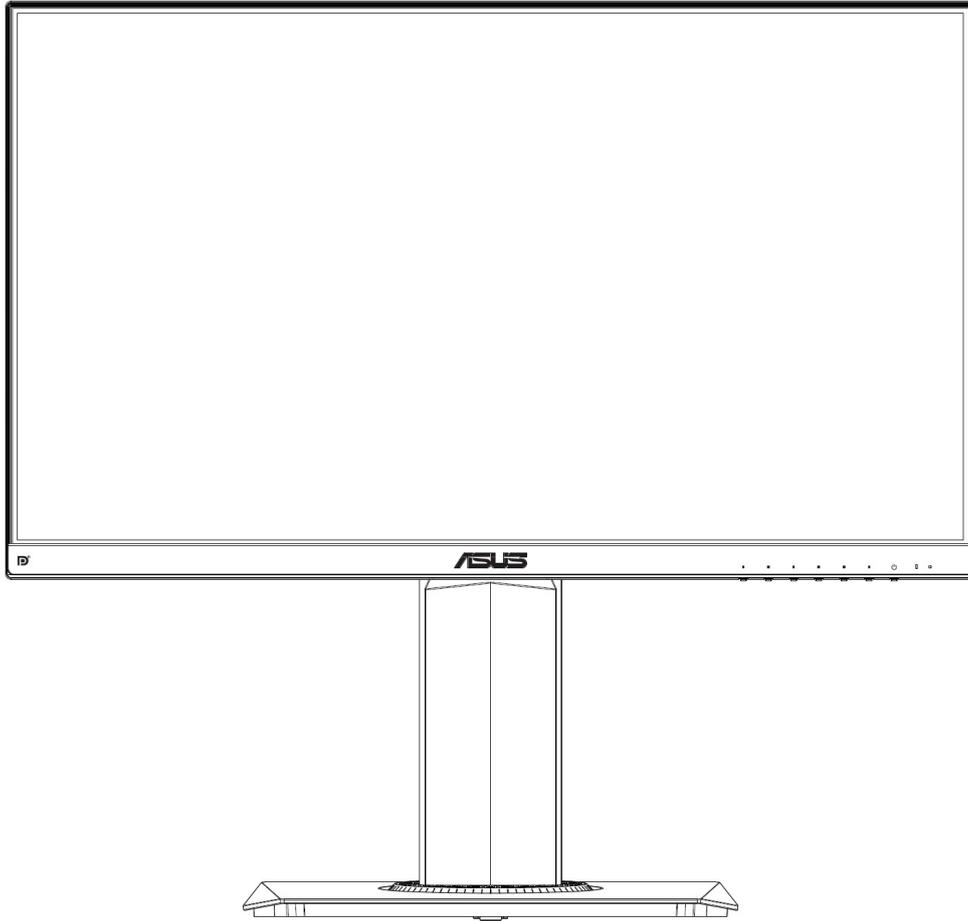


# LCD Monitor Service Manual



**Model: ASUS VG249Q**

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## IMPORTANT SAFETY NOTICE

### Safety information

- Before setting up the monitor, carefully read all the documentation that came with the package.
- To prevent fire or shock hazard, never expose the monitor to rain or moisture.
- Never try to open the monitor cabinet. The dangerous high voltages inside the monitor may result in serious physical injury.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- Slots and openings on the back or top of the cabinet are provided for ventilation. Do not block these slots. Never place this product near or over a radiator or heat source unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- Use the appropriate power plug which complies with your local power standard.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Avoid dust, humidity, and temperature extremes. Do not place the monitor in any area where it may become wet. Place the monitor on a stable surface.
- Unplug the unit during a lightning storm or if it will not be used for a long period of time. This will protect the monitor from damage due to power surges.
- Never push objects or spill liquid of any kind into the slots on the monitor cabinet.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC.
- If you encounter technical problems with the monitor, contact a qualified service technician or your retailer.

### Care & Cleaning

- Before you lift or reposition your monitor, it is better to disconnect the cables and power cord. Follow the correct lifting techniques when positioning the monitor. When lifting or carrying the monitor, grasp the edges of the monitor. Do not lift the display by the stand or the cord.
- Cleaning. Turn your monitor off and unplug the power cord. Clean the monitor surface with a lint-free, non-abrasive cloth. Stubborn stains may be removed with a cloth dampened with mild cleaner.
- Avoid using a cleaner containing alcohol or acetone. Use a cleaner intended for use with the LCD. Never spray cleaner directly on the screen, as it may drip inside the monitor and cause an electric shock.

### The following symptoms are normal with the monitor

- The screen may flicker during the initial use due to the nature of the fluorescent light. Turn off the Power Switch and turn it on again to make sure that the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- When the same image is display for hours, an afterimage of the previous screen may remain after switching the image. The screen will recover slowly or you can turn off the Power Switch for hours.
- When the screen becomes black or flashes, or cannot work anymore, contact your dealer or service center to fix it. Do not repair the screen by yourself!

### Conventions used in this guide



**WARNING:** Information to prevent injury to yourself when trying to complete a task.



**CAUTION:** Information to prevent damage to the components when trying to complete a task.



**IMPORTANT:** Information that you **MUST** follow to complete a task.



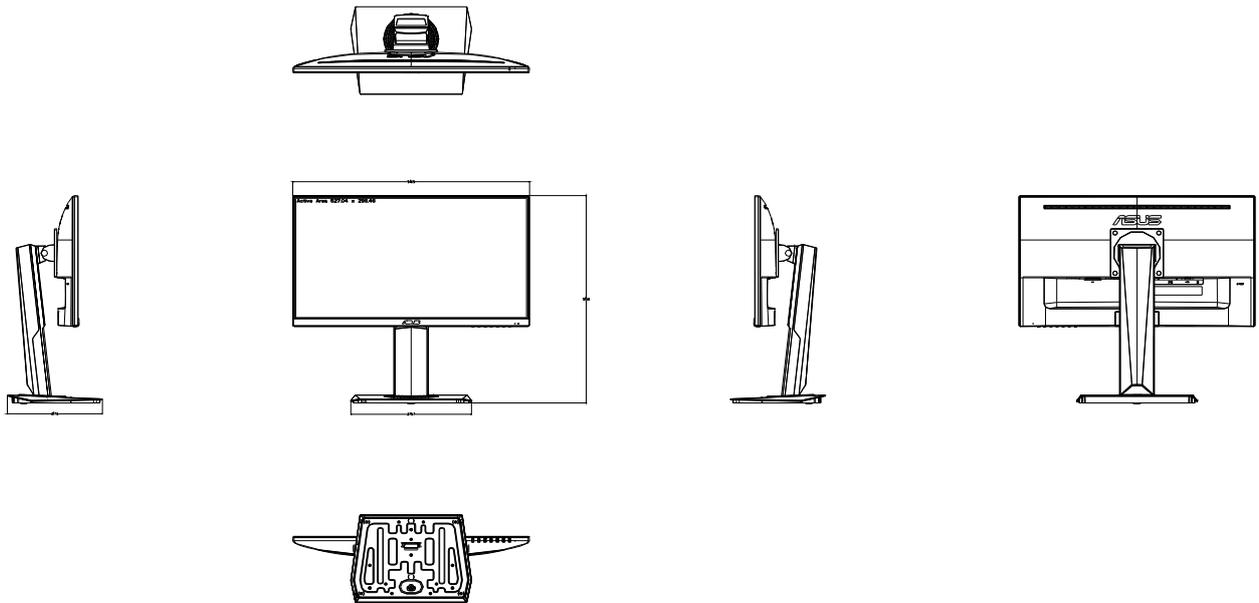
**NOTE:** Tips and additional information to aid in completing a task.

## 1. Monitor Specifications

| Model  | VG249Q  |
|--|---|
| Panel Size   | 23.8"W(60.45cm)   |
| Max. Resolution  | 1920x1080@144Hz   |
| Brightness (Typ.)  | 250cd/m <sup>2</sup>  |
| Intrinsic Contrast Ratio (Typ.)                                | 1000:1  |
| Viewing Angle (CR>10)  | 178°(H) /178°(V)  |
| Display Colors   | 16.7 M(6bit+FRC)  |
| Response Time  | 4ms (G To G ) 1ms(MPRT)   |
| Sound from HDMI  | Yes   |
| HDMI input   | Yes   |
| D-Sub input  | Yes   |
| DisplayPort  | Yes   |
| Audio Line-in  | Yes   |
| Power ON Consumption   | <15.08w<br>(Measuring a screen brightness of 200 nits Without audio / USB / Card reader connection) |
| Note   | *Based on Energy Star 7.0 standard  |
| Chassis Colors   | Black   |
| Power saving mode  | < 0.5W  |
| Power off mode   | < 0.5W  |
| Tilt   | -5° ~ +20°  |
| VESA Wall Mounting   | Yes (100mm x 100mm)   |
| Phys. Dimension with stand (WxHxD)                             | 540.5mm x 515mm x 217.6mm   |
| Phys. Dimension without stand (WxHxD)<br>(For VESA Wall Mount) | 540.5mm x 325.2mm x 51.7mm  |
| Box Dimension (WxHxD)  | 723mm x 400mm x 200mm   |
| Net Weight (Esti.)   | 6.15 kg   |
| Gross Weight (Esti.)   | 9.0 kg  |
| Voltage Rating   | AC 100~240V(Built-in)   |
| Temperature(operation)   | 0℃~40℃  |

Dimension of Monitor

| Dimension     | VG249Q                               |
|---------------|--------------------------------------|
| with stand    | 540.50(W)x 515(H) x271.6(D) (mm)     |
| without stand | 540.50 (W)x 325.2 (H) x 51.7(D) (mm) |

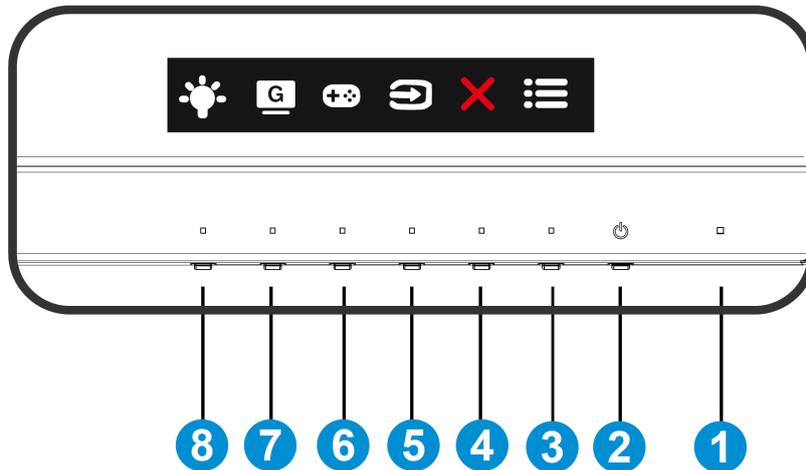


## 2. Operation Instruction

### 2.1 General Instructions

Press the power button to turn the monitor on or off. The other control buttons are located at the front of the panel of the monitor.

### 2.2 Control Button



1. Power Indicator:

- The color definition of the power indicator is as the below table.

| Status | Description  |
|--------|--------------|
| White  | ON           |
| Amber  | Standby mode |
| OFF    | OFF          |

2. Power Button:

- Press this button to turn the monitor on/off.

3. MENU Button:

- Press this button to enter the OSD menu.

4. Close Button

- Exit the OSD menu.

5. Input Select Button.

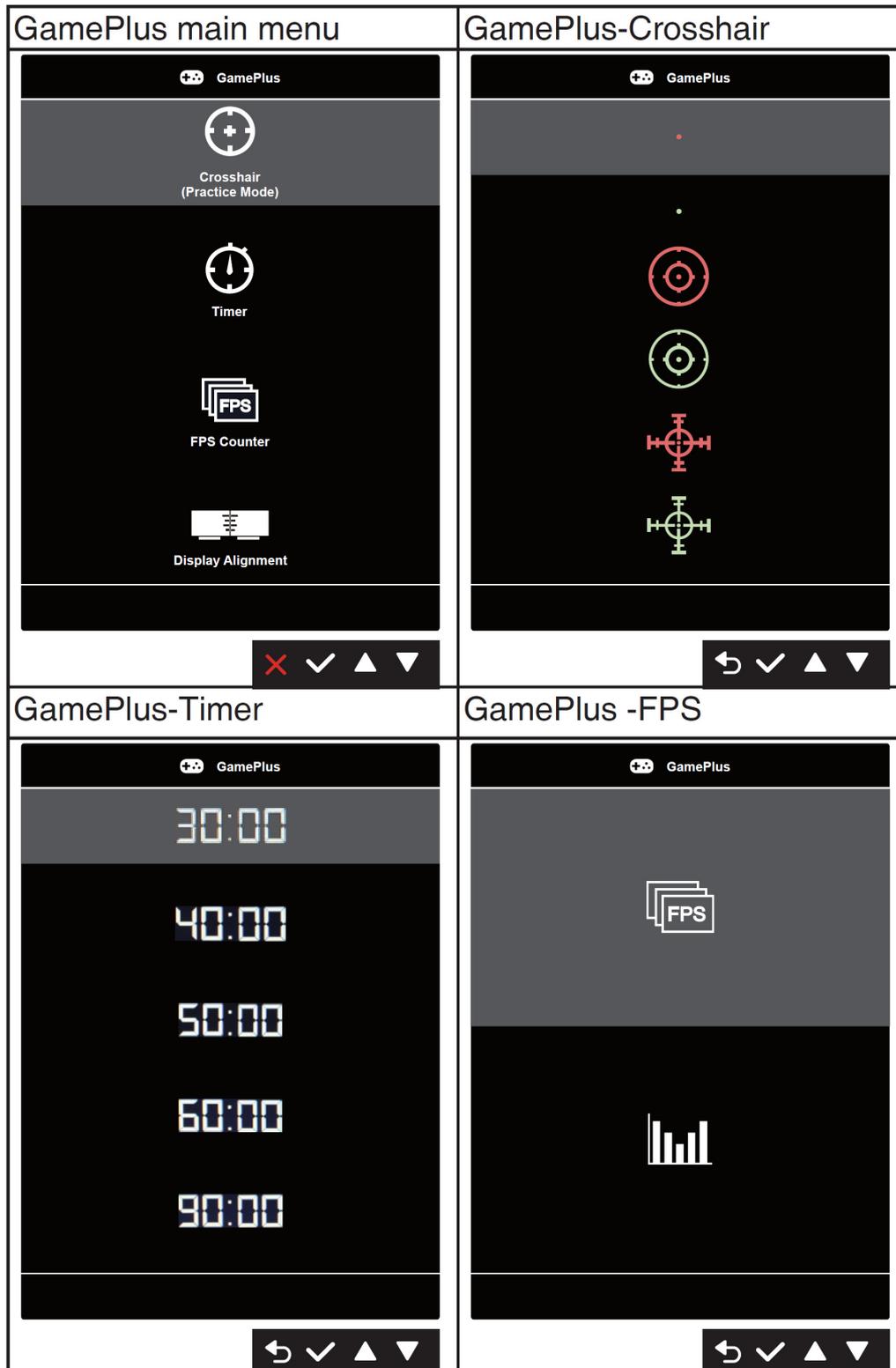
- Use this hotkey to switch from VGA, HDMI, DisplayPort input signal.

6. GamePlus Button:

- GamePlus:** The GamePlus Function provides a toolkit and creates a better gaming environment for users when playing different types of games. Particularly, Crosshair function is specially designed for new gamers or beginners interested in First Person Shooter (FPS) games.

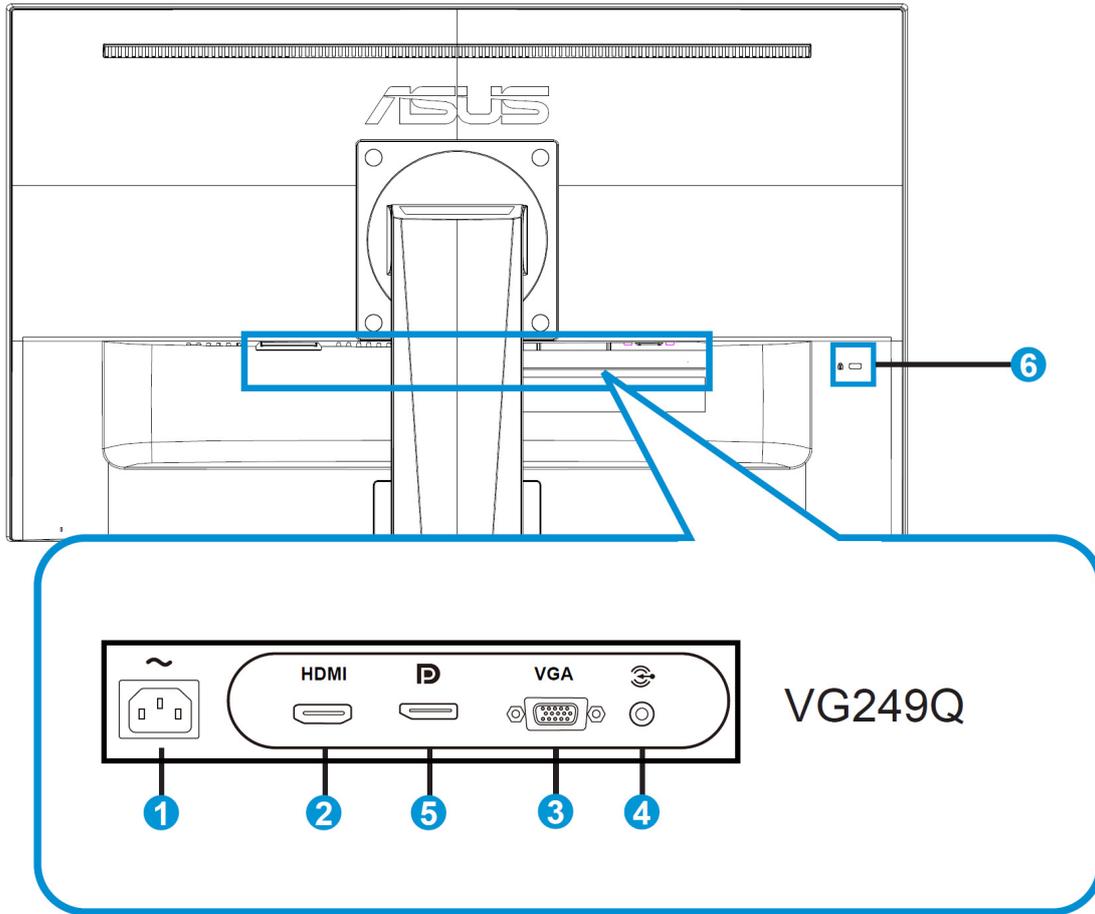
To active GamePlus:

- Press **GamePlus** Button to enter the GamePlus main menu.
- Activate Crosshair, Timer or FPS Counter or Display Alignment function.
- Press the ▼ and ▲ buttons to select and press ✓ to confirm the function needed. Press ✗ to go off, and exit.



7.  Shortcut key1:
  - This is a Shortcut key. The default setting is GameVisual.
8.  Shortcut key2
  - This is a Shortcut key. The default setting is Blue Light Filter.

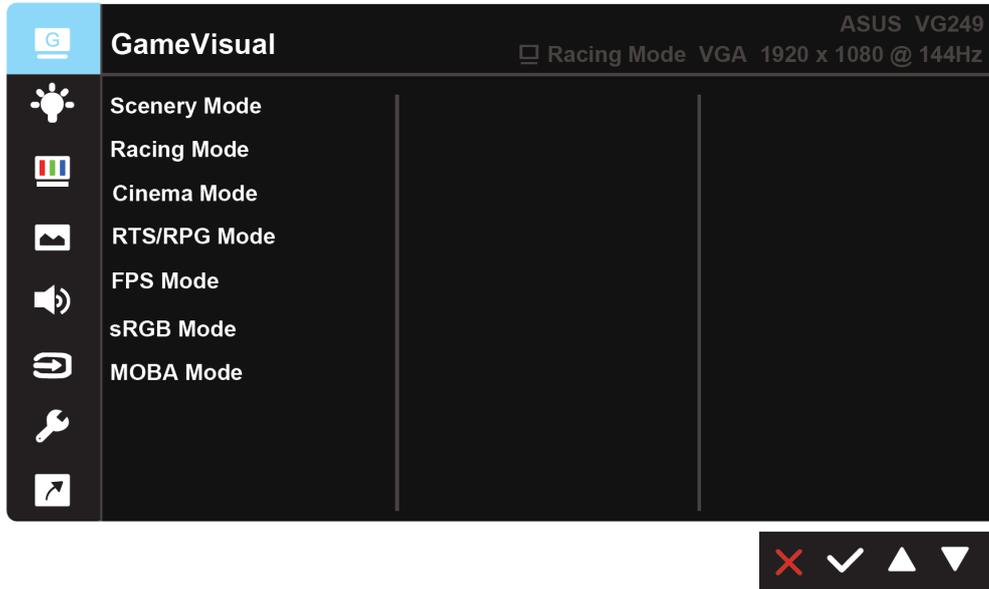
Rear View



1. AC-IN Port
2. HDMI Port
3. VGA Port
4. Audio - in Port
5. DisplayPort Port
6. Kensington Lock

## 2.3 OSD Menu

### 2.3.1 How to reconfigure

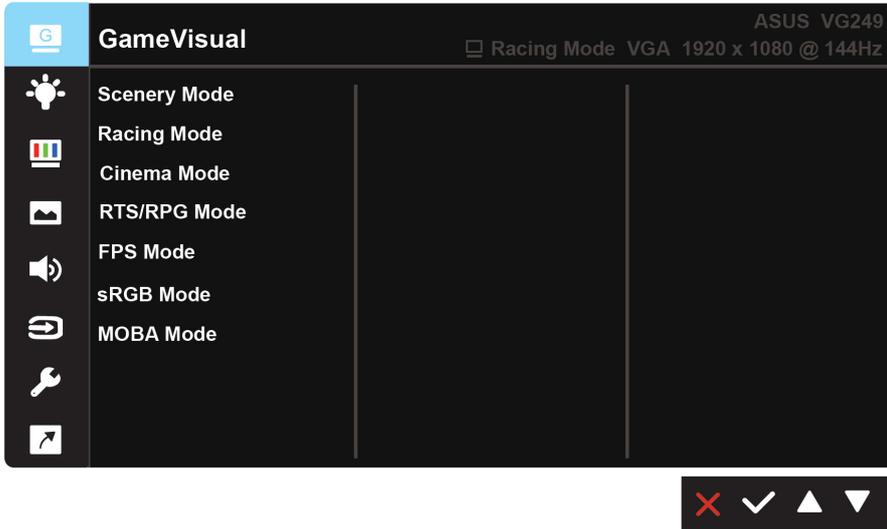


1. Press the MENU button to activate the OSD menu.
2. Press the ▼ and ▲ buttons to toggle between options in the Menu. As you move from one icon to another, the option name is highlighted.
3. To select the highlighted item on the menu press the ✓ button.
4. Press the ▼ and ▲ buttons to select the desired parameter.
5. Press the ✓ button to enter the slide bar and then use the ▼ or ▲ buttons, according to the indicators on the menu, to make your changes.
6. Select the ↶ to return to previous menu or ✓ to accept and return to previous menu.

2.3.2 OSD Function Introduction

1. GameVisual

This function contains seven sub-functions that you can select for your preference. Each mode has the Reset selection, allowing you to maintain your setting or return to the preset mode.



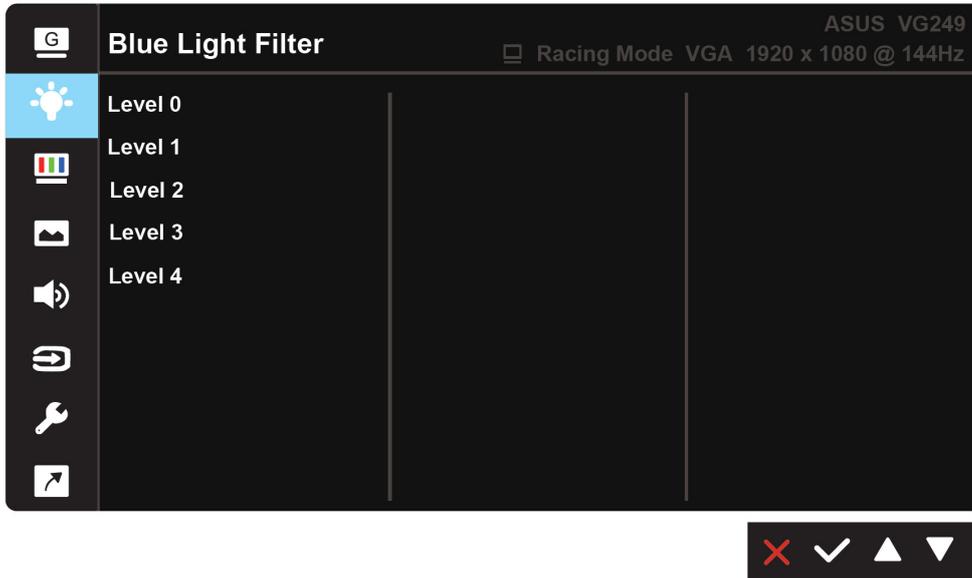
- **Scenery Mode:** This is the best choice for scenery photo displaying with GameVisual™ Video Intelligence Technology.
- **Racing Mode:** This is the best choice for racing game playing with GameVisual™ Video Intelligence Technology.
- **Cinema Mode:** This is the best choice for movie watching with GameVisual™ Video Intelligence Technology.
- **RTS/RPG Mode:** This is the best choice for Real-Time Strategy(RTS)/ Role-Playing Game(RPG) playing with GameVisual™ Video Intelligence Technology.
- **FPS Mode:** This is the best choice for First Person Shooter game playing with GameVisual™ Video Intelligence Technology.
- **sRGB Mode:** This is the best choice for viewing photos and graphics from PCs.
- **MOBA Mode :** This is the best choice for Multiplayer Online Battle Arena (MOBA) games playing with GameVisual™ Video intelligence Technology.



- In the Racing Mode, the Saturation, Sharpness, and ASCR functions are not user-configurable.
- In the sRGB, the Saturation, Skin Tone, Color Temp., Sharpness, Brightness, Contrast and ASCR functions are not user-configurable.
- In the MOBA Mode, the Saturation, Sharpness and ASCR functions are not user-configurable.

## 2. Blue Light Filter

Adjust the energy level of blue light emitted from LED backlight.



- **Level 0:** No change.
- **Level 1~4:** The higher the level, the more blue light will be reduced.



- 
- When Blue Light Filter is activated, the default settings of Standard Mode will be automatically imported.
  - Between Level 1 to Level 3, the Brightness function is user-configurable.
  - Level 4 is optimized setting. It is compliance with TUV Low Blue Light Certification. The Brightness function is not user-configurable.
- 

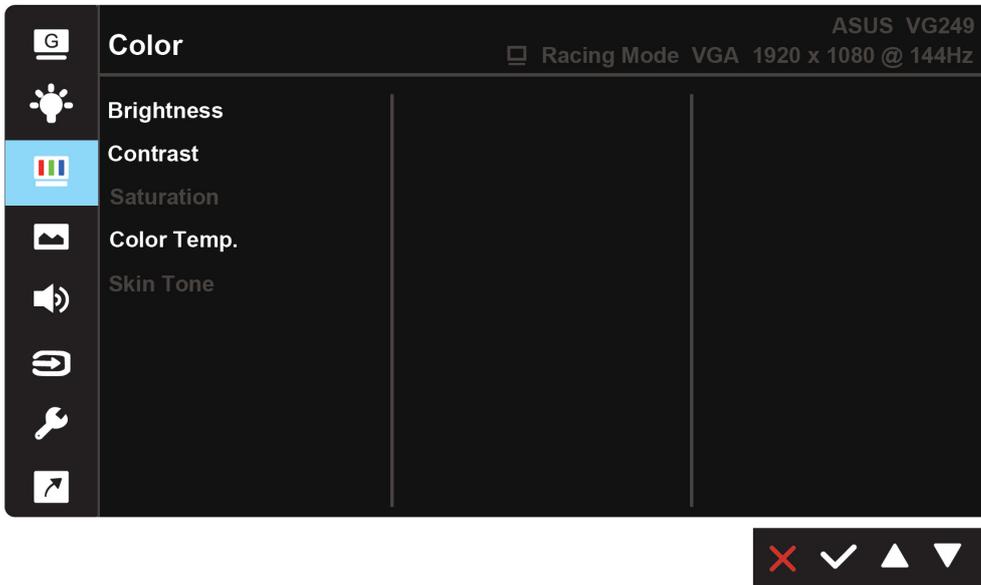


Please refer to the following to alleviate eye strains:

- Users should take some time away from the display if working for long hours. It is advised to take short breaks (at least 5 mins) after around 1 hour of continuous working at the computer. Taking short and frequent breaks is more effective than a single longer break.
  - To minimize eye strain and dryness in your eyes, users should rest the eye periodically by focusing on objects that are far away.
  - Eye exercises can help to reduce eye strain. Repeat these exercises often. If eye strain continues please consult a physician. Eye exercises: (1) Repeating look up and down (2) Slowly roll your eyes (3) Move your eyes diagonal.
  - High energy blue light may lead to eye strain and AMD (Age-Related Macular Degeneration). Blue light filter to reduce 70% (max.) harmful blue light to avoiding CVS (Computer Vision Syndrome).
-

### 3. Color

Select the image color you like from this function.



