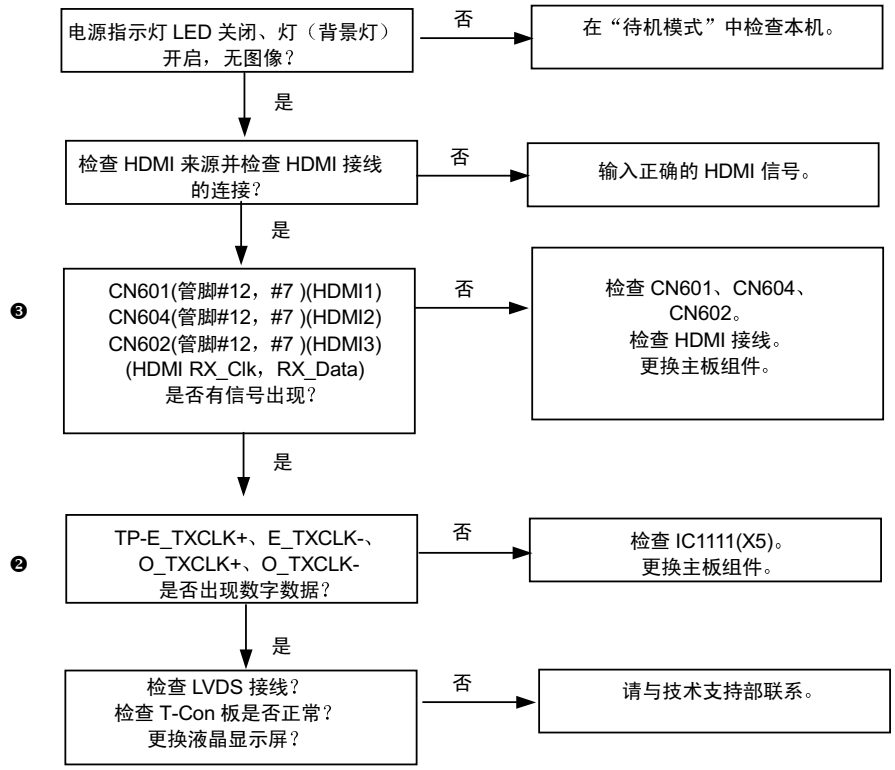
❶	PC输入(V-sink , H-sink , R/G/B)



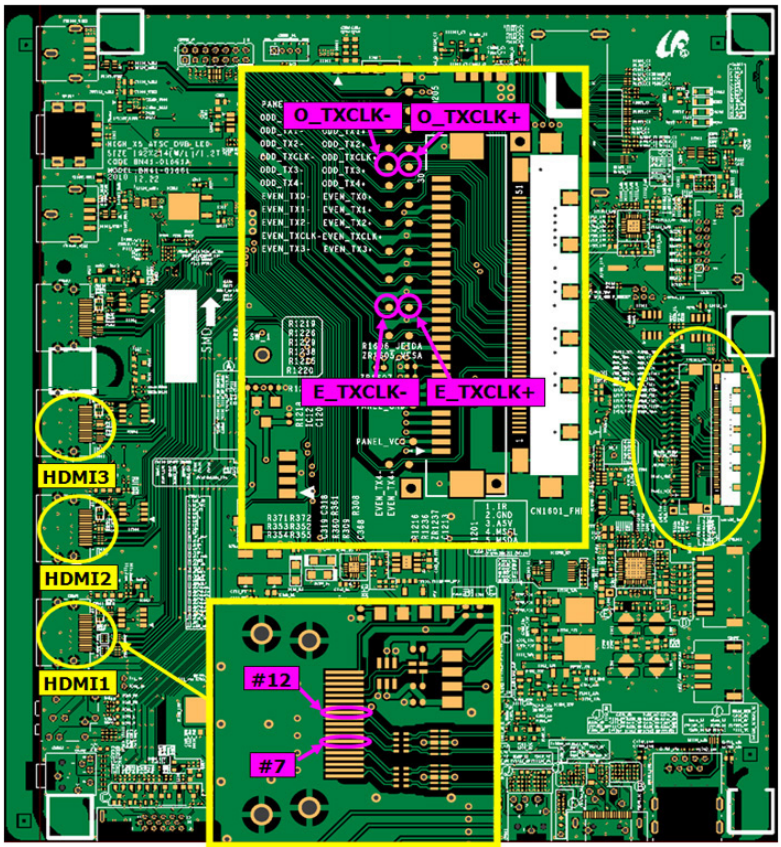
❷	LVDS输出



■ 无图像（HDMI1,2，3 -数字信号）

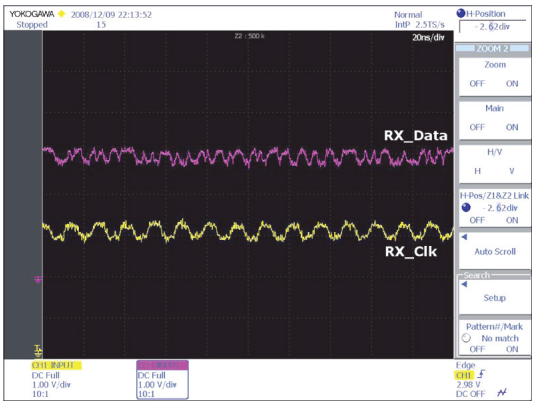
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查HDMI来源。 -检查HDMI开关，检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

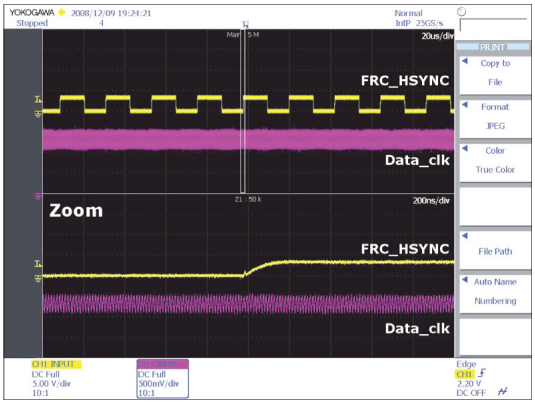


■ 波形

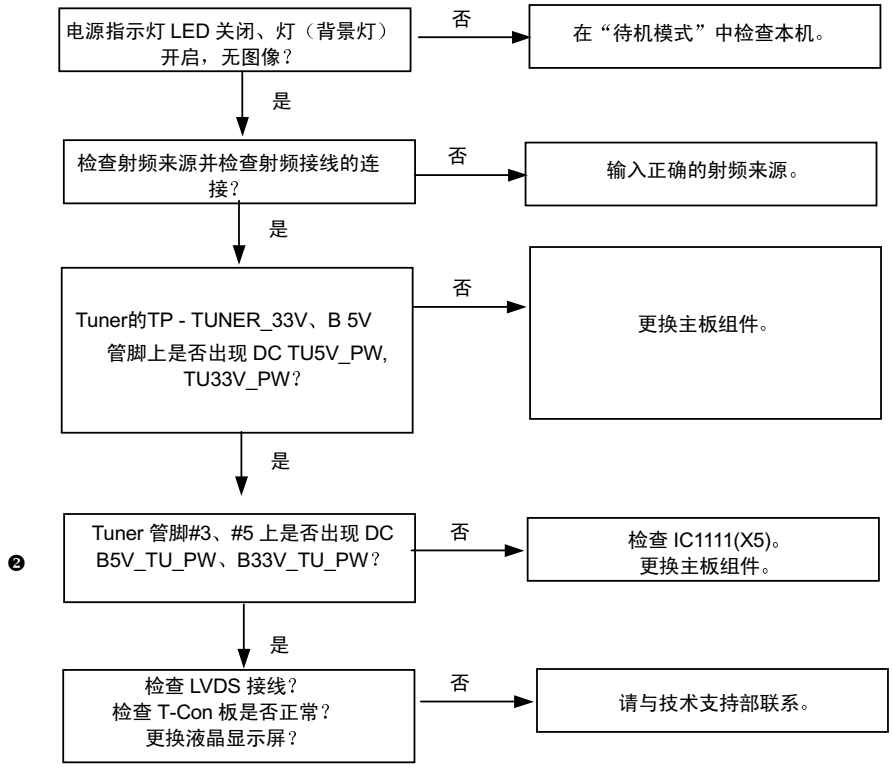
❸	HDMI输入(RX_Data, RX_Clk)

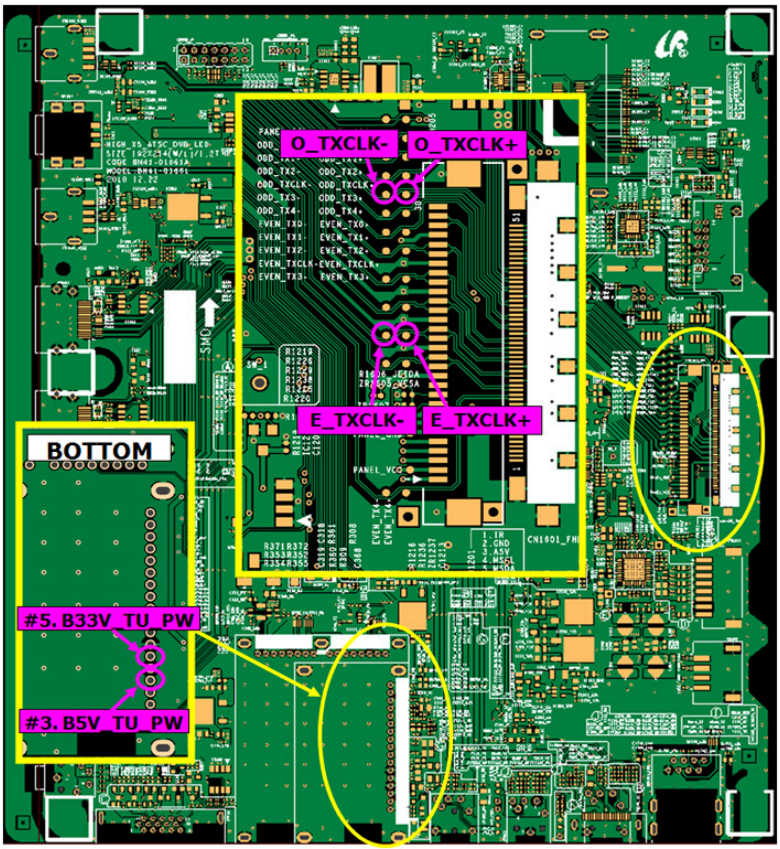


❷	LVDS输出



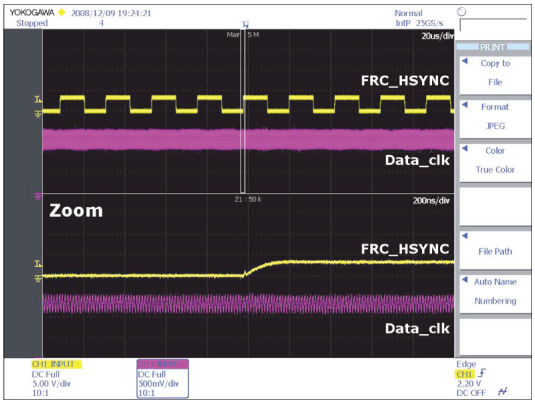
■ 无图像（Tuner_CVBS）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查Tuner CVBS来源。 -检查Tuner，检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

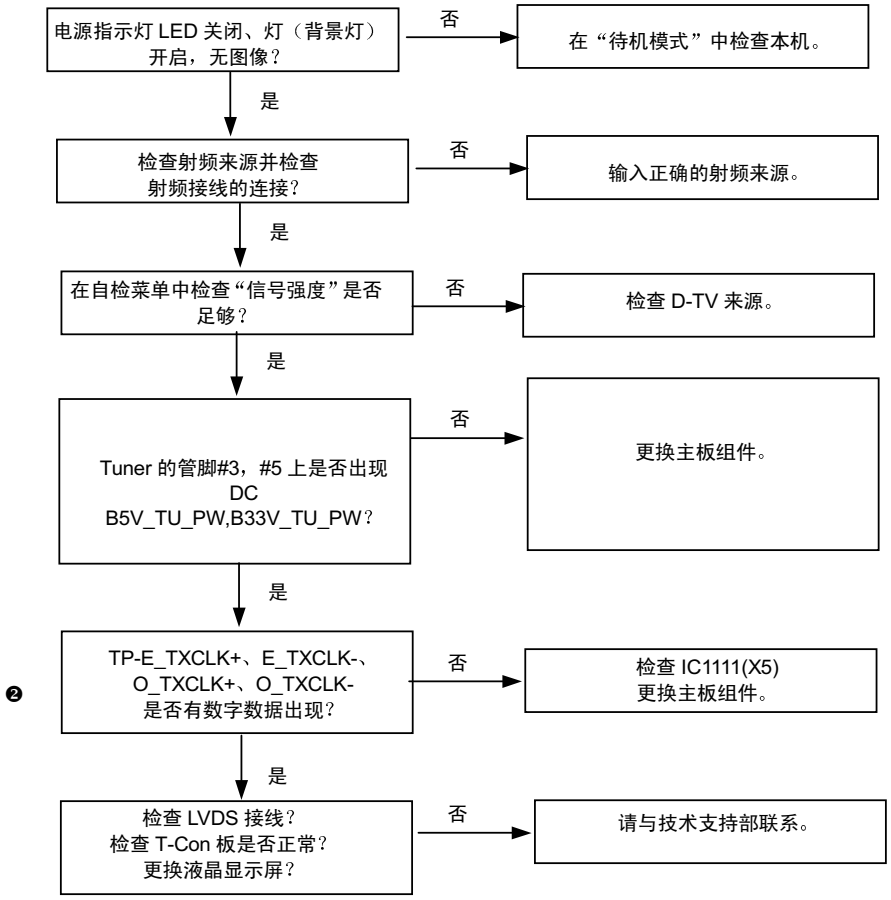
主板_顶部


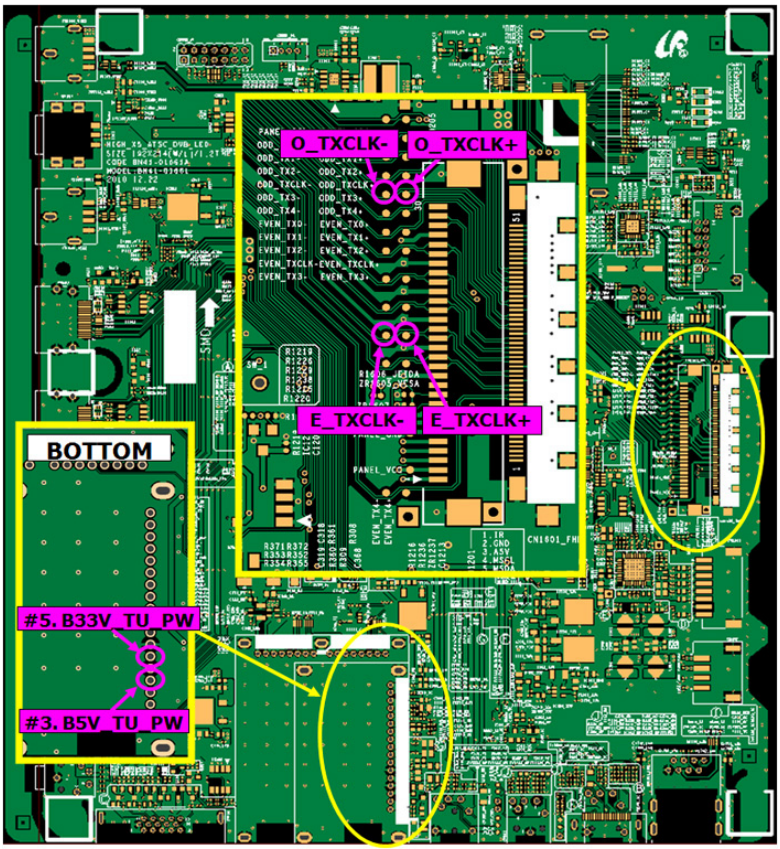
■ 波形

❷	LVDS输出



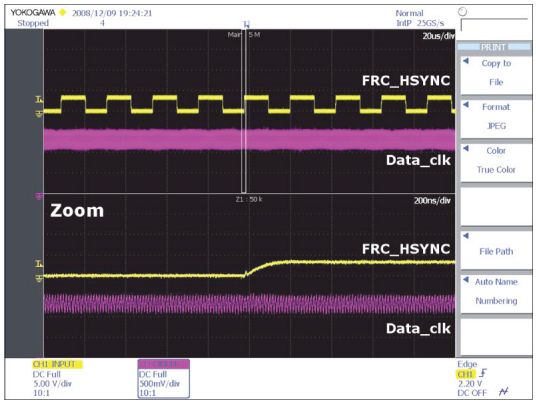
■ 无图像（Tuner DTV）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查DTV来源。 -检查Tuner，检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

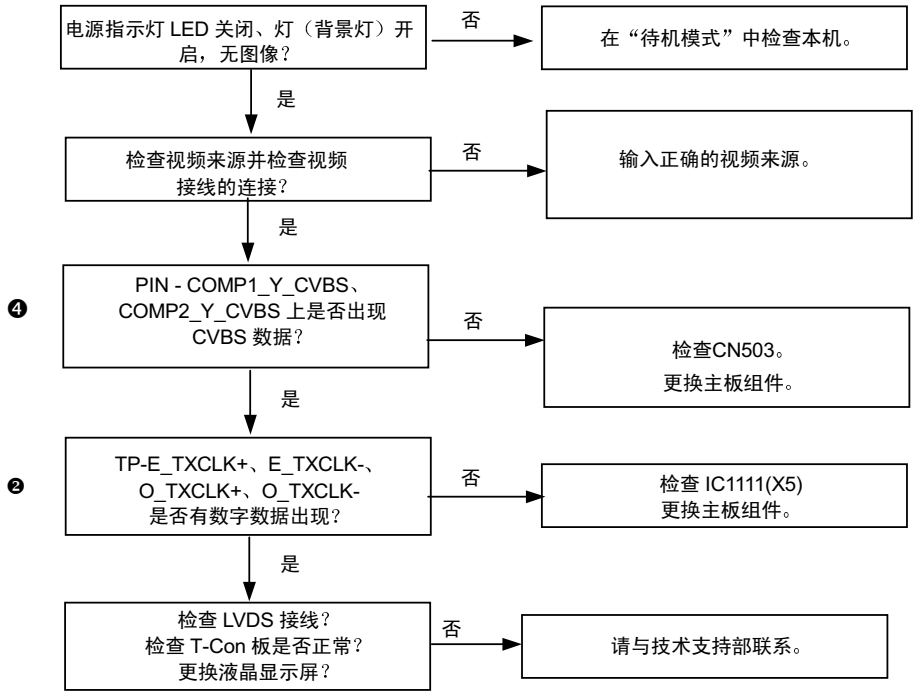
主板_顶部


■ 波形

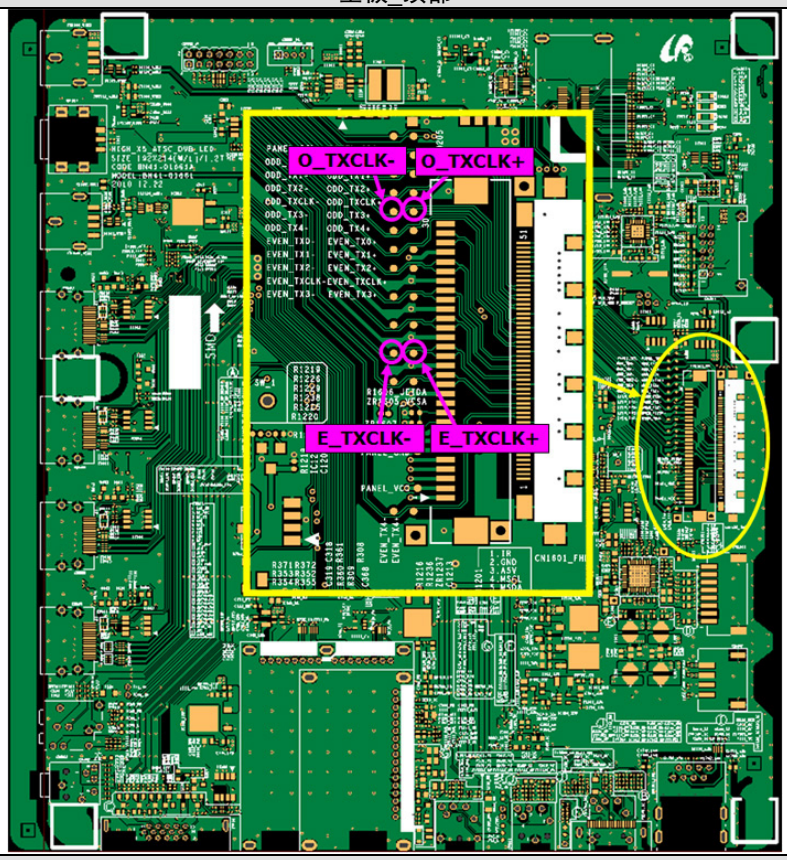
❷	LVDS输出



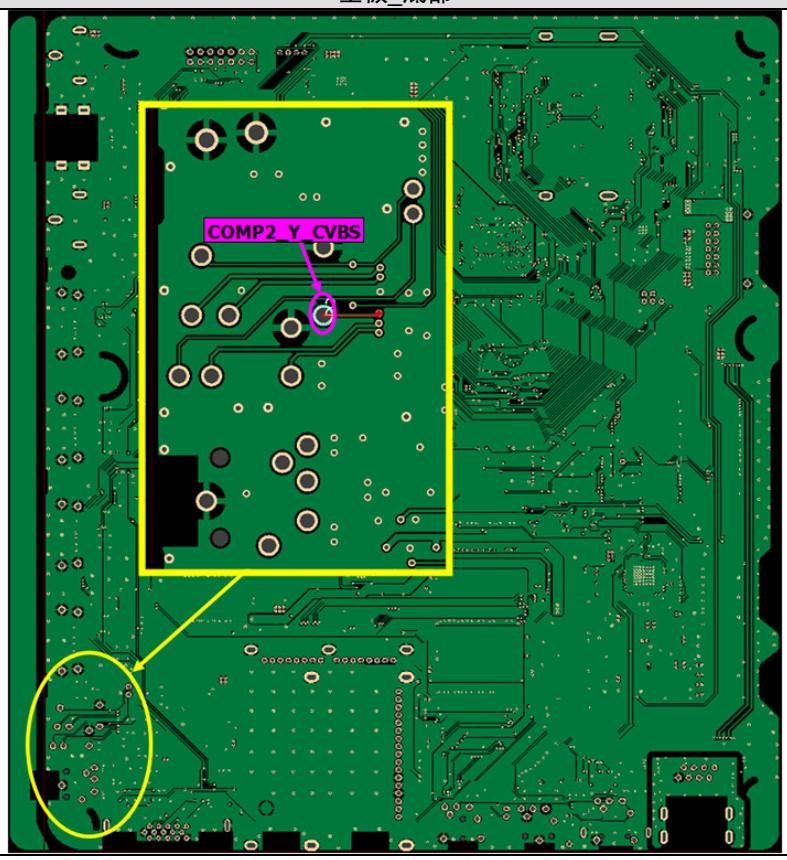
■ 无图像（Video CVBS）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查Video CVBS来源。 -检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

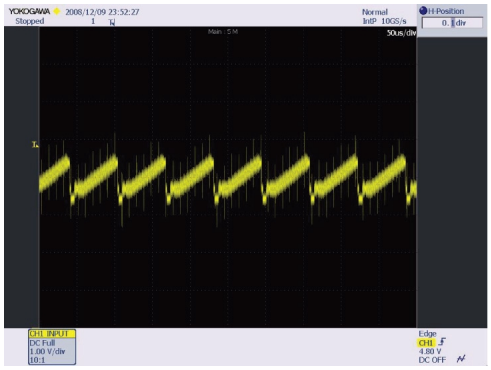


主板_底部

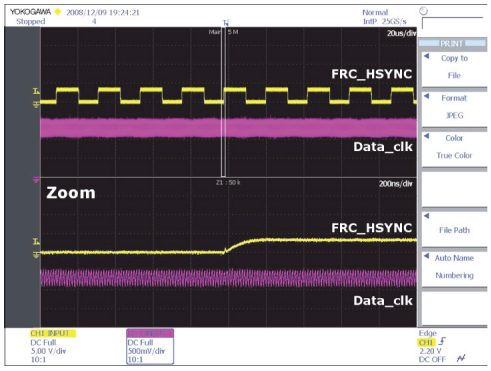


■ 波形

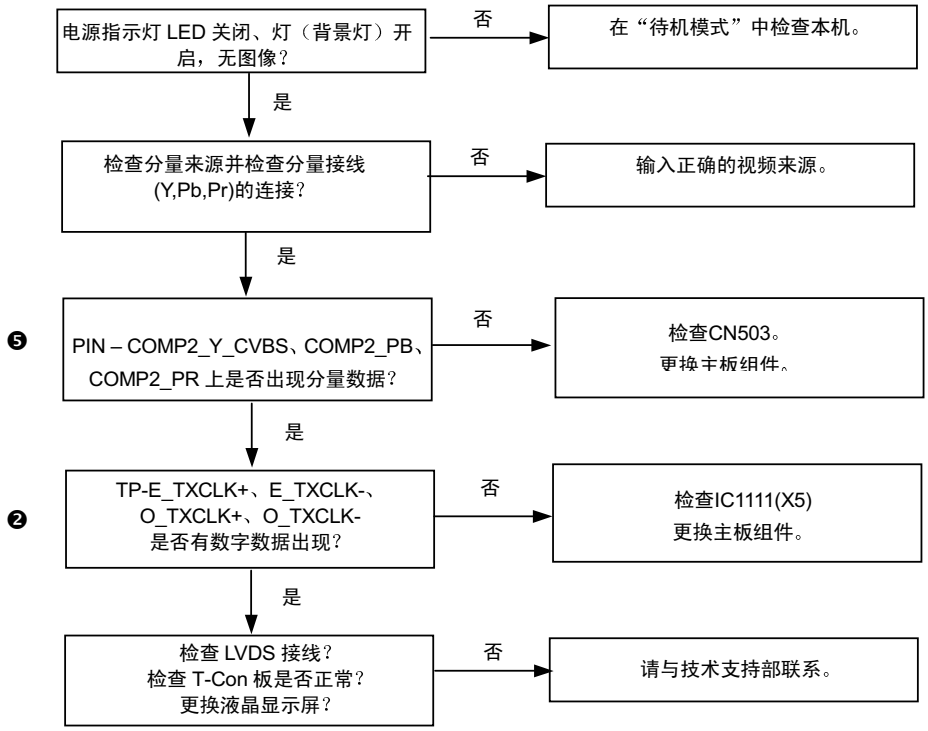
❹	CVBS输出（灰度栏）



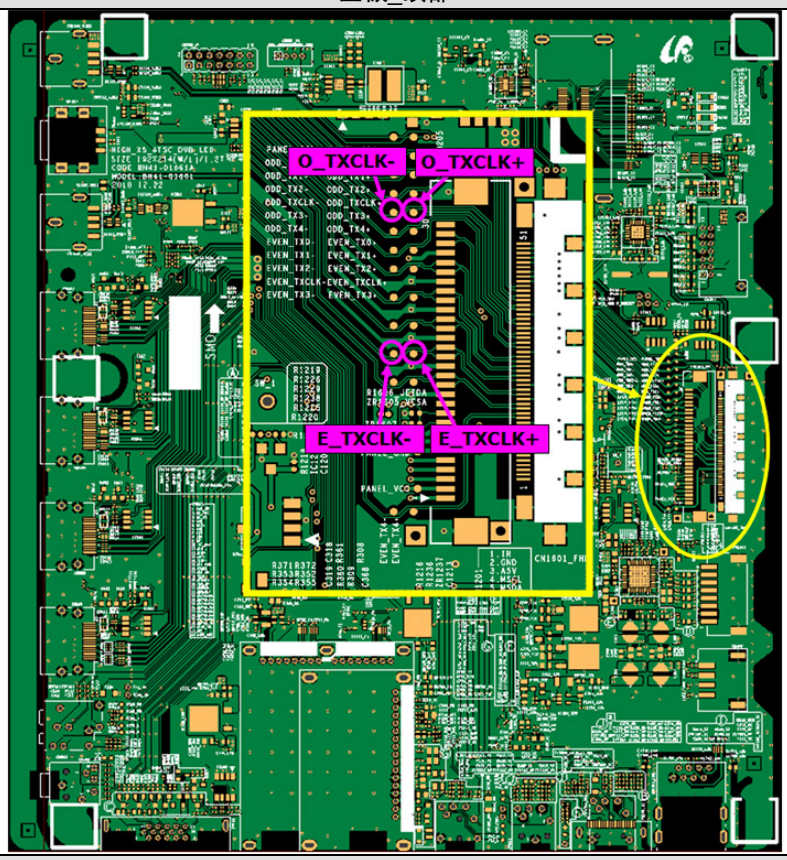
❷	LVDS输出



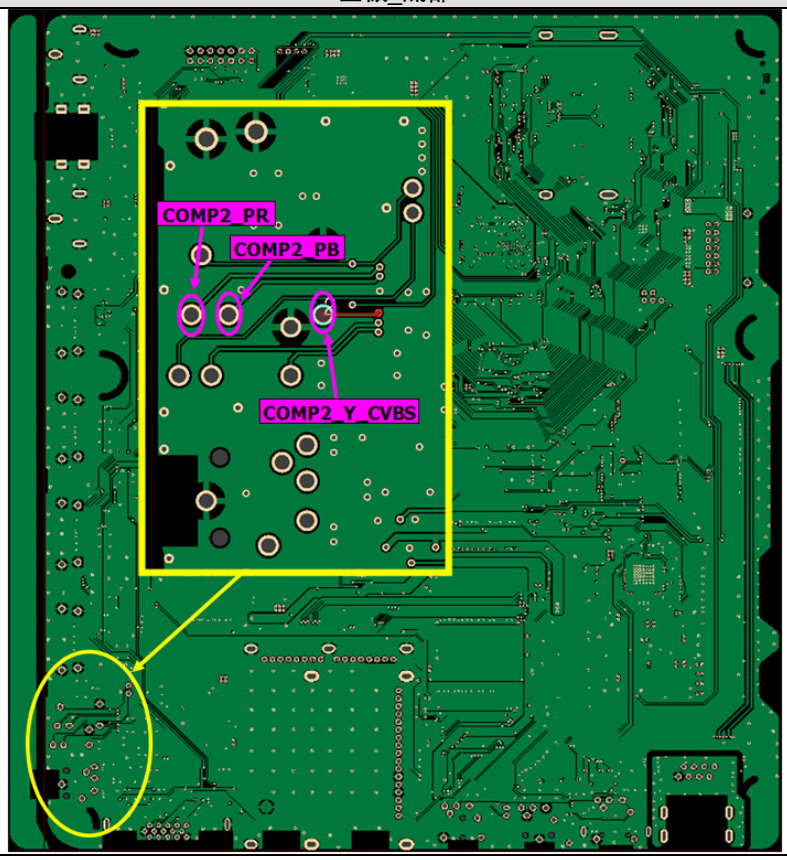
■ 无图像（分量）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查分量来源。 -检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

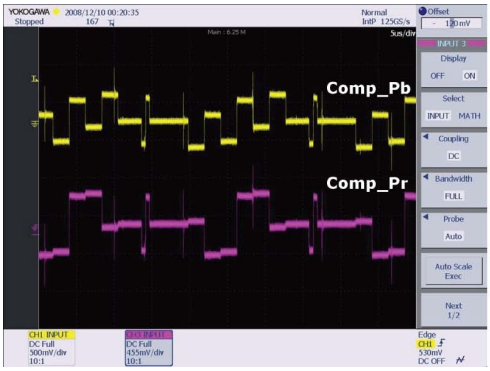
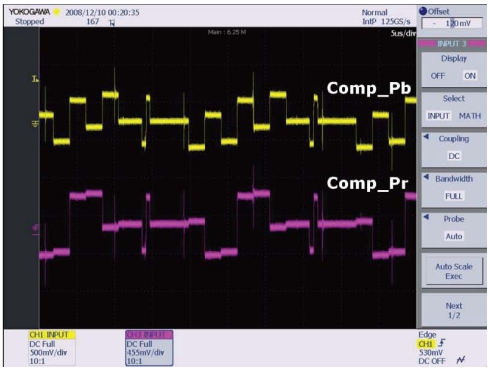
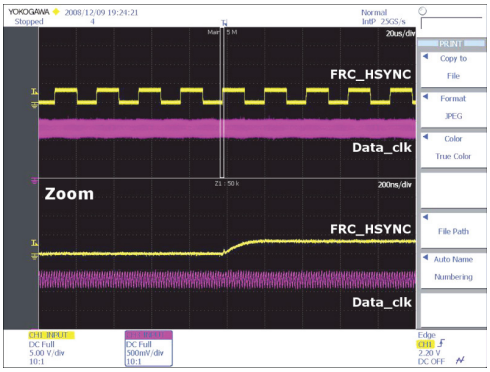
主板_顶部



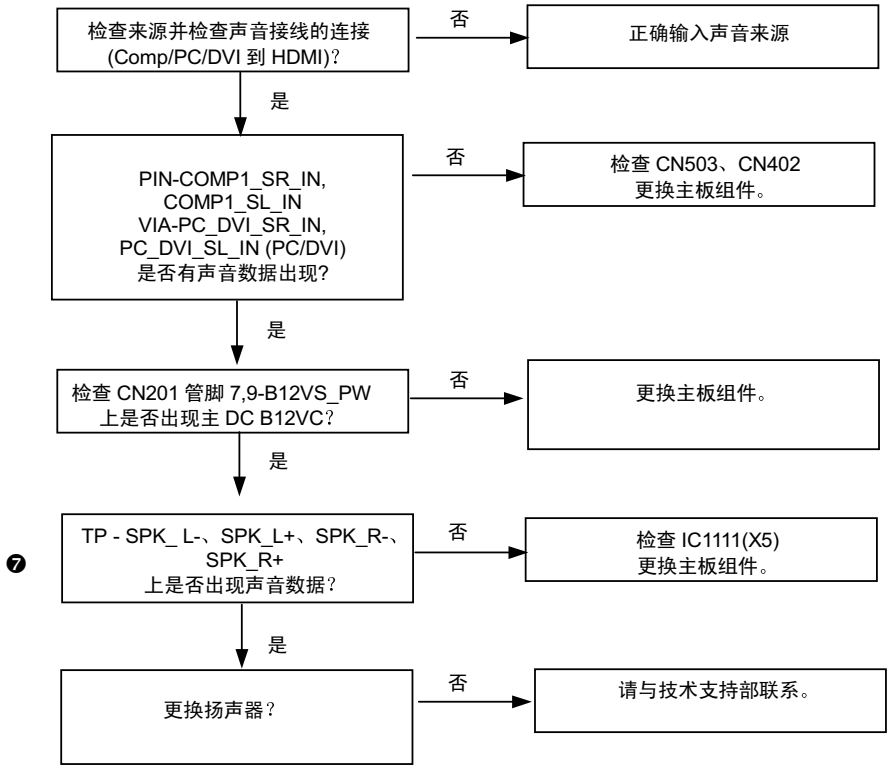
主板_底部



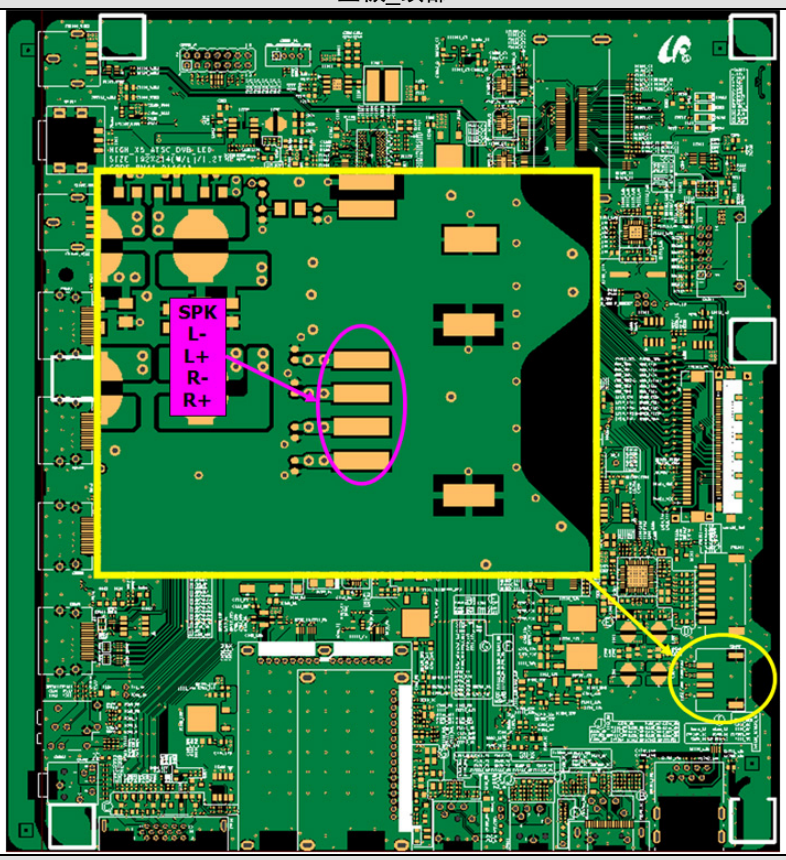
■ 波形

❺	分量_Y(灰度级)/Pb/Pr(色彩条)
	