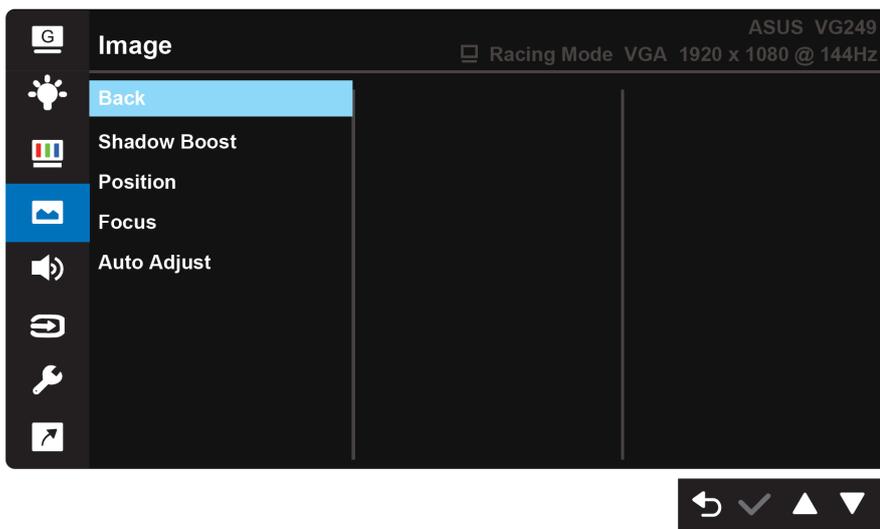
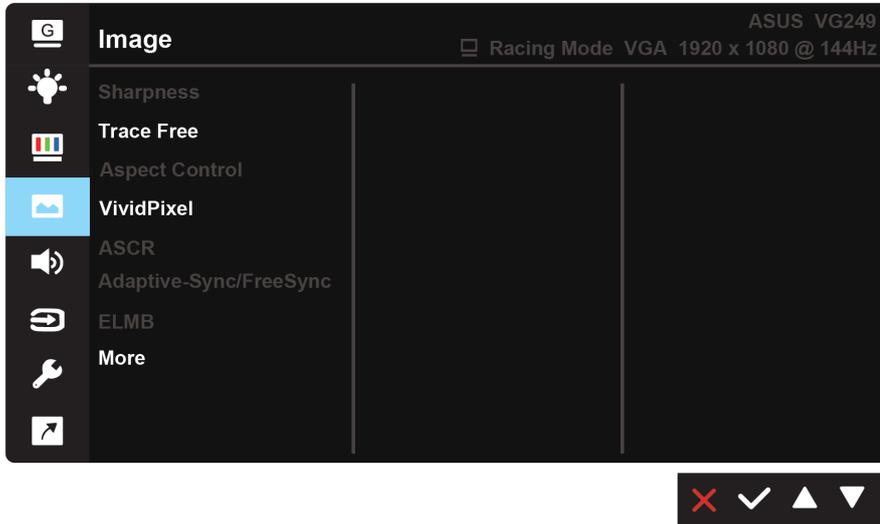
- **Brightness:** The adjusting range is from 0 to 100.
- **Contrast:** The adjusting range is from 0 to 100.
- **Saturation:** The adjusting range is from 0 to 100.
- **Color Temp.:** Contains three preset color modes (**Cool, Normal, Warm**) and **User Mode**.
- **Skin Tone:** Contains three color modes including **Reddish, Natural, and Yellowish**.



- 
- In the User Mode, colors of R (Red), G (Green), and B (Blue) are user-configurable; the adjusting range is from 0 ~ 100.
-

### 4. Image

You can adjust the image Sharpness, Trace Free, Aspect Control, VividPixel, ASCR, Adaptive-Sync/FreeSync, ELMB, Shadow Boost, Position (VGA only), Focus (VGA only), and Auto Adjust (VGA only), from this main function.



- **Sharpness:** Adjusts the picture sharpness. The adjusting range is from 0 to 100.
- **Trace Free:** Speeds up the response time by Over Drive technology. The adjusting range is from lower 0 to faster 100.
- **Aspect Control:** Adjusts the aspect ratio to “Full”, “4:3”, “Overscan(Only For HDMI)”.
- **VividPixel:** ASUS Exclusive Technology that brings lifelike visuals for crystal-clear and detail-oriented enjoyment. The adjusting range is from 0 to 100.
- **ASCR:** Select **ON** or **OFF** to enable or disable dynamic contrast ratio function.

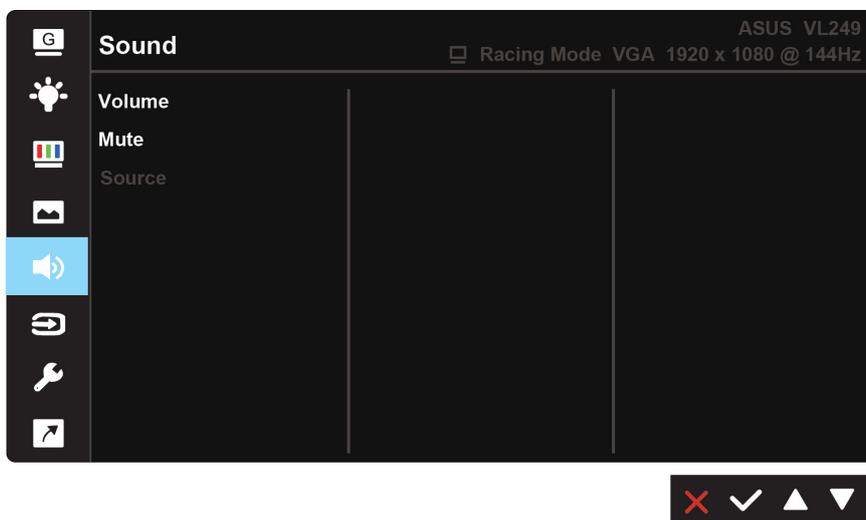
- **Adaptive-Sync/FreeSync:** It can allow a Adaptive-Sync/FreeSync supported graphics source to dynamically adjust display refresh rate based on typical content frame rates for power efficient, virtually stutter free and low-latency display update.
- **ELMB:** Check to decrease motion blur and minimize ghosting part when on-screen objects are fast moving. It can only be turned on at 80Hz or above.
- **Back:** Return the previous page of Image Setting.
- **Shadow Boost:** Dark color enhancement adjust monitor gamma curve to enrich the dark tones in an image making dark scenes and objects much easier be found.
- **Position:** Adjusts the horizontal position (**H-Position**) and the vertical position (**V-Position**) of the image. The adjusting range is from 0 to 100 (Only available for VGA input).
- **Focus:** Reduces Horizontal-line noise and Vertical-line noise of the image by adjusting (**Phase**) and (**Clock**) separately. The adjusting range is from 0 to 100 (Only available for VGA input).
- **Auto Adjust.:** Automatically adjust the image to its optimized position, clock, and phase. (Only available for VGA input.)



- 4:3 is only available when input source is in 4:3 format. OverScan is only available for the HDMI input source
- Phase adjusts the phase of the pixel clock signal. With a wrong phase adjustment, the screen shows horizontal disturbances.
- Clock (pixel frequency) controls the number of pixels scanned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the image is not proportional.

## 5. Sound

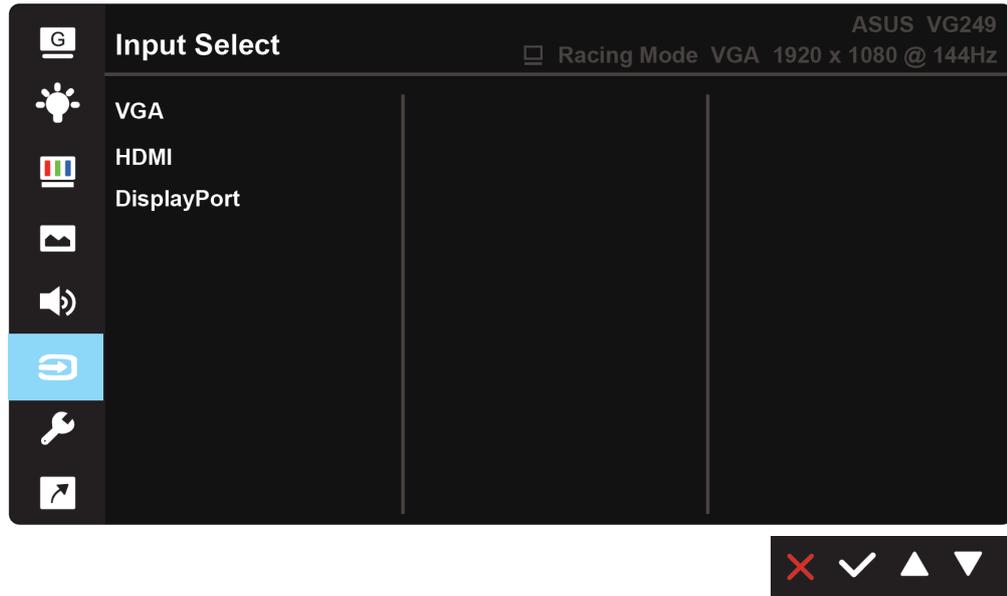
Adjust the sound settings to your preference.



- **Volume:** Adjusts the output volume level.
- **Mute:** Mute the output volume.
- **Source:** Adjusts audio source to “Line In” or “HDMI” (only available for HDMI input); Adjusts audio source to “Line In” or “DisplayPort” (only available for DisplayPort input).

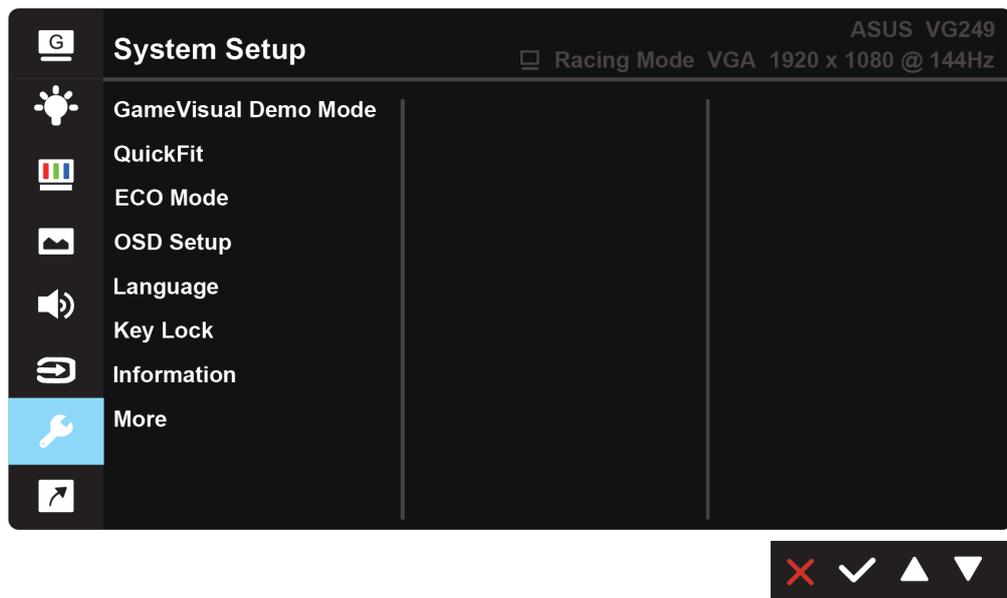
### 5. Input Select

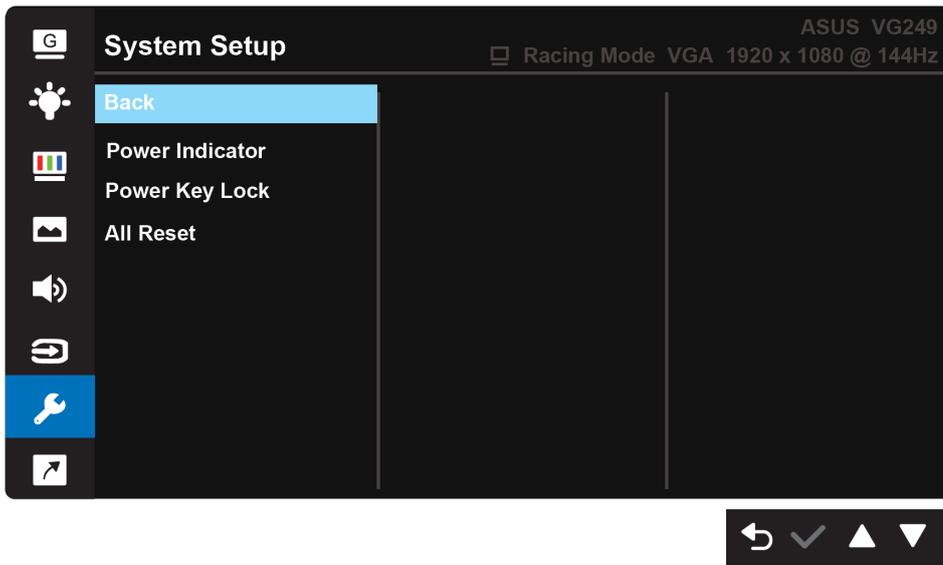
Select the input source from **VGA**, **HDMI**, **DisplayPort** input signal.



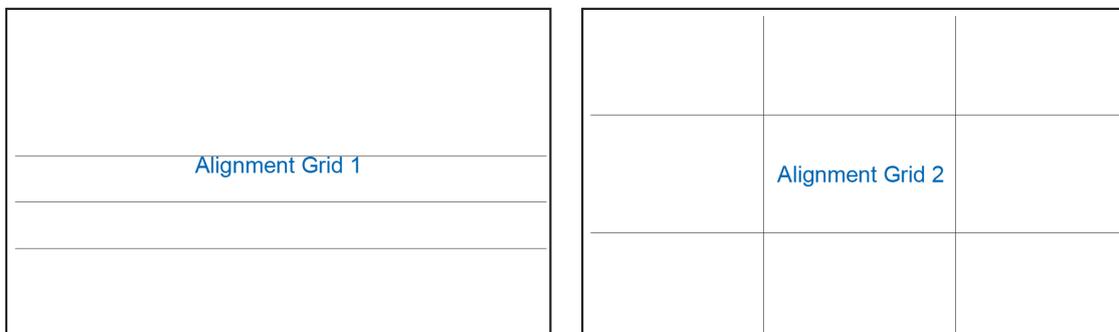
### 6. System Setup

Adjusts the system configuration.

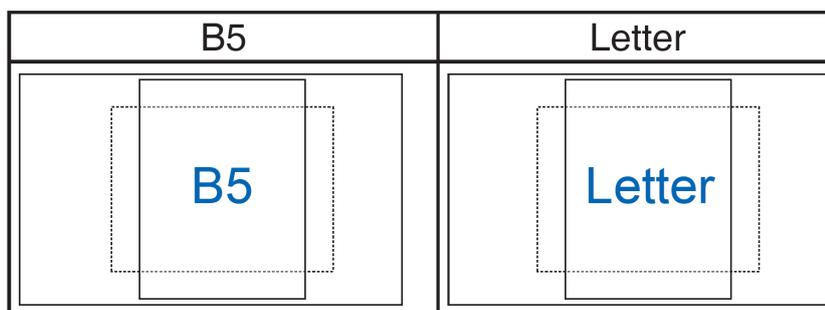




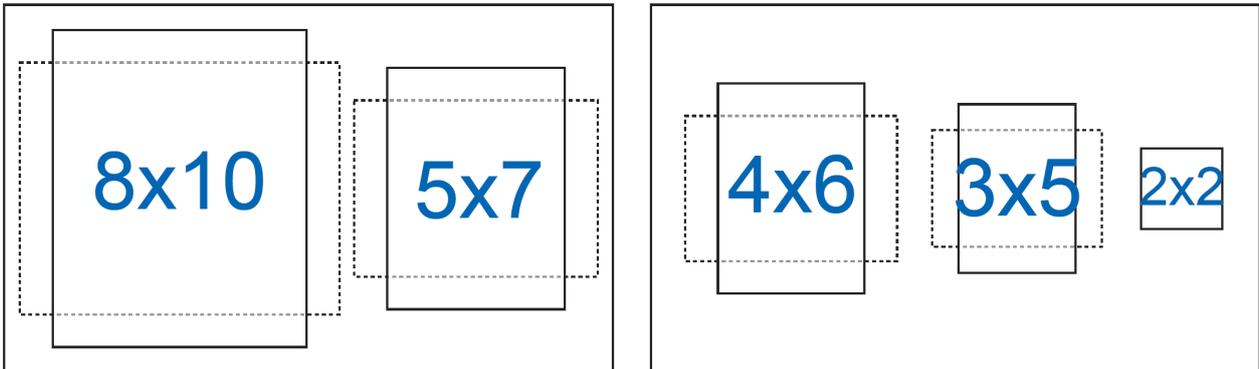
- **GameVisual Demo Mode:** Activate the demo mode for the GameVisual function.
- **QuickFit:** contains three patterns: (1) Grid (2) Paper size (3) Photo size.
  1. Grid pattern: Facilitates designers and users to organize content and layout on one page and achieve a consistent look and feel.



2. Paper size: Provides users to view their documents in real size on the screen.



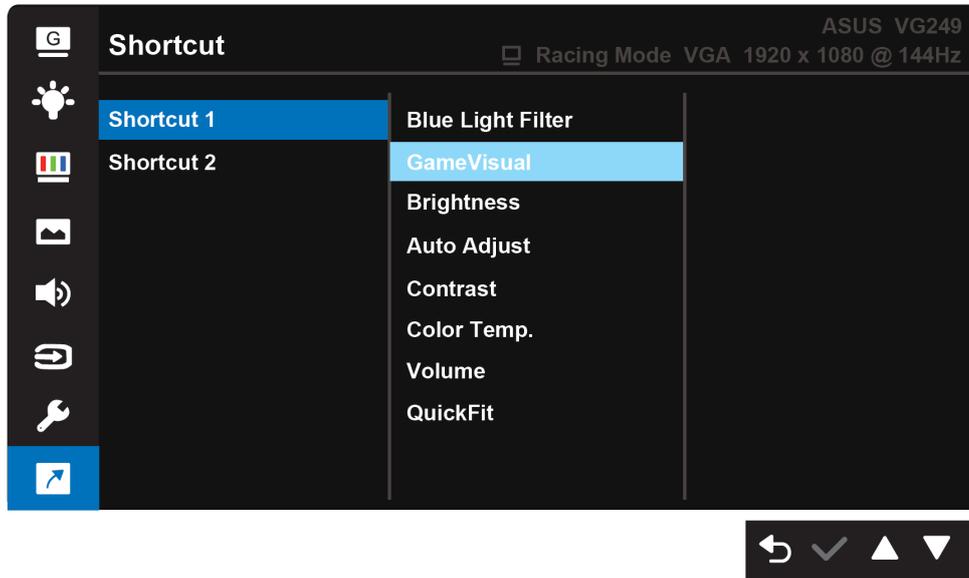
3. Photo size: Provides photographers and other users to accurately view and edit their photos in real size on the screen.



- **ECO Mode:** Activate the ecology mode for power saving.
- **OSD Setup:** Adjusts the **OSD Timeout**, **DDC/CI**, and **Transparency** of the OSD screen.
- **Language:** Select OSD language. The selections are: **English, French, German, Spanish, Italian, Dutch, , Russian, Poland, Czech, Croacia, Hungary, Romania, Portugal, Turkey, Simplified Chinese, Traditional Chinese, Japanese, Korean, Persian, Thai, Indonesian.**
- **Key Lock:** Disable all key functions. Pressing the second button on the right for more than five seconds to disable key lock function.
- **Information:** Displays the monitor information.
- **More:** Return the next page of System Setting.
- **Back:** Return the previous page of System Setting.
- **Power Indicator:** Turn the power LED indicator on/off.
- **Power Key Lock:** To disable / enable power key
- **All Reset:** Selects “**Yes**” to revert all settings to the factory default mode.

## 7. Shortcut

Selecting this option allows you to set two shortcut keys.



- **Shortcut 1:** User can select from “Blue Light Filter” “GameVisual”, “Brightness”, “Auto Adjust”, “Contrast”, “Color Temp.”, “Volume”, “QuickFit”, and set as shortcut key. The default setting is .GameVisual.
- **Shortcut 2:** User can select from “Blue Light Filter” “GameVisual”, “Brightness”, “Auto Adjust”, “Contrast”, “Color Temp.”, “Volume”, “QuickFit”, and set as shortcut key. The default setting is Blue Light Filter.

### 3. Input/ Output Specification

#### 3.1 Input Signal Connector

##### D-SUB Pin Assignment

|   |                |    |                  |
|---|----------------|----|------------------|
| 1 | Red Video      | 9  | +5V Supply       |
| 2 | Green Video    | 10 | Logic Ground     |
| 3 | Blue Video     | 11 | Monitor Ground   |
| 4 | Monitor Ground | 12 | DDC-Serial Data  |
| 5 | DDC-Return     | 13 | H-Sync.          |
| 6 | Red Ground     | 14 | V-Sync.          |
| 7 | Green Ground   | 15 | DDC-Serial Clock |
| 8 | Blue Ground    |    |                  |

##### HDMI Pin Assignment

|    |                   |    |                          |
|----|-------------------|----|--------------------------|
| 1  | TMDS Data2+       | 11 | TMDS Clock Shield        |
| 2  | TMDS Data2 Shield | 12 | TMDS Clock               |
| 3  | TMDS Data2-       | 13 | CEC                      |
| 4  | TMDS Data1+       | 14 | Reserved(N.C. on device) |
| 5  | TMDS Data1 Shield | 15 | SCL                      |
| 6  | TMDS Data1-       | 16 | SDA                      |
| 7  | TMDS Data0+       | 17 | DDC/CEC Ground           |
| 8  | TMDS Data0 Shield | 18 | +5V                      |
| 9  | TMDS Data0-       | 19 | Hot Plug Detect          |
| 10 | TMDS Clock+       |    |                          |

#### 3.2 Power Supply Requirements

|                          |  |
|--------------------------|--|
| A/C Line voltage range   | 100 V ~ 240 V  |
| A/C Line frequency range | 50 ± 3Hz, 60 ± 3Hz   |
| Input Voltage transients | 90-264 voltage AC for 10 sec @40°C   |
| Current                  | 1.5A max at 100V; 0.8A max at 240 V  |
| Peak surge current       | < 60A peak at 240 VAC and cold starting<br>< 30A peak at 100VAC and cold starting                      |
| Leakage current          | < 3.5mA  |
| Power line surge         | No advance effects (no loss of information or defect) with a maximum of 1 half-wave missing per second |

### 3.3 Supported Timing List

#### PC Supported Primary Timing

| Resolution | Refresh Rate | Horizontal Frequency |
|------------|--------------|----------------------|
| 640x480    | 60Hz         | 31.469kHz            |
| 640x480    | 72Hz         | 37.861kHz            |
| 640x480    | 75Hz         | 37.5kHz              |
| 800x600    | 56Hz         | 35.156kHz            |
| 800x600    | 60Hz         | 37.879kHz            |
| 800x600    | 72Hz         | 48.077kHz            |
| 800x600    | 75Hz         | 46.875kHz            |
| 1024x768   | 60Hz         | 48.363kHz            |
| 1024x768   | 70Hz         | 56.476kHz            |
| 1024x768   | 75Hz         | 60.023kHz            |
| 1152x864   | 75Hz         | 67.5kHz              |
| 1280x960   | 60Hz         | 60kHz                |
| 1280x1024  | 60Hz         | 63.981kHz            |
| 1280x1024  | 75Hz         | 79.976kHz            |
| 1440x900   | 60Hz         | 55.935kHz            |
| 1440x900   | 75Hz         | 70.635kHz            |
| 1680x1050  | 60Hz         | 65.29kHz             |
| 1920x1080  | 60Hz         | 67.5kHz              |
| 1280x720   | 60Hz         | 44.772kHz            |
| 1920x1080  | 100Hz        | 137.3kHz             |
| 1920x1080  | 120Hz        | 139.1kHz             |
| 1920x1080  | 144Hz        | 158.1kHz             |

#### IBM Modes, Factory Preset Timing

| Resolution | Refresh Rate | Horizontal Frequency |
|------------|--------------|----------------------|
| 640x350    | 70Hz         | 31.469kHz            |
| 720x400    | 70Hz         | 31.469kHz            |

#### MAC Modes, Factory Preset Timing

| Resolution | Refresh Rate | Horizontal Frequency |
|------------|--------------|----------------------|
| 640x480    | 67Hz         | 35kHz                |
| 832x624    | 75Hz         | 49.725kHz            |

#### VESA Modes, User Available Timing

| Resolution   | Refresh Rate | Horizontal Frequency |
|--------------|--------------|----------------------|
| 848x480      | 60Hz         | 31.02kHz             |
| 1280x720(RB) | 60Hz         | 44.444kHz            |
| 1280x720     | 60Hz         | 44.772kHz            |
| 1280x720     | 75Hz         | 56.456kHz            |
| 1280x768(RB) | 60Hz         | 47.396kHz            |
| 1280x800(RB) | 60Hz         | 49.306kHz            |
| 1280x800     | 60Hz         | 49.702kHz            |
| 1280x800     | 75Hz         | 62.795kHz            |
| 1366x768     | 60Hz         | 47.712kHz            |

|               |      |           |
|---------------|------|-----------|
| 1440x900(RB)  | 60Hz | 55.469kHz |
| 1440x900      | 75Hz | 70.635kHz |
| 1680x1050(RB) | 60Hz | 64.674kHz |
| 1920x1080     | 60Hz | 66.587kHz |

## SD/HD Timings

HDMI/DP,CEA-861B Formats, SD/HD Supported Primary Timings of

| Resolution         | Refresh Rate | Horizontal Frequency |
|--------------------|--------------|----------------------|
| 640 x 480 P 4:3    | 59.94/60Hz   | 31.469kHz            |
| 720 x 480 P 4:3    | 59.94/60Hz   | 31.469/31.5kHz       |
| 720 x 480 P 16:9   | 59.94/60Hz   | 31.469 / 31.5kHz     |
| 720 x 576 P 4:3    | 50Hz         | 31.25kHz             |
| 720 x 576 P 16:9   | 50Hz         | 31.25kHz             |
| 1280 x 720 P 16:9  | 50Hz         | 37.5kHz              |
| 1280 x 720 P 16:9  | 59.94/60Hz   | 44.955/45kHz         |
| 1440 x 480 P 4:3   | 59.94/60Hz   | 31.469/ 31.5kHz      |
| 1440 x 480 P 16:9  | 59.94/60Hz   | 31.469/ 31.5kHz      |
| 1440 x 576 P 4:3   | 50Hz         | 31.25kHz             |
| 1440 x 576 P 16:9  | 50Hz         | 31.25kHz             |
| 1920 x 1080 P 16:9 | 50Hz         | 56.25kHz             |
| 1920 x 1080 P 16:9 | 59.94/60Hz   | 67.433/67.5kHz       |

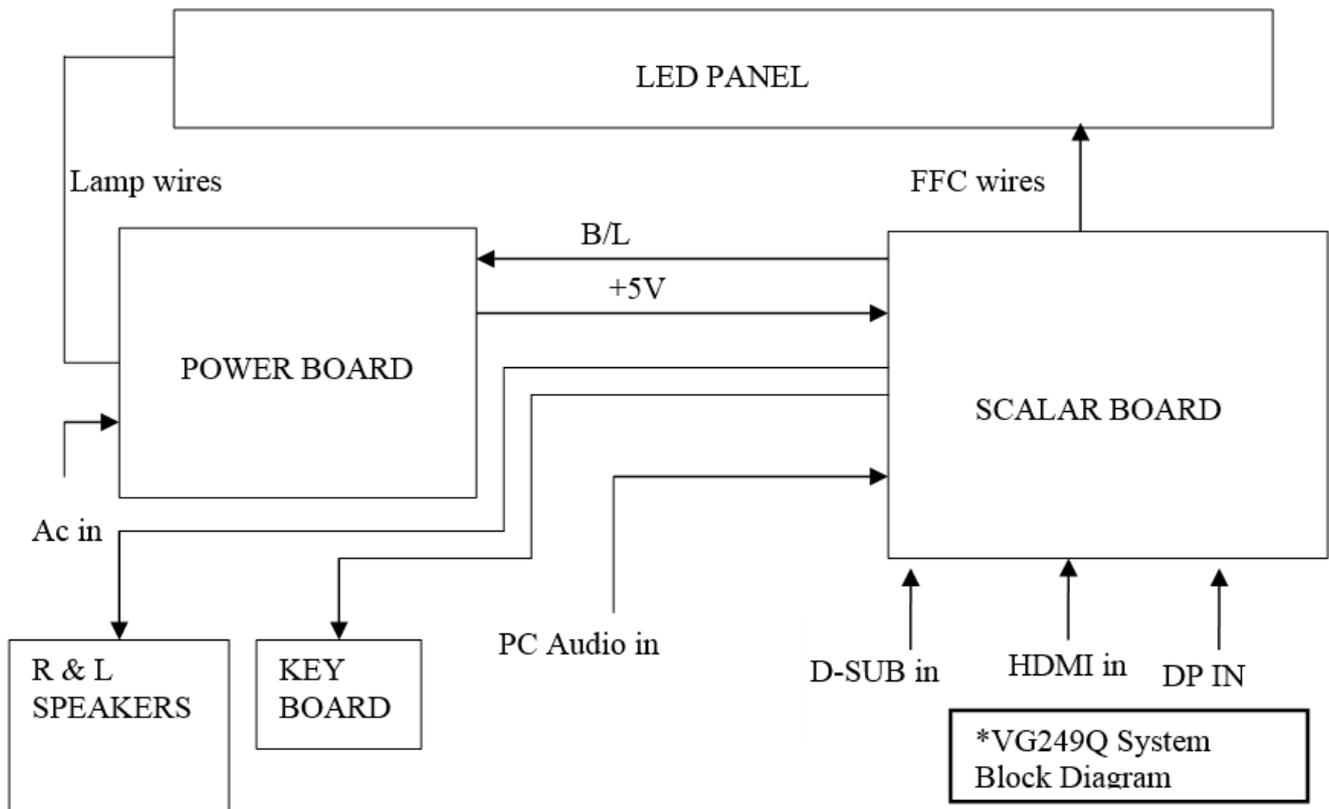
HDMI/DP,CEA-861B Formats, SD/HD Supported Optional Timings of

| Resolution | Refresh Rate | Horizontal Frequency |
|------------|--------------|----------------------|
| 1440x480P  | 59.94 / 60Hz | 31.469 / 31.5kHz     |
| 1440x576P  | 50Hz         | 31.25kHz             |
| 1920x1080P | 50Hz         | 56.25kHz             |
| 1920x1080P | 59.94 / 60Hz | 67.433 / 67.5kHz     |

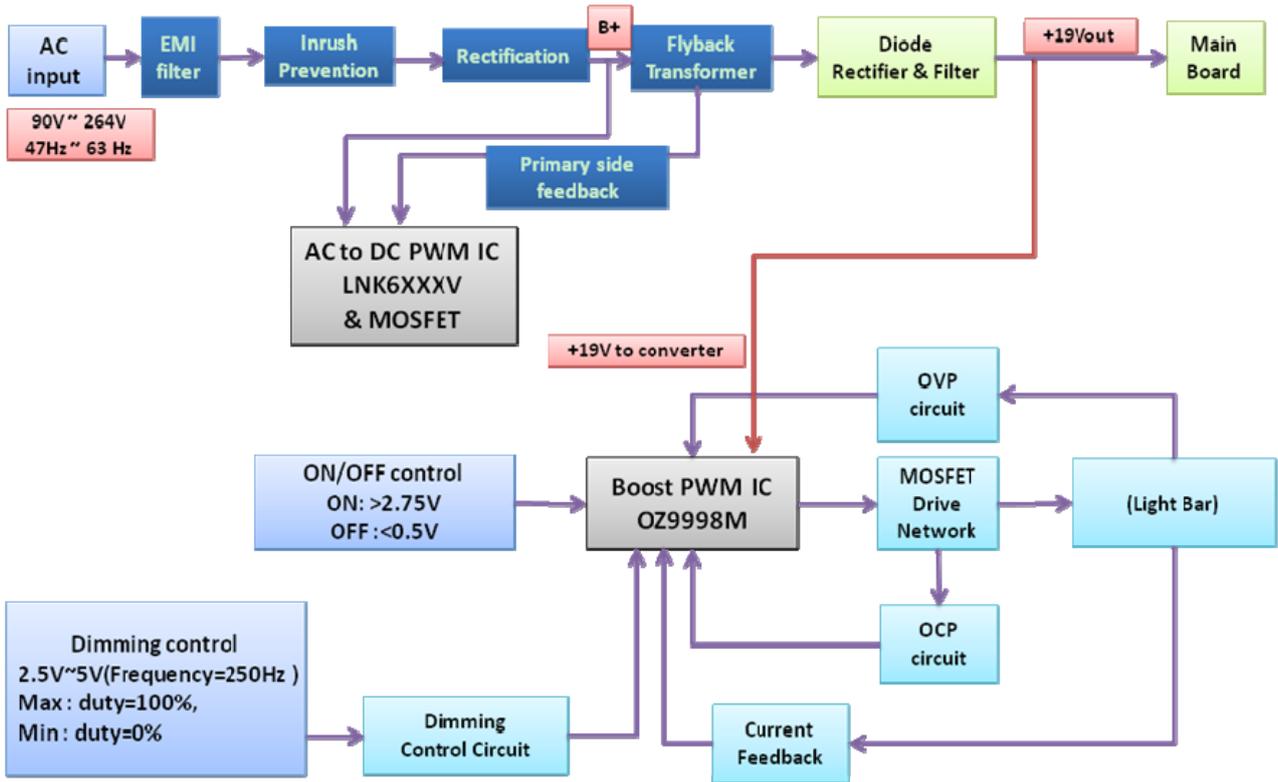
\* The modes not listed in the above tables may not be supported. For optimal resolution, we recommend that you choose a mode listed in the above tables.

## 4. Block Diagram

### 4.1 Main Board



### 4.2 Power Board

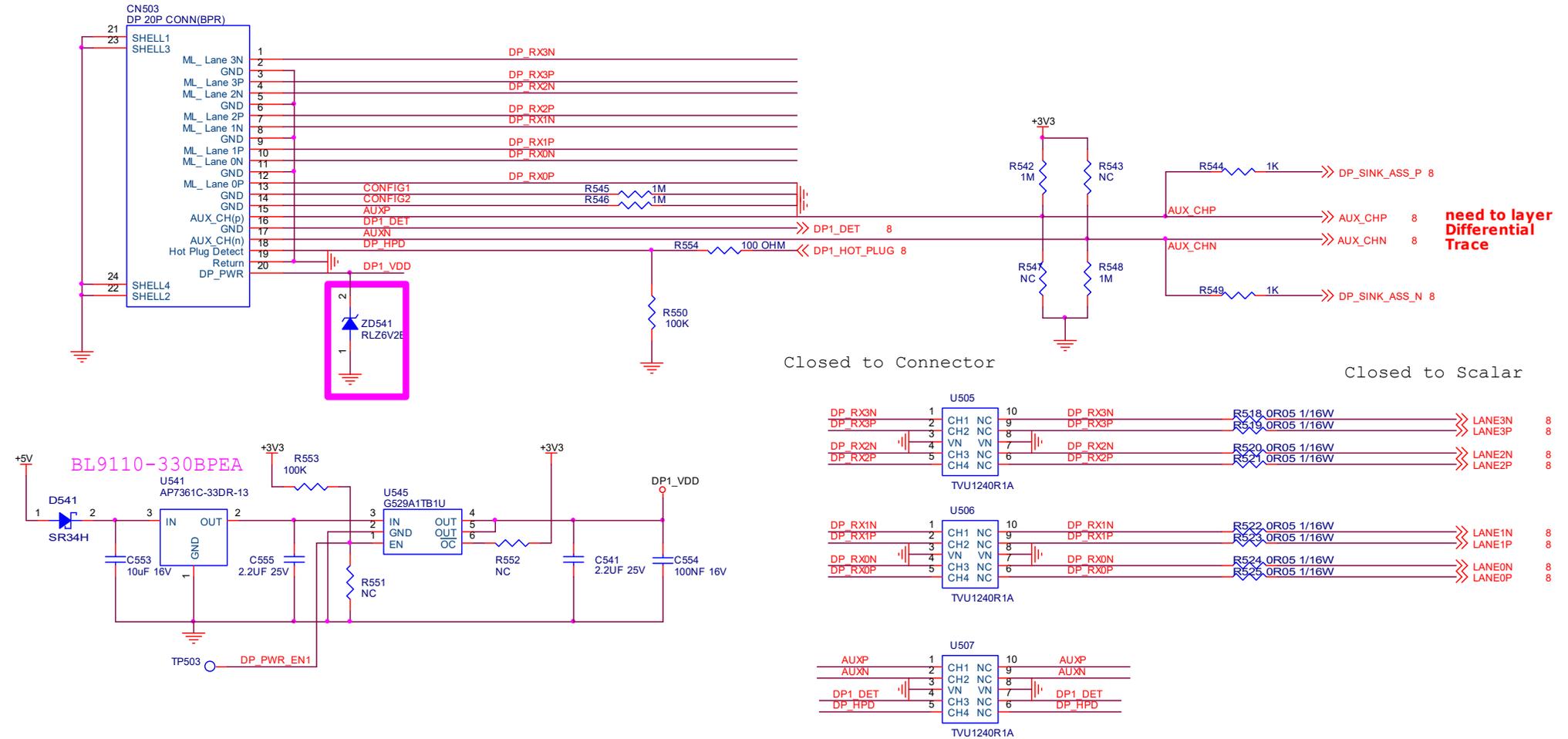


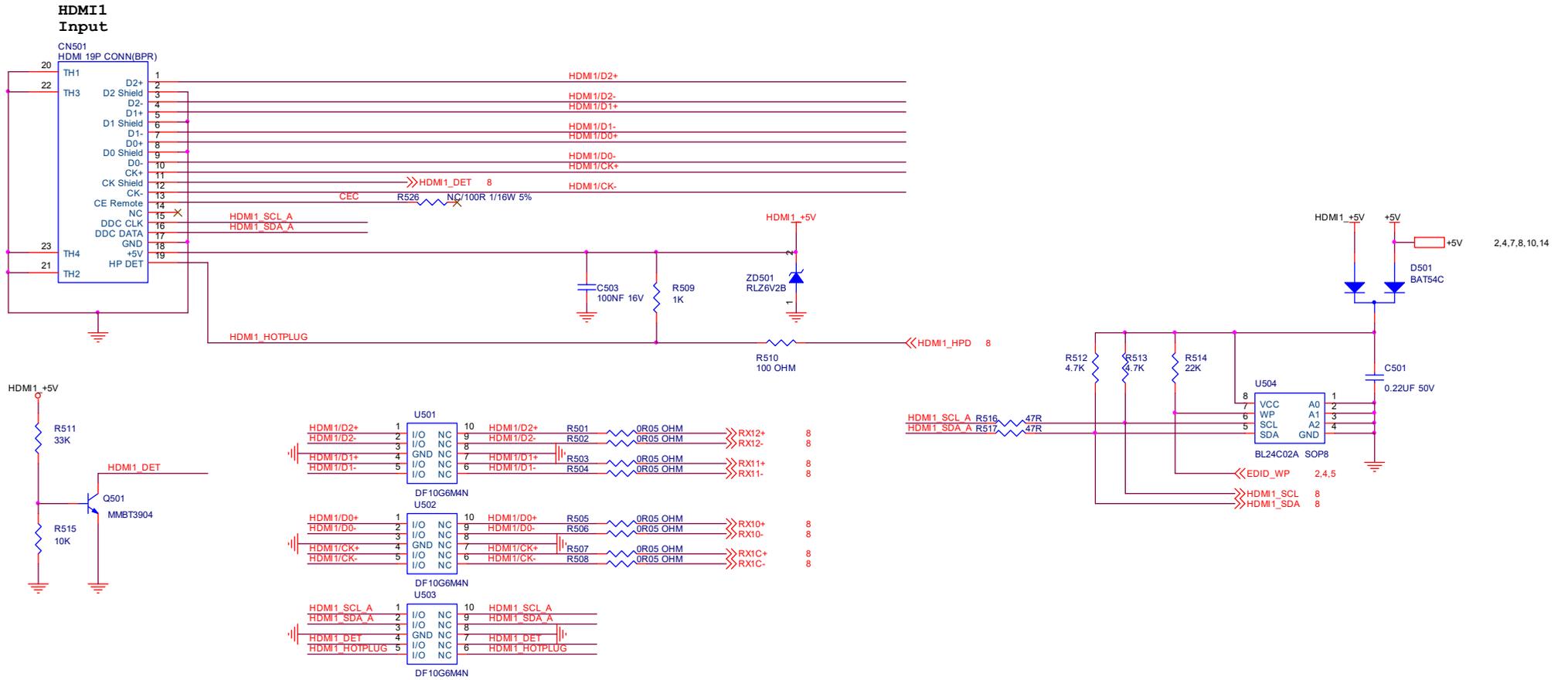
# 5. Schematic

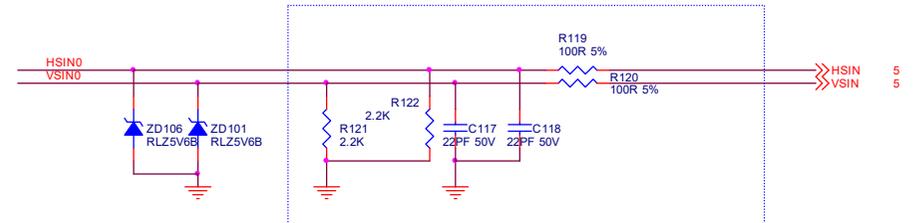
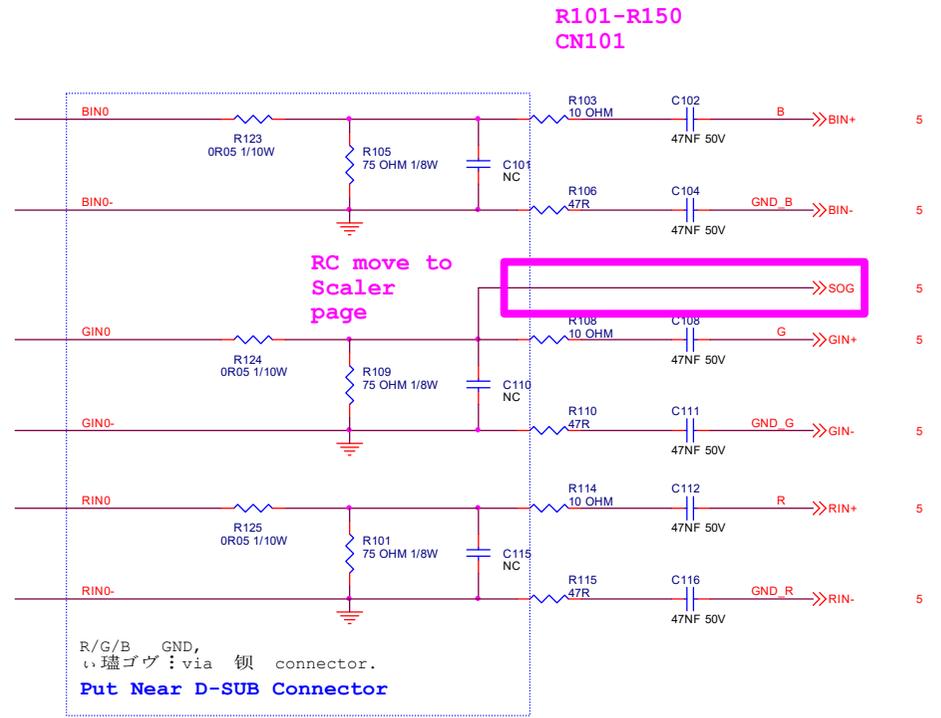
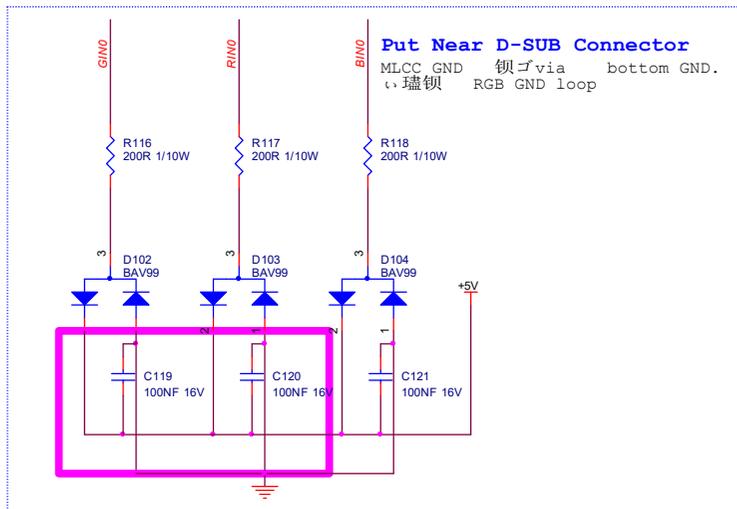
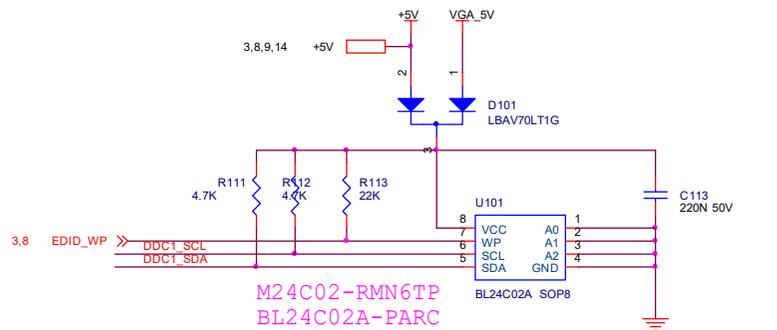
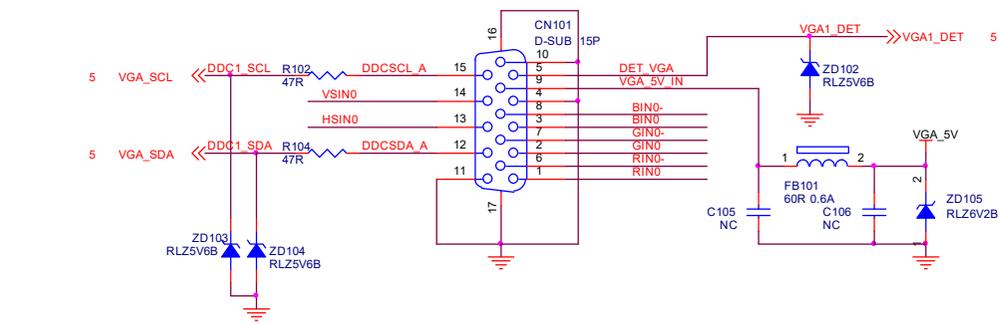
## 5.1 Main Board

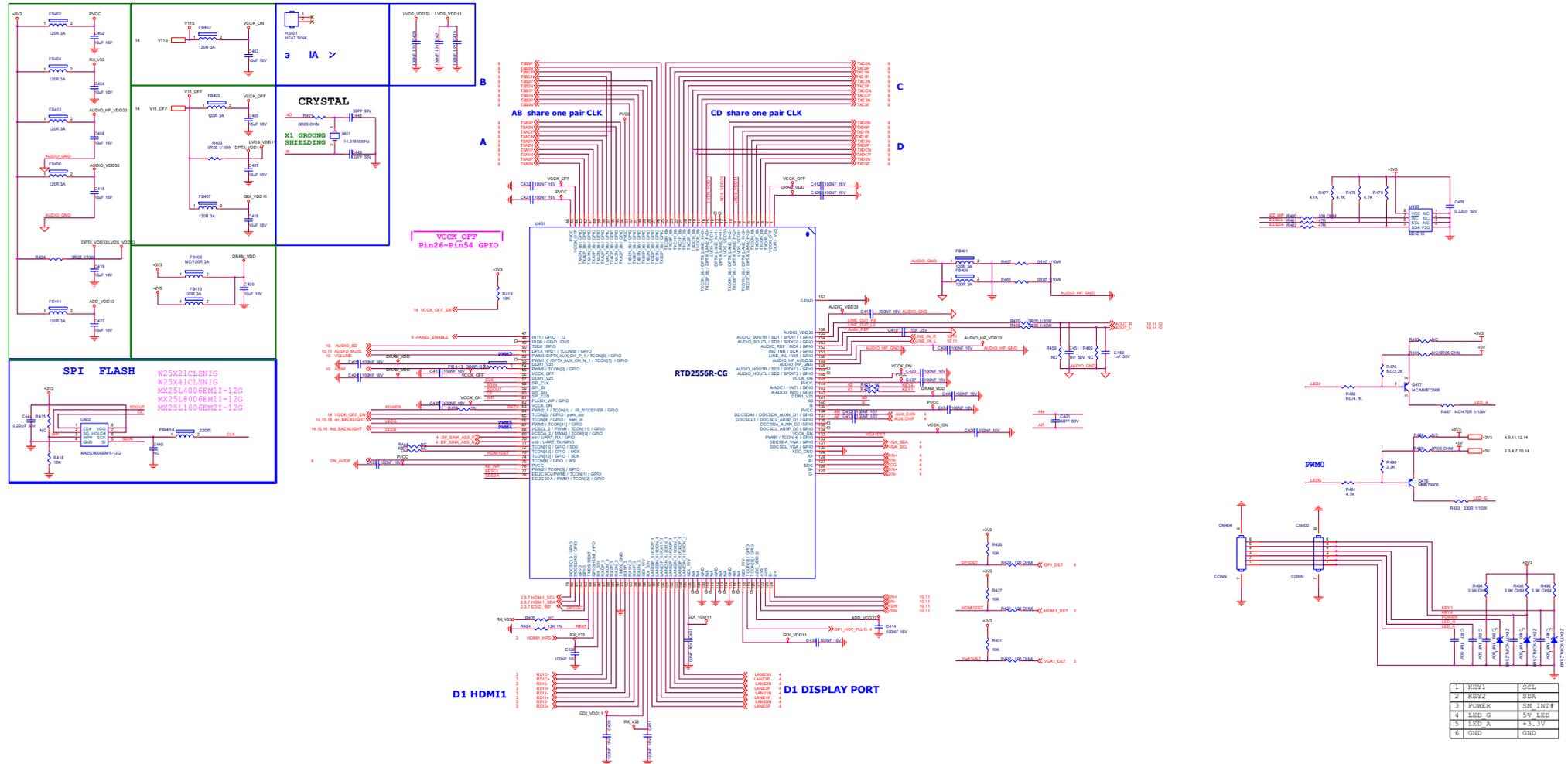
715GA785M0ET00004G

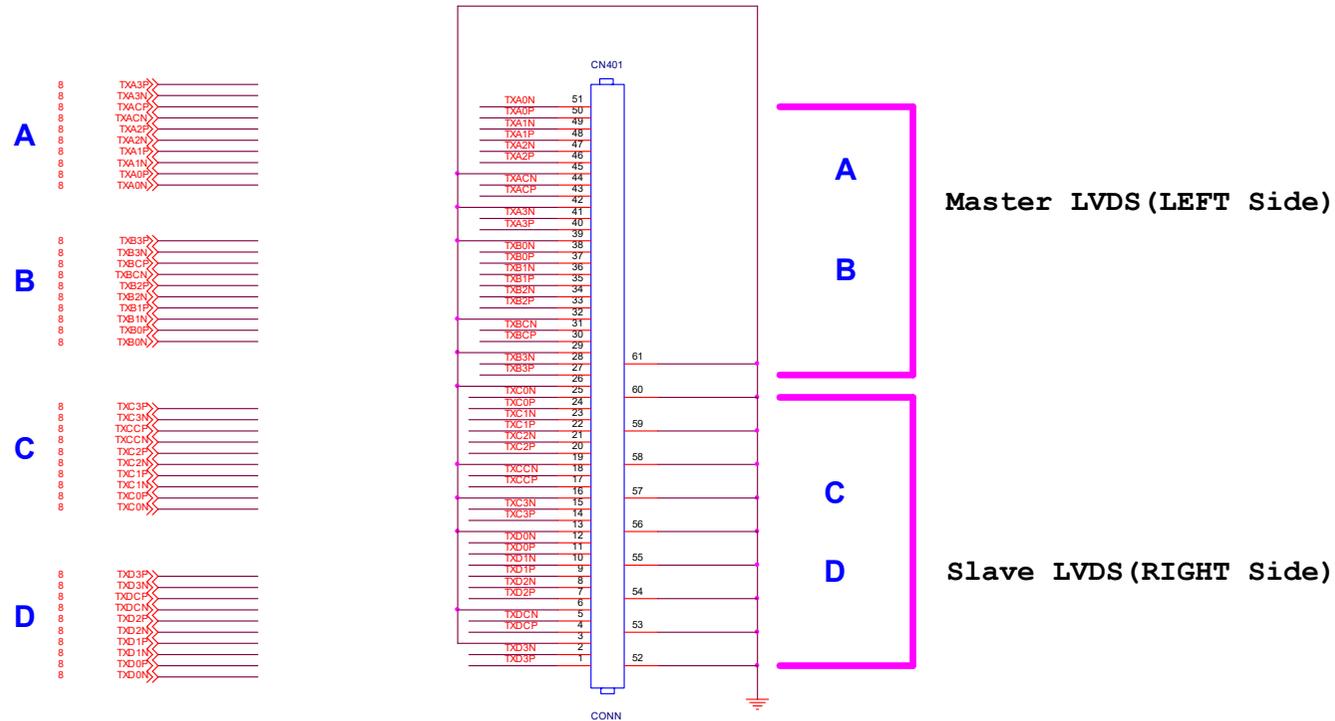
DP  
R/A (HF/BPR) 388G343GKB3FAT



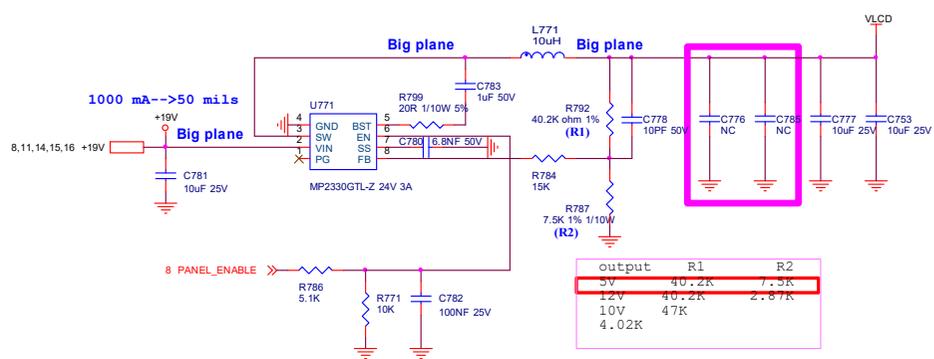




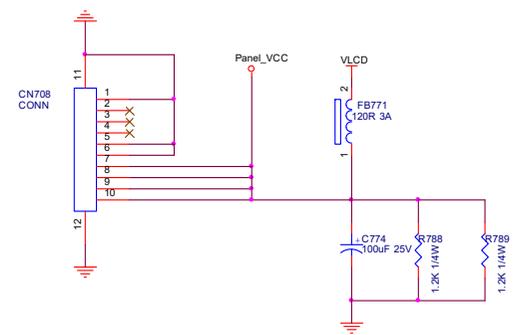




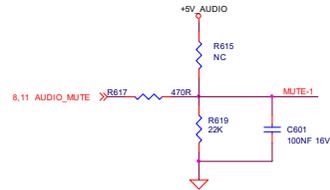
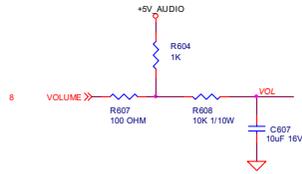
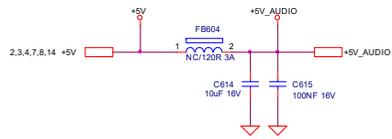
panel 狼pin define は



$V_{out} = 0.802 \times [1 + (40.2/2.87)] = 12.03V$   
 MP2330: Max:3A Vin 4.5V-24V

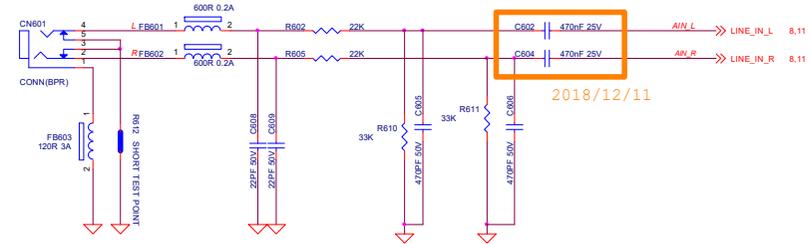


R601-R640  
U601  
CN601-CN603



LINE IN  
RA 088G 30214K YG  
RA(BPR) 388G302G5G6FYGZDCJ  
RA(HF/BPR) 388G302G5G6FHC00HF  
RA(HF) 088G 30214K DC HF

LINE IN  
VT(HF/BPR) 388G302G5G1EYG00HF  
VT 088G302G5G1VCL  
VT(HF) 088G302G5G1VCL HF



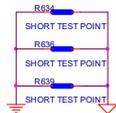
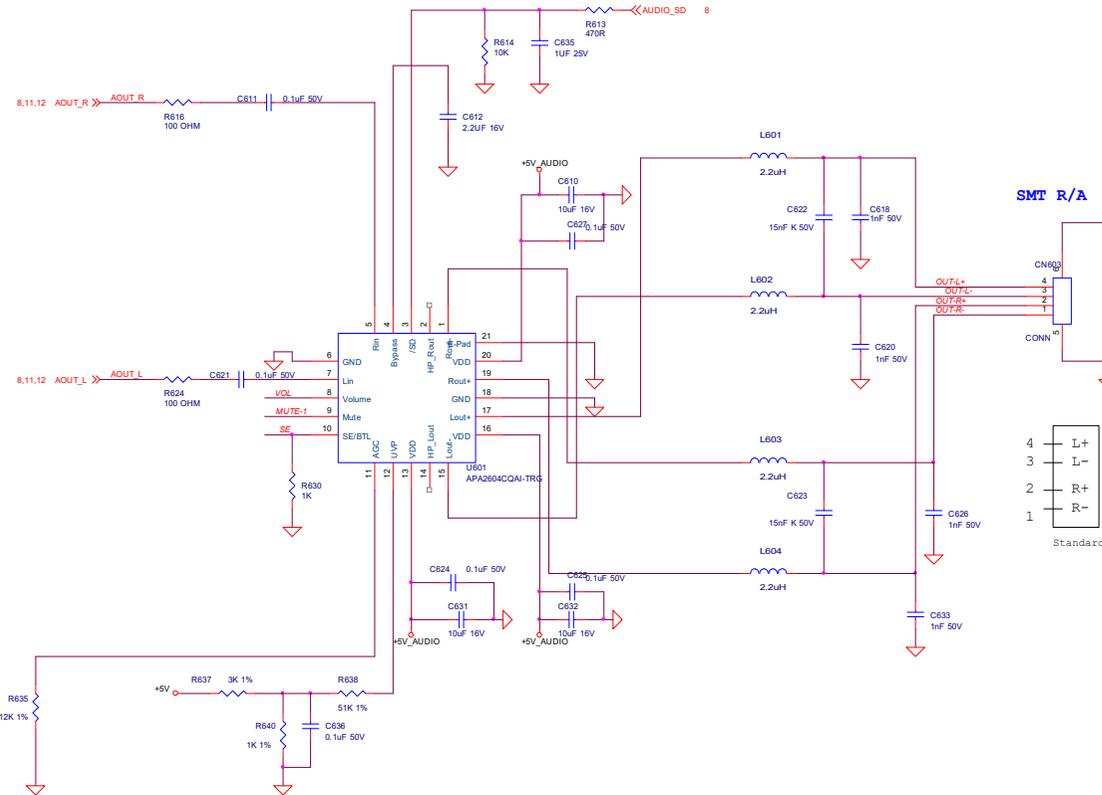
2018/12/11