❷	LVDS输出
	

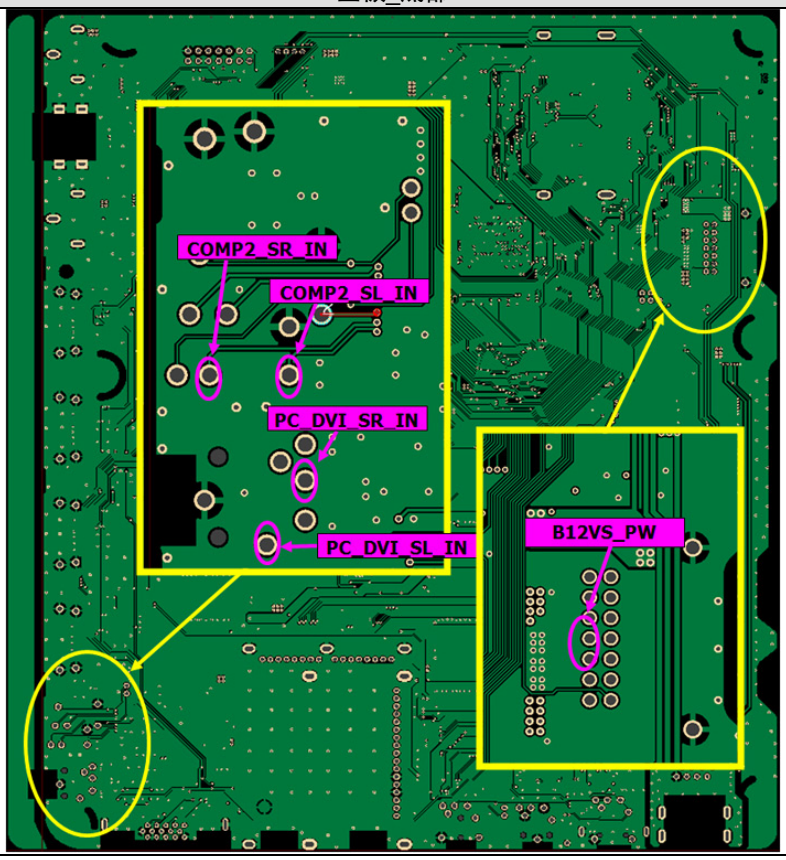
■ 没有声音

征兆	-图像正常，但没有声音。
主要检查点	-扬声器连接器被断开或被损坏。 -主板的声音处理部分发生故障。 -扬声器缺陷。
诊断	
小心	在IP板上工作之前，必须断电。

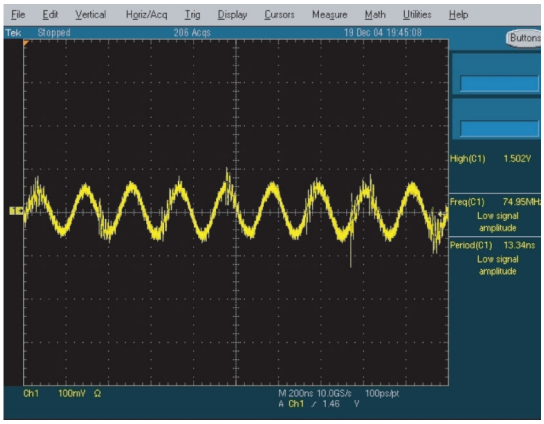
主板_顶部



主板_底部

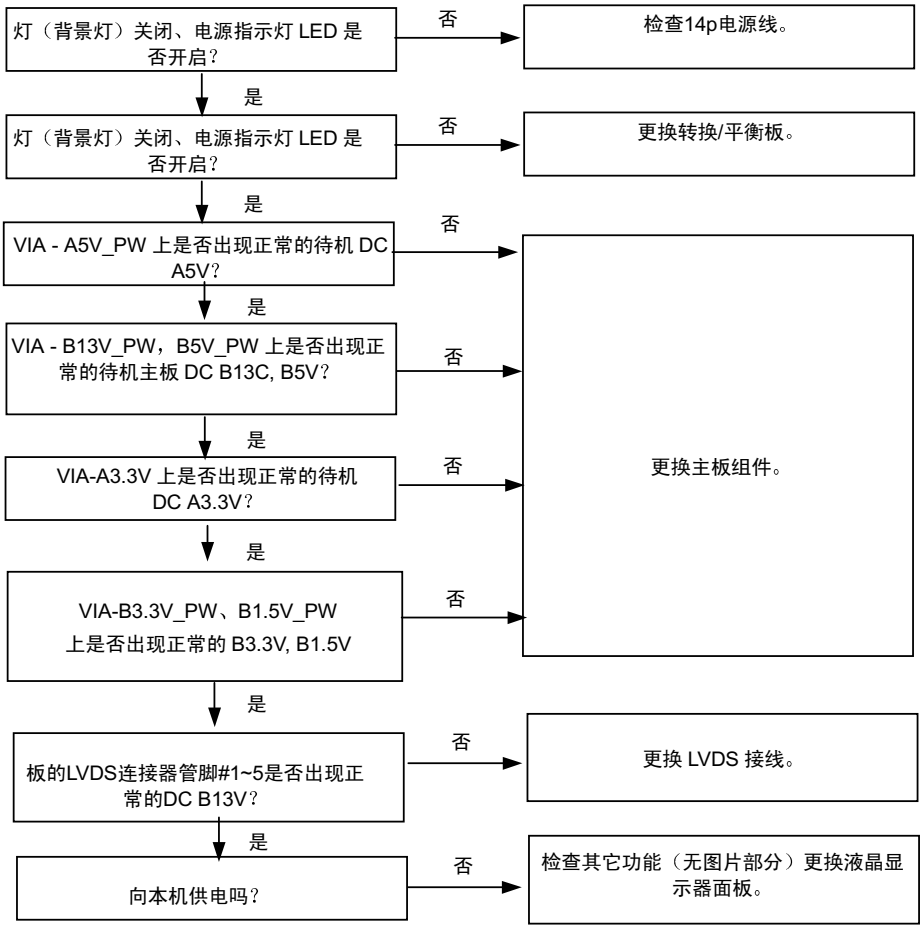


■ 波形

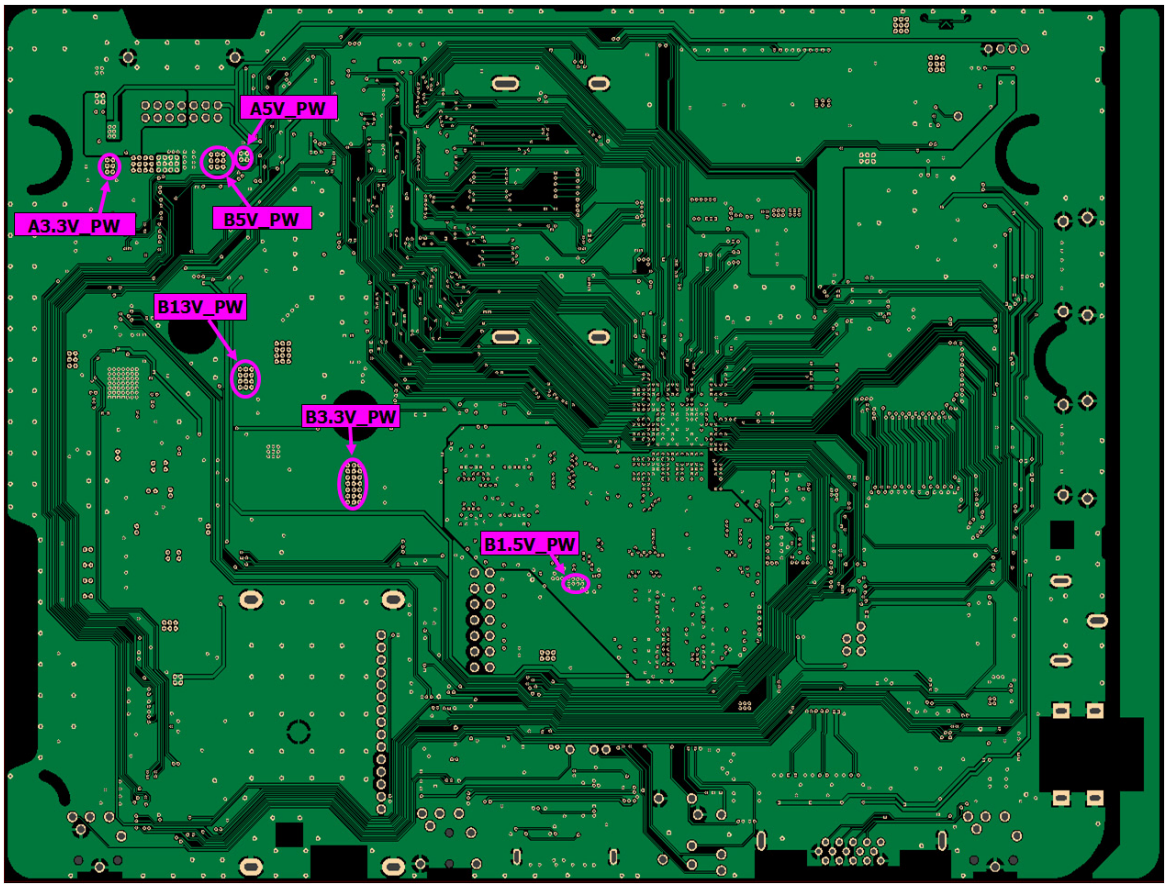
❼	扬声器输出
	

4-1-3. X5_SMALL：UD5000 (22", 27")

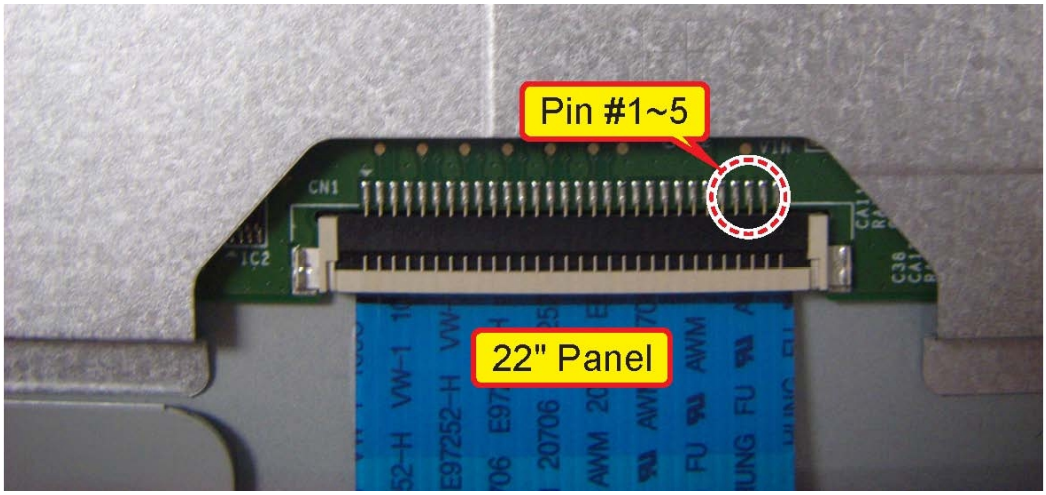
■ 未通电

征兆	-当连接电源线时，前面板上的 LED 指示灯未工作。 -当连接电源线时，SMPS 继电器未工作。 -本机似乎损坏。
主要检查点	如果接线连接不当或主板或 SMPS 有故障，当连接电源线时，前面板上的 IP 继电器或 LED 指示灯不工作。在这种情况下，检查下列各项： -检查本机内部接线连接状态。 -检查各零件的保险丝。 -检查 SMPS 的输出电压。 -更换主板。
诊断	
小心	在 IP 板上工作之前，必须断电。

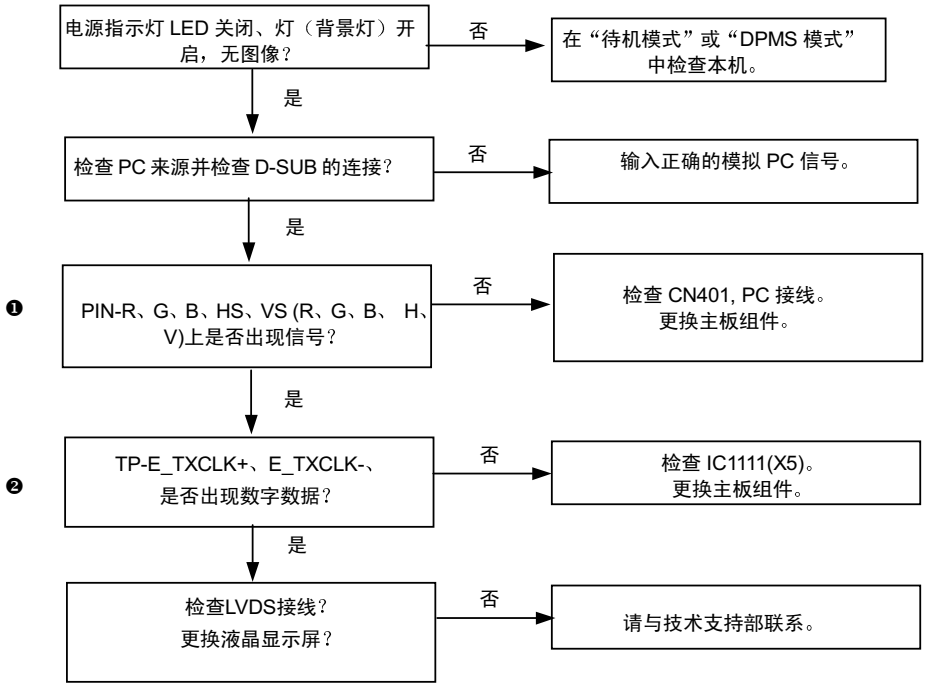
主板_底部



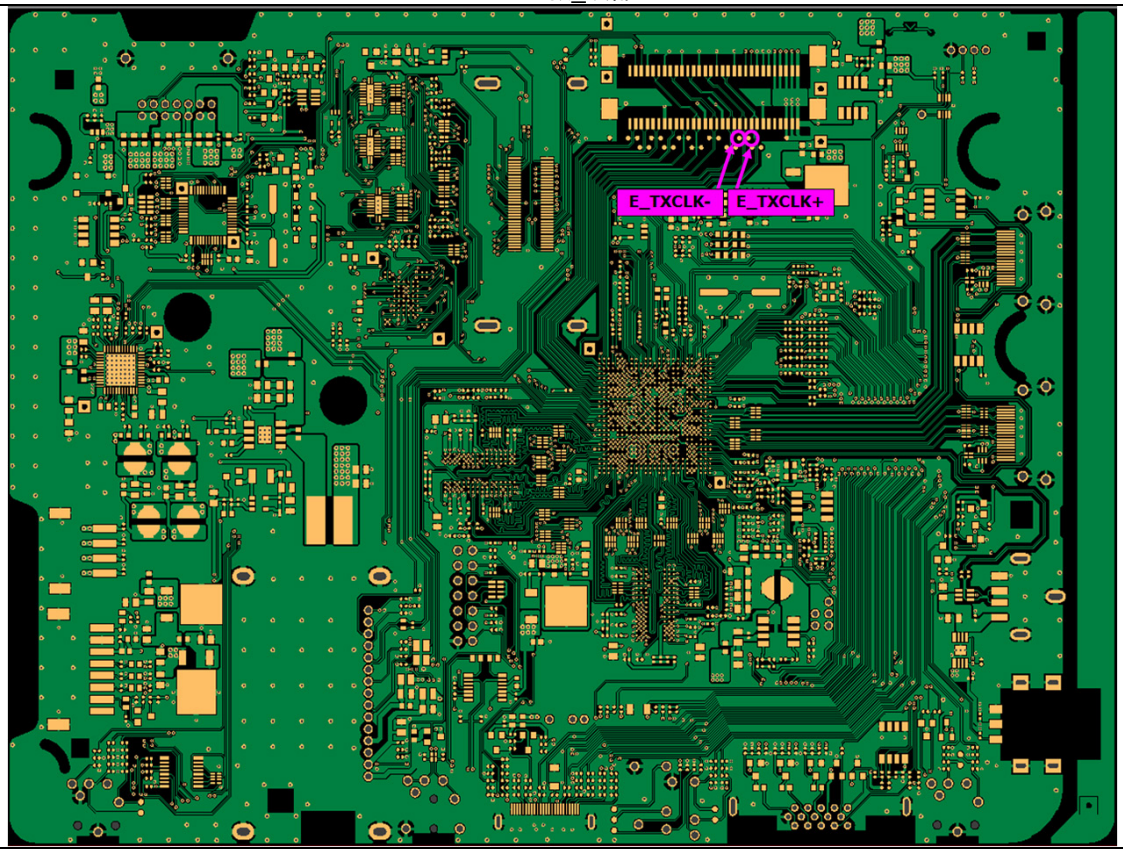
屏板LVDS连接器



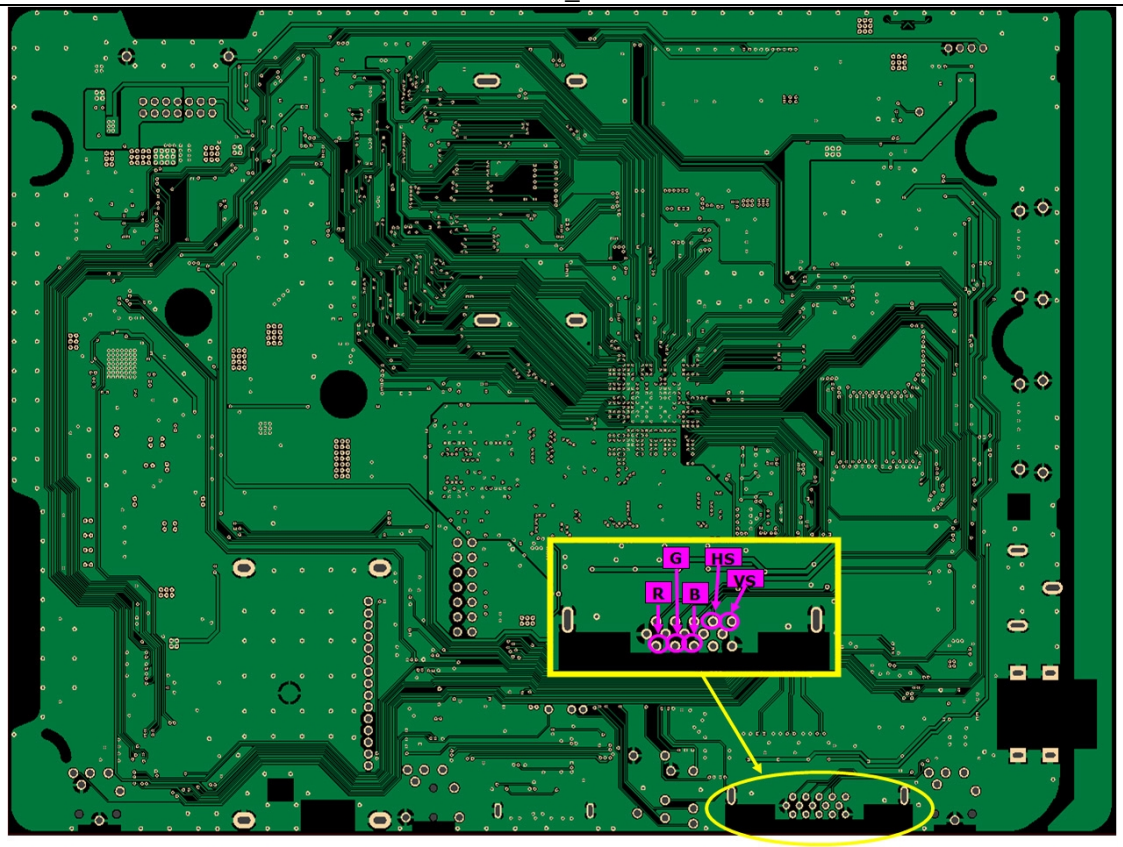
■ 无图像（模拟 PC 信号）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查PC来源。 -检查Arsenal,检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