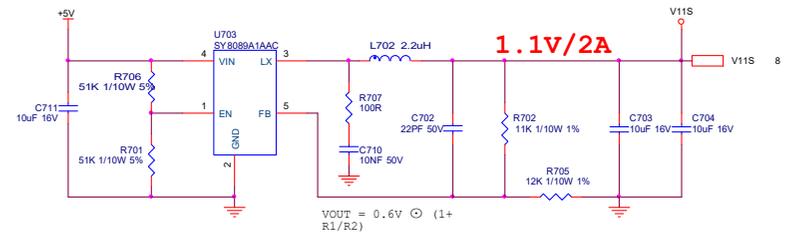
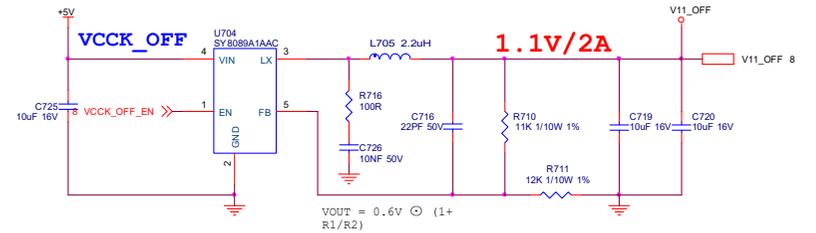
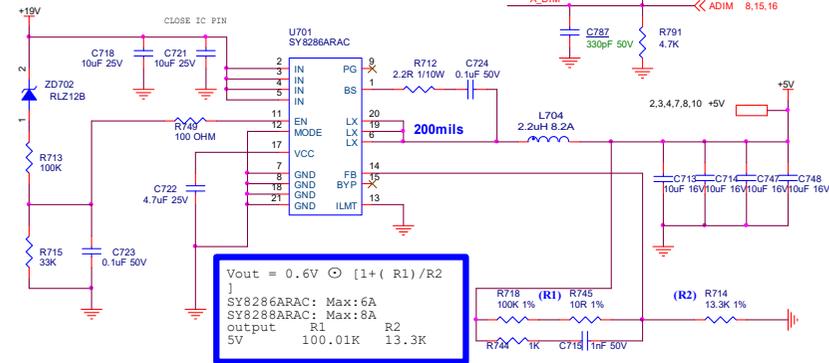
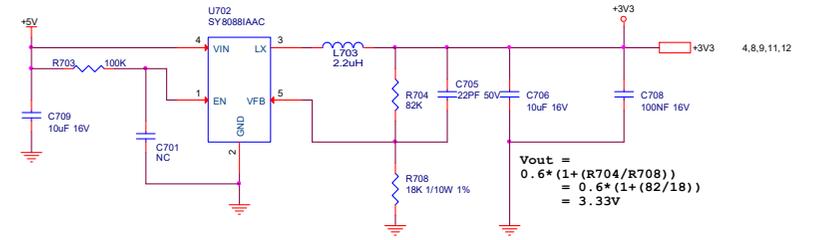
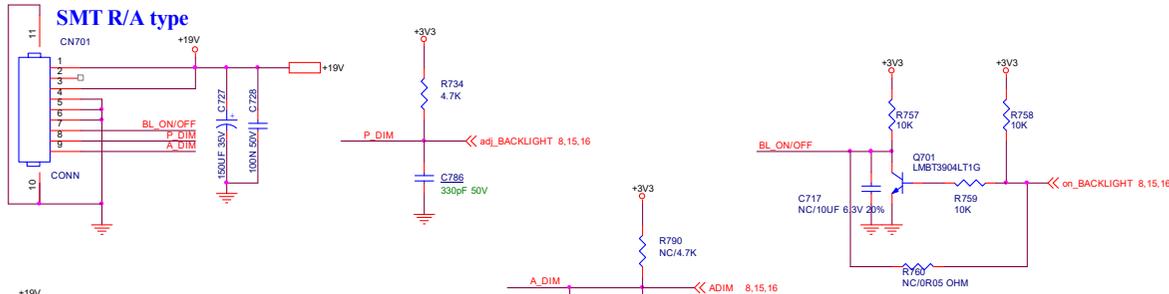
EARPHONE

RA 088G 30214B YG  
RA(HF/BPR) 388G302G5B6FHC00HF  
RA(HF) 088G 30214B YG HF

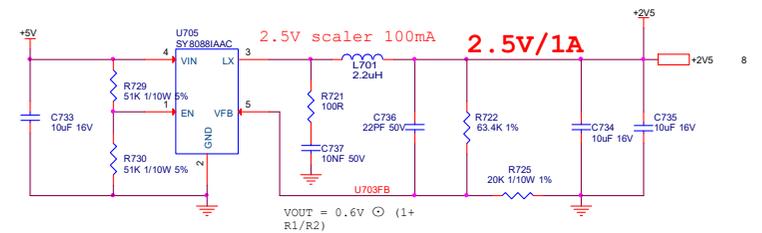
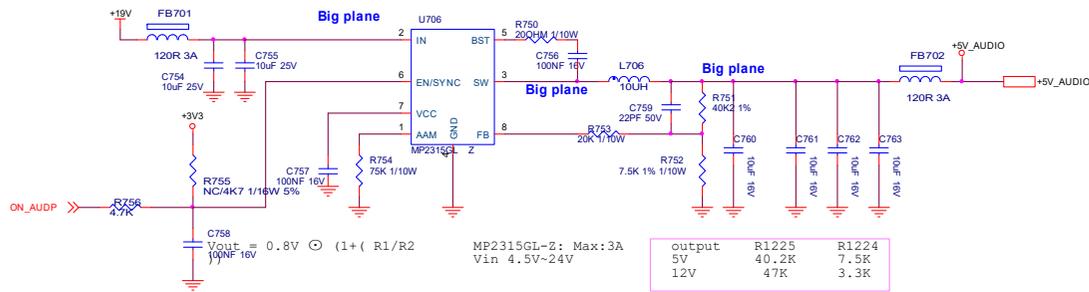
EARPHONE

VT 088G302G5B2VCL  
VT(BPR) 388G302G5B2EYG  
VT(HF/BPR) 388G302G5B2EYG00HF  
VT(HF) 088G302G5B2VCL HF



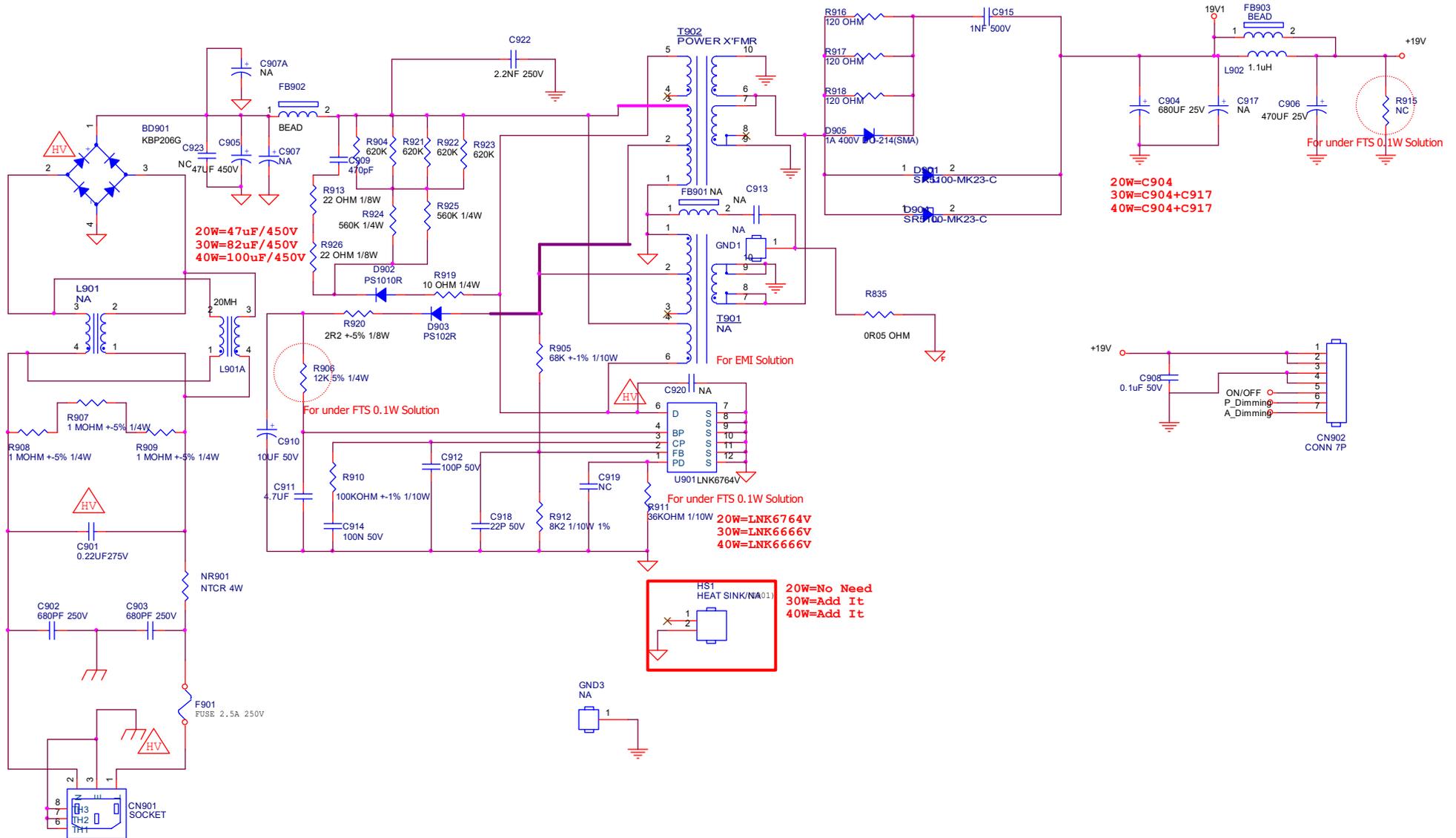


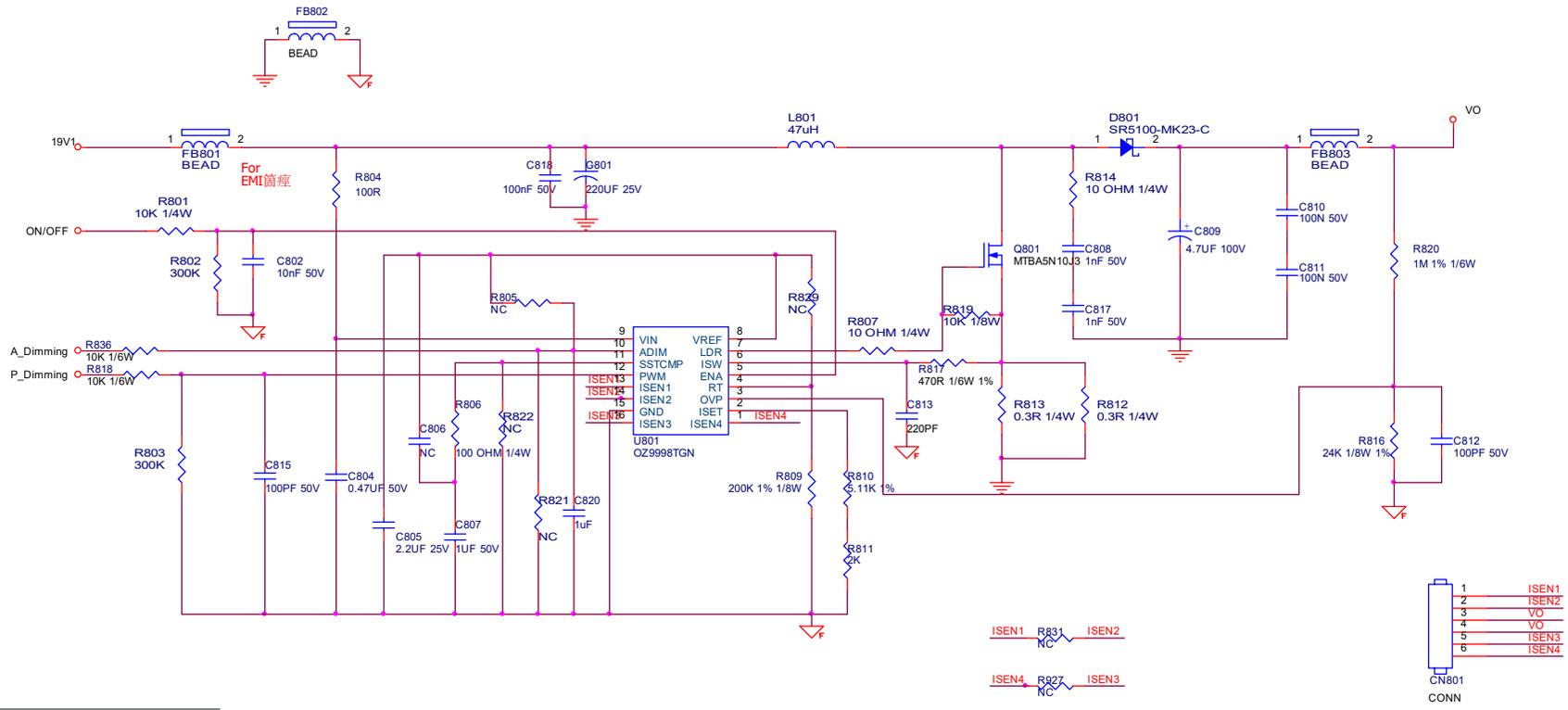
Audio Power



5.2 Power Board

715G6930P01012001R



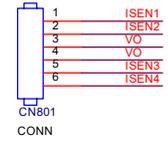
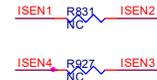


layout 銅箔材質與沿面距離標準

| 序號 | 電壓值 (Vdc or Vrms) | 最少銅箔間距 (mm) | 線路圖顏色 |
|----|-------------------|-------------|-------|
| 1  | 40V ↓             | 0.30        | 無標示   |
| 2  | 40V-100V          | 0.75        | 藍色    |
| 3  | 100V-200V         | 1.5         | 紫色    |
| 4  | 200V-400V         | 2.0         | 粉紅色   |
| 5  | 400V-600V         | 3.0         | 紅色    |
| 6  | 600V-1000V        | 5.0         | 黑色    |

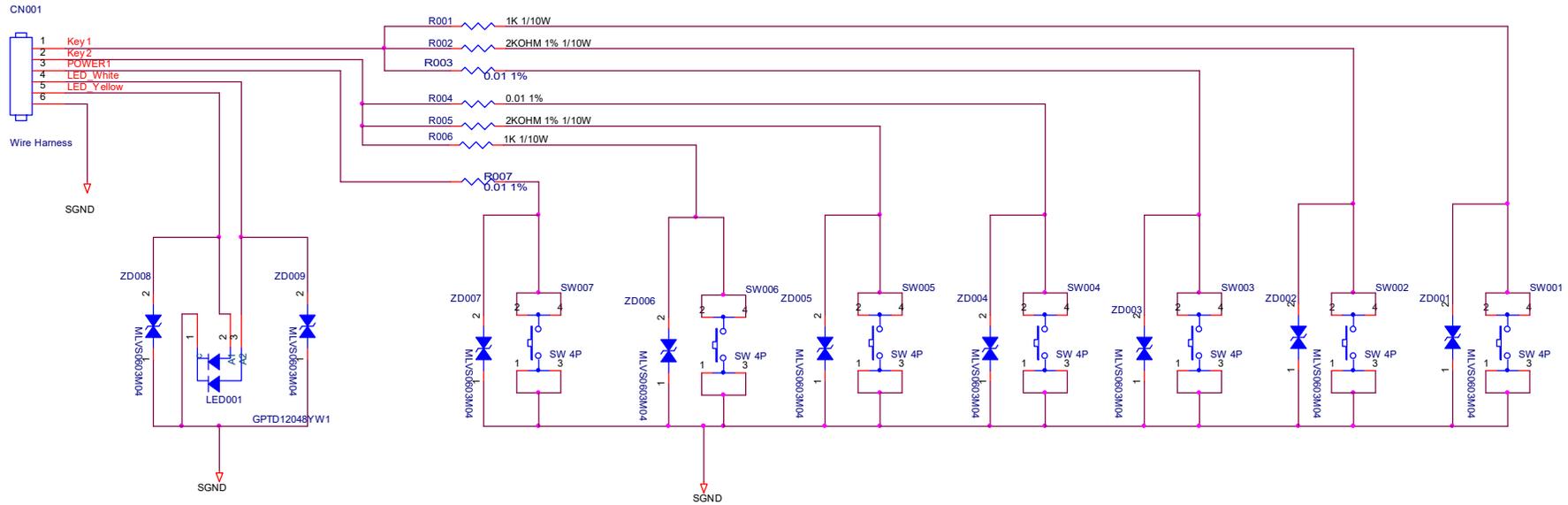
Layout trace 電流與 trace 寬度, li=最少 1mm 以上寬度 銅厚:1(Oz)

| 序號 | 電流值 (dc or Irms) | 最少銅寬(mm) | 線路圖顏色 |
|----|------------------|----------|-------|
| 1  |                  | 線路圖上標示   | 藍色    |



### 5.3 Key Board

715G7696K0100004Y

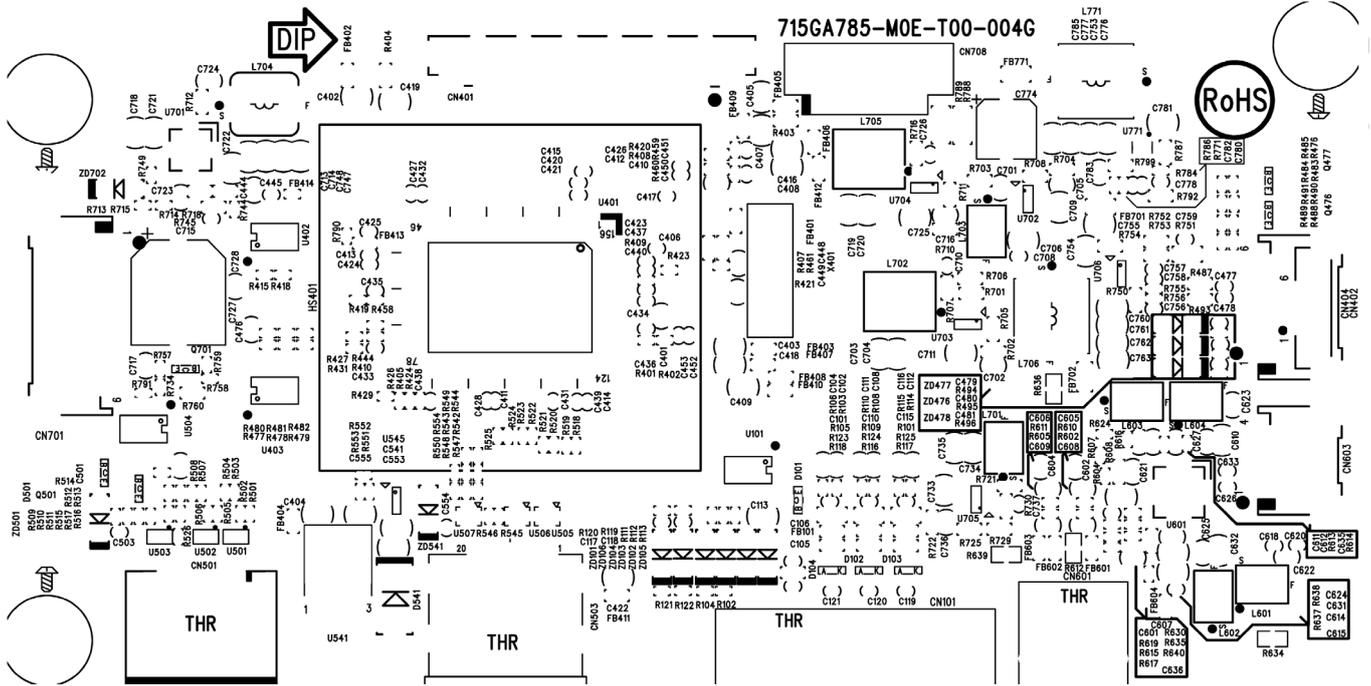


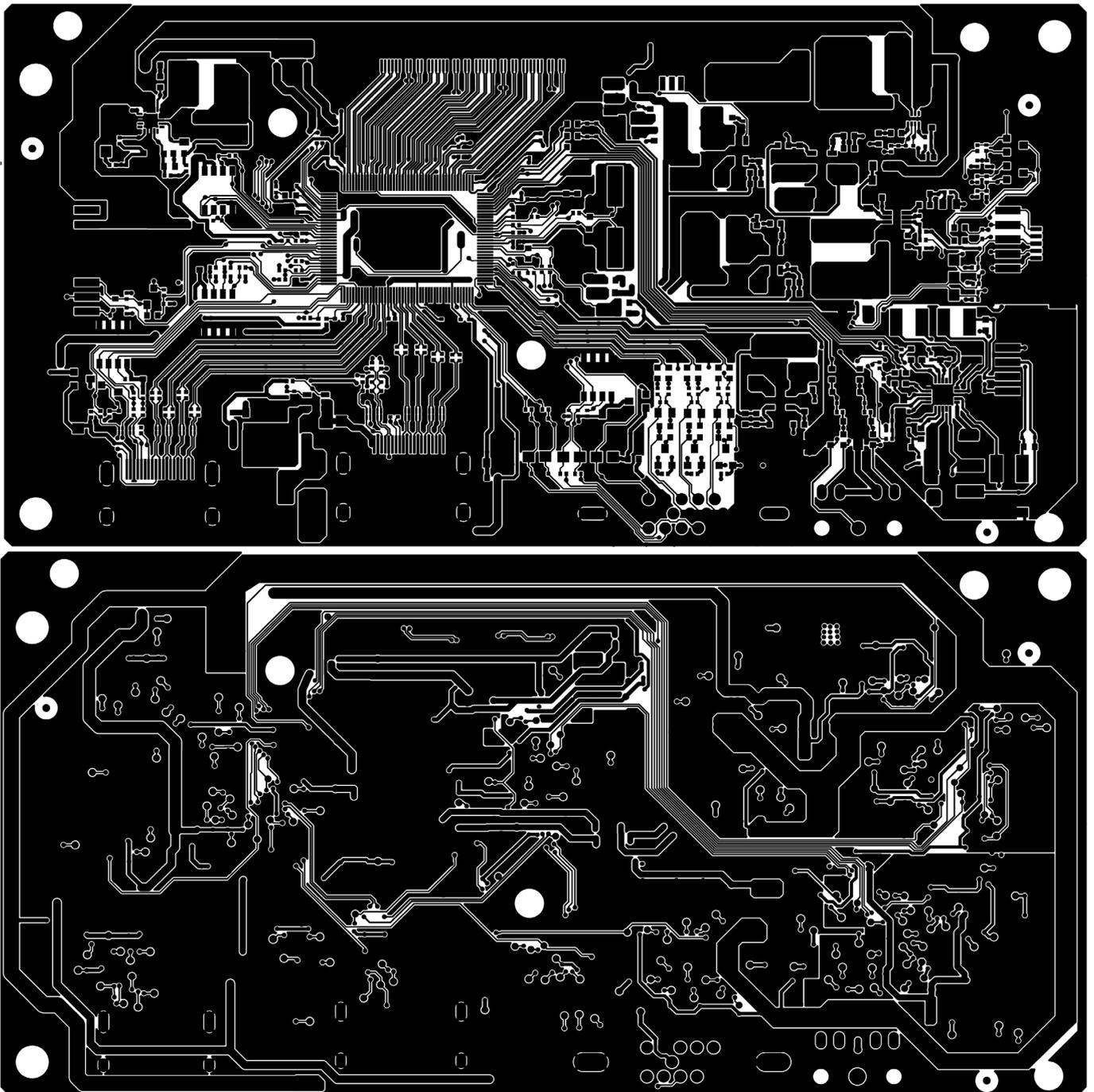
|       |            |                |
|-------|------------|----------------|
| Key1  | SW001 (1K) | 0.6843-0.6628V |
|       | SW002 (2K) | 1.1335-1.1039V |
|       | SW003 (0)  | 0V             |
| Key2  | SW004 (0)  | 0V             |
|       | SW005 (2K) | 1.1335-1.1039V |
|       | SW006 (1K) | 0.6843-0.6628V |
| Power | SW007      | 0V             |

# 6. PCB Layout

## 6.1 Main Board

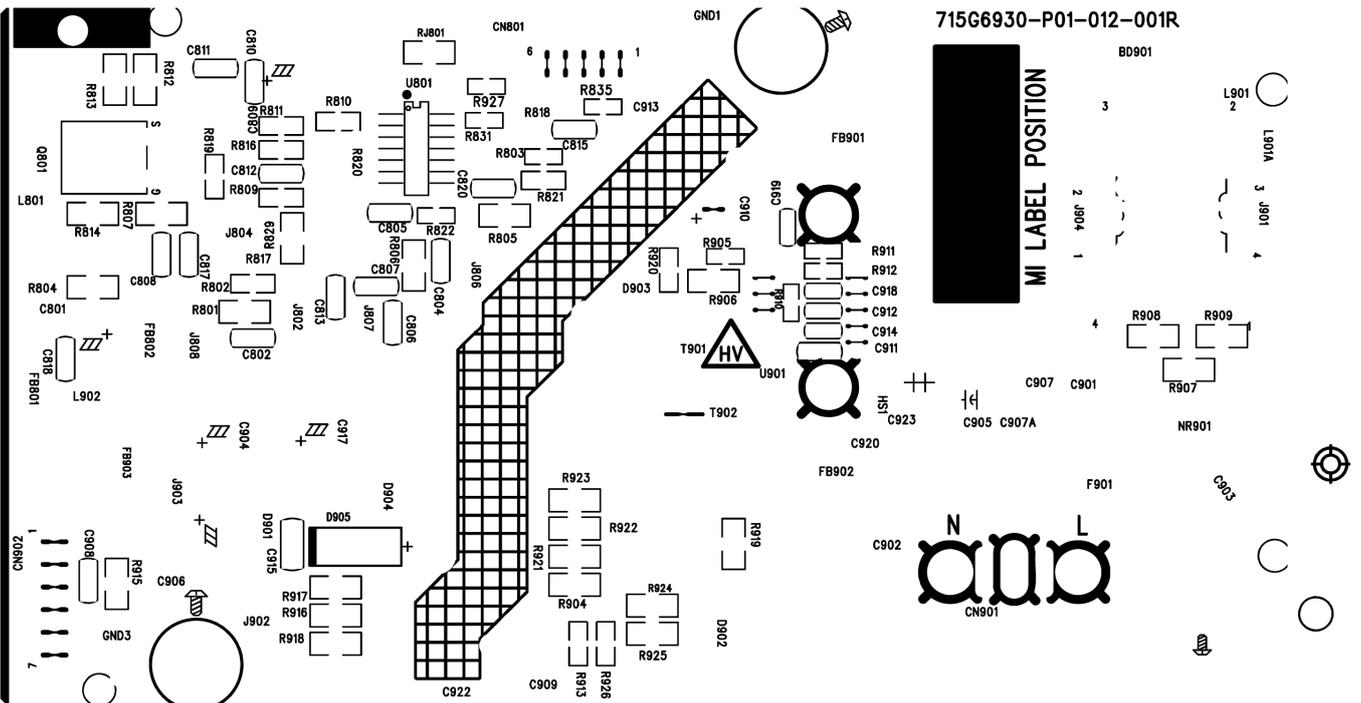
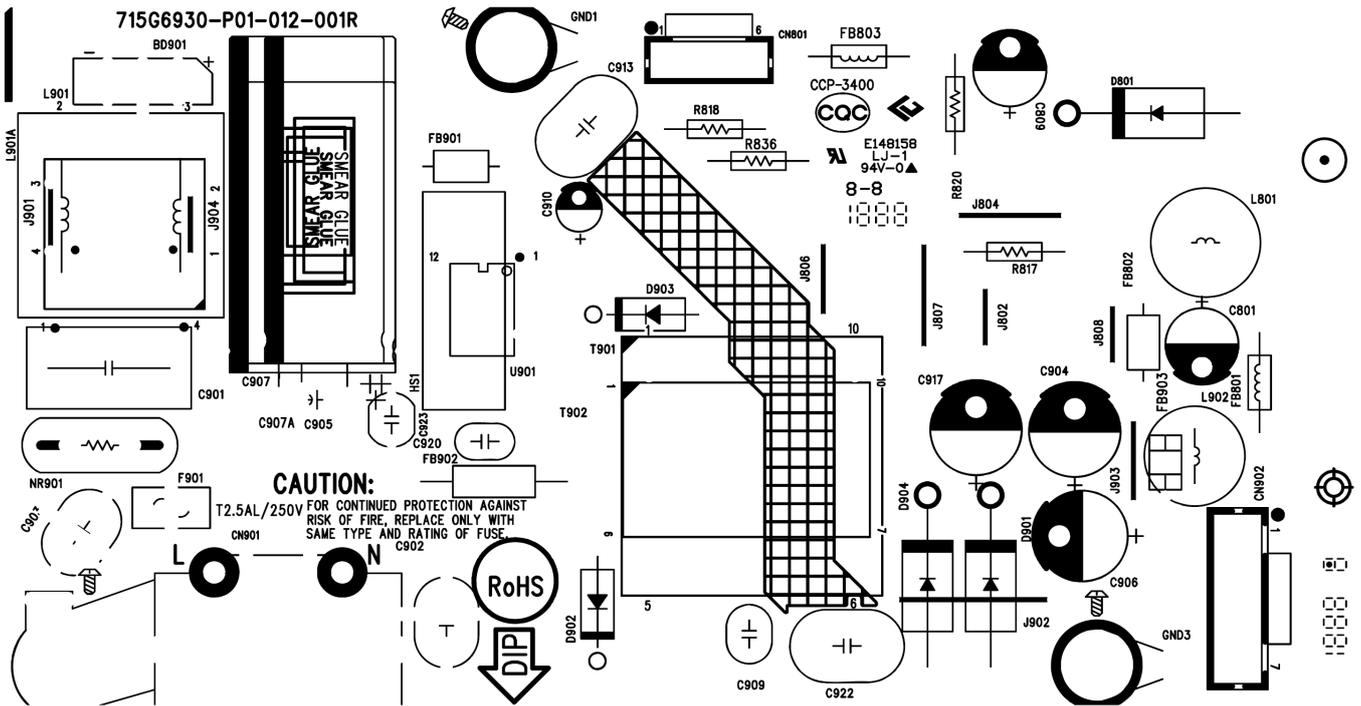
715GA785M0ET00004G