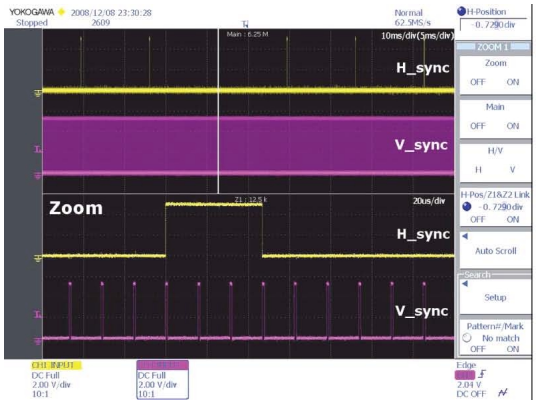


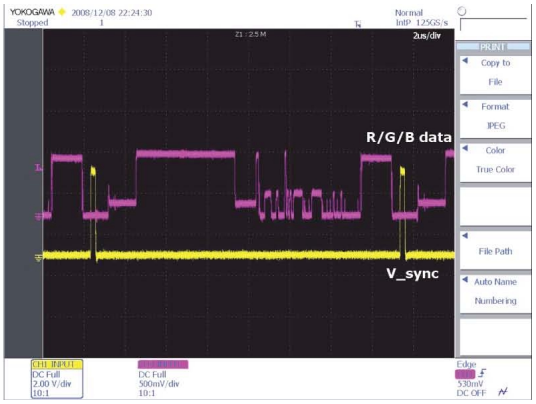
主板_底部



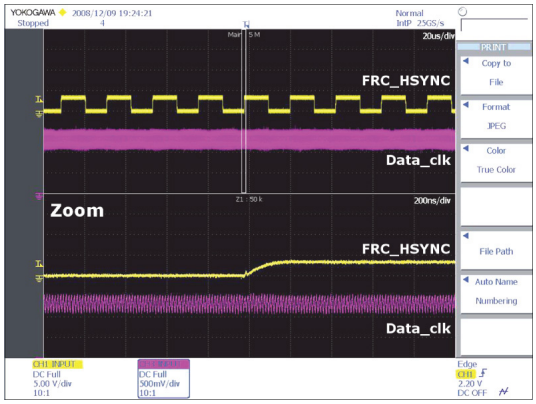
■ 波形

❶	PC输入(V-sink , H-sink , R/G/B)

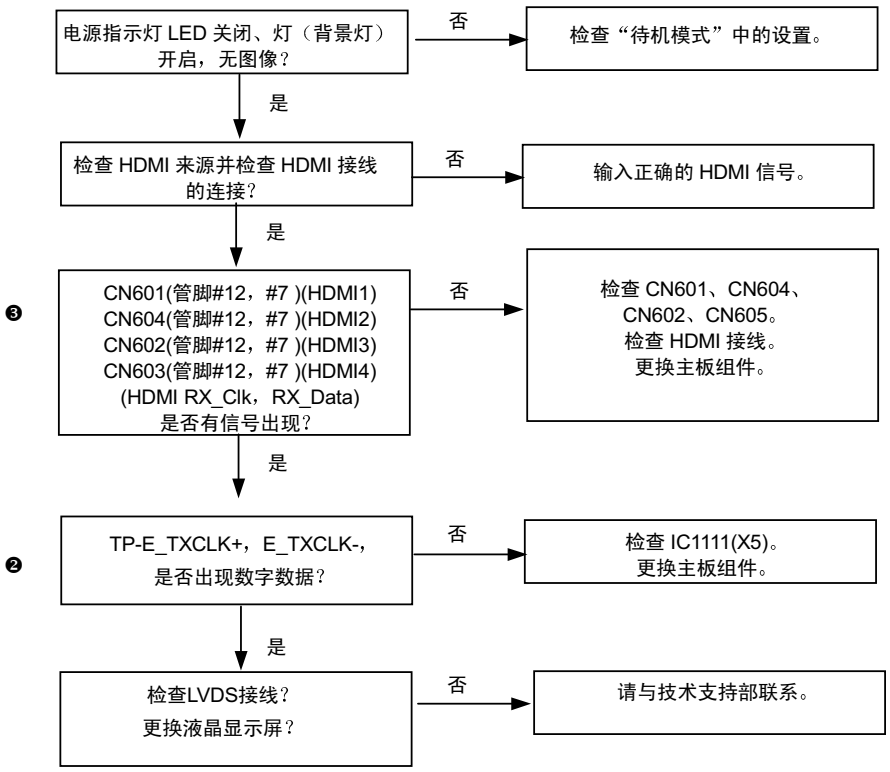




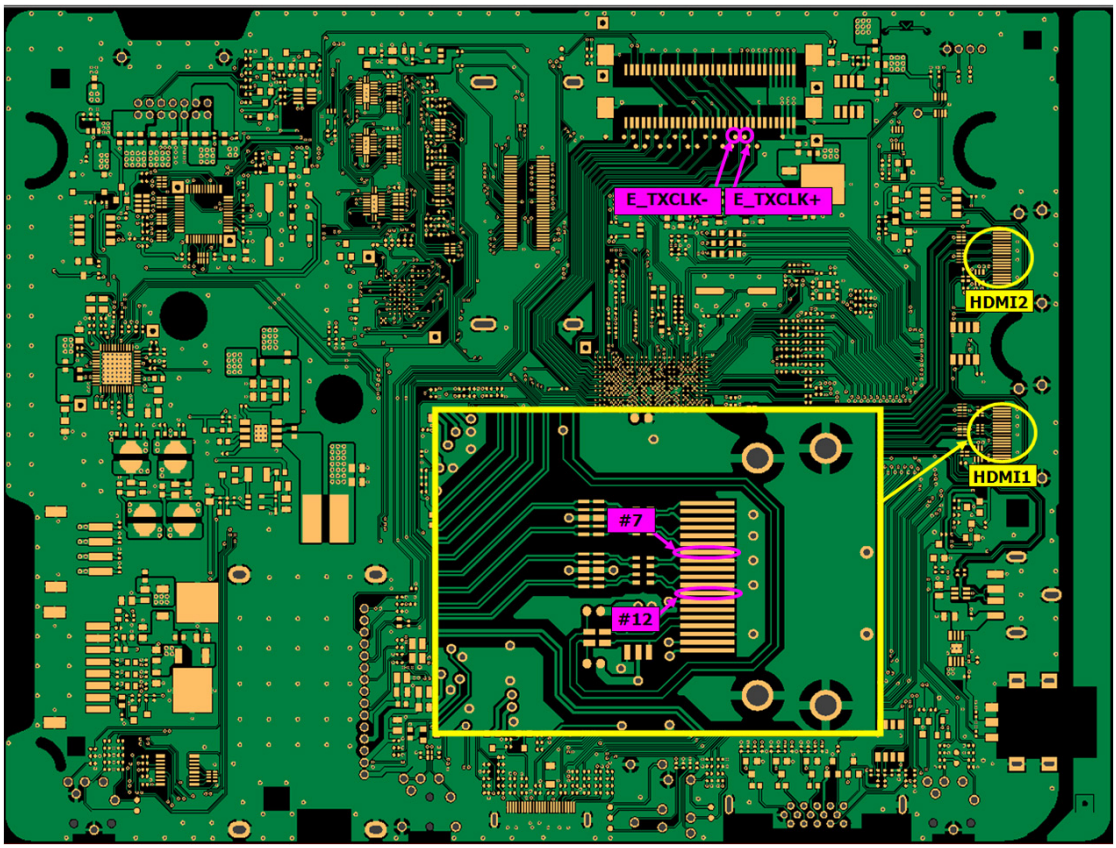
❷	LVDS输出



■ 无图像（HDMI1,2，3,4-数字信号）

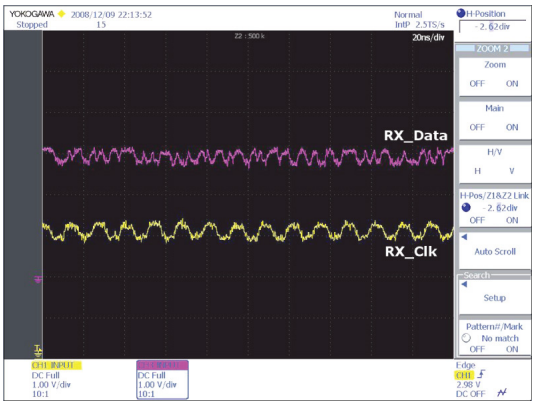
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查HDMI来源。 -检查HDMI开关，检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

Ma主板_顶部

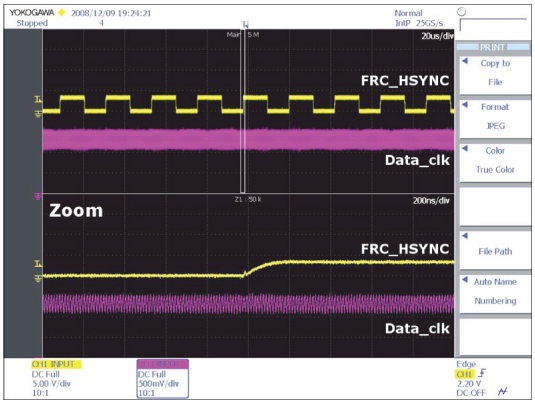


■ 波形

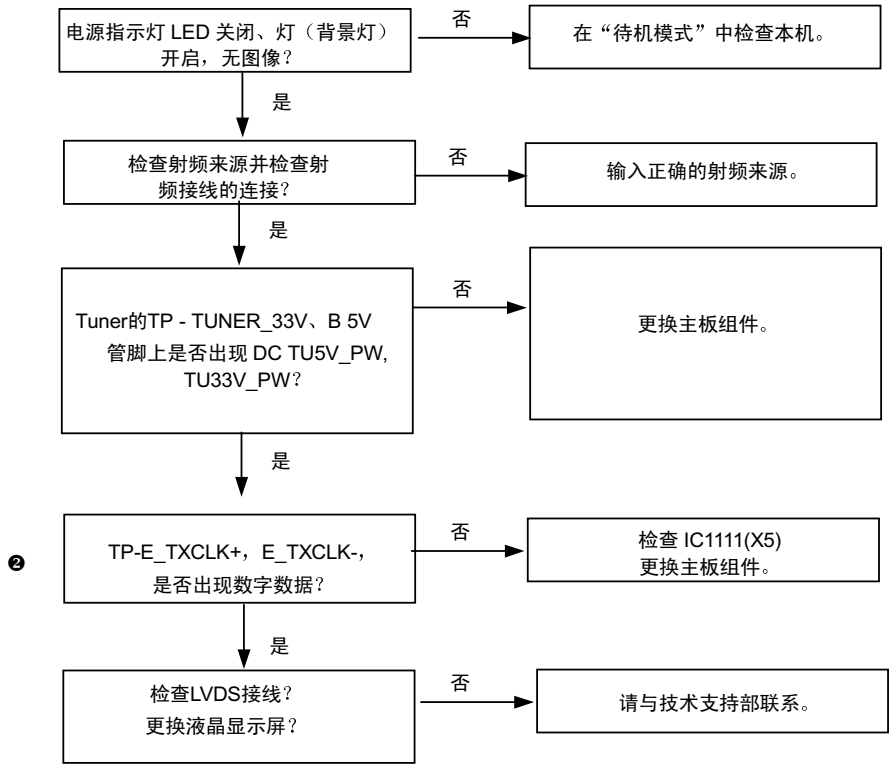
❸	HDMI输入(RX_Data, RX_Clk)



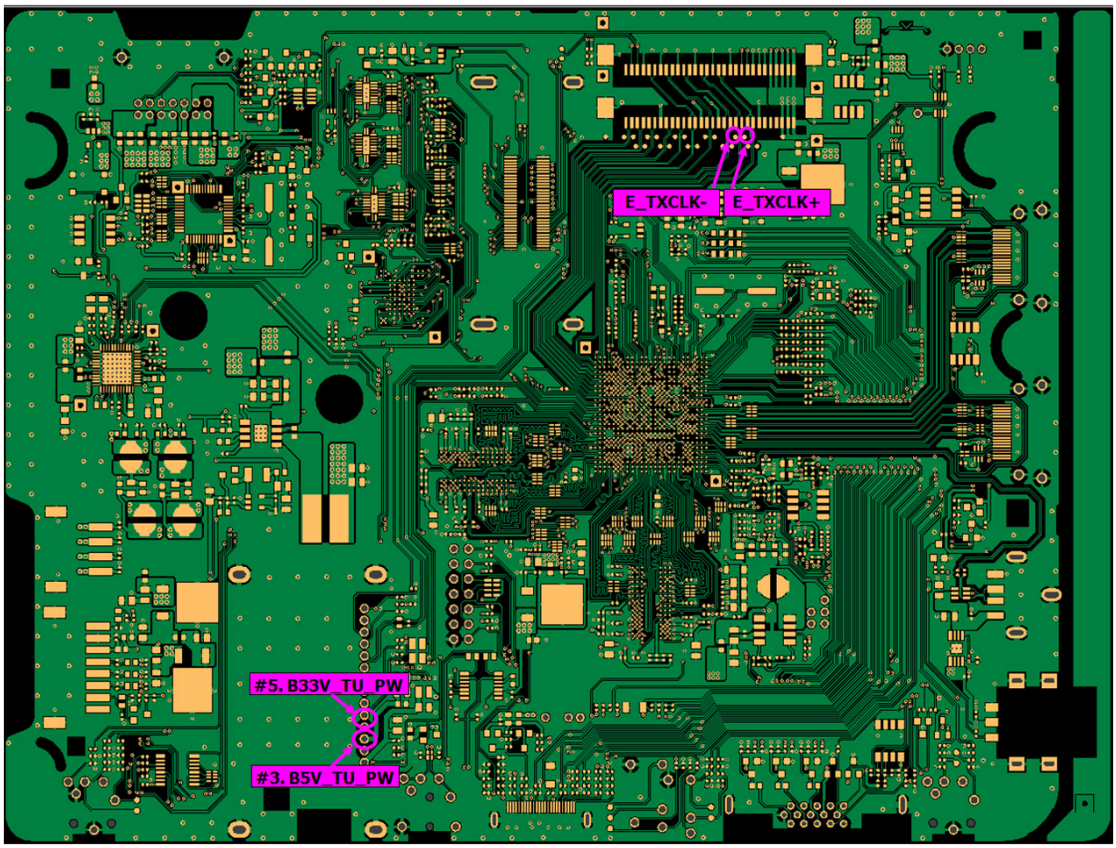
❷	LVDS输出



■ 无图像（Tuner_CVBS）

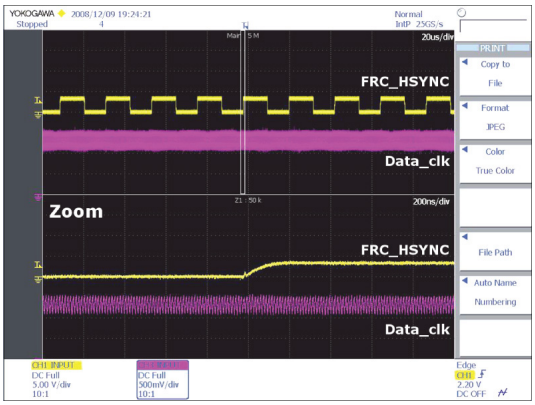
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查Tuner CVBS来源。 -检查Tuner，检查主芯片。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