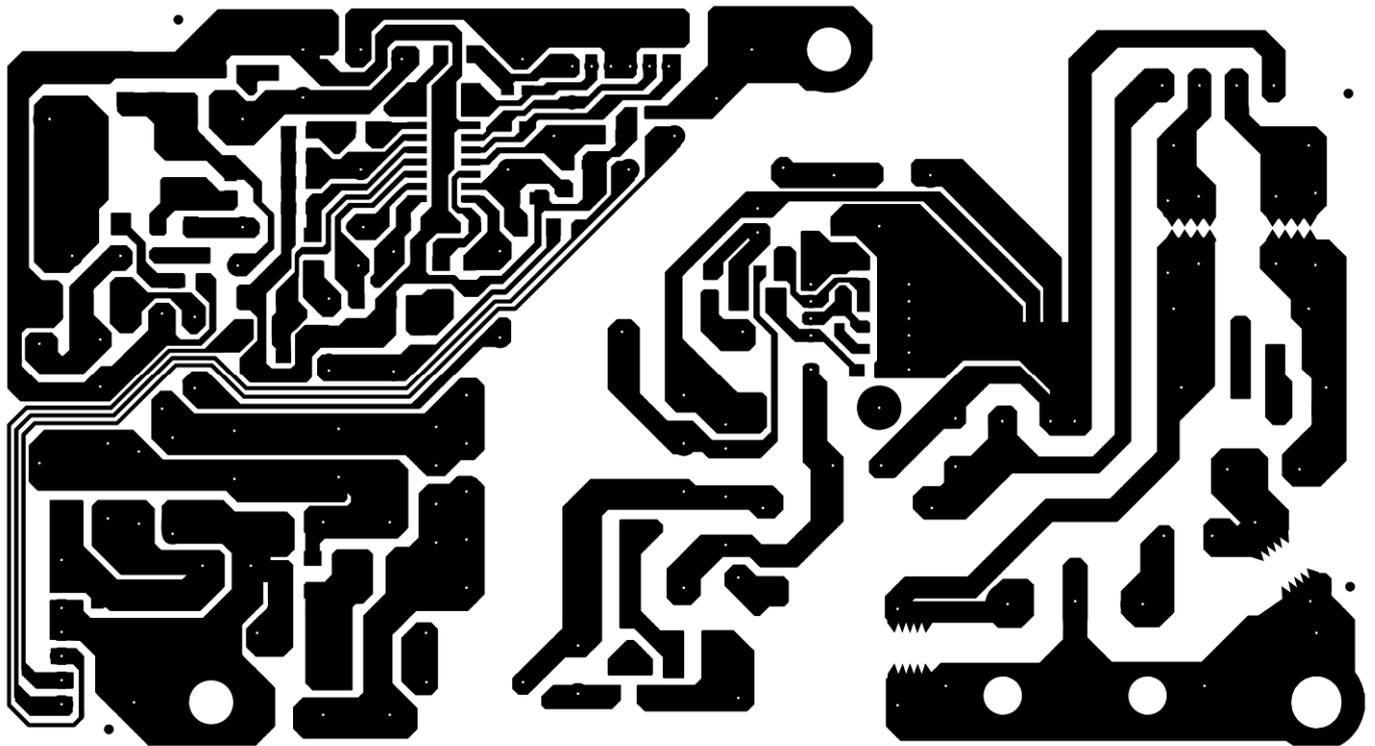




6.2 Power Board

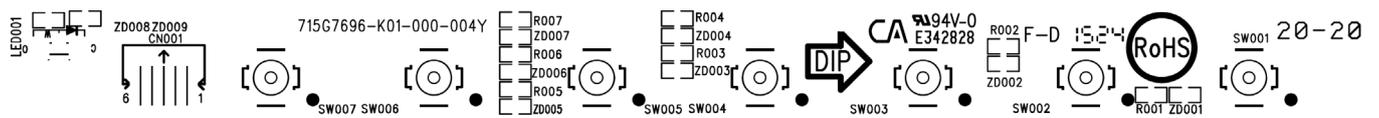
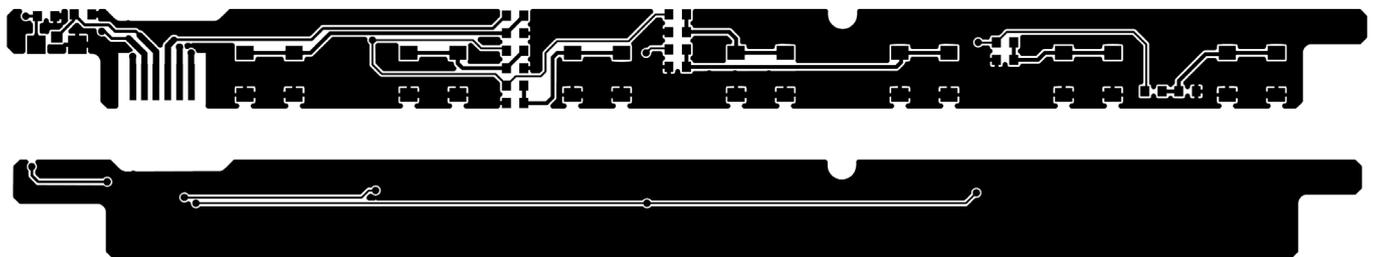
715G6930P01012001R





### 6.3 Key Board

715G7696K01000004Y



## 7. Disassembly & Assembly SOP

### 7.1 Precaution

Please read the precautions as follows to prevent any damages to the LCD Monitor and also select the appropriate tools for disassembly and re-assembly.

- ◆ Make sure all power connection is removed. Be sure that the LCD Monitor is in power off status.
- ◆ Prepare soft cloth and sponge as working platform to place LCD monitor horizontally.
- ◆ Hold LCD by the side carefully and DON'T touch or press panel directly.



- ◆ Remove all rings, watches and any other metal objects from your hands which possible to cause scratch.



- ◆ Always wear a ground strap or anti-static glove to protect the parts from static discharge. ESD (electro-static discharge) protection is required to guarantee the safety of product and personnel.



## 7.2. Suggest Tools

Here are some tools that can be used for the LCD monitor's service and repair.

### Philips-head Screwdriver

Use a Philips-head screwdriver to fasten/remove the K- or B-typed screws



P/N: N/A

### Gloves

To protect LCD Panel and your hand



P/N: (L) N/A (M) N/A

### C/D Disassembly Tool

Use C/D Disassembly Tool to open cosmetic cover and avoid scratch.



P/N: N/A

### Spacer Screwdriver

Use a spacer screwdriver to fasten/remove spacer screws or hex screws.



P/N: N/A

### 7.3. Disassembly Procedure

Information in this section is to perform the disassembly procedure of the LCD monitor. Depending on the failures, replace the defective parts accordingly.

ASUS VG249Q LCD monitor consists of various subsystems. This section describes the procedures for LCD monitor disassembly. In addition, the detailed disassembly procedures of individual subsystem will be provided for your service needs.

The disassembly procedure consists of the following steps:

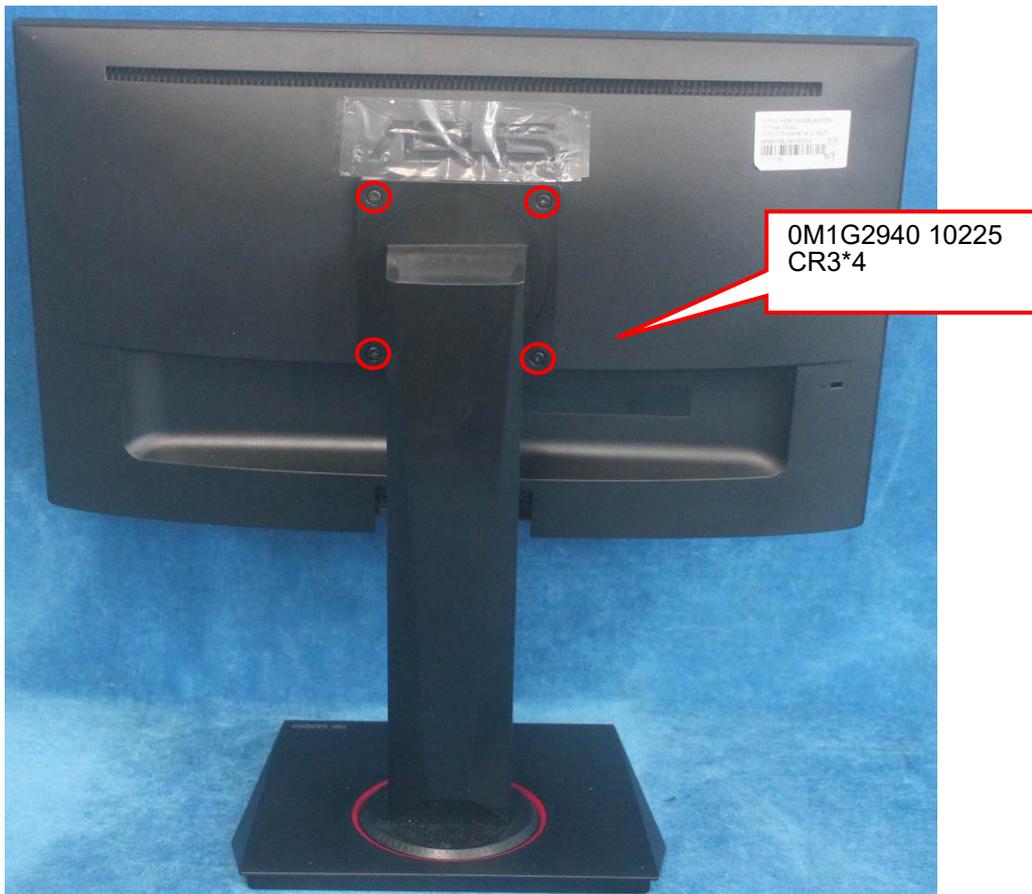
7.3.1 Stand Subsystem

7.3.2 Main Subsystem

7.3.3 Panel

#### 7.3.1 Stand Subsystem

1. Remove the screws to remove the STAND-BASE ASSY.



2. The stand-base assy.

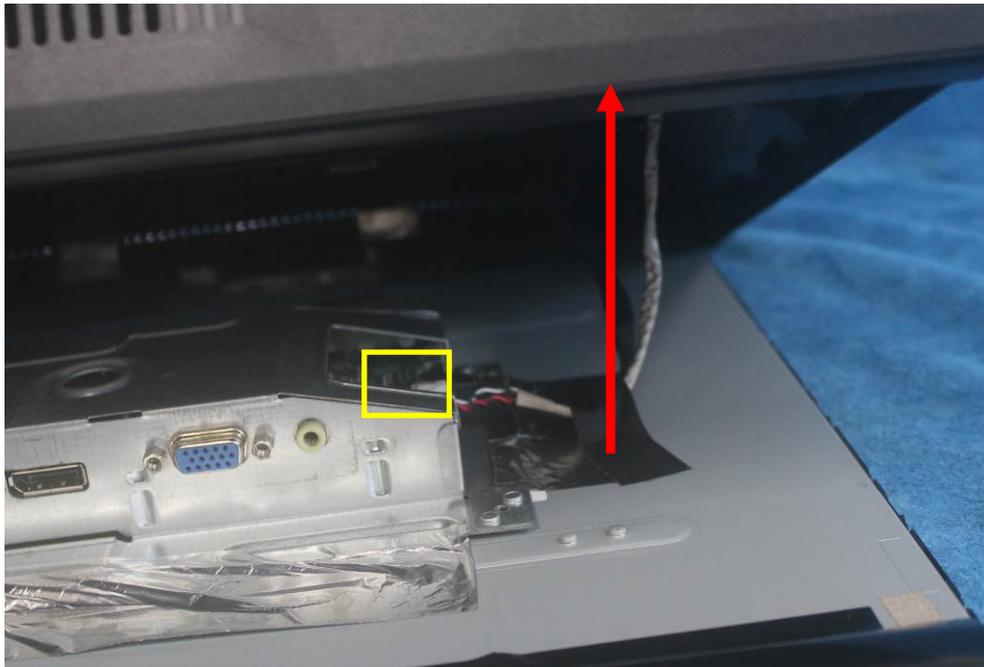


### 7.3.2 Main Subsystem

1. Use disassembly tool to open all the latches along the edge of the Rear Cover. (Note: Don't damage the key board.)

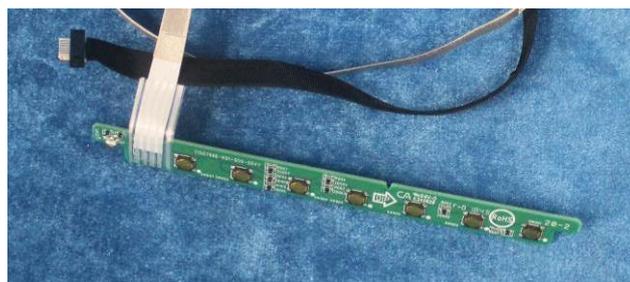
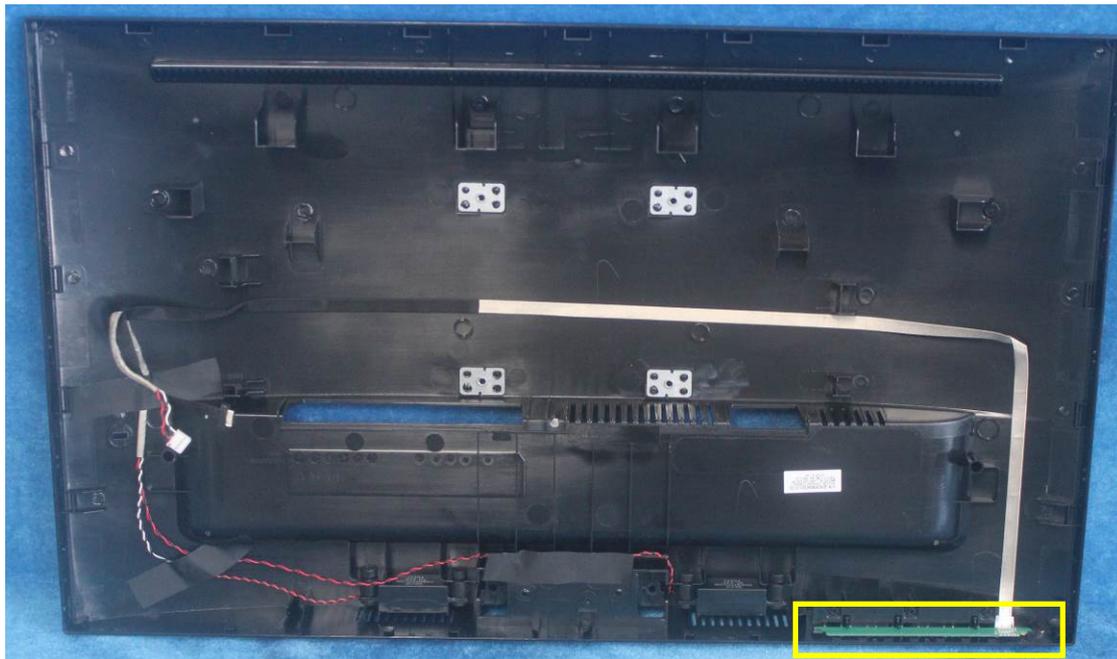


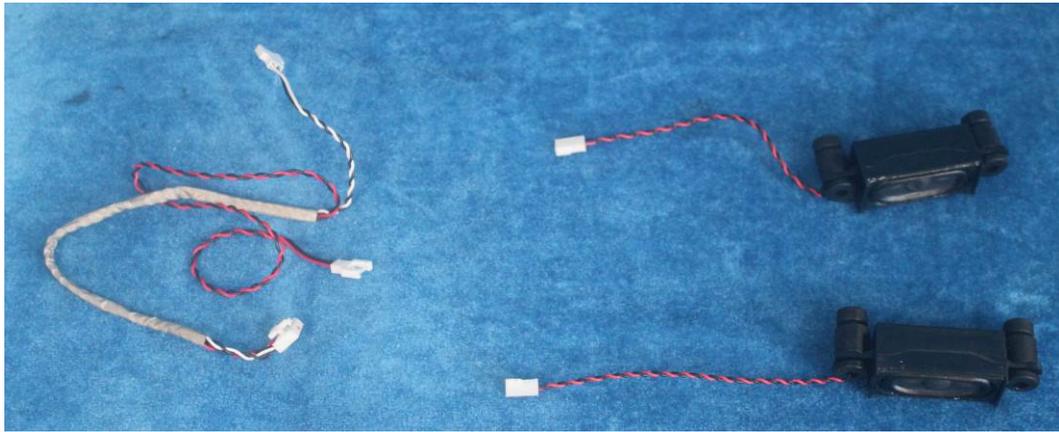
2. Gently pull up the rear cover and disconnect the cables (key board to main board and speaker to main board) to remove the Rear Cover.



### Key Board

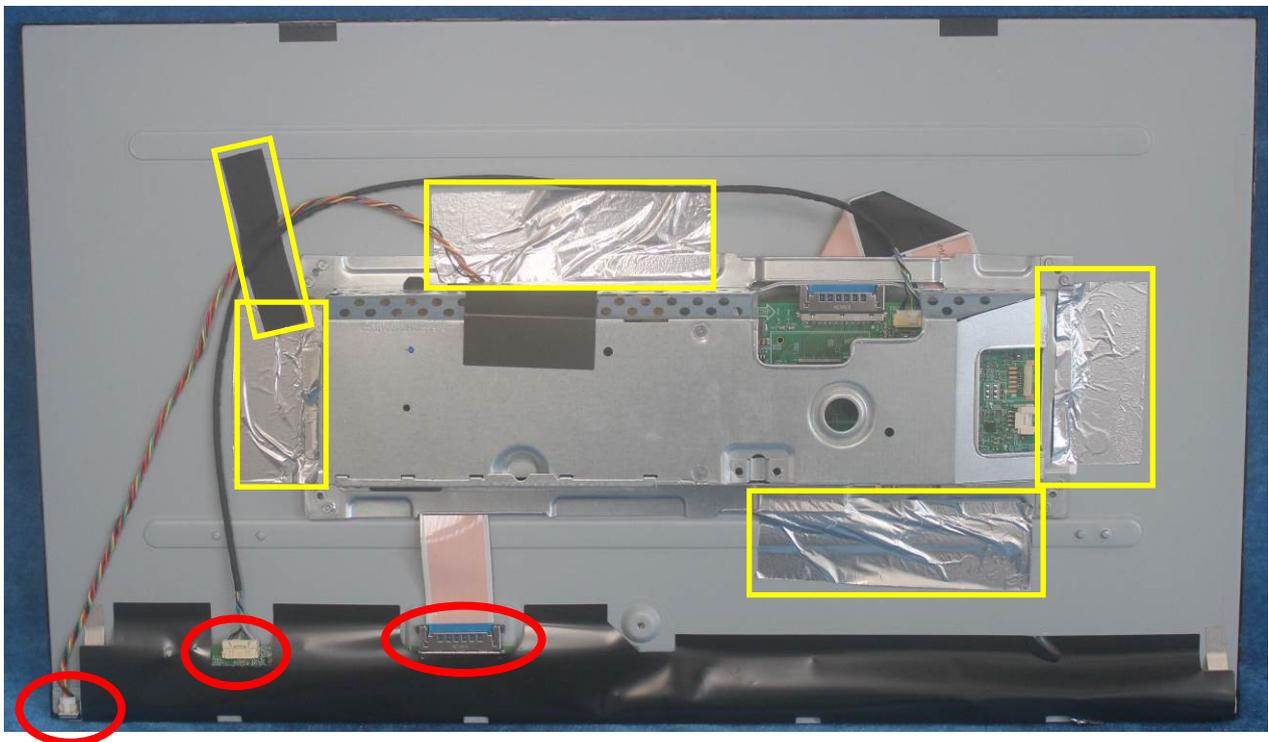
1. Remove the key board and the speakers from the rear cover.



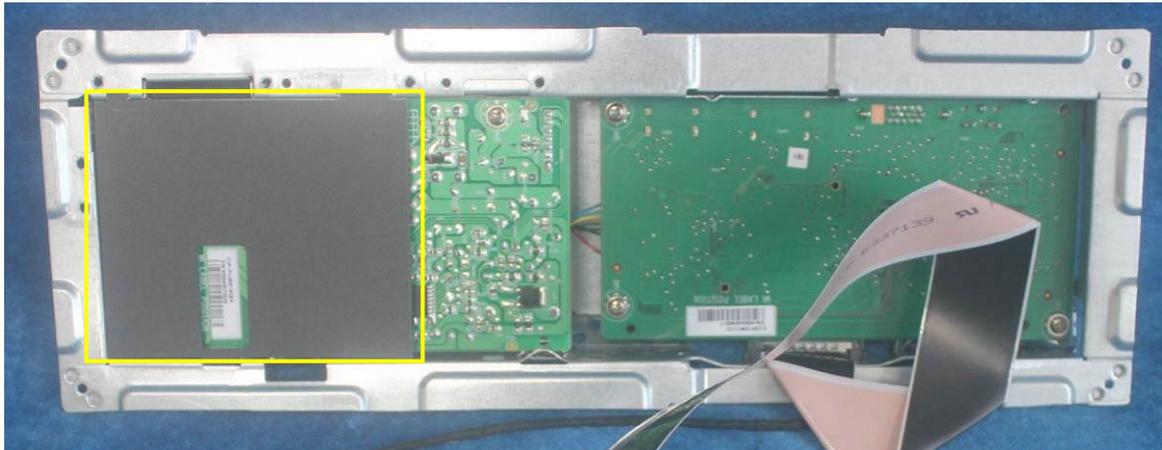


**MAIN\_FRAME**

1. Tear up the tapes and disconnect cables and unscrew the screws.

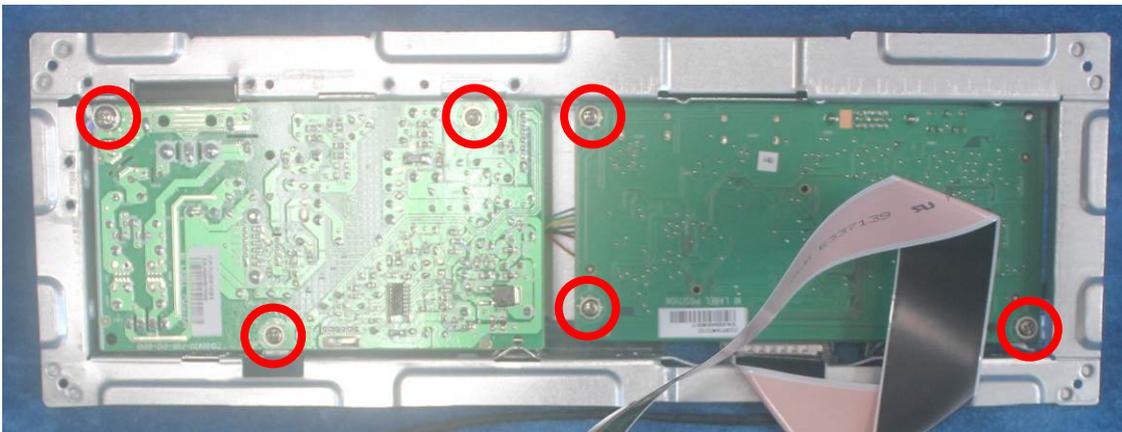


2. Remove the Mylar.

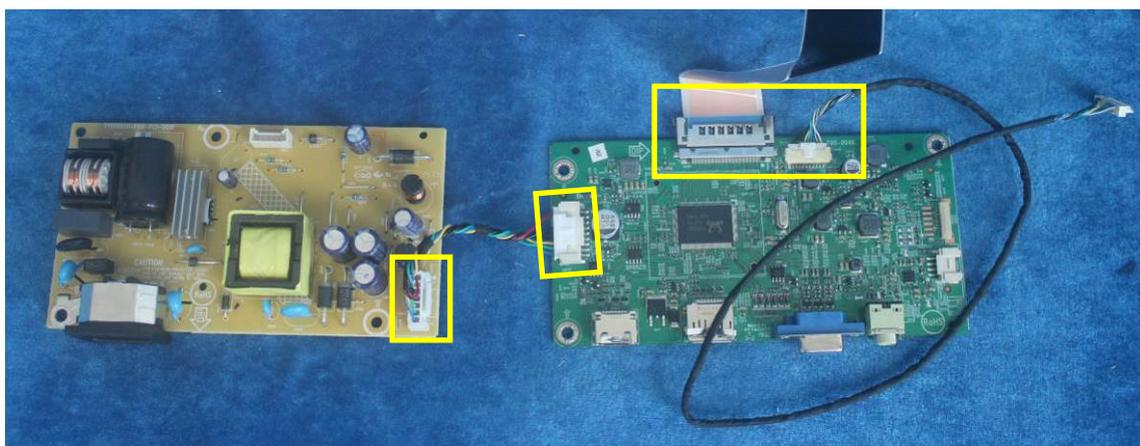


**Main Board and Power Board**

1. Unscrew the screws marked in red.



2. Turn over the MAIN BOARD and the Power Board, disconnect the cables.



### 7.3.3 Panel & Deco Bezel



### 7.4 Assembly Procedure

The assembly procedure and the disassembly procedure are opposite.

## 8. ISP Instruction

### 1. Materials list



ISP JIG: 715GT089-C

ASUS PN: 20LT0-000DN000

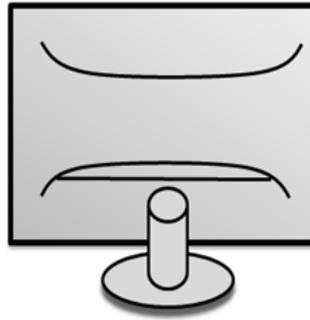


VGA cable

TPV P/N: 389G0728GAADBR



PC

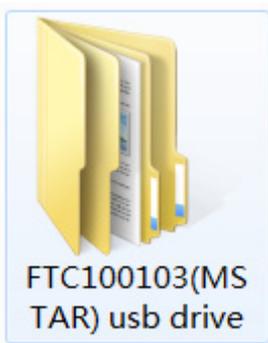


Monitor



USB cable

TPV P/N: 389G017508R1CG

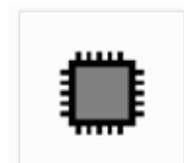


USB port driver



RTDTool.exe

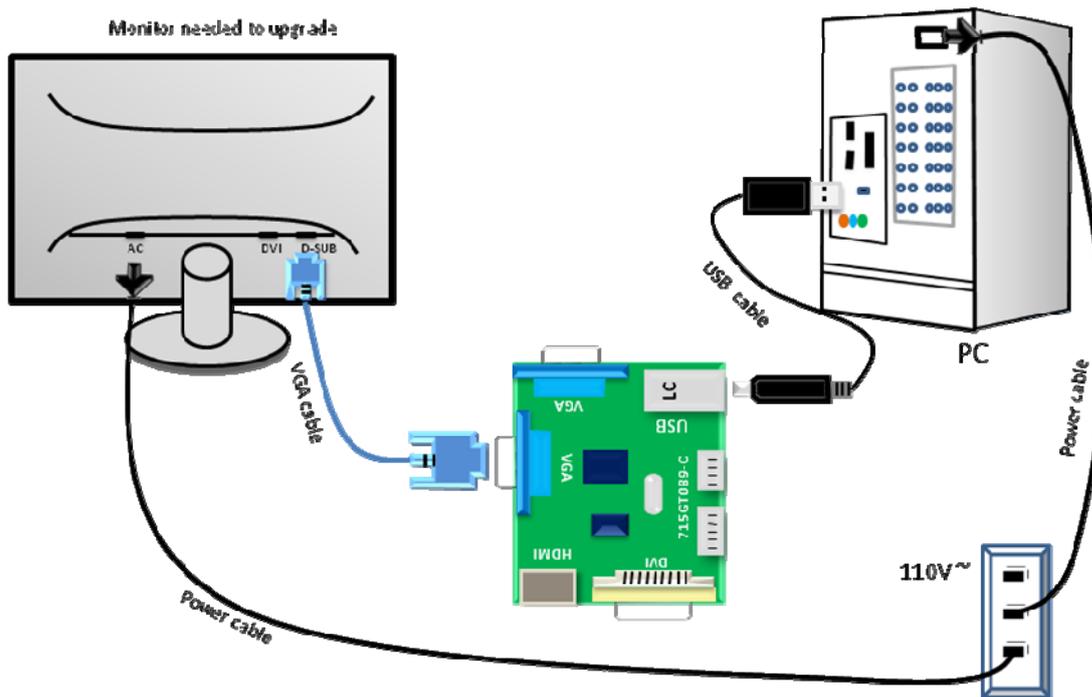
ISP tool:



R ASUS\_VG249Q\_ARTD2556R\_TPM  
5 238WF1-LF1F.Q  
W\_20191009\_V0...