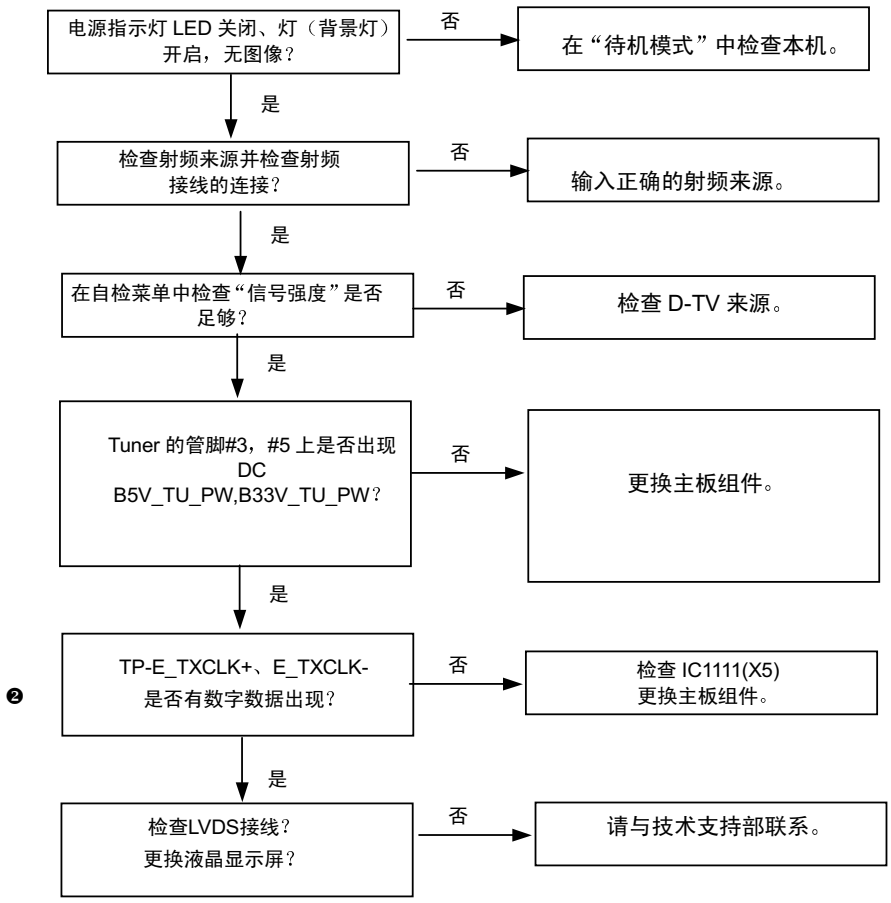


■ 波形

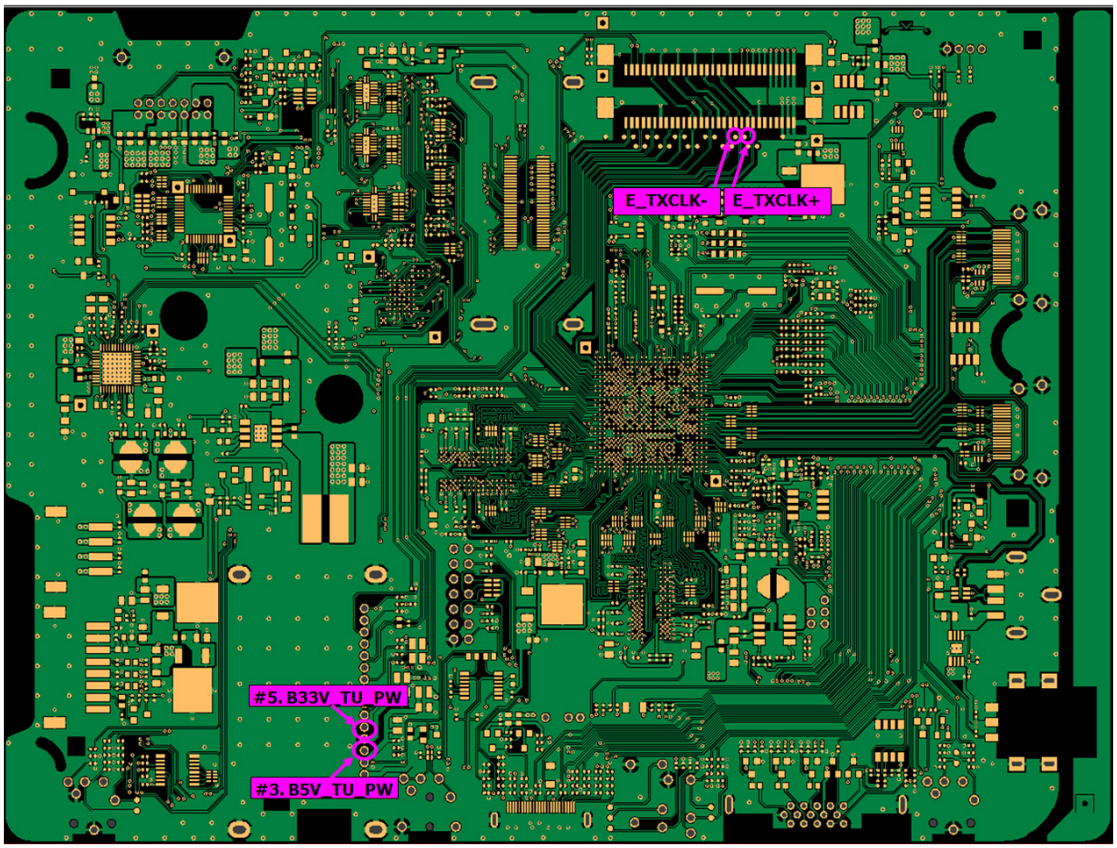
❷	LVDS输出



■ 无图像（Tuner DTV）

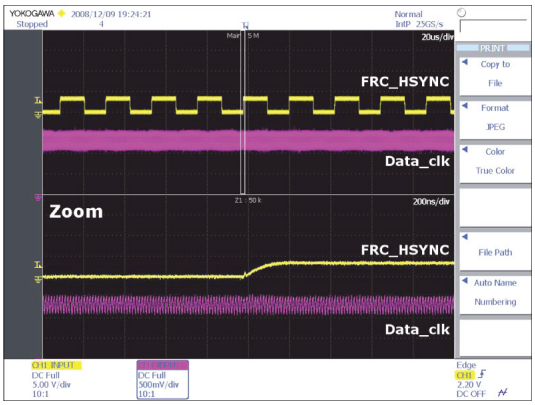
征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查DTV来源。 -检查Tuner，检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部

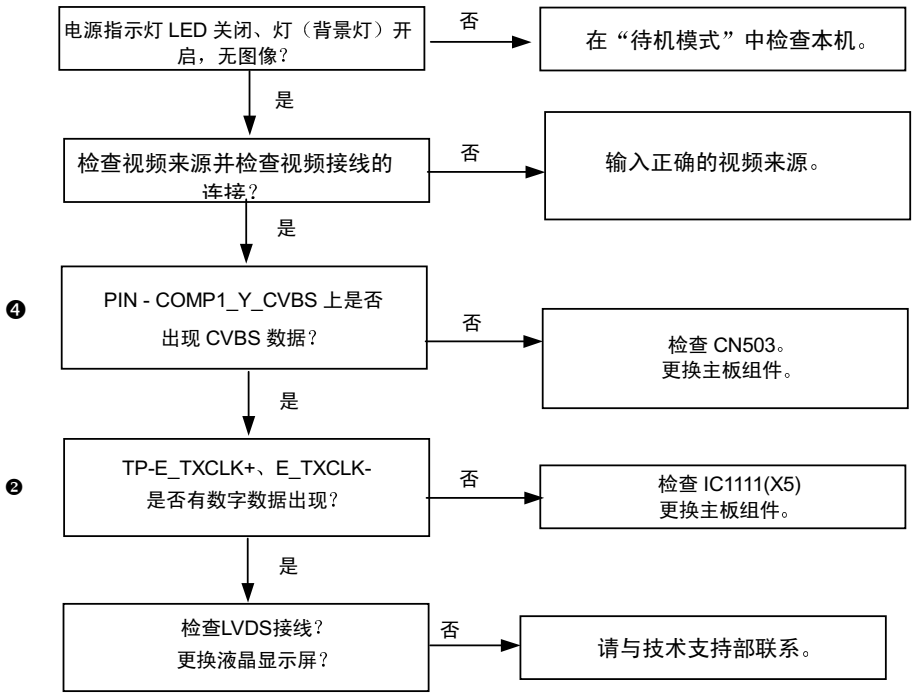


■ 波形

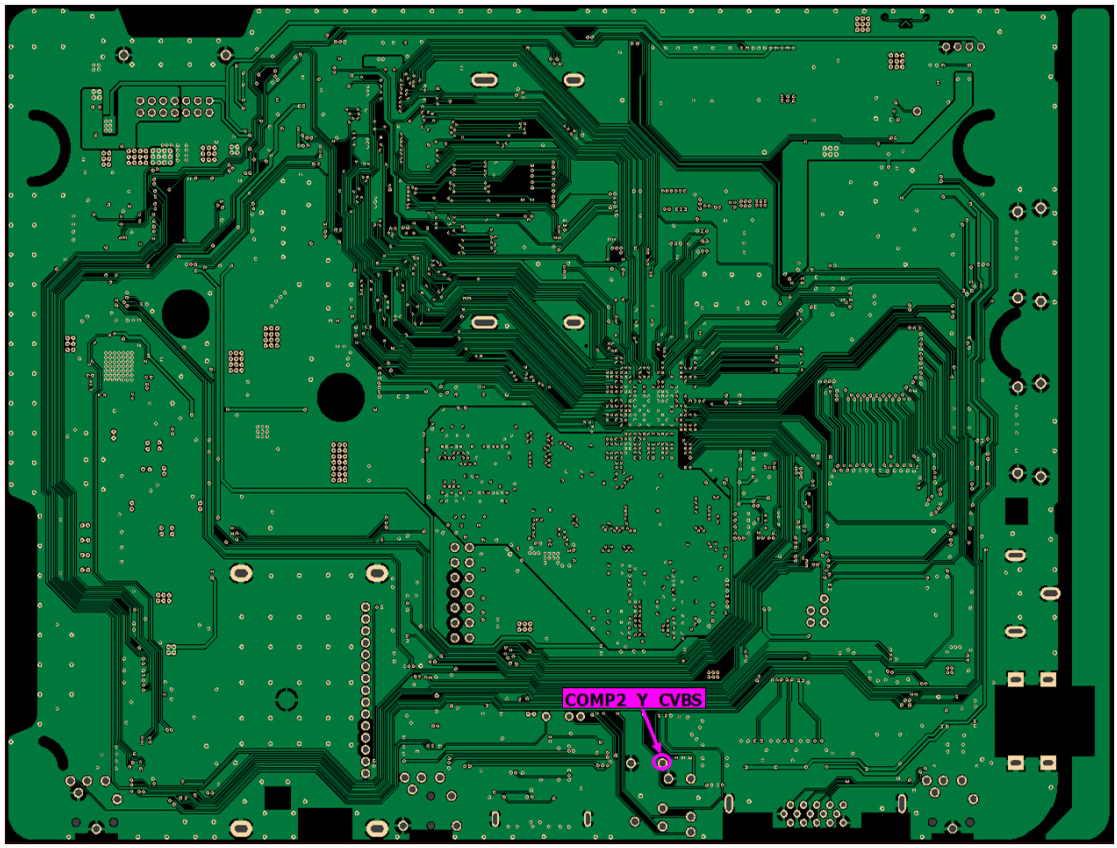
❷	LVDS输出



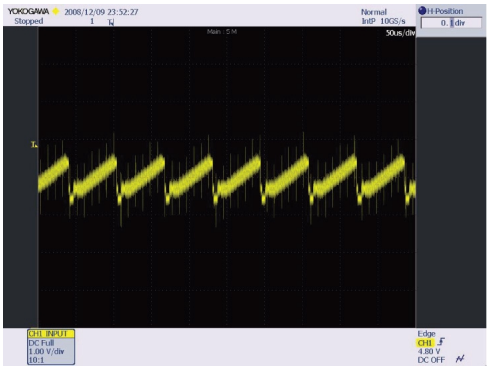
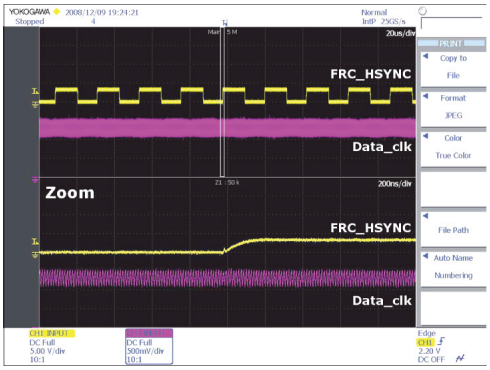
■ 无图像（Video CVBS）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查Video CVBS来源。 -检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

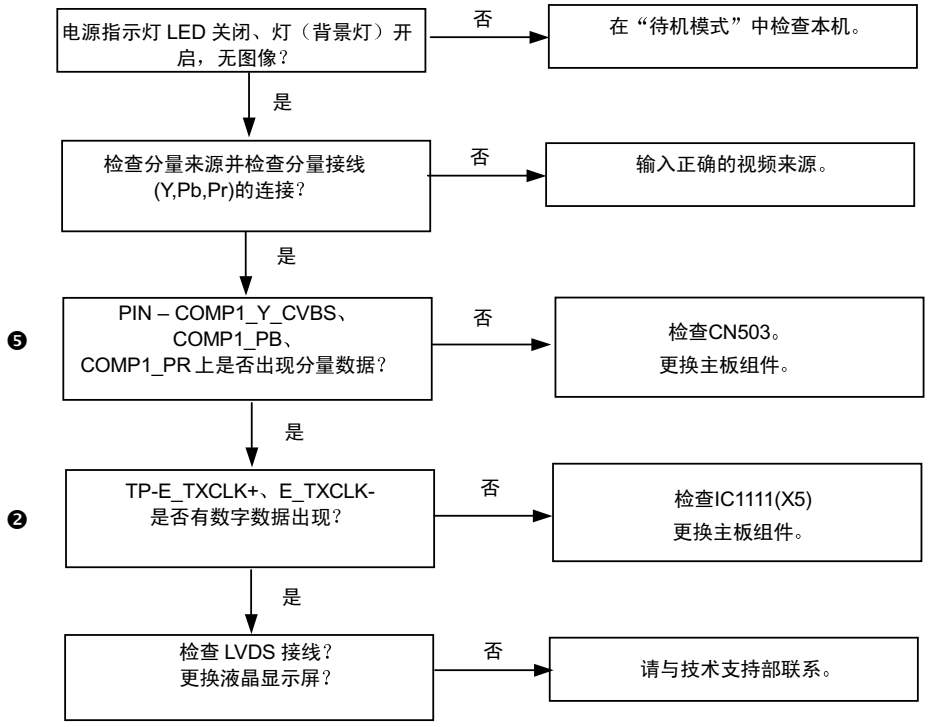
主板_底部



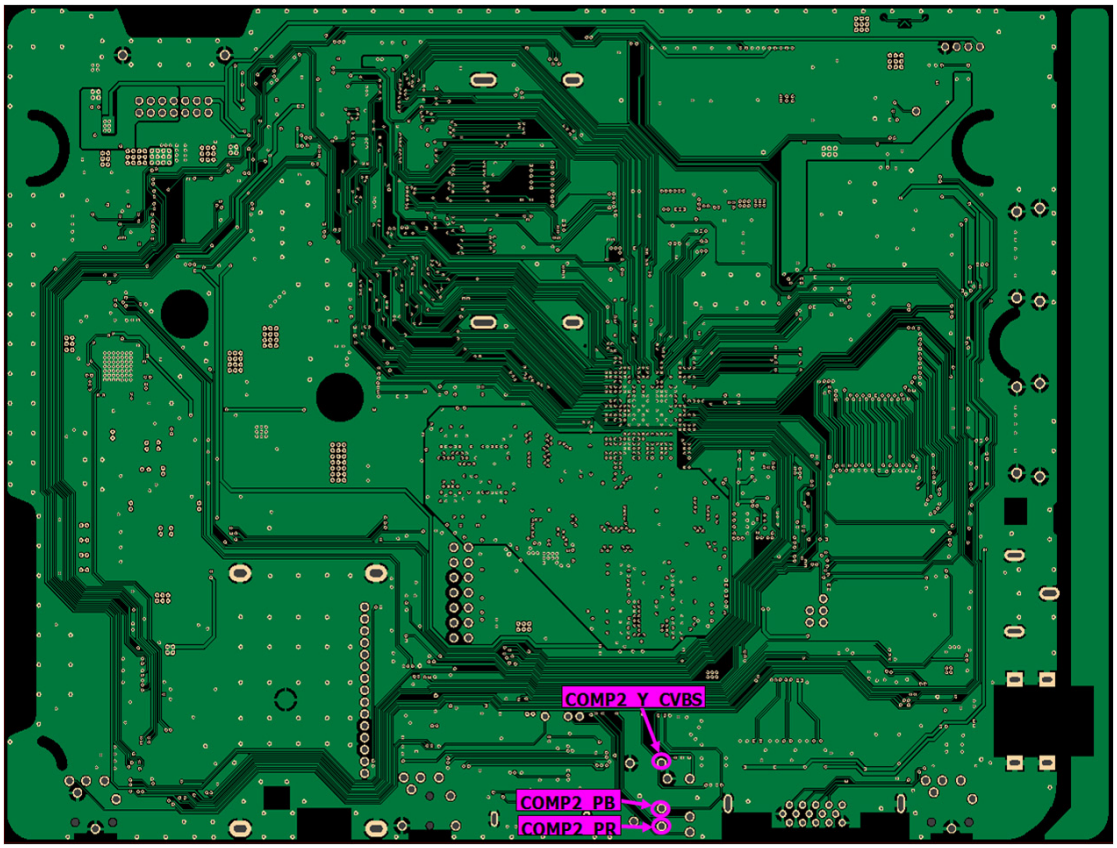
■ 波形

❹	CVBS输出（灰度栏）
	
❷	LVDS输出
	

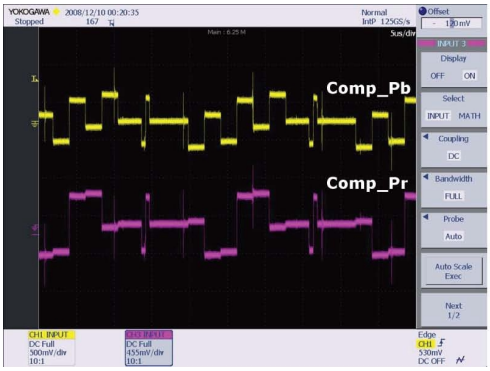
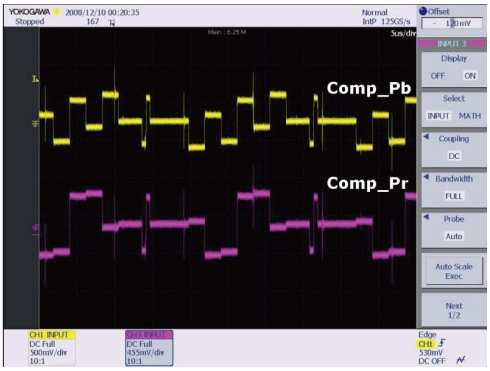
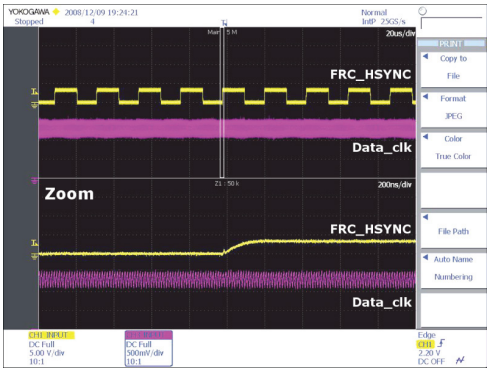
■ 无图像（分量）

征兆	-声音正常，但屏幕上未显示画面。
主要检查点	-检查分量来源。 -检查主芯片组。 -当断开连接主板和面板的LVDS接线时，可能出现这种情况。
诊断	
小心	在IP板上工作之前，必须断电。