New F/W

2.Connection

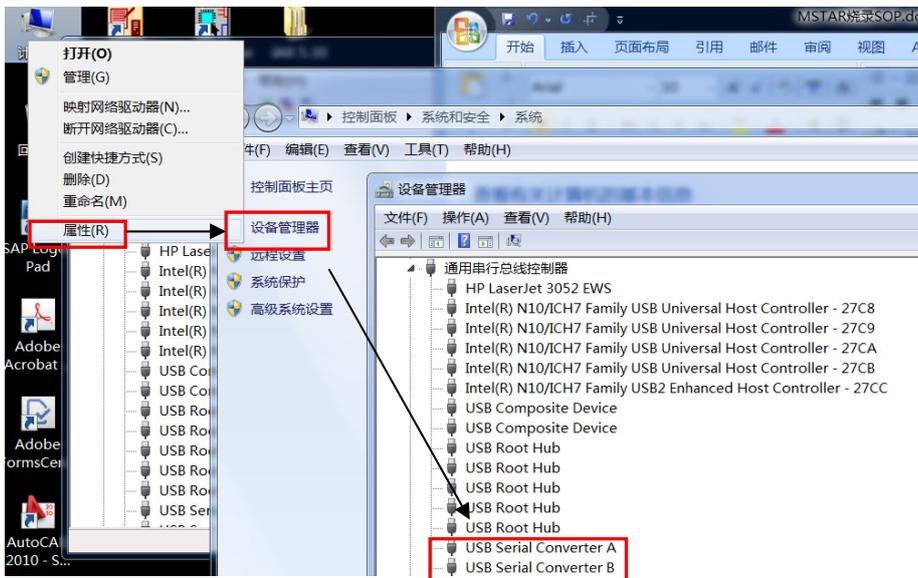


3.Install USB driver.

3.1. When insert the USB cable to PC USB port, will pop up a Hardware Wizard to help you install the USB driver if you use this ISP board first time.it can auto install success by itself

Remark: The USB driver files path: D:\FTC100103(Mstar)\FTCUSB.INF

After installation the USB serial port driver, please check the port. Look the properties of “my Computer”

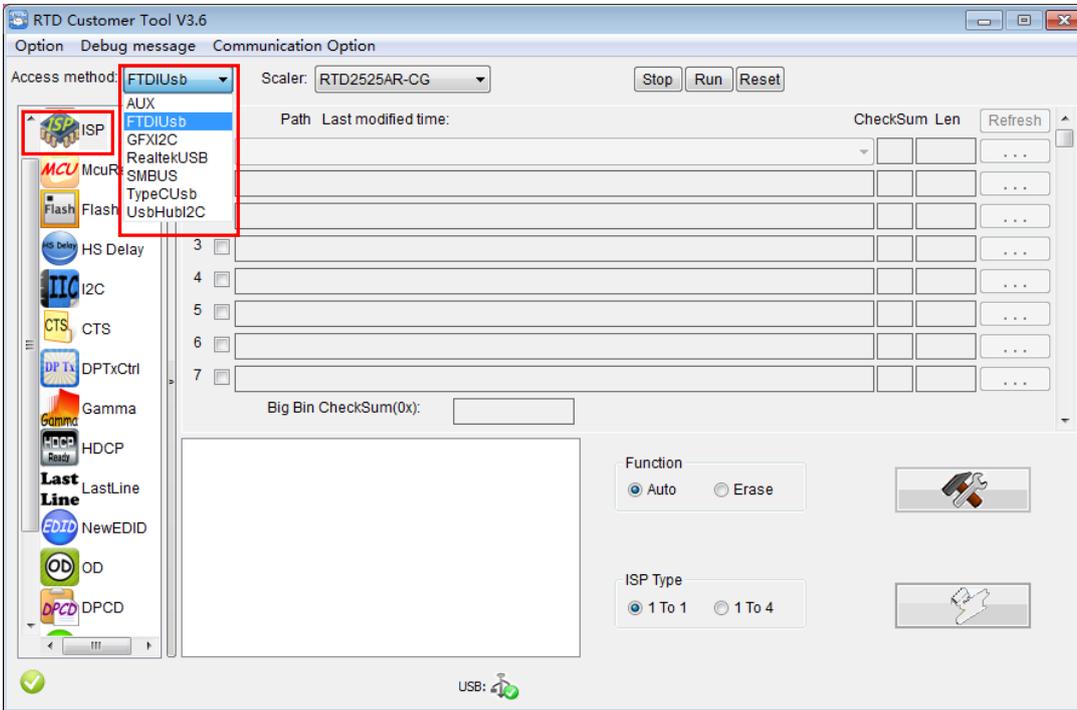


9. Install RTD tool.

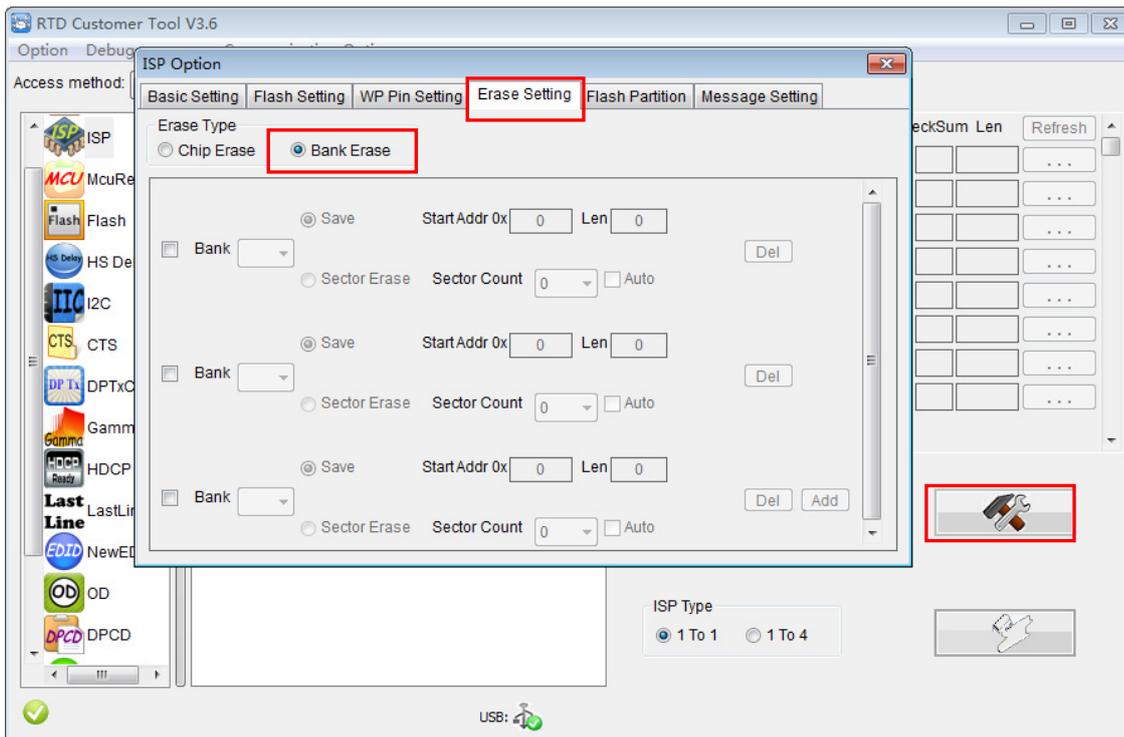
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the EDID writing tool before running the F/W Upgrade tool.



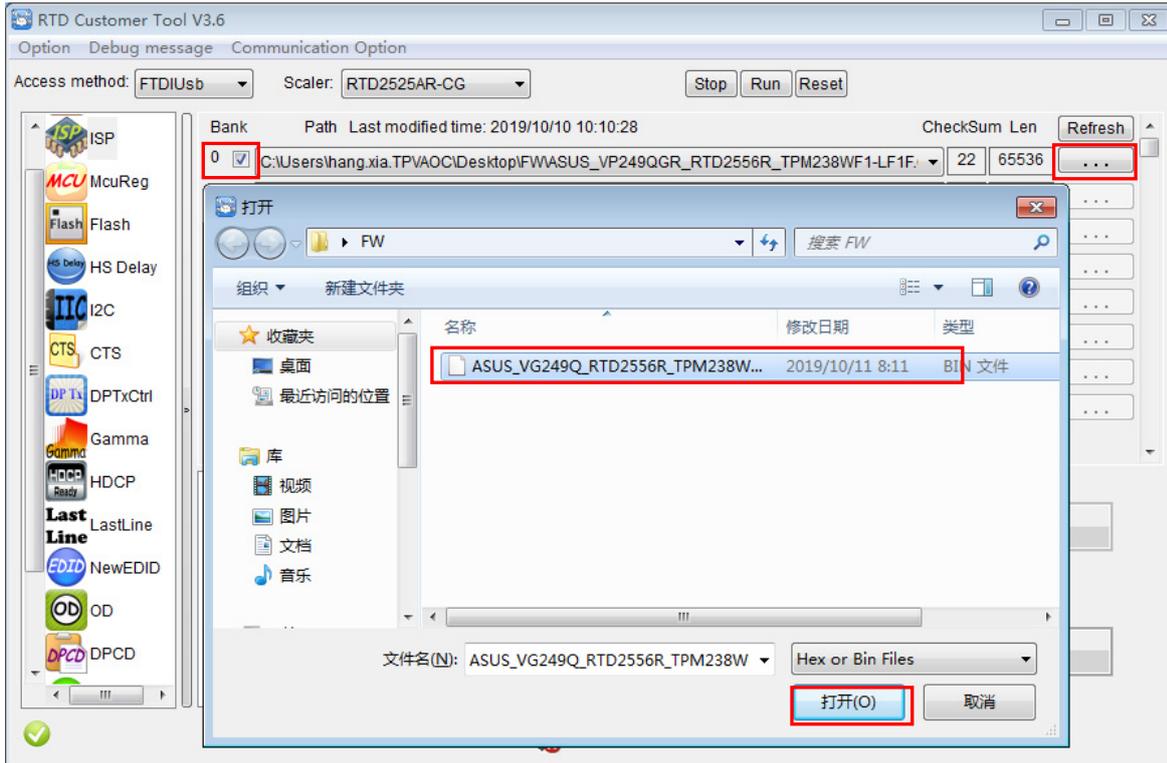
- 4.1. `RTDTool.exe` double-clicks the icon to run it. (Note: Must to install driver firstly)
- 4.2. Choose the FTDIUSB communication way.



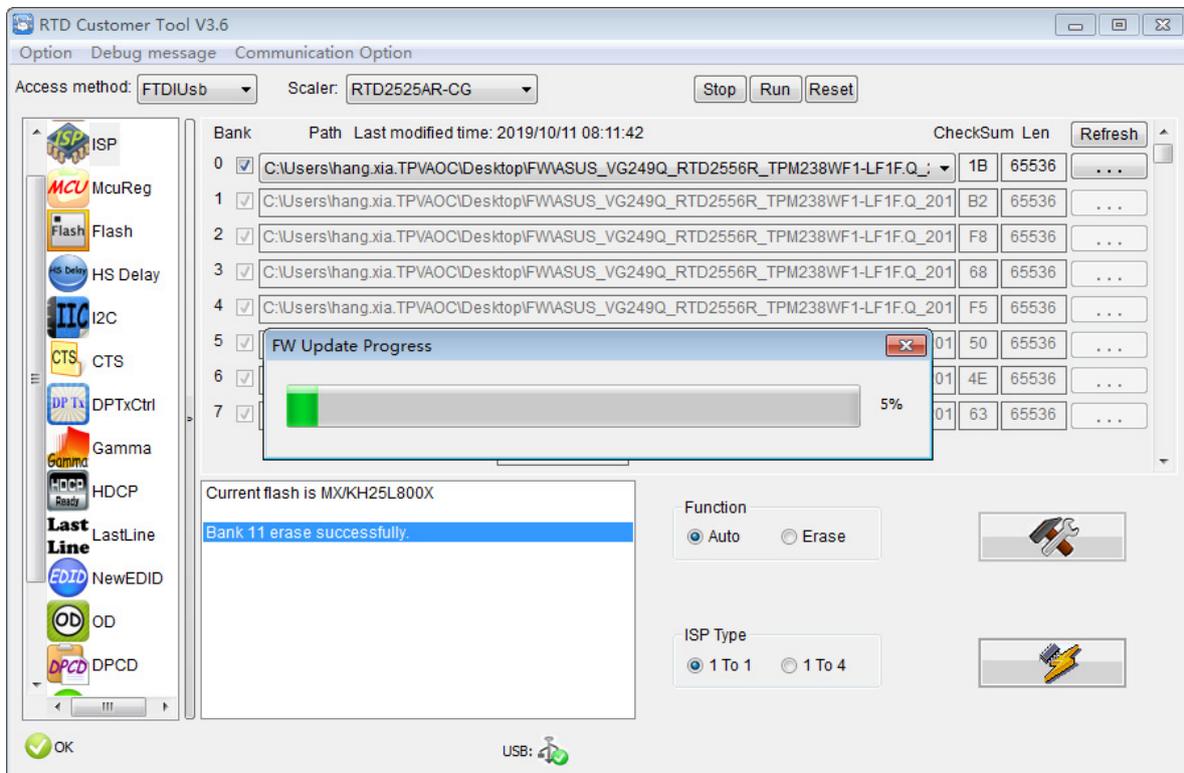
- 4.3 Click "ISP" and "ISP Option" to set as below. (In order to prevent HDCP KEY data loss, please must load the file name contain the " Reduce" of the firmware)



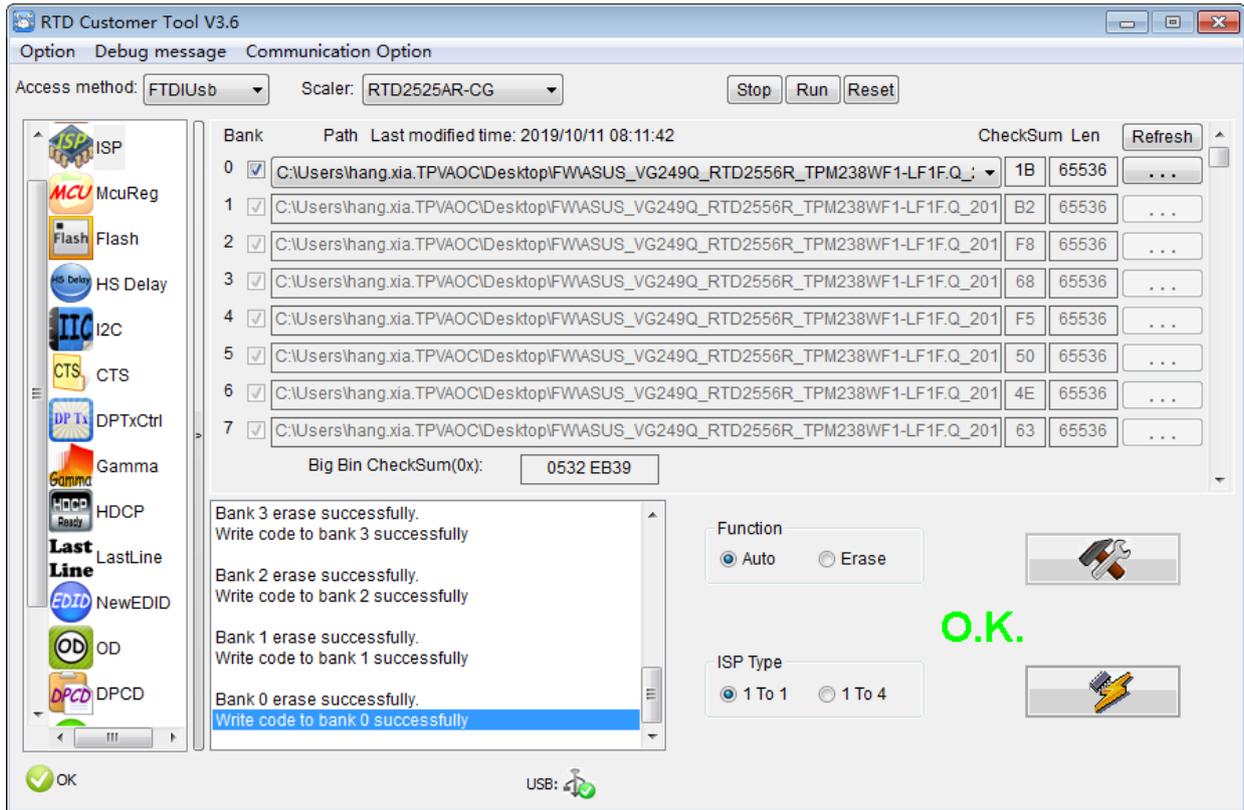
4.4 Close the “ISP Option” window and click the “BigBin” to load the correct F/W.



4.5 Click  to start programming.



4.6 After about some minutes, there will pop up message as below figure which promotes the upgrade successful.

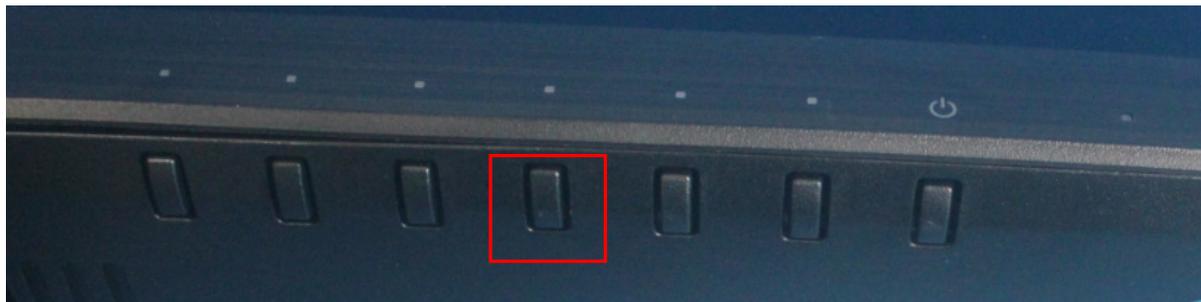


**5. Check the FW version after upgrade.**

5.1. The way to open the factory menu.

Step a: Connect signal source to monitor.

Step b: Pressing the 4th button as below, insert the power cable, when the screen lights, release the key and press "MENU" to open the menu with "F"



The 4<sup>th</sup> button



```
ASUS VG249Q      RTD2556R
FW : V008 20191009
Panel TPM238WF1-LF1F.Q
Auto Level
GAIN      R 128 G 128 B 128
OFFSET    R 128 G 128 B 128
9300      R 119 G 115 B 128
7500      R 123 G 123 B 128
6500      R 128 G 122 B 120
User      R 128 G 128 B 128
sRGB      R 97 G 94 B 92

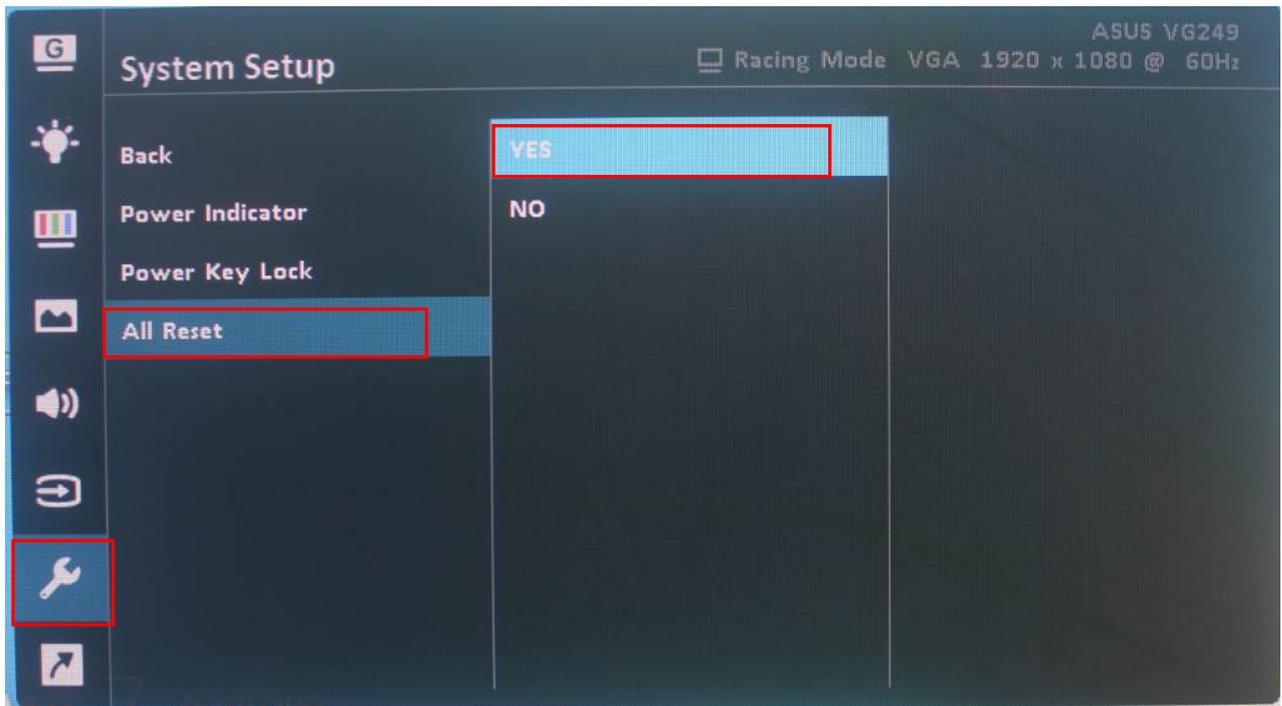
Bri 100   Con 80
CEC Bri 69
DFM              ON
BurnIn          USER BURN
SSC 10
OD : 038
Panel used Time      0 H 00M
Init EEPROM         OFF
Clear Time
OD : ON
FRC : OFF
HScaling : OFF
Exit
```

Check this F/W version.

5.2. Do factory reset in user menu if the F/W version is right, or please re-upgrade it.

(1) Restart the monitor after open factory menu.

(2) Usually F/W upgrade will turn on "Burn in" mode, while factory reset will turn off it.



```

ASUS VG249Q      RTD2556R
FW : V008 20191009
Panel TPM238WF1-LF1F.Q
Auto Level
GAIN      R 128 G 128 B 128
OFFSET    R 128 G 128 B 128
9300      R 119 G 115 B 128
7500      R 123 G 123 B 128
6500      R 128 G 122 B 120
User      R 128 G 128 B 128
SRGB      R 97 G 94 B 92

Bri 100  Con 80
CEC Bri 69
DFM      OFF
BurnIn   OFF
SSC 10
OD : 038
Panel used Time      0 H 00M
Init EEPROM  OFF
Clear Time
OD : ON
FRC : OFF
HScaling : OFF
Exit
    
```

### 9. DDC Instruction

#### 1. Materials list



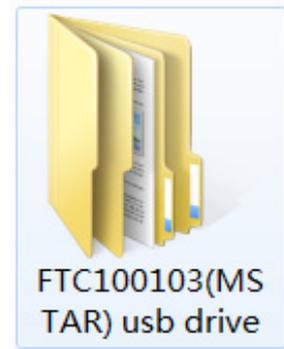
VGA cable

TPV P/N: 389G0728GAADBR



USB cable

TPV P/N: 389G017508R1CG



FTC100103(MS TAR) usb drive

USB port driver

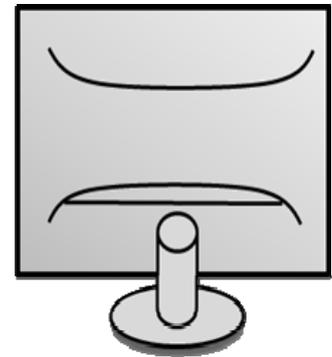


ISP JIG: 715GT089-C

ASUS PN: 20LT0-000DN000



PC

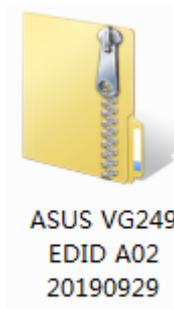


Monitor



TPVDDC\_V069\_20180905

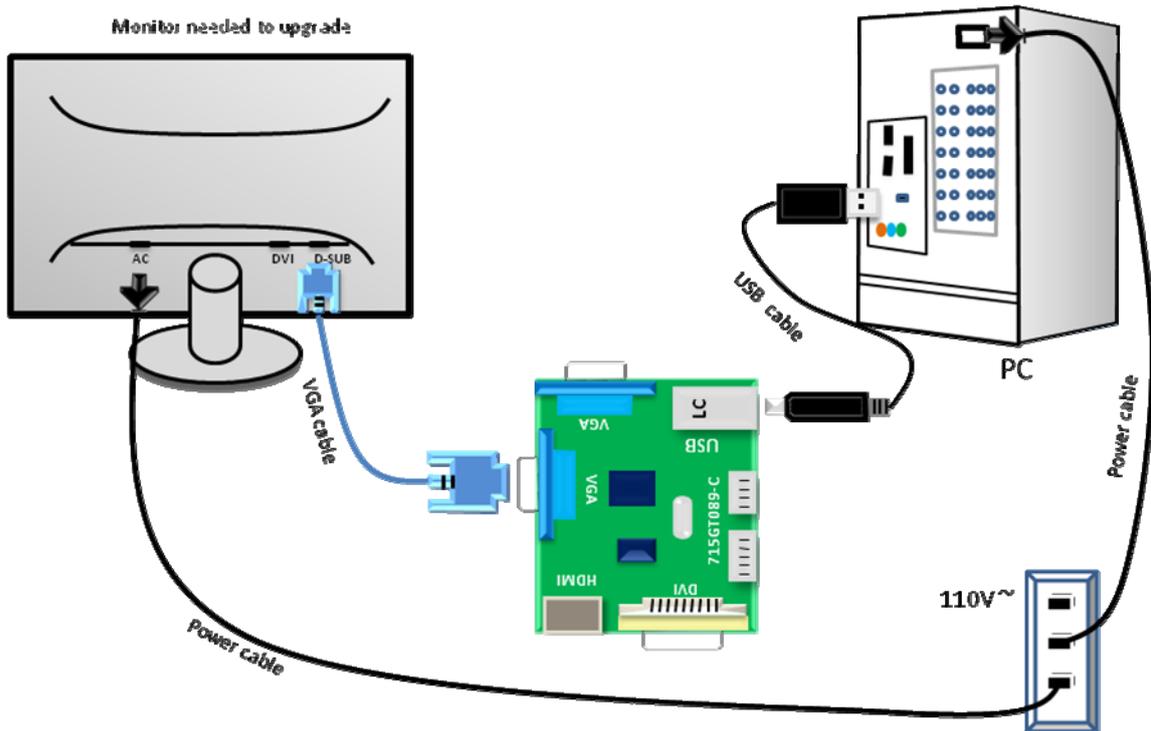
ISP tool



ASUS VG249 EDID A02 20190929

EDID

2. Connection(DC on the monitor)



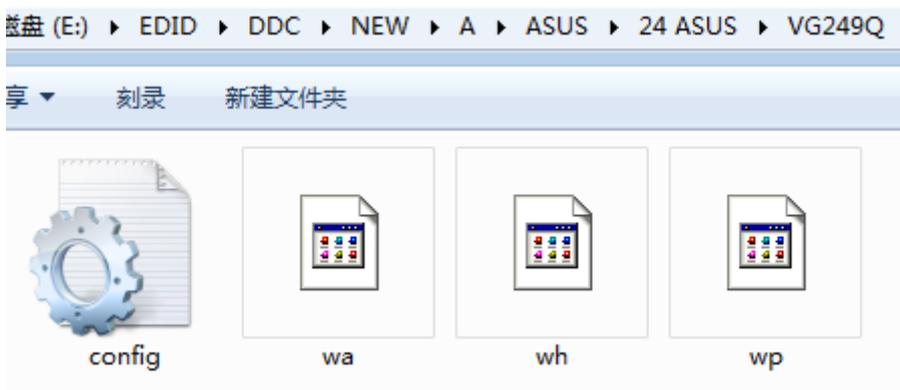
3. Install USB driver.

4. Prepare the EDID written.

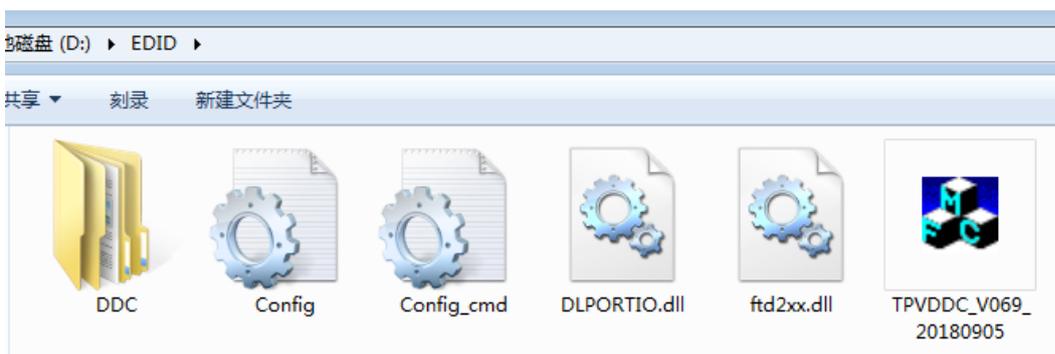
4.1. Change the EDID files name as below rule.