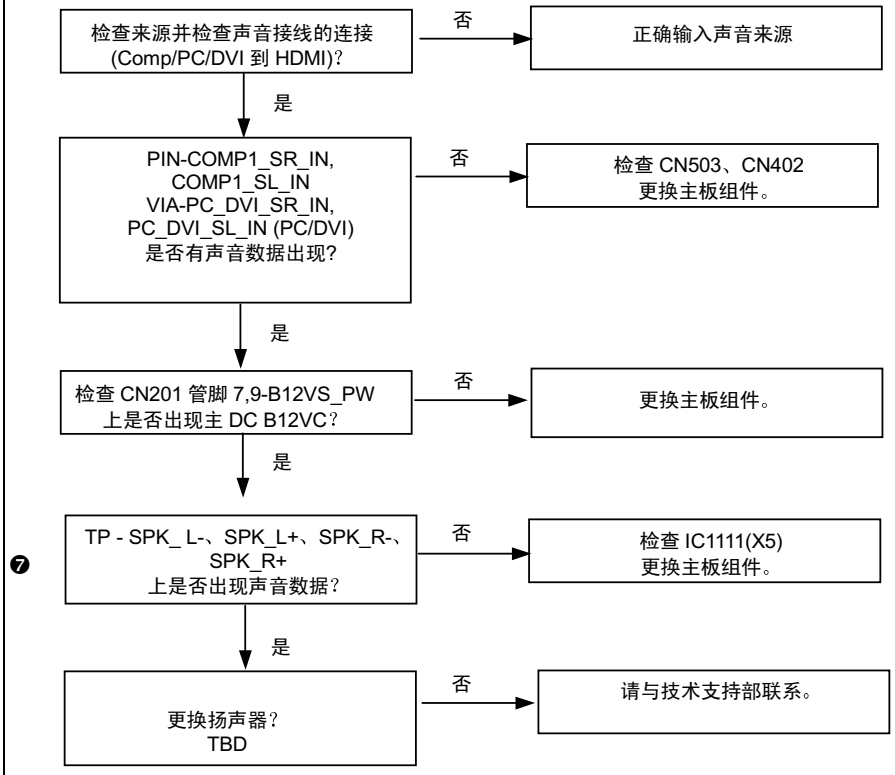
主板_底部



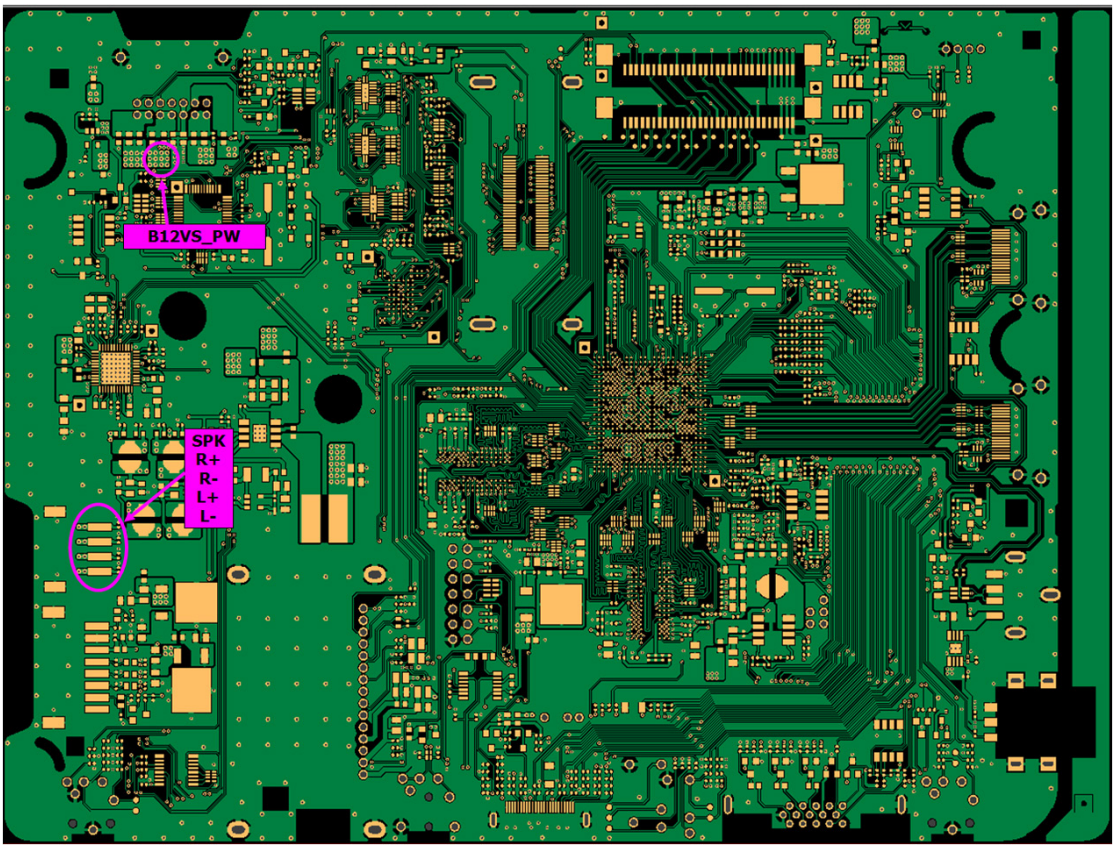
■ 波形

❺	分量_Y(灰度级)/Pb/Pr(色彩条)
	
❷	LVDS输出
	

■ 没有声音

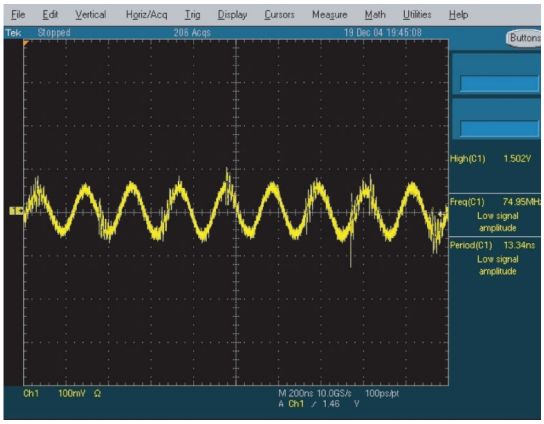
征兆	-图像正常，但没有声音。
主要检查点	-扬声器连接器被断开或被损坏。 -主板的声音处理部分发生故障。 -扬声器缺陷。
诊断	
小心	在IP板上工作之前，必须断电。

主板_顶部



■ 波形

❼	扬声器输出



4-2.调整和调节

4-2-1.一般维修说明

1.通常，彩色LED电视只需在安装时稍加调节。检查基本特性，如高度、水平和竖直同步。

2.使用规定的测试设备或等效品。

3.需要正确的匹配阻抗。

4.避免过载。扫描振荡器发出的过多信号可能使电视的前端过载。当插入标志信号时，不可使标志信号发生器干扰测试结果。

5.只可把电视连接到具有后盖铭牌上标定的电压和频率的交流电源上。

6.当电视机处于开机状态时，不可试图连接或断开接线。必须保证在更换任何零件时拔下电源线。

7.为了防止电击危险，应使用隔离变压器。

4-3.工厂模式调节

4-3-1. 进入工厂模式

如欲进入“维修模式”，可按下列顺序按下遥控键：

-如果没有工厂遥控器

信息 → 菜单 → 静音 → 开机

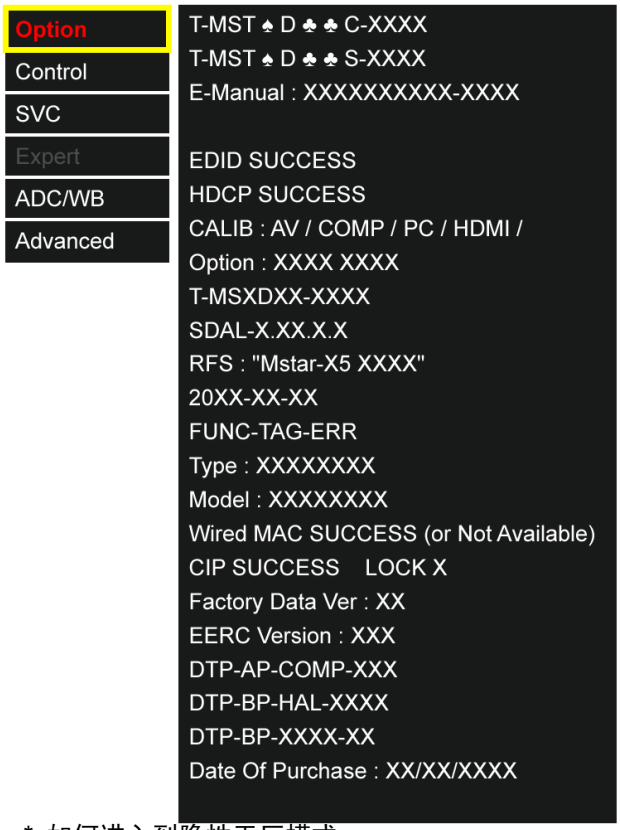
4-3-2 如何进入维修模式

使用客户遥控

1. 关机并设置为待机模式。
2. 按此顺序按下遥控按钮：关机-信息-菜单-静音可以开机。
3. 开机并进入到维修模式，这可能需要耗费大约20秒的时间。
4. 按下电源按钮退出并存储数据到存储器中。

- 如果进入维修模式失败，重复上述步骤1和步骤2。

5. 初始化“维修模式显示”状态



♠	OPTION (Option-Model)	
5	X6-TV	UD5500 / UD5700
4	X5-TV	UD5500/UD5550/UD5700/ LD460H/LD463H/LD467H/ LD468H/LD560H/LD568H/ LD580H/UD4000H/UD5000H/ UD5500H/LD567H
M	X5-MFM	TA350 / TA550
♣♣	OPTION (Option-Local Set)	
EU	EU/EU_*/NORDIG/CIS_*/AD_*	
AA	EA_*/ED_*	

* 如何进入到隐性工厂模式。

a. 进入到工厂模式

b. 移动箭头选择“高级”

c. 按键输入：0 + 0 + 0 + 0

** 隐藏菜单：高级

6. 在维修模式中的按钮操作

菜单	全部菜单显示/移动到主体菜单
方向键▲/▼	通过移动鼠标选择项目
方向键◄/►	所选项目增加/减少
来源	通过激活输入源，连接到本机，进行循环。

4-3-3 工厂数据

Option			
Factory Name	***Data***	***Range***	***Use***
Factory Reset			
Type		19A6TH0C/19I6TH0C/22D6TF0C/22I6TF0C /26A6AH0C/26D6AH0C/26L6AH0C/32A6AF0C /32A6AH0C/32D6AF0C/32L6AH0C/37L6AF0C /40A6AF0C/40D6AF0C/40L6AF0C/46A6AF0C /46D6AF0C/19A6TH0E/19L6TH0E/22D6TF0E /22L6TF0E/23A6TF0E/24L6TF0E/27A6TF0E /32A6AH0E/32A6UF0E/32P6AH0E/32P6UF0E /32L6UF0E/32L6AH0E/37P6UF0E/40A6UF0E /40P6UF0E/40H6UF0E/46A6UF0E/46P6UF0E /43DHHcD/51DFHcD/51DHHcD/51DSArD/51DSCrD /59DFHcD/59DSArD/59DSCrD/64DFHcD/64DSCrD	Select Panel Type ❶❷ : inch ❸ : vendor ❹ : refresh ❺ : POL ❻ : resolution ❼ : multi ❽ : BLU
Local Set	AD_AU	EU/EU_ITALY/EU_GER/EU_FRANCE /EU_BENELUX/EU_UK/EU_ARMENIA/NORDIG /AD_AU/AD_NZ/AD_SINGAPOL/CIS_RUSIA /CIS_UKRINA/CIS_KAZAKH/EU_TURKEY /EU_AFRICA/EU_MOROCO/EA_VIET/EA_THAI /EA_INA/EA_CHINA/EA_INDIA/EA_SRILANKA /EA_NEPAL/EA_BANGLA/EA_IRAN/EA_ISRAEL /EA_EGYPT/EA_LIBYA/EA_CIS/EA_M_ASIA /EA_IRAQ/EA_ARAB/EA_SAUDI/EA_PAKISTAN /EA_E_ASIA/EA_AFRICA/EA_S_AFRICA/EA_MAL /EA_PHI/ED_IRAN/ED_VIET/ED_INA/ED_ISRAEL /COLOMBIA/TAIWAN	Select Area
Model	UD5000H	LD400/LD450/LD480/LD550/LD570/LD580/UD4000 /UD4010/UD5000/UD5500/UD5550/UD5700/PD450 /PD451/PD460/PD490/PD491/PD540/PD541 /PD550/PD551/PD560/PD570/PD6400/PD6500 /PD6600/PD6900/PD7000/LD460H/LD463H /LD467H/LD468H/LD560H/LD568H/LD580H /UD4000H/UD5000H/UD5500H	Select Model
TUNER	SEC_TC	SEC_ATSC/SEC_TC/ALPS_TC/SI_TCS/SI_T2 /SEC_ISDB/SEC_ATC/SI_ATC/SI_TW	EU/AU (DVB-TC/DVB-T) : SEC_TC Satellite(DVB-TCS) : SI_TCS UK, Nordic T2(DVB-T2C) Ready : SEC_ATC
Ch Table		PBA/SUWON/SESK/SEH/SERK/SDMA_AU /SDMA_NZ/SDMA_SG/SEIN/SAVINA/SIEL_C /SIEL_N/TTSEC/TSED/TSE/IRAN/SESK-T2 /SUWON-T2/INL	
Front Color		P-S-C-BK/P-S-R-BK/P-S-BK/P-S-B-BK/P-T-R-BK/ P-T-C-BK/P-T-W-Bn/P-T-W-Gy/P-T-M-Bn/P-T-C-Gy/ P-T-R-Gy/P-W-Milk/P-W-M-Wt/P-W-D-Gy/P-W-Vio/ L-S-C-BK/L-S-R-BK/L-S-BK/L-S-B-BK/L-T-R-BK/ L-T-C-BK/L-T-W-Bn/L-T-W-Gy/L-T-M-Bn/L-T-C-Gy/ L-T-R-Gy/L-W-Milk/L-W-M-Wt/L-W-D-Gy/L-W-Vio/ U-S-C-BK/U-S-R-BK/U-S-BK/U-S-B-BK/U-T-R-BK/ U-T-C-BK/U-T-W-Bn/U-T-W-Gy/U-T-M-Bn/U-T-C-Gy/ U-T-R-Gy/U-T-BL-M/U-T-BK-M/U-TC-L-M/U-W-Milk/ U-W-M-Wt/U-W-D-Gy/U-W-Vio	LD4** : L-S-R-BK LD5** : L-T-C-BK UD40** : U-S-BK UD50** 32" above : U-T-C-BK UD50** 22", 27" : US-BK UD55**/UD57** : U-T-R-BK

Control

Factory menu Name

EDID

Sub Option

Shop Option

Sound

Factory Name	*Data*	*Range*	*Use*
EDID			
EDID ON/OFF	OFF	Download EDID data to EEPROM. 1. Set "ON" of EDID ON/OFF 2. Go EDID WRITE ALL and Push Enter or ▷ button. 3. If You See Success message, SET "OFF" of EDID ON/OFF Case of HDMI 1.2 EDID Service 1. Go EDID VER and Set HDMI 1.2 2. Go EDID PORT and Select HDMI port	
EDID WRITE ALL	…		
EDID WRITE PC	…		
EDID WRITE HDMI	…		
EDID WRITE HDMI1	…		
EDID WRITE HDMI2	…		
EDID WRITE HDMI3	…		
EDID WRITE HDMI4	…		
EDID VER	…		
EDID PORT	…		
EDID WRITE DVI	…		
Sub Option			
RS-232 Jack	UART	Debug/Logic/UART	Select Setting of UART port. Initial value is "UART"
Watchdog	ON	ON/OFF	Select Watchdog. Initial value is "ON"
WD Count	0	255	Watchdog Count. Read Only.
Dimm Type	EXT	fixed	Select Dimming Type. Initial value is "EXT"
Lvds Format	JEIDA	JEIDA/VESA/19INCH	Select LVDS format. 19/22/27inch :"VESA" other inch :"JEIDA"
OTN Server Type	operating	operating/development	
OTN Test Server	OFF	OFF/ A/B/C/D/E Zone	
OTN Support	ON	ON/OFF	
OTN Reset		not modifyed	
OTN Duration	OFF	ON/OFF	
OTN Fail Test	OFF	ON/OFF	
View Log		not modifyed	

KEY SENSITIVITY	36	0~255	LD400 : 72 LD45*/LD48*/LD5** : 36 UD40** : 38 UD50** : 41 UD55**/UD57** :36 TA350 : 32 TA550 : 34	
WIFI REGION	E	A~V	**Local Set**	**WiFi**
			EU	E
			EU_Italy	E
			EU_Germany	E
			EU_France	E
			EU_Benelux	E
			EU_UK	E
			EU_Armenia	A
			NORDIG	E
			AD_Au	E
			AD_NZ	H
			AD_Singapol	F
			CIS_Rusia	C
			CIS_Ukraina	B
			CIS_Kazakhstan	C
			EU_Turkey	A
			EU_Africa	H
			EU_Moroco	A
			EA_Vietnam	F
			EA_Thai	B
			EA_INA	N
			EA_China	N
			EA_India	F
			EA_Srilanka	R
			EA_Nepal	J
			EA_Bangladesh	F
			EA_Iran	M
			EA_Israel	H
			EA_Egypt	F
			EA_Libya	E
			EA_CIS	A
			EA_MidAsia	A
			EA_Iraq	A
			EA_Arab	E
			EA_Saudi	O
			EA_Pakistan	M
			EA_EastAsia	A
			EA_Africa	A
			EA_S_Africa	E
			EA_Malaysia	O
			EA_PHI	B
			ED_Iran	M
			ED_Vietnam	F
			ED_INA	N
			ED_Israel	H

Hotel Option			
Hotel Hospitality	OFF		
Shop Option			
Shop Mode	OFF	ON/OFF	
Exhibition Mode	OFF	ON/OFF	
Sound			
High Devi	OFF	ON/OFF	
Carrier_Mute	OFF	ON/OFF	
Speaker Delay Normal	10	0~255	Audio delay for Lipsync
Pilot Level High Thld	0x28h	0x00~0xff	Control for ATV sound of stereo /multiplex
Pilot Level Low Thld	0x10h	0x00~0xff	Control for ATV sound of stereo /multiplex
Speaker EQ	ON	ON/OFF	Control for sound precision

SVC

Factory menu Name	***Data***	***Range***	***Use***
Test Pattern			
Panel Auto Setting			
Panel Display Time	0Hr		
Logic Usb D/L	off		
Tuner Status			
T-CON Usb Download			
MICOM UPGRADE	off		Set ON→Sub micom upgrade ,after upgrade Main Micom (over 5 minutes)
BT ADDRESS	0		
BT UPGRADE			
SVC Reset			
Factory Name	***Data***	***Range***	***Use***
Test Pattern			
Pattern Sel	OFF	OFF/White/Black/Red/Green/Blue/ Cross/OneDot/ColorBar/GrayStep	"Test for Input of Scaler. If you can see pattern well, there is problem at input of Scaler."
Logic Pattern Sel	…	Not modified	
Logic Level Sel	…	Not modified	
TUNER STATUS			
DVB			
ISDB-T			
DVB			
DVB			
SNR		Not modified	
BER		Not modified	
Singal Strength		Not modified	
Bandwidth		Not modified	
Frequency		Not modified	

LNA Status		Not modified	
FFT		Not modified	
Modulation		Not modified	
Code Rate		Not modified	
GI		Not modified	
Hier Modulation		Not modified	
Frequency Offset		Not modified	
Timing Offset		Not modified	
AGC		Not modified	
UCB		Not modified	
PLL Type		Not modified	
DEMOD Type		Not modified	
TPS LOCK		Not modified	
RS Lock		Not modified	
SSI		Not modified	
SQI		Not modified	
ISDB-T			
FFT Size_1		Not modified	
Guard Interval_1		Not modified	
Freq. Offset_1		Not modified	
SNR_1		Not modified	
IF AGC_1		Not modified	
TMCC Lock_1		Not modified	
TS Packet_1		Not modified	
Master Lock_1		Not modified	
A_Modulation_1		Not modified	
A_Code Rate_1		Not modified	
A_Timer InterLeave_1		Not modified	
A_Segments Num_1		Not modified	
A_Ber_1		Not modified	
B_Modulation_!		Not modified	
B_Code Rate_1		Not modified	
B_Timer InterLeave_1		Not modified	
B_Segments Num_1		Not modified	
B_BER_1		Not modified	
C_Modulation_1		Not modified	
C_Code Rate_1		Not modified	
C_Timer InterLeave_1		Not modified	
C_Segments Num_1		Not modified	
C_BER_1		Not modified	

ADC WB

Factory Menu Name

ADC

ADC Target

ADC RESULT

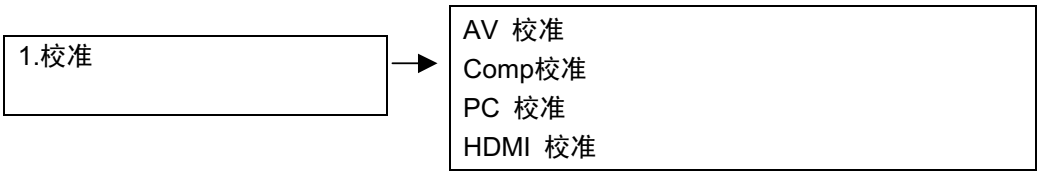
WB

Factory Name	*Data*	*Range*	*Use*
ADC			
AV Calibration	Success	Success / Failure	
Comp Calibration	Success	Success / Failure	
PC Calibration	Success	Success / Failure	
HDMI Calibration	Success	Success / Failure	
ADC Target			
1st_AV_Low	64	0 ~1020	
1st_AV_High	880	0 ~1020	
1st_AV_Delta	2	0 ~ 7	
1st_COMP_Y_Low	64	0 ~1020	
1st_COMP_Cb_Low	512	0 ~1020	
1st_COMP_Cr_Low	512	0 ~1020	
1st_COMP_Y_High	940	0 ~1020	
1st_COMP_Cb_High	512	0 ~1020	
1st_COMP_Cr_High	512	0 ~1020	
1st_COMP_Delta	2	0 ~ 7	
1st_PC_Low	4	0 ~1020	
1st_PC_High	1004	0 ~1020	
1st_PC_Delta	2	0 ~ 7	
2nd_ACH_Low	4	0 ~124	
2nd_ACH_High	940	0 ~1020	
2nd_PC_Low	4	0 ~124	
2nd_PC_High	940	0 ~1020	
2nd_Delta	2	0 ~ 7	
ADC RESULT			
1st_Y_GH	0	0 ~ 511	
1st_Y_GL	0	0 ~ 255	
1st_Cb_BH	0	0 ~ 511	
1st_Cb_BL	0	0 ~ 255	
1st_Cr_RH	0	0 ~ 511	
1st_Cr_RL	0	0 ~ 255	
2nd_R_L	0	0 ~ 255	
2nd_G_L	0	0 ~ 255	
2nd_B_L	0	0 ~ 255	

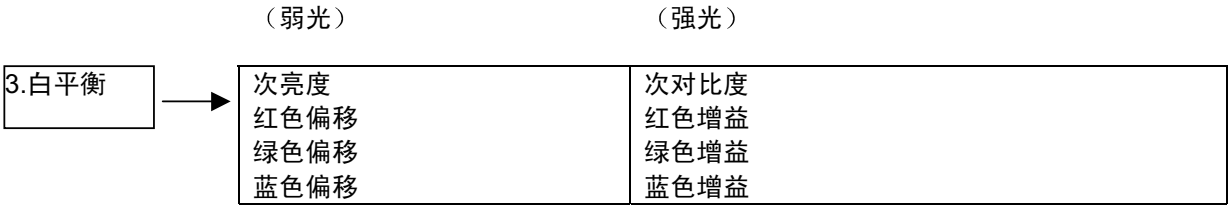
2nd_R_H	0	0 ~ 255	
2nd_G_H	0	0 ~ 255	
2nd_B_H	0	0 ~ 255	
WB	***Mode***		
Sub Brightness	128	0 ~ 255	
R_Offset	128	0 ~ 255	
G_Offset	128	0 ~ 255	
B_Offset	128	0 ~ 255	
Sub Contrast	128	0 ~ 255	
R_Gain	128	0 ~ 255	
G_Gain	128	0 ~ 255	
B_Gain	128	0 ~ 255	
Movie R Offset	512	0 ~ 1023	
Movie B Offset	512	0 ~ 1023	
Movie R Gain	512	0 ~ 1023	
Movie B Gain	512	0 ~ 1023	

4-4.白平衡-校准

4-4-1 白平衡-校准



4-4-2 白平衡-调节



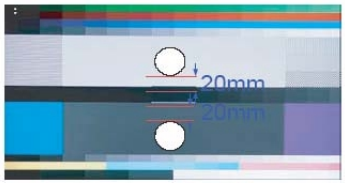
（白平衡调节状况，请参照下页）

4-5. 白色比（平衡）调节

1. 可以在工厂模式下调节白色比（1：校准，3：白平衡）。

2. 因为调节值和数据值随输入源而异，所以必须在 CVBS、分量 1 和 HDMI1 模式下调节。

3. 在默认设置下配置各模式的最佳值。（参照表 1、2）
   该项随显示屏尺寸和规格而异。
   -设备：CS-210
   -图案：MIK K-7256 #92 “平白平衡图”，作为标准
   -只有当与主设备的结果比较结果后，才可使用其他设备
   -设置老化时间：60 分钟
   -白平衡调节的校准和手动设置



HDMI：#24 方格图校准→用#92 图手动调节（720p）
COMP：#24 方格图校准→用#92 图手动调节（720p）
CVBS：#24 方格图校准→用#92 图手动调节（PAL）

-如果在 HDMI 模式下完成，调节座标几乎与 AV/COMP 模式下相同。
-白平衡手动调节

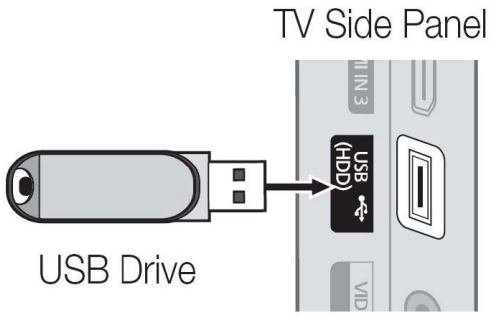
P-Mode		调节坐标			
		x	y	Y（亮度）	T(K) + MPCD
CVBS (PAL)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	12.6cd/m² (3.7 Ft)	12,000 (±0)
COMP (720P)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	13.0cd/m² (3.8 Ft)	12,000 (±0)
HDMI (720P)	H/L	272	278	- (Sub_CT:130)	12,000 (±0)
	L/L	272	278	13.0cd/m² (3.8 Ft)	12,000 (±0)

-调节规格
白平衡：强光 (±1)，弱光(±3)
亮度：强光(不用担心)，弱光(±0.2 Ft/L)

4-6.维修信息

4-6-1.USB 下载方法（主软件和电子手册）

三星公司在将来可能会提供电视固件的升级。
升级将会通过连接USB驱动器到安置在电视背后的USB端口上。

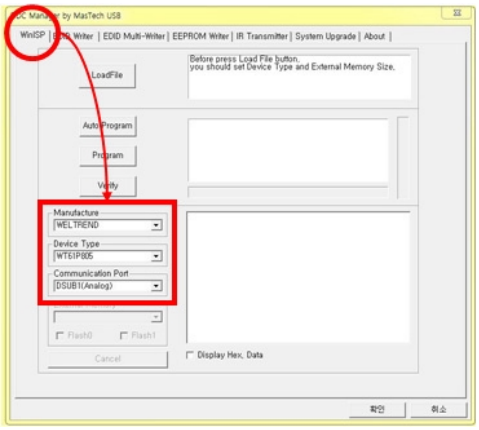
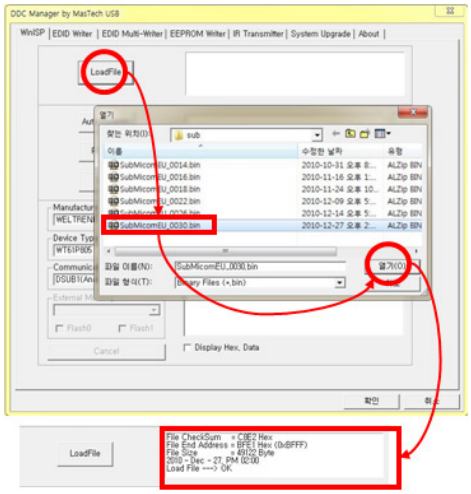


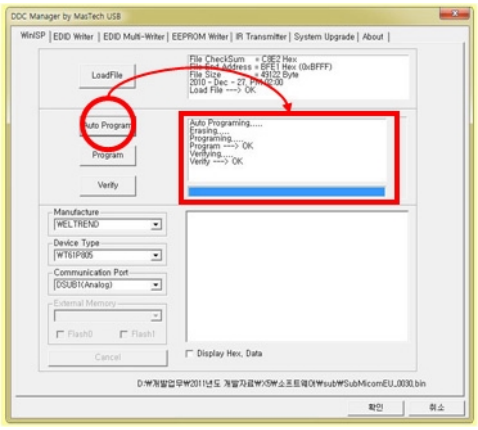
1.插入包含固件(T-MST4DEUC /T-MST4DEUC)升级的USB 驱动器到电视后部的 USB 端口上。
2.按下**菜单**按钮显示菜单。按下▲或▼按钮可选择支持，然后按下**回车**按钮。
3.按下 ▲ 或 ▼ 选择“软件升级”，然后再按下**回车**按钮选择“通过 USB”。显示信息“USB 扫描，大约需要 1 分钟的时间。”
4.出现信息“版本升级 XXXX 到版本 XXXX ?系统在升级后将会被重新设置”。
按下 ◄ 或 ► 按钮选择“是”，然后按下**回车**按钮。

请注意在进行升级的过程中，不要断开电源或取下 USB 驱动。在完成固件升级后，电视将会关闭。升级完成后请检查固件版本。软件升级后，视频和音频设置将会返回到默认（工厂）设置。我们推荐您写下您的设置，那样在升级后将会很容易复位。

4-7.如何升级 Sub Micom

4-7-1.Sub 软件（带有 DDC 管理器）

顺序	说明	
1	使用D-SUB接线连接DDC管理器到电视机。 并开机。 (USB类型：MTI-2510 /并联式：MTI-2059)	
2	打开DDC工具 （并联式和USB式）   检查设置 厂家：WELTREND 设备类型：WT61P805 通信端口：DSUB1（模拟） 外存储器：-	
3	载入Sub micom程序文件。	

顺序	说明	
4	按下“自动程序”按钮。 （大约需要15秒钟。）	
5	如果升级完成， 电视机将会自动启动。 断开装置。	

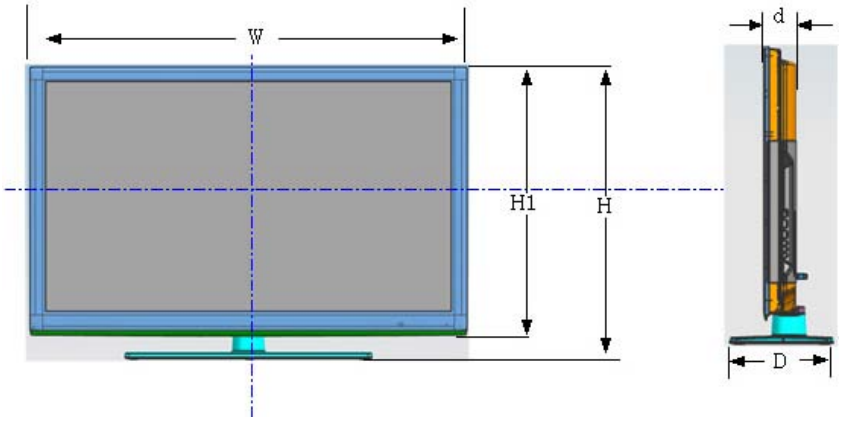
4-7-2.Sub S/W(在工厂模式中)

如果你没有DDC管理器，使用如下方法：

1. 进入工厂模式。
2. 选择“SVC”（使用 ▸ 按钮。）
3. 选择“MICOM升级关闭”。（使用 ▸按钮。）
4. 如果信息由“关闭”变更为“等待”，电视升级为Sub S/W.(大约5分钟)。
5. 如果升级完成，电视机将会自动重启。

4-8.机械图

4-8-1.UD5000



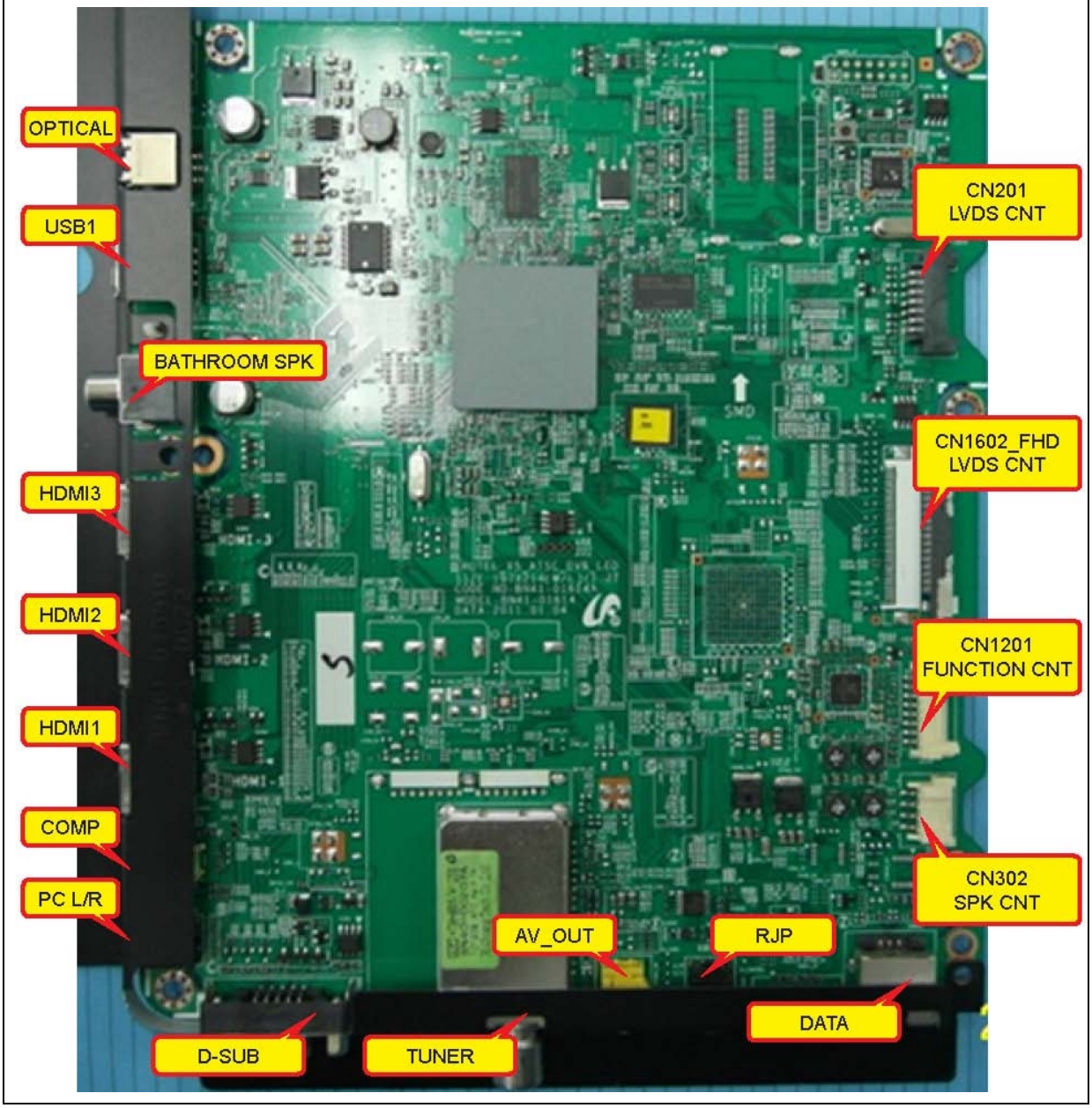
		32UD5000	40UD5000	46UD5000
尺寸 [mm]	机体带底座 (W x D x H)	768.0 x 240.0 x 532.1	955.8 x 255.0 x 638.5	1091.8 x 275.0 x 714.8
	机体不带底座 (W x D x H1)	768.0 x 29.9 x 468.2	955.8 x 29.9 x 574.0	1091.8 x 29.9 x 650.4
体重 [Kg]	机体带底座	10.2	14.36	17.3
	机体不带底座	7.46	11.08	13.74

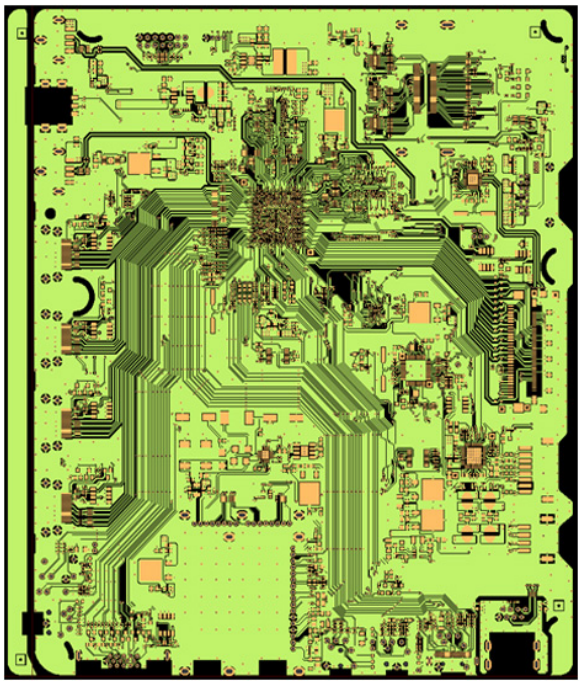
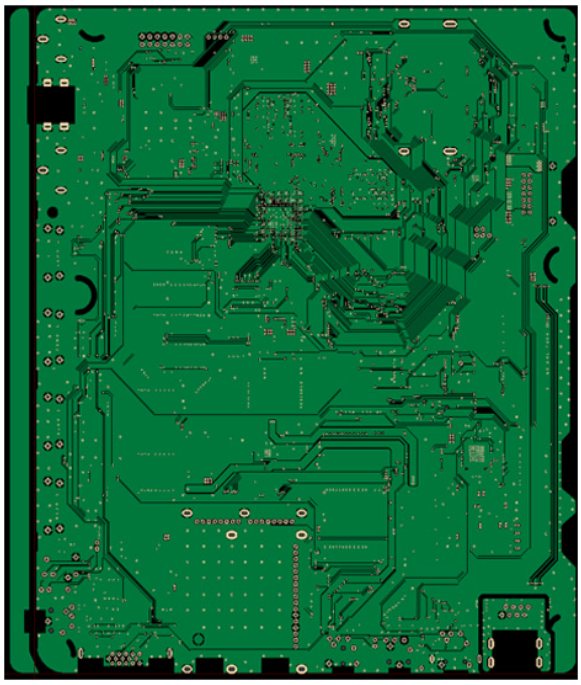
4-9.印刷电路板图