HDMI EDID —> WH.dat      Analog EDID —> WA.dat      DP EDID —> WP.dat

4.2. Copy these files to one folder named as ASUS VG249Q which must contains "config.ini" file.



4.3. Copy ASUS VG249Q to DDC folder and put DDC and ISP tool together.



4.4 Setting the Config as below.

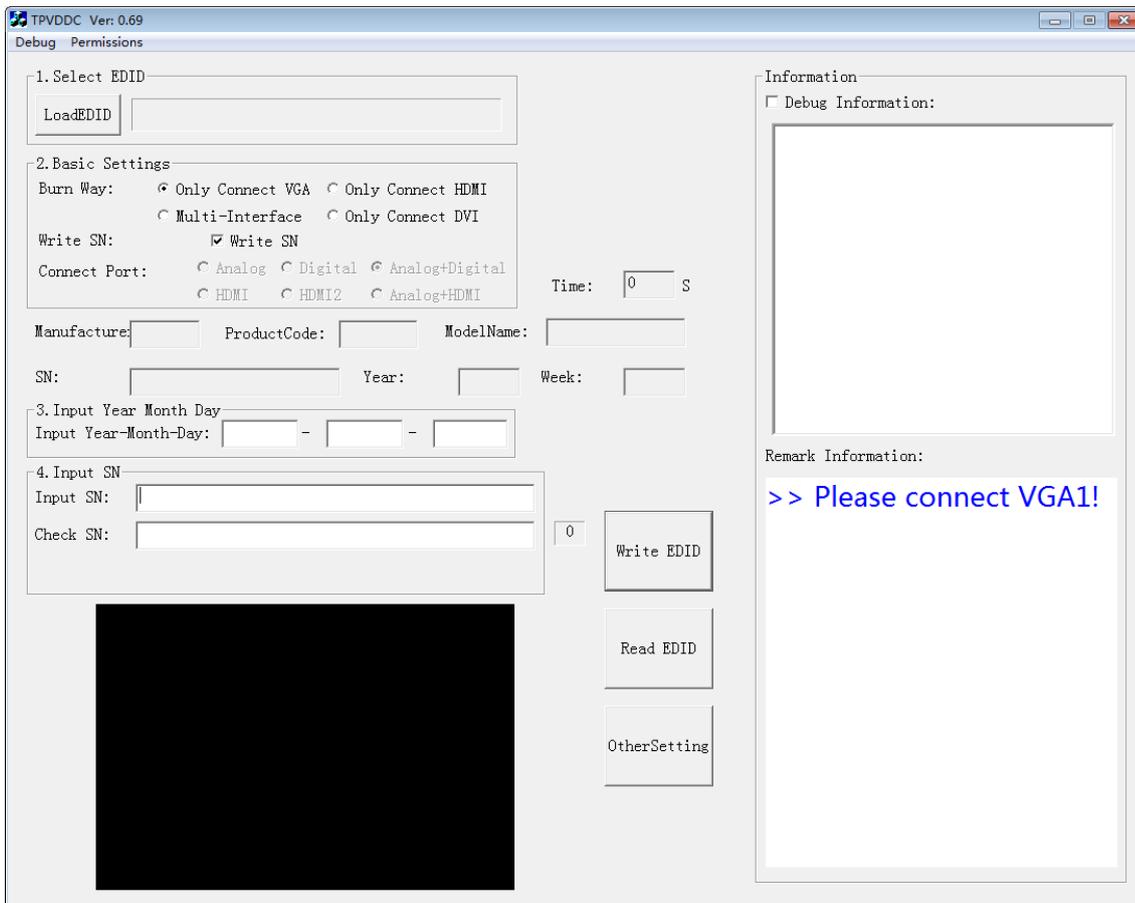


5. Run the ISP tool

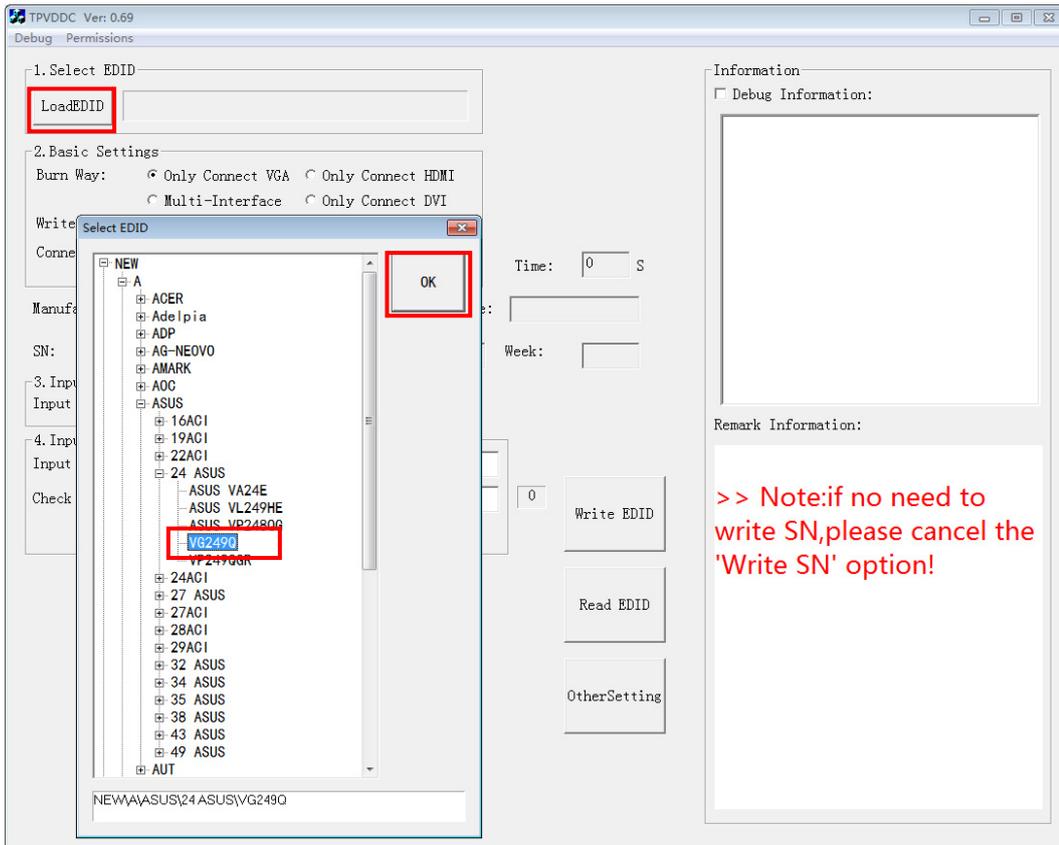
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the F/W Upgrade tool before running the EDID writing tool.



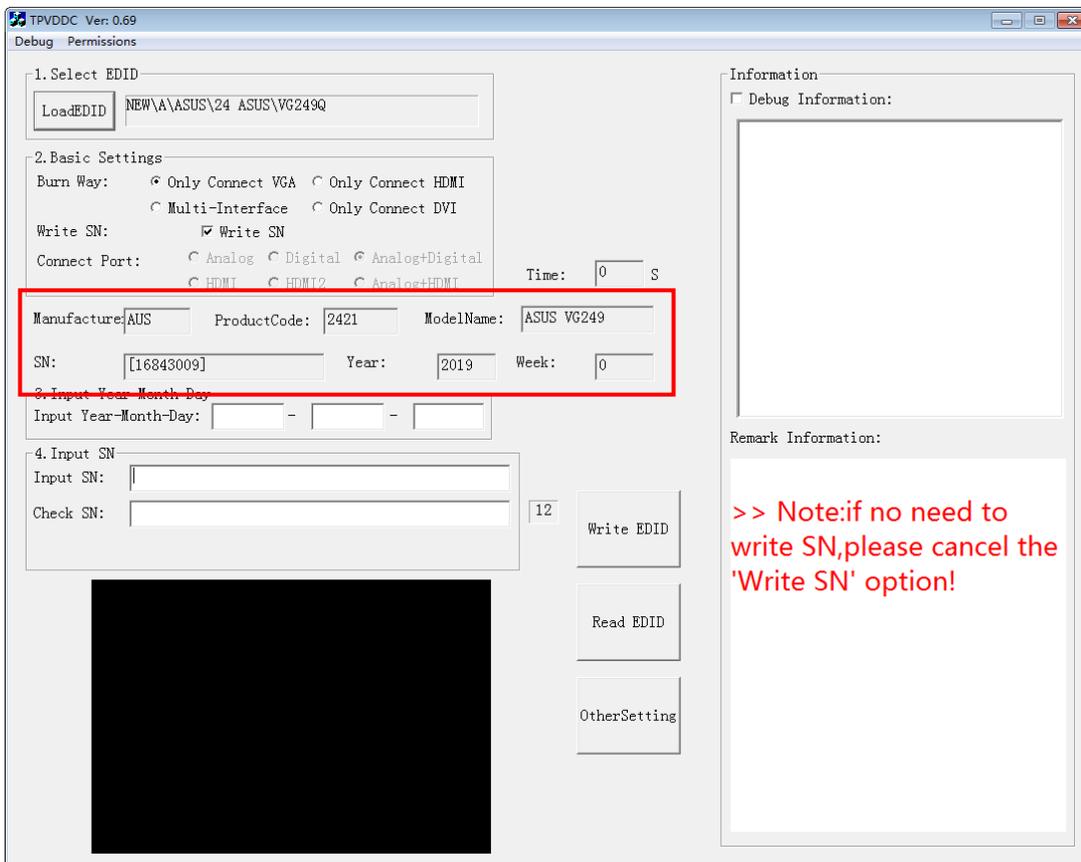
5.1. Double-click the icon to open the tool.



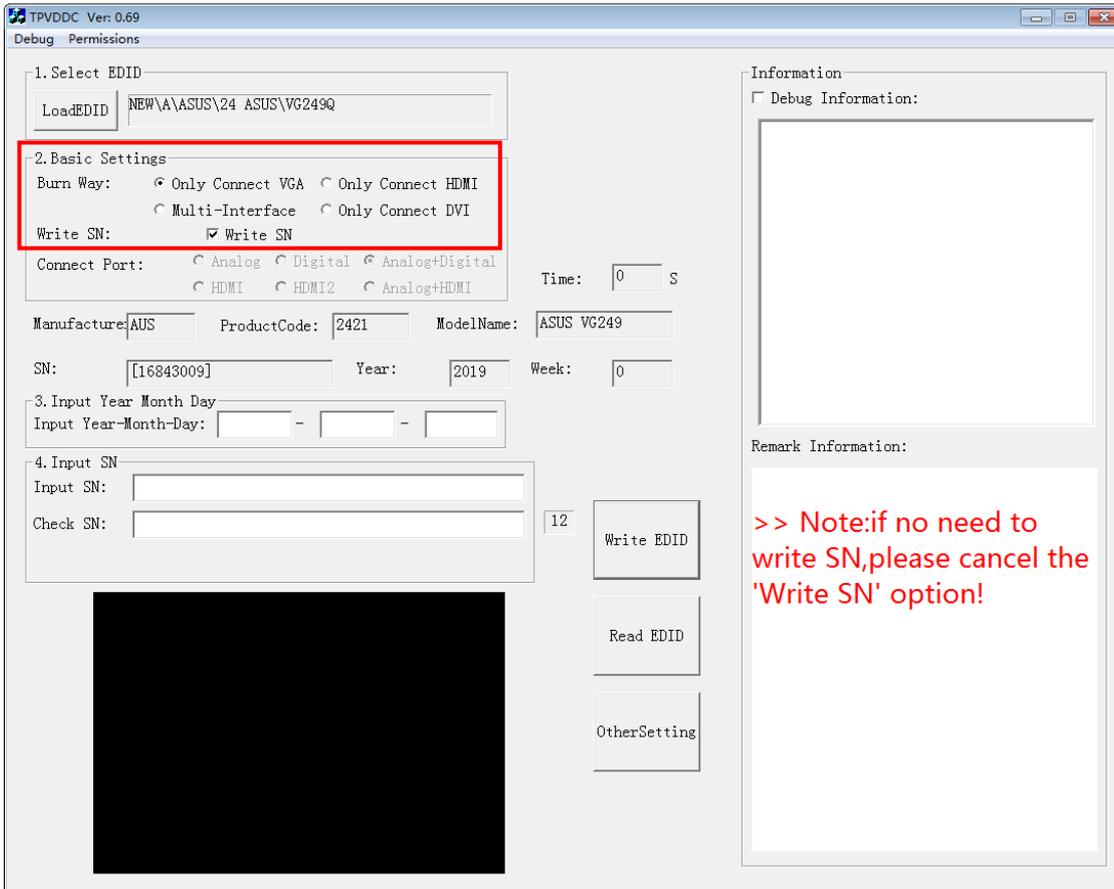
5.2. Select the EDID folder.



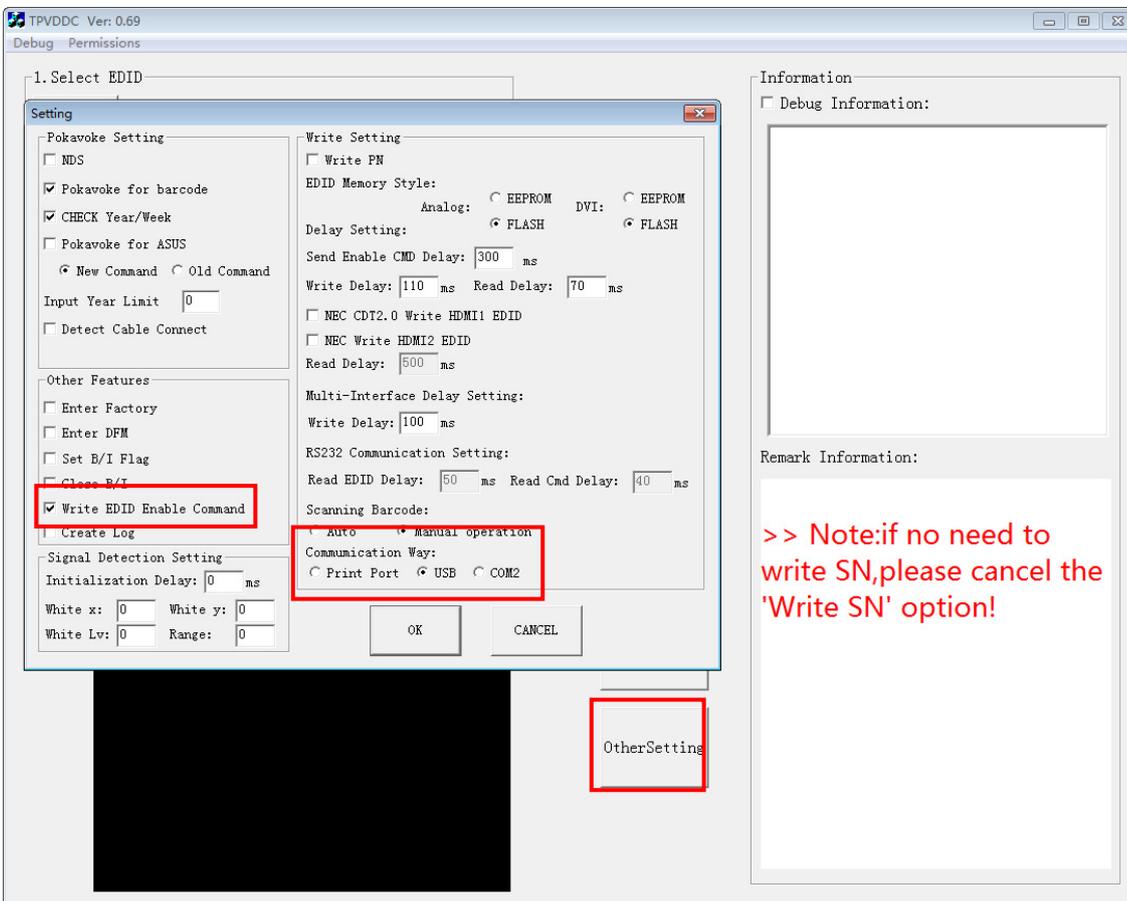
5.3. Load EDID successful.



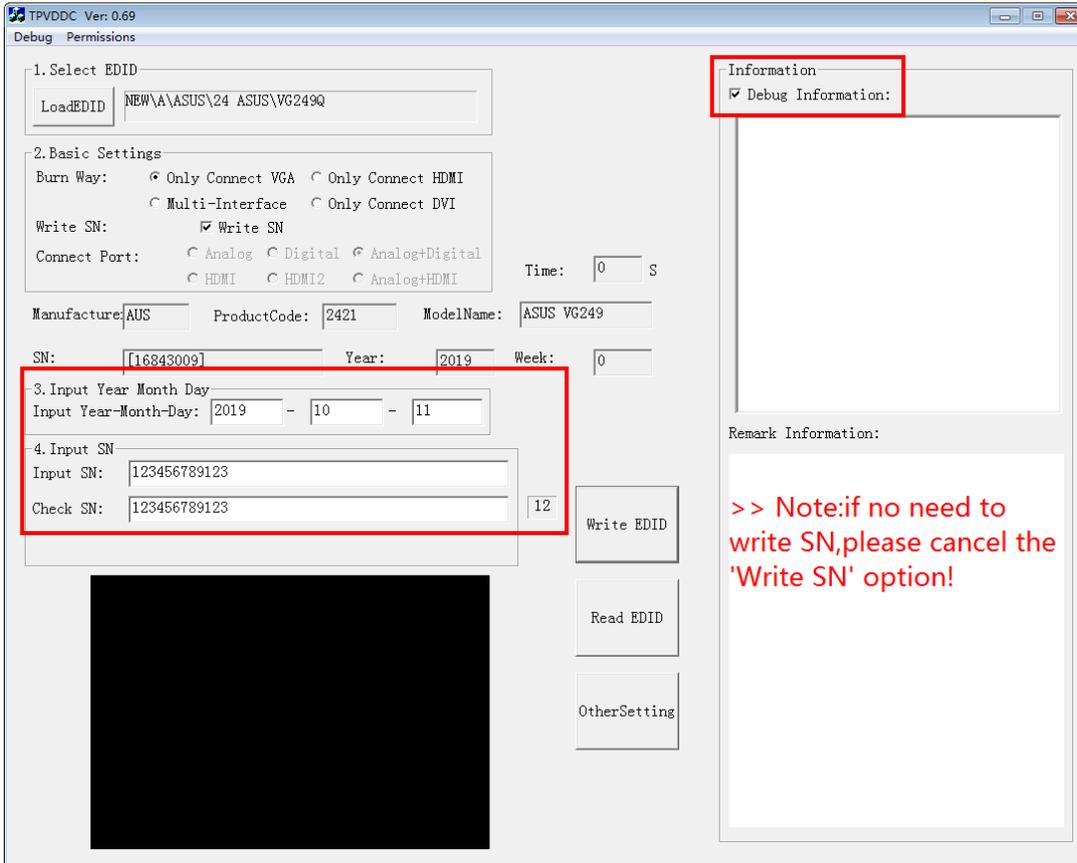
5.4 Tick the “Only connect VGA” and “Write SN”.



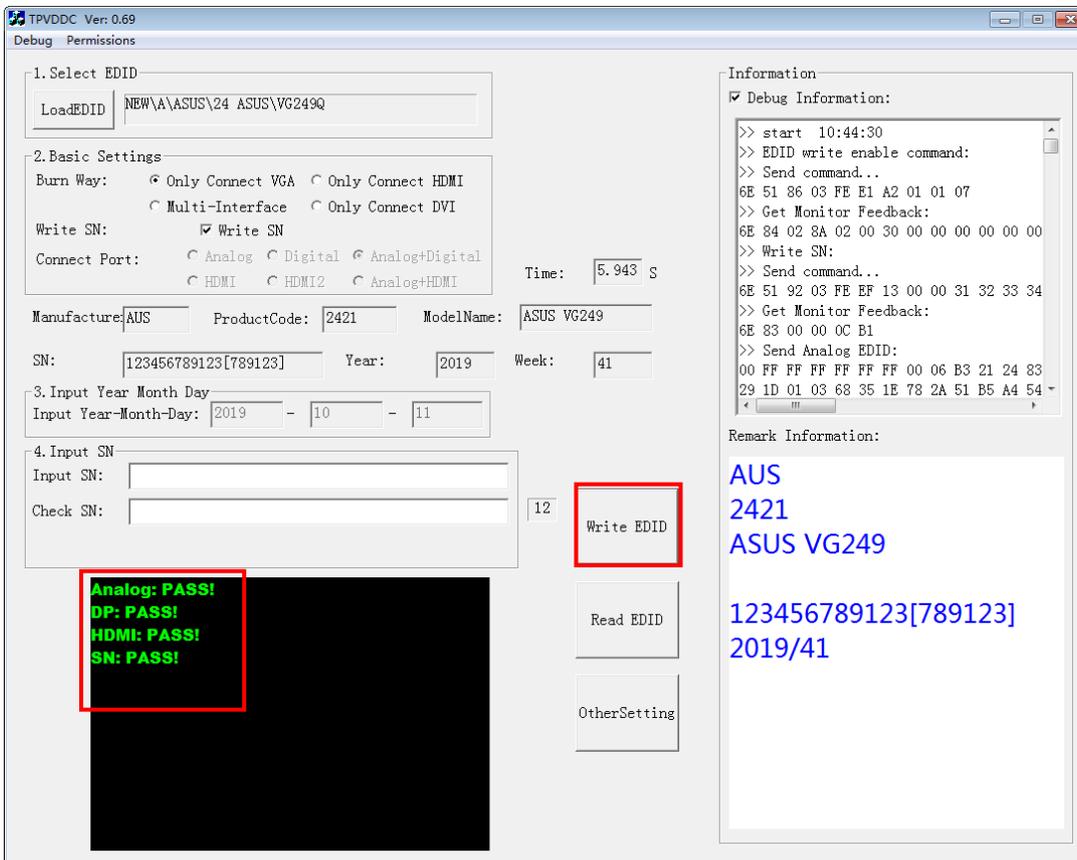
5.5 Set the OtherSetting as below.



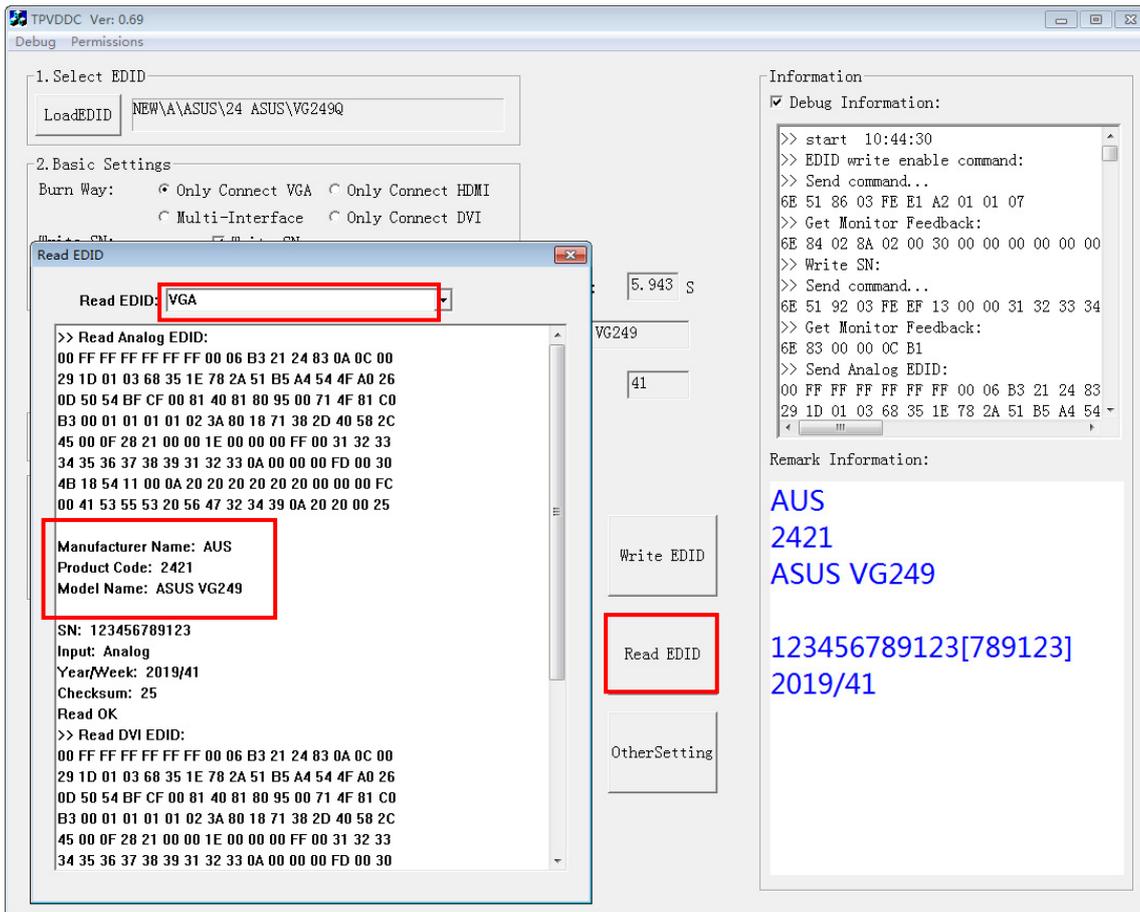
5.6 Type in the date and the 12 digit S/N and “Debug Information”.



5.7. Start to writing. Click “write EDID” to start writing. When The green “PASS” appear, the process is finished.



5.8 After writing the EDID pass, you must read the EDID to ensure the EDID data had been write into the monitor. Choose one of the port to read.



1. If it appears all "00" when read the EDID data,you need reconnect the ISP tool or install the the driver of the ISP tool again.
2. If it appears all "FF", it shows that the EDID data of the Main board is empty, you must writing the EDID again.

## 6. Troubleshooting.

### 6.1. Can't write!

- (1) AC on the monitor and turn on it.(Restart the monitor)
- (2)Take apart the monitor and connect the 7pin of EEPROM to GND to diable write protection then write EDID one by one.
- (3) Set the Burn in on last to try again.

## 10. Color/ White Balance Adjustment

1. Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment. How to setting MEM channel you can reference to Chroma 7120 user guide or simple use “ SC” key and “NEXT” key to modify x, y, Y value and use “ID” key to modify the TEXT description Following is the procedure to do white-balance adjust.

2. Setting the color temp.

A. MEM.CHANNEL 3 (Warm color):

Warm color temp. parameter is  $x = 313 \pm 30$ ,  $y = 329 \pm 30$ ,  $Y = 190 \text{cd/ m}^2$  (Min.)

B. MEM.CHANNEL 4 (Normal color):

Normal color temp. parameter is  $x = 299 \pm 30$ ,  $y = 315 \pm 30$ ,  $Y = 180 \text{cd/ m}^2$  (Min.)

C. MEM.CHANNEL 9(Cool color):

Cool color temp. parameter is  $x = 283 \pm 30$ ,  $y = 297 \pm 30$ ,  $Y = 170 \text{cd/ m}^2$  (Min.)

D. MEM.CHANNEL 10 (sRGB color):

sRGB color temp. parameter is  $x = 313 \pm 30$ ,  $y = 329 \pm 30$ ,  $Y = 170 \pm 10 \text{cd/ m}^2$

3. Enter into factory mode:

AC on and press menu key simultaneously, you will enter into the factory mode.