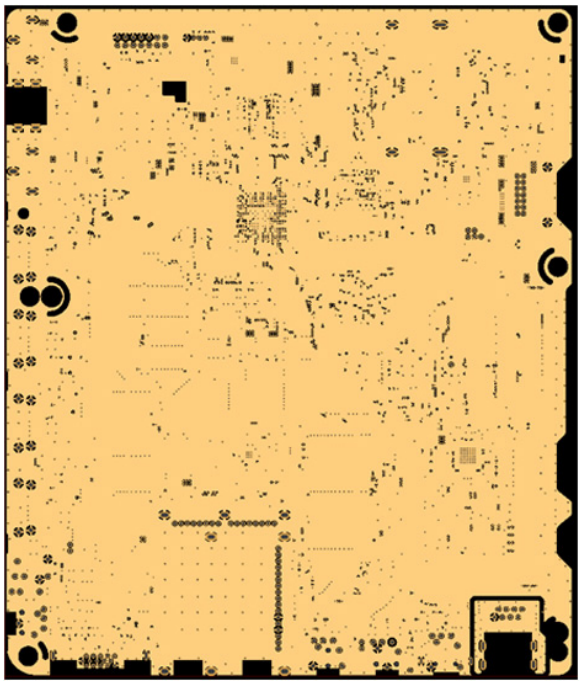
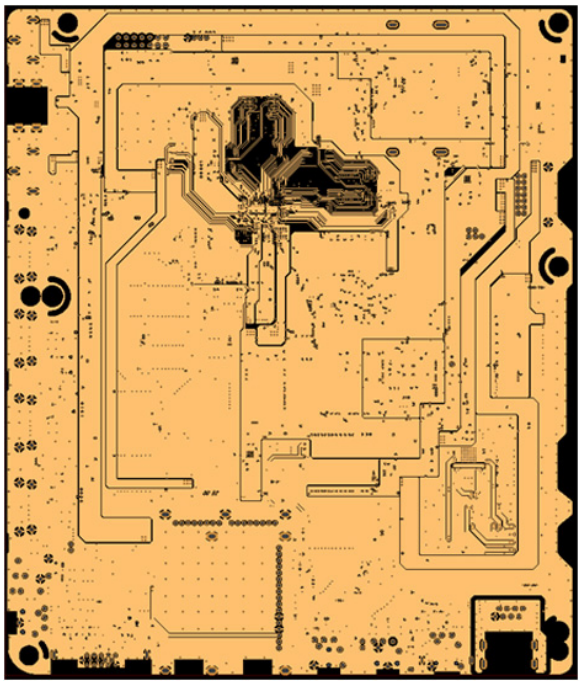
4-9-1.印刷电路板布局

■ UD5000 (32"/40"/46")

UD5000 (32" / 40" / 46")

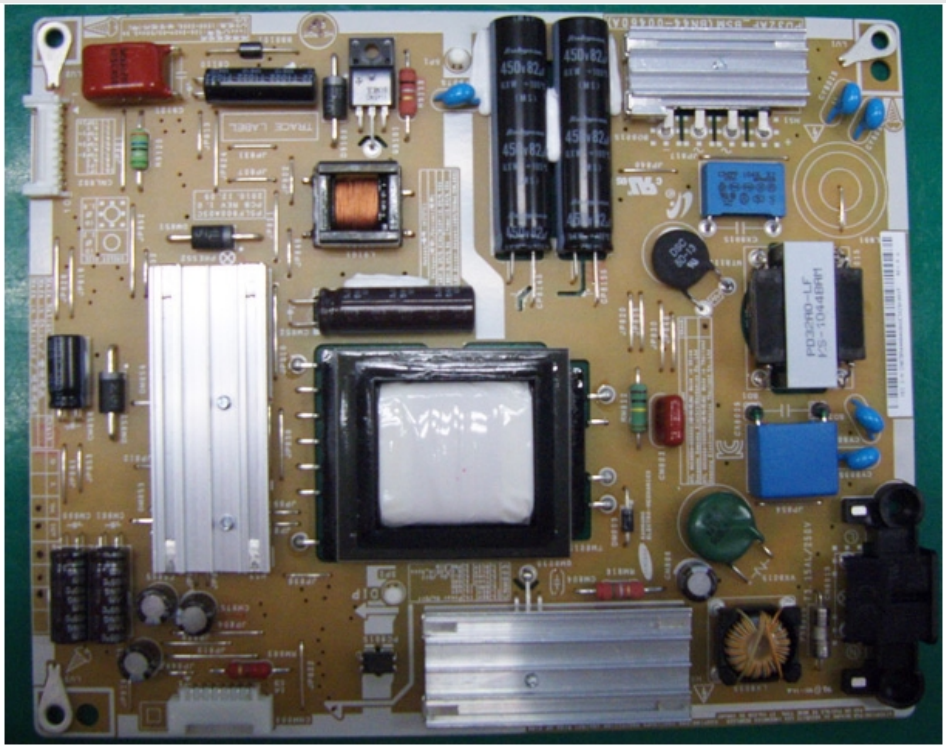


顶部	底部
	

内侧1	内侧2
	

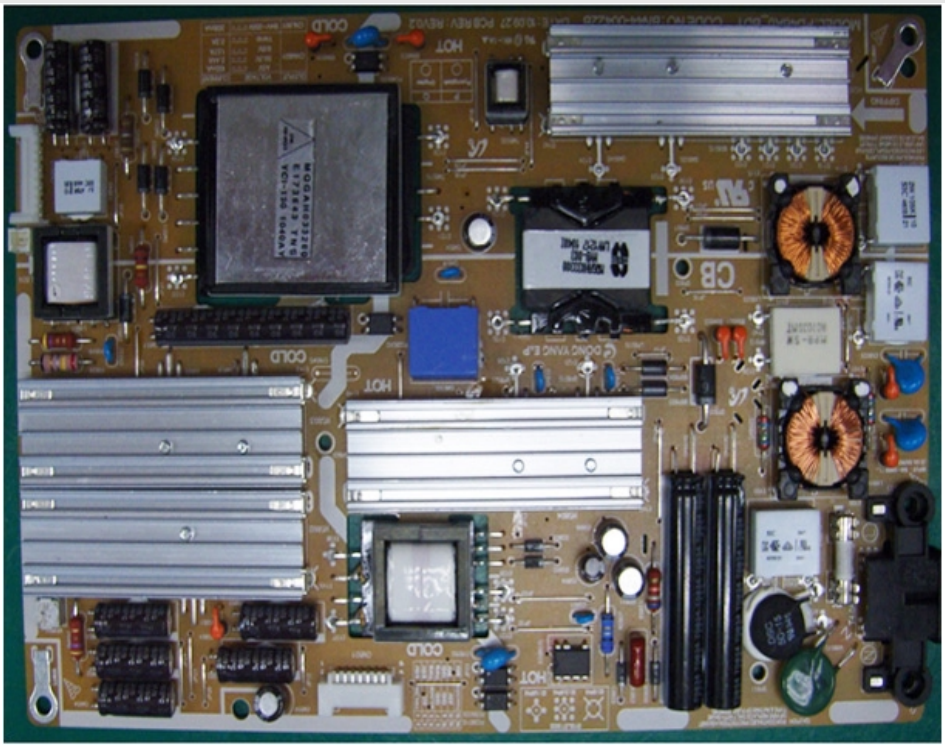
■ SMPS_32"

型号/英寸	代码	P/N
UD5000 / 32"	BN44-00458A	PSLF800A03A



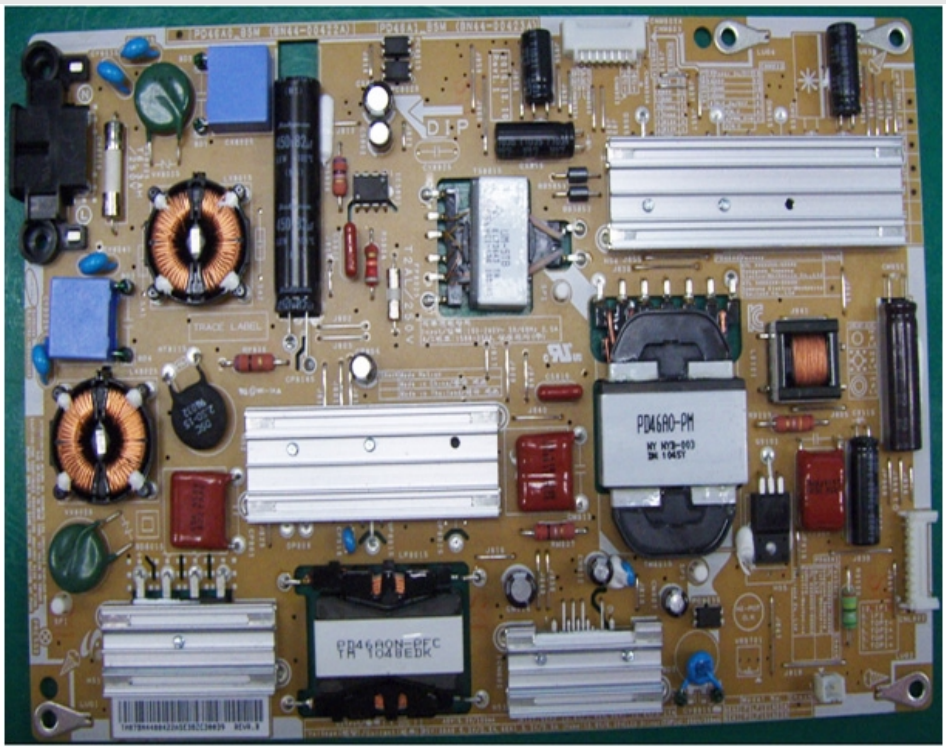
■ SMPS_40"

型号/英寸	代码	P/N
UD5000 / 40"	BN44-00422B	PD46A0_BDY



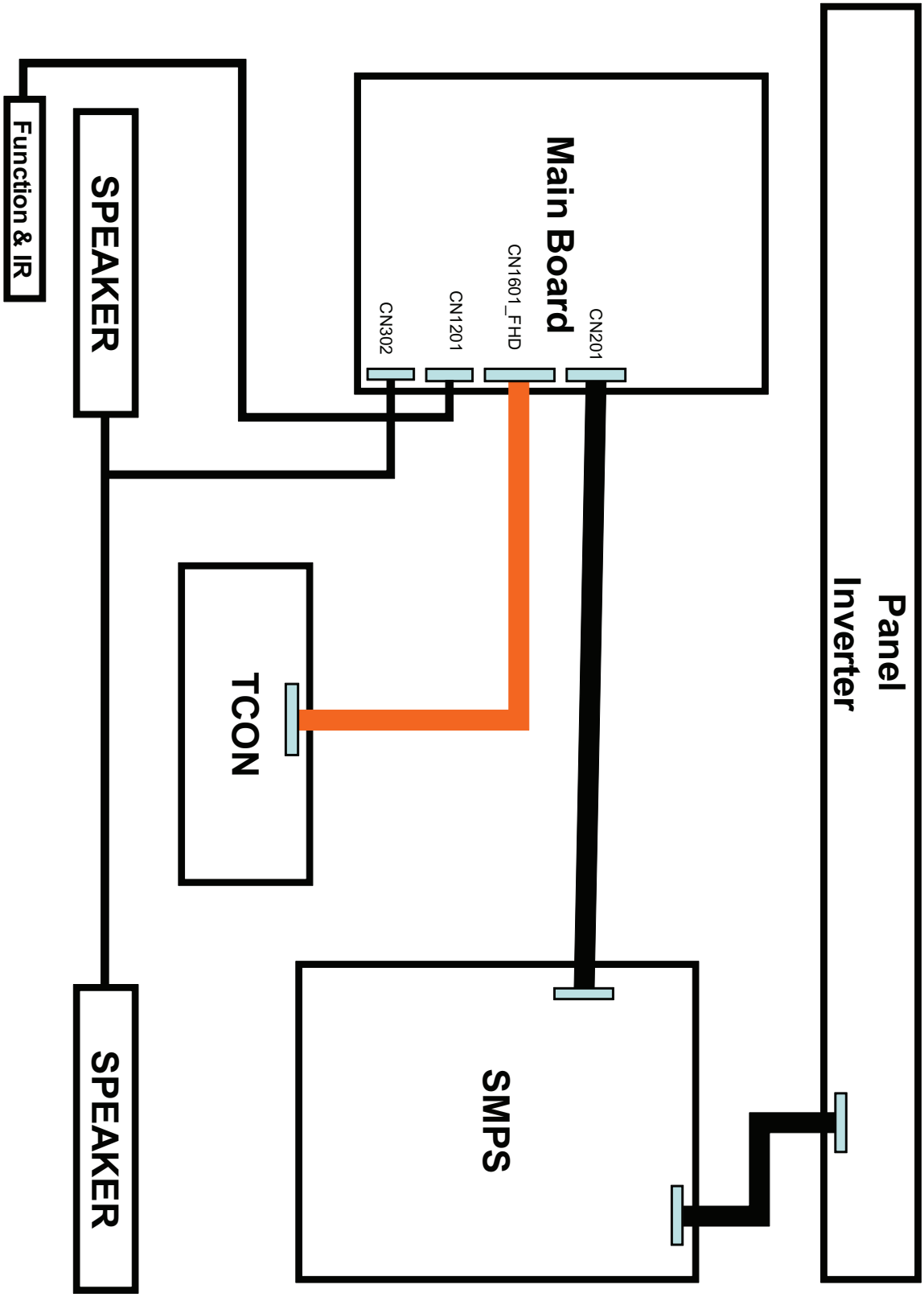
■ SMPS_46"

型号/英寸	代码	P/N
UD5XXX / 46"	BN44-00422A	PSLF121A03A



5. Wiring Diagram

5-1. Wiring Diagram



5-2. Connector

POWER IN (CN201)			
1	B5V	8	GND
2	SW_POWER	9	B12VS
3	B5V	10	SW_INVERTER
4	A5V	11	B13V
5	GND	12	NC
6	GND	13	B13V
7	B12VS	14	PWM_DIMMING

LVDS OUT (CN1601_FHD)			
1	NC	27	EVEN[0]-
2	NC	28	GND
3	NC	29	ODD[4]+
4	NC	30	ODD[4]-
5	NC	31	ODD[3]+
6	NC	32	ODD[3]-
7	FORMAT	33	GND
8	SDA_Panel	34	ODDCLK+
9	TCON_WP	35	ODDCLK-
10	NC	36	GND
11	SDA_Panel	37	ODD[2]+
12	SCL_Panel	38	ODD[2]-
13	GND	39	ODD[1]+
14	EVEN[4]+	40	ODD[1]-
15	EVEN[4]-	41	ODD[0]+
16	EVEN[3]+	42	ODD[0]-
17	EVEN[3]-	43	GND
18	GND	44	GND
19	EVENCLK+	45	GND
20	EVENCLK-	46	NC
21	GND	47	Panel_VCC
22	EVEN[2]+	48	Panel_VCC
23	EVEN[2]-	49	Panel_VCC
24	EVEN[1]+	50	Panel_VCC
25	EVEN[1]-	51	Panel_VCC
26	EVEN[0]+		

FUNCTION (CN1201)			
1	IR	5	MSDA
2	GND	6	FUNC_INTR
3	3.3V	7	LED_STB
4	MSCL	8	NC

FUNCTION (CN1201)			
1	IR	5	MSDA
2	GND	6	FUNC_INTR
3	3.3V	7	LED_STB
4	MSCL	8	NC

SPEAKER (CN302)			
1	R+	3	L+
2	R-	4	L-

PC (CN401)			
1	PC_RED	9	PC_5V
2	PC_GREEN	10	IDENT_PC
3	PC_BLUE	11	R_FANET
4	T_FANET	12	DSDA
5	GND	13	PC_HS
6	GND	14	PC_VS
7	GND	15	DSCL
8	GND		

PC/DIV SOUND (CN402)			
1	GND	4	NC
2	PC_SL_IN	5	NC
3	PC_SR_IN	6	NC

USB (CN1501~1502)			
1	5V	3	USB_DP
2	USB_DM	4	GND

HEADPHONE (CN301)			
1	GND	4	GND
2	HP_L	5	IDENT_HP
3	HP_R	6	NC

SPDIF (OP301)			
1	SPDIF_OUT	3	GND
2	5V		

HDMI (CN601~CN604)			
1	RX2+	11	GND
2	GND	12	RXCLK-
3	RX2-	13	HDMI_CEC
4	RX1+	14	NC
5	GND	15	SCL
6	RX1-	16	SDA
7	RX0+	17	GND
8	GND	18	5V / IDENT
9	RX0-	19	HPD
10	RXCLK+		

COMPONENT/AV (CN503)			
1	GND	6	GND
2	COMP_Y/AV_CVBS	7	IDENT_COMP
3	COMP_PB	8	SL_IN
4	IDENT_AV	9	SR_IN
5	COMP_PR		

LAN (CN1701_LAN)			
1	LAN_TX+	5	GND
2	GND	6	LAN_RX-
3	LAN_TX-	7	NC
4	LAN_RX+	8	GND

• TUNER (option by sec code)

DVB_TC (BN40-00221A)			
1	RF_AGC	9	IF-AGC
2	5V	10	DIF 1
3	GND	11	DIF 2
4	33V	12	AFT
5	GND	13	SIF
6	SCL	14	NC
7	SDA	15	CVBS
8	IF-TP		

DVB_TCS2 (BN40-00219A)			
1	LNA	18	TS_CLK
2	NC	19	SYNC
3	1.8V	20	VALID
4	GND	21	ERROR
5	3.3V	22	RESET
6	GND	23	TS_D0
7	SCL	24	TS_D1
8	SDA	25	TS_D2
9	IF-TP	26	TS_D3
10	NC	27	TS_D4
11	NC	28	TS_D5
12	NC	29	TS_D6
13	NC	30	TS_D7
14	SIF	31	DISEQC
15	1.2V	32	NC
16	CVBS	33	LNB
17	3.3V		

DVB_T2C (BN40-00217A)			
1	NC	18	TS_CLK
2	NC	19	SYNC
3	1.8V	20	VALID
4	GND	21	ERROR
5	3.3V	22	RESET
6	GND	23	TS_D0
7	SCL	24	TS_D1
8	SDA	25	TS_D2
9	IF-TP	26	TS_D3
10	NC	27	TS_D4
11	NC	28	TS_D5
12	NC	29	TS_D6
13	NC	30	TS_D7
14	SIF	31	NC
15	1.2V	32	NC
16	CVBS	33	NC
17	3.3V		

5-3. Connector Functions

Connector	Functions
Main ⟷ IP (14p)	Supply main power and dimming signal from IP Board to Main Board.
Main ⟷ T-CON (51p/30p LVDS)	The LVDS signal transfered from Main Board to Panel.
IP ⟷ Panel (6p) (use only AMLCD panel)	Supply power from IP board to Driver Board.

5-4. Cables

Use	LEAD (Main-IP 14P)	LVDS (Main - TCON)
Code	32" : BN39-01455D (275mm) 40" : BN39-01455B (300mm) 46" : BN39-01455A (450mm)	32" : BN96-17116E (280mm) 40" : BN96-17116F (345mm) 46" : BN96-17116G (460mm)
Photo