A. Adjust Warm (6500K) color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press “MODE” button)
2. Switch the MEM.channel to Channel 3 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show  $x = 313 \pm 30$ ,  $y = 329 \pm 30$ ,  $Y = 190 \text{cd/ m}^2$  (Min.)
4. Adjust the RED on factory window until chroma 7120 indicator reached the value  $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value  $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value  $B=100$
7. Repeat above procedure (item4, 5, 6) until chroma 7120 RGB value meet the tolerance  $=100 \pm 2$

B. Adjust Normal (7500K) color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press “MODE” button)
2. Switch the MEM.channel to Channel 4(with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show  $x = 299 \pm 30$ ,  $y = 315 \pm 30$ ,  $Y = 180 \text{cd/ m}^2$  (Min.)
4. Adjust the RED on factory window until chroma 7120 indicator reached the value  $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value  $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value  $B=100$
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance  $=100 \pm 2$

## C. Adjust Cool (9300K) color-temperature

1. Switch the Chroma-7120 to RGB-Mode (with press "MODE" button)
2. Switch the MEM. Channel to Channel 9 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show  $x = 283 \pm 30$ ,  $y = 297 \pm 30$ ,  $Y = 170 \text{cd/ m}^2$  (Min.)
4. Adjust the RED on factory window until chroma 7120 indicator reached the value  $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value  $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value  $B=100$
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance  $=100 \pm 2$

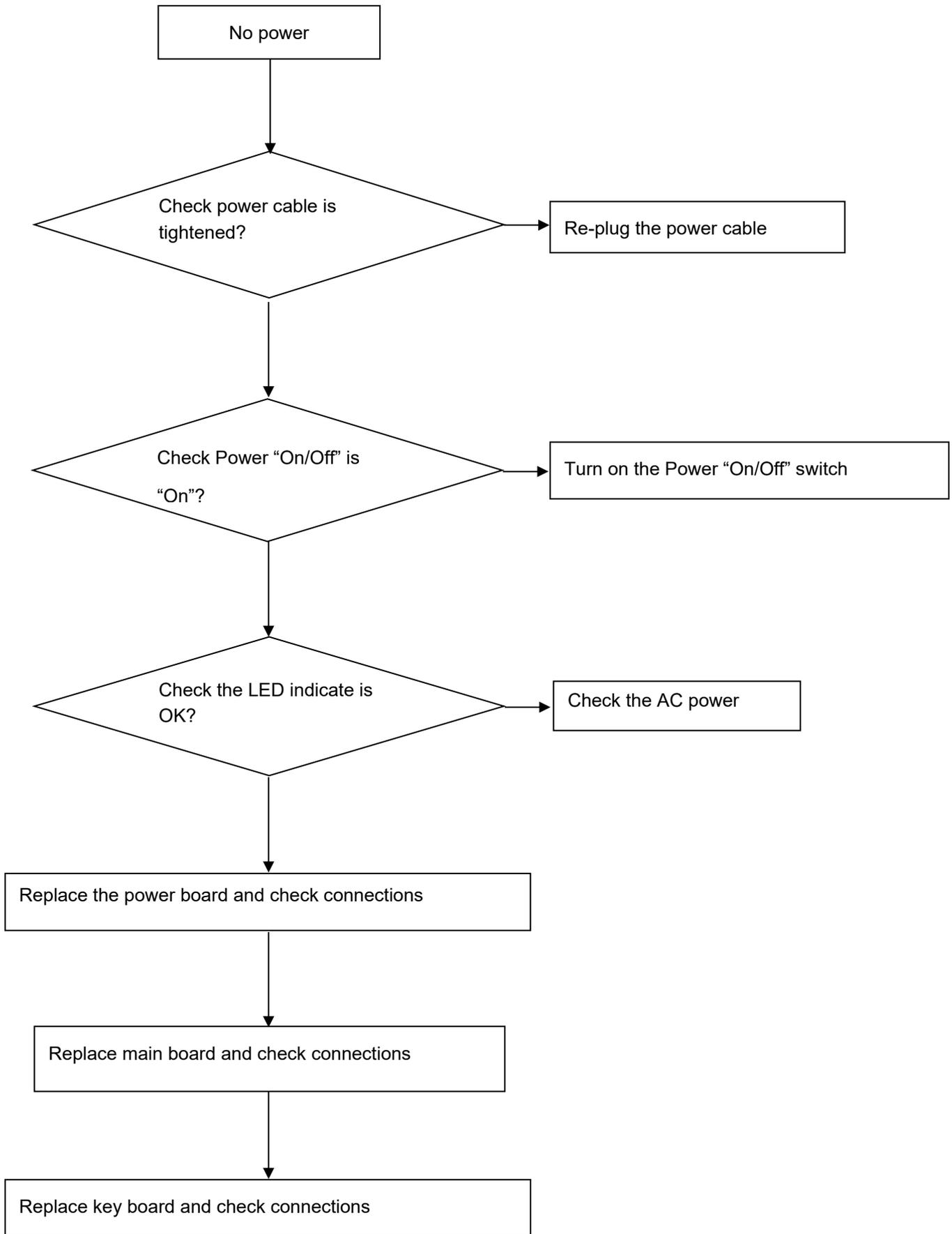
## D. Adjust sRGB color-temperature

1. Switch the chroma-7120 to RGB-Mode (with press "MODE" button)
2. Switch the MEM.channel to Channel 10 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show  $x = 313 \pm 30$ ,  $y = 329 \pm 30$ ,  $Y = 170 \pm 10 \text{cd/ m}^2$
4. Adjust the RED on factory window until chroma 7120 indicator reached the value  $R=100$
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value  $G=100$
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value  $B=100$
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance  $=100 \pm 2$

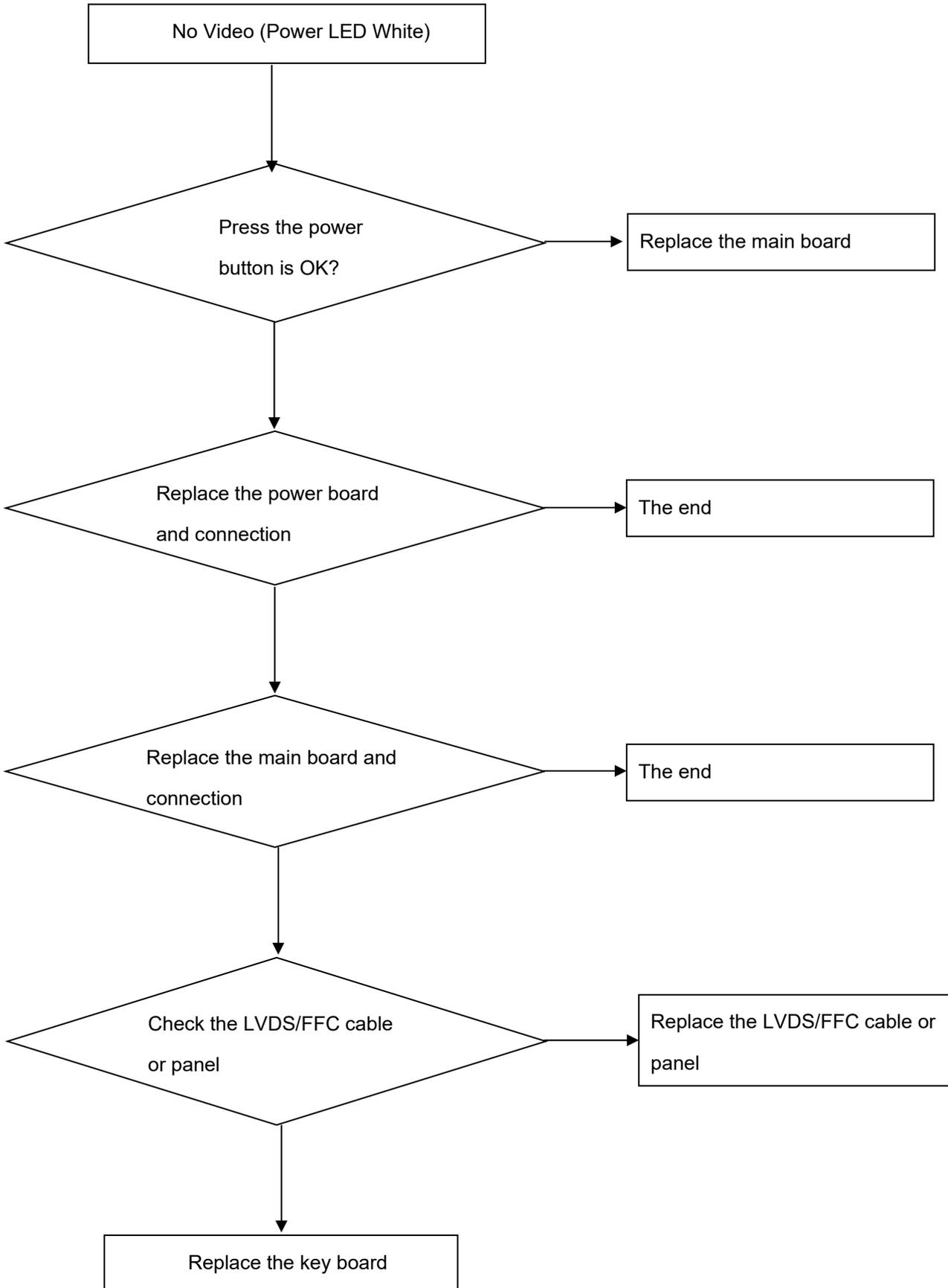
## E. Turn the Power-button off to quit from factory mode.

# 11. Trouble Shooting

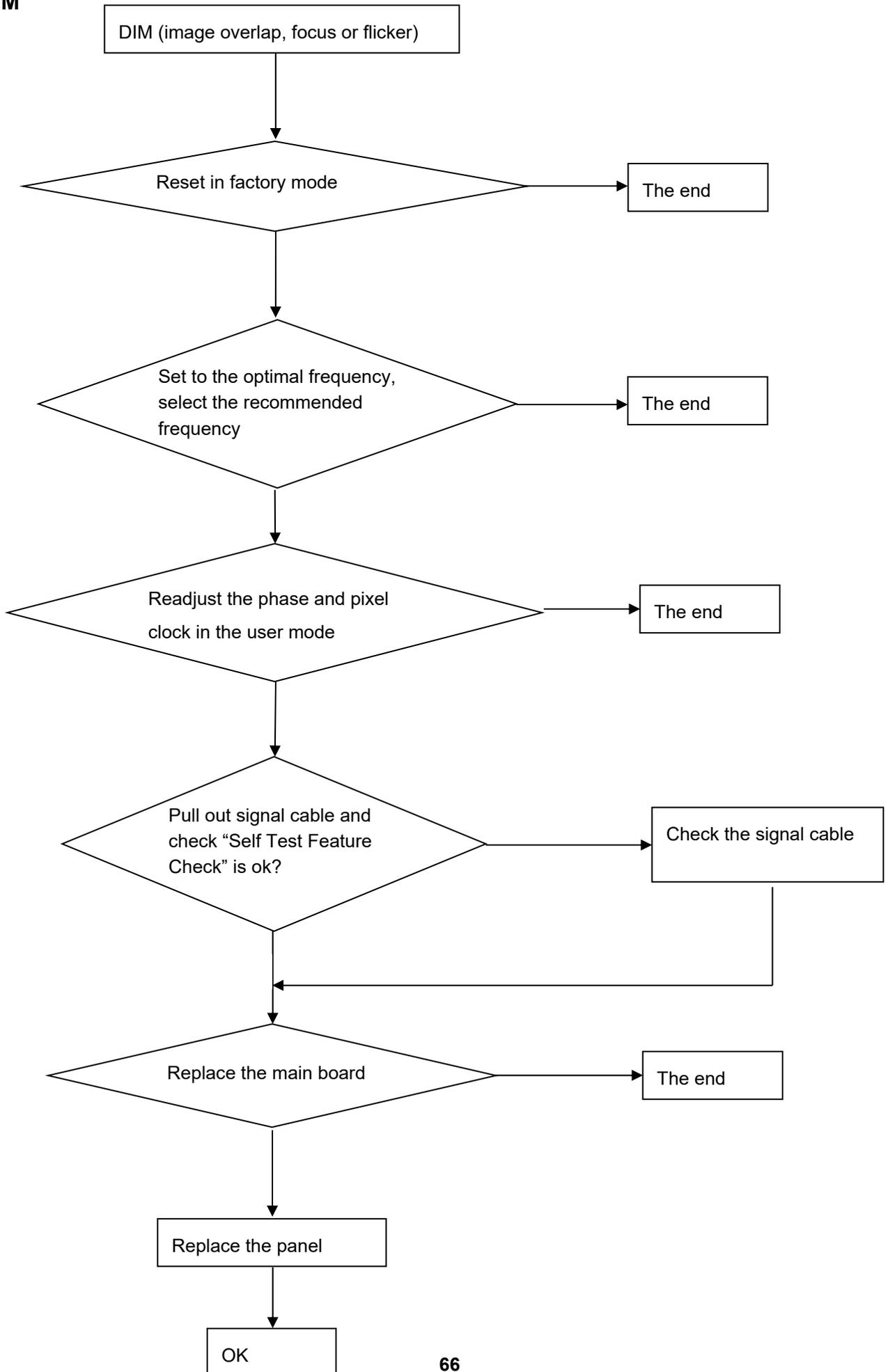
## 1. No Power



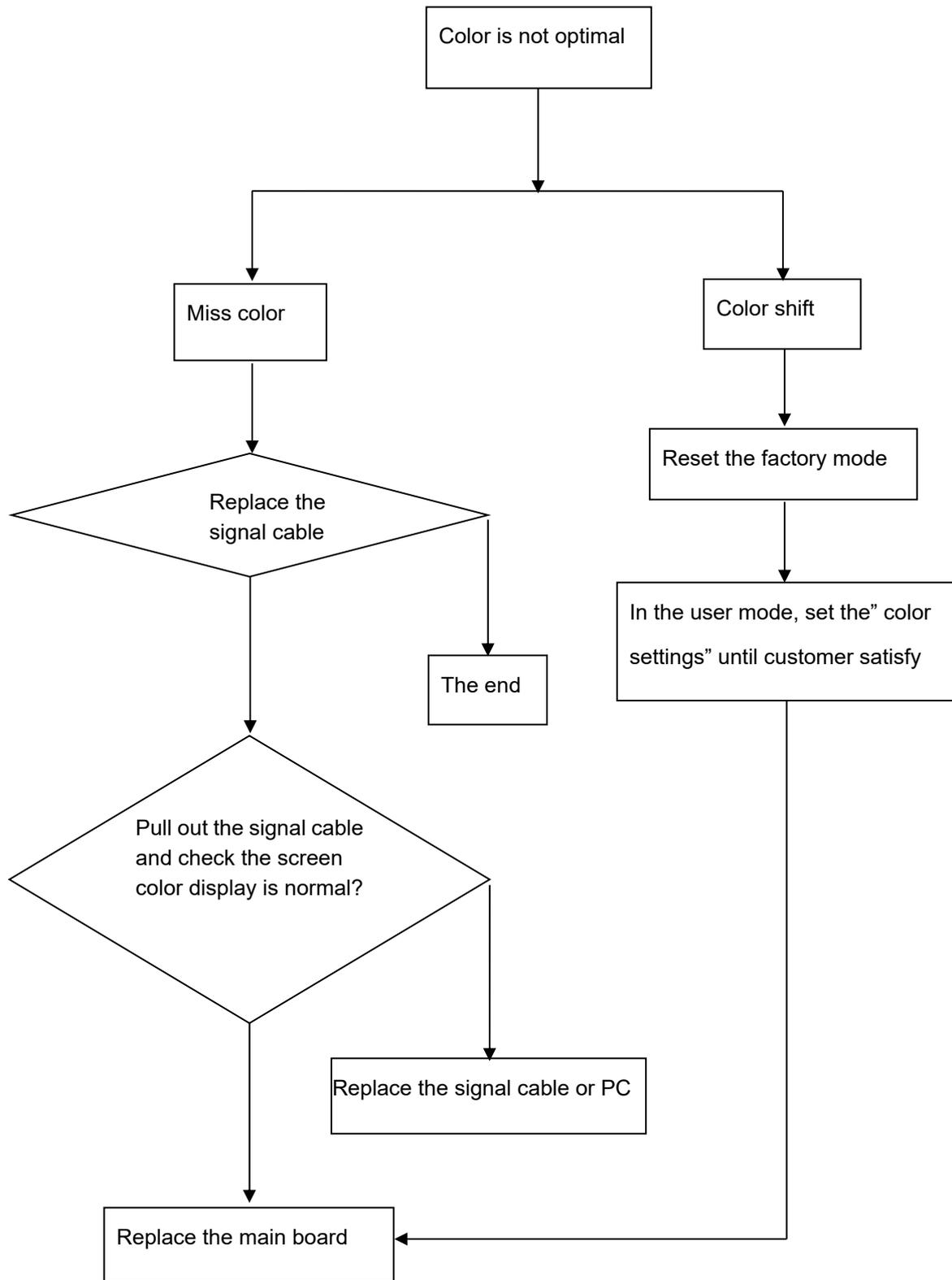
2. No Video (Power LED White)



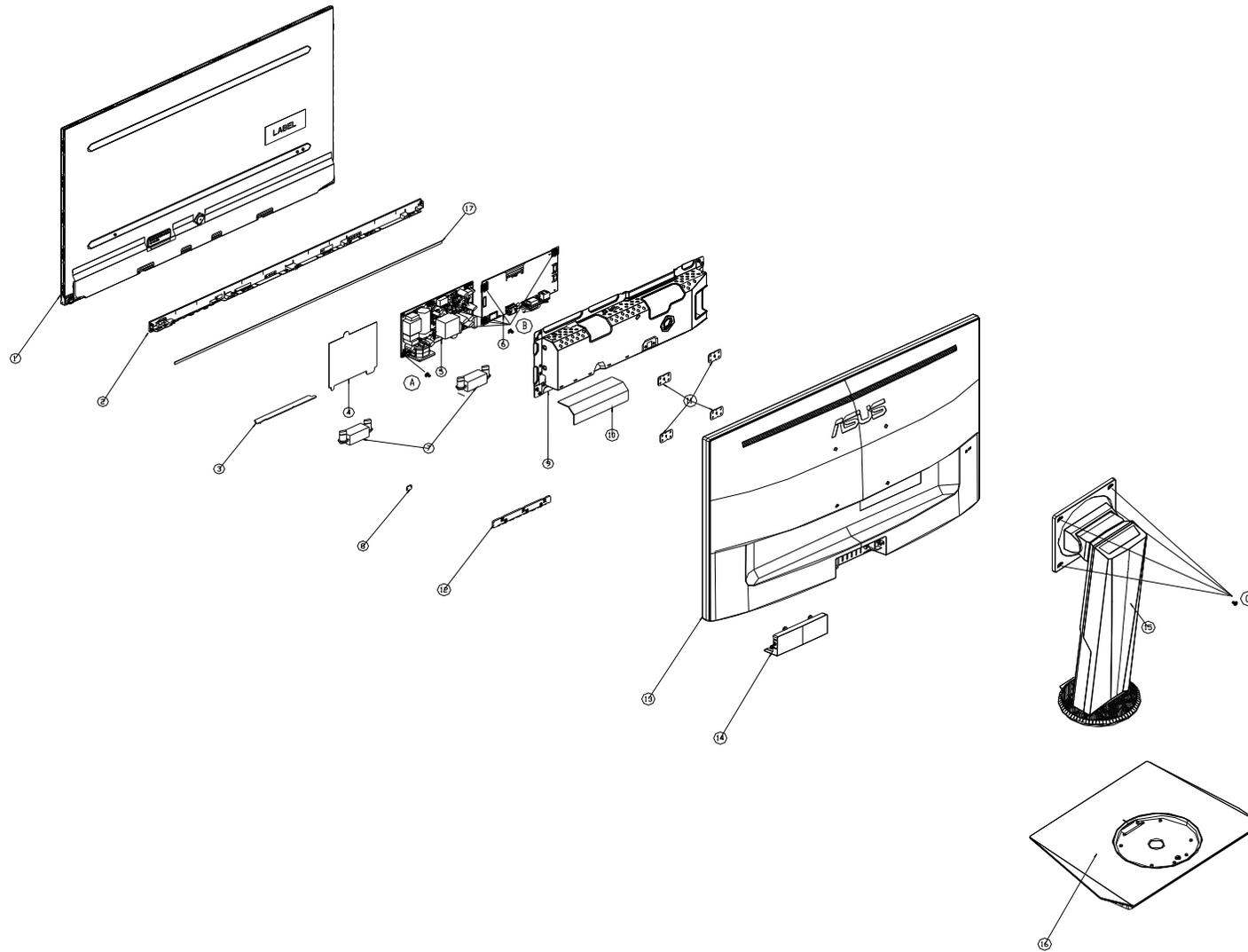
3. DIM



4. Color is not optimal



## 12. Exploded View



| No. | Part No.           | Description      | No. | Part No.           | Description                                  |
|-----|--------------------|------------------|-----|--------------------|--|
| 1   | 750GBV2381F111N000 | PANEL            |     |                    |  |
| 2   | Q34G9084AEDB2L0130 | DECO_BEZEL       |     |                    |  |
| 3   | KEPCNQUB           | KEY BOARD        |     |                    |  |
| 4   | Q52G18011990HF0ABK | INSULATING SHEET |     |                    |  |
| 5   | PLPCJB321KQXK      | ADAPTER BOARD    |     |                    |  |
| 6   | CBPTNW1U1Q3        | MAIN BOARD       |     |                    |  |
| 7   | 378G0025653VAB     | SPEAKER          |     |                    |  |
| 8   | Q33G067700201C0100 | LENS             |     |                    |  |
| 9   | Q15G2301301E0100FJ | MAINFRAME        |     |                    |  |
| 10  | Q52G18012000HF0BDG | INSULATING SHEET |     |                    |  |
| 11  | P15G829900900000AJ | BKT_VESA         |     |                    |  |
| 12  | Q33G0695AMF02L0100 | KEY              |     |                    |  |
| 13  | Q34G9085AED03L0101 | REAR_COVER       |     |                    |  |
| 14  | Q33G1453AED01L0100 | COVER_HINGE      |     |                    |  |
| 15  | Q37G052401201100BT | stand ass'y      | A   | QM1G11400601200AXL | SCREW(POWER BOARD/MAINFRAME)                 |
| 16  | Q37G052401101200BT | BASE_ASS'Y       | B   | 0D1G1030 6120      | SCREW D3 6(MAIN BOARD/POWER BOARD/MAINFRAME) |
| 17  | Q16G00034010HF0ADG | SPONGE           | C   | 0M1G2940 10225 CR3 | SCREW M4 10(STAND-BASE ASSY/REAR COVER)      |

### 13. BOM list

Note: The following information of initial version BOM are only for reference of repair, not place the order as the basis and are subject to change without notice. Please base on RSPL or Service BOM (<http://cs.tpv.com.cn>), thank you!

#### HDN1W12BJNU1DN

| Location  | Part No.           | Description                              | Remark     |
|-----------|--------------------|--|------------|
|           | 041G 68508 A       | SHEET-FLYER control card                 |            |
| SP01      | 378G0025653VAB     | 4 OHM 2.5W 38*17*17 100 BOX              |            |
| E08909    | 389G1848CAA50200AL | HDMI1.4 CABLE 1800                       | 2nd Source |
| E08909    | 389G1848GAA50200AL | HDMI1.4 CABLE 1800                       |            |
| E08901    | 389G404A18NHLG     | AC POWER CORD 1800 for Europe            |            |
| E08901    | 389G404A18NISG     | AC POWER CORD 1800 for Europe            | 2nd Source |
| ECN401    | 395G279M51N6900000 | V-by-One FFC 51P 450mm 0.5MM             | 2nd Source |
| ECN401    | 395G279X51N6900000 | V-by-One FFC 51P 450mm 0.5MM             |            |
| ECN708    | 395GH12510DM047000 | HARNESS 10P(A1253-10Y HF)-10P(1259-10Y-G |            |
| ECN708    | 395GH12510LM047000 | HARNESS 10P(A1253-10Y HF)-10P(1259-10Y-G | 2nd Source |
| ECN603    | 395GH20004DM040000 | HARNESS 4P(2008)-2P(C2003HM)+2P(C2003HM  |            |
| ECN801    | 395GH20006GM370000 | HARNESS 6P(CI1406SL)-6P(2008) 370mm      |            |
| ECN801    | 395GH20006TM370000 | HARNESS 6P(CI1406SL)-6P(2008) 370mm      | 2nd Source |
| ECN701    | 395GH20009LM036000 | HARNESS 7P-9P 60MM                       |            |
| ECN701    | 395GH20009WM036000 | HARNESS 7P-9P 60MM                       | 2nd Source |
|           | 708GK330680XWPQ1EU | 40(720)20(360) EU                        |            |
|           | 050G060000100W00JI | STRAP                                    |            |
| P00701    | Q07G011409502D00BL | PALLET                                   |            |
| P00701    | Q07G011409502D00SD | PALLET                                   |            |
|           | Q44G6002113 94     | PAPER BOARD                              |            |
|           | Q44G9005 77        | CORNER PAPER                             |            |
|           | Q44G9005 96        | CORNER PAPER                             |            |
|           | Q44G9005195        | CORNER PAPER                             |            |
|           | Q45G 77 5          | PE PACKING                               |            |
|           | Q50G 4 10          | TIE                                      |            |
|           | Q52G 1185 69       | ASUS BIG TAPE                            |            |
|           | 709G00000QPCAM000Q | COMSUMPTIVE ASSY                         |            |
|           | Q49G00CA2JL0HF     | Cleaning Naphtha                         |            |
|           | Q52G 1150523       | TAPE                                     |            |
|           | Q52G160119100A00YY | TAPE                                     |            |
| Y04912    | X49G00PL1HC0HF0000 | Panel Detergent                          |            |
| Y04912    | X49G00PL1TL0HF0000 | Panel Detergent                          |            |
| Y04912    | X49G04PL2BQ0HF0000 | Panel Detergent                          |            |
| E750      | 750GBV2381F111N000 | LCD TPM238WF1-LF1F.Q 01A FQ TPV          | 2nd Source |
| E750      | 750GBV2381F211N000 | LCD TPM238WF1-LF1F.Q 02A FQ TPV          | 2nd Source |
|           | 756GQJCB0CA022     | MAIN BOARD-CBPTNW1U1Q3                   |            |
| SMTT-U402 | 100GCRVD004N21SXXY | MCU ASSY-356G2233008089                  |            |
|           | 0D1G1030 6120      | SCREW D3 6                               |            |
|           | 0M1G2940 10225 CR3 | SCREW M4 10                              |            |
|           | P15G829900900000AJ | BKT_VESA                                 |            |
|           | Q12G71300410HF0AYI | RUBBER PAD                               |            |
|           | Q15G2301301E0100FJ | MAINFRAME                                |            |
|           | Q16G00034010HF0ADG | SPONGE                                   |            |
|           | Q37G052401101200BT | BASE_ASS'Y N/A NA                        |            |
|           | Q37G052401201100BT | stand ass'y N/A NA                       |            |

|        |                    |  |            |
|--------|--------------------|--|------------|
|        | Q45G99010400000AZW | PROTECT BAG 250*500                      |            |
|        | Q45G990160940800X1 | PROTECT BAG                              |            |
|        | Q50G50050100000AJY | TIE                                      |            |
|        | Q52G1801B220HF0AJY | INSULATING SHEET 156X97X0.43             |            |
|        | Q52G1801B250HF0AZA | INSULATING SHEET 150X54X0.43             |            |
|        | QM1G11400601200AXL | SCREW                                    |            |
|        | Q33G067700201C0100 | LENS                                     |            |
|        | H45G 87 4 H A      | PE BAG FOR BASE                          |            |
| E750   | LVE238LF1F1C009X0R | PANEL TPM238WF1-LF1F.Q 01A FQ            |            |
| E750   | LVE238LF1F2C009X0R | PANEL TPM238WF1-LF1F.Q 02A FQ            | 2nd Source |
|        | P40GD000813 9A     | A4 PALLET LABEL -for A4 paper            |            |
|        | Q33G0695AMF02L0100 | KEY                                      |            |
|        | Q33G1453AED01L0100 | COVER_HINGE                              |            |
|        | Q34G9084AEDB2L0130 | DECO_BEZEL L238W-Yasus2b-s1              |            |
|        | Q34G9085AED03L0101 | REAR_COVER L238W-Yasus2b-s1              |            |
|        | Q40G 58169022A     | OTHER LABEL QC PASS LABEL                |            |
|        | Q40G0001624 4A     | 产线需求的栈板 LABEL                            |            |
|        | Q40G000768045A     | OTHER LABEL VG249Q EEI LABEL             |            |
|        | Q40G0008680A03     | FEATURE-POP LABEL VG249Q                 |            |
|        | Q40G581C 26704     | 海关唛头纸 SHIPPING                           |            |
|        | Q44GK330101EPS00JL | CUSHION-REAR L238W-Yasus2b-p3 Non-region |            |
|        | Q44GK330201EPS00JL | CUSHION-FRONT L238W-Yasus2b-p3 Non-regio |            |
|        | Q44GK33068001A00JA | ARTWORK CARTON VG249Q WW Flexo printing  |            |
| E05204 | Q52G100205000A00JY | 0L FOIL                                  |            |
| E05201 | Q52G100205000A00JY | 0L FOIL                                  |            |
| E05202 | Q52G100205000A00JY | 0L FOIL                                  |            |
| E05203 | Q52G100205000A00JY | 0L FOIL                                  |            |
|        | Q52G14010330HF0ADG | TAPE                                     |            |
|        | Q41G78D168019D     | WARRANTY CARD NonZBD(3years) for EU_U10  |            |
|        | Q41G78D168043A     | SHEET-FLYER Safety information for EU M  |            |
|        | Q41G78S268094A     | QSG VG249Q WW                            |            |
|        | Q45G8801M03A0200ZW | MANUAL PE BAG                            |            |
|        | Q45G8801M05A0100X1 | Manual PE Bag                            |            |
|        | 040G 58162435A     | MANUAL P/N LABEL                         |            |
|        | 040G 582680 3A     | OTHER LABEL PALLET LABEL                 |            |
|        | Q40G 581709 1B     | CARTON LABEL (76x76mm)卷状                 |            |
|        | Q40G000199807A     | CARTON LABEL for 40x12 卷状                |            |
|        | Q40G024N68063A     | RATING LABEL VG249Q WW(除 USA) 黑底         |            |
|        | H40G 45762429A     | SN LABEL 27x9mm                          |            |
| R429   | 061G0402101 JY     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |            |
| C618   | 065G040222322K F   | CAP 0402 22nF 10% 25V X7R 0402B223K250NT |            |
| C717   | 065G060310231J F   | 0603 1000PF J 50V NPO                    |            |
| C627   | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |            |
| C734   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C711   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C774   | 367G311R1014VT     | EC SMD 100uF 20% 25V 6.3*7.7 2000 hr 270 |            |
| CN101  | 388G353HF12AXH0RHF | D-SUB R/A 15P 1*1 BLUE --                |            |
|        | 709GA785MQS001000Q | COMSUMPTIVE ASSY                         |            |
| Y05106 | 051G 200 1         | Heat Conductive Silicone Grease          |            |
| Y04908 | 055G 23520         | Cleaning Naphtha                         |            |
| Y05510 | 055G 100610        | Solder Paste                             |            |
|        | Q05G6054 1         | SHEET                                    |            |
|        | Q09G6012 1         | PIN                                      |            |

|        |                    |  |            |
|--------|--------------------|--|------------|
| Y04910 | Q49G01WB1TF0HF0000 | Water-based Cleaning Agent               |            |
| Y04911 | Q49G03WB1TF0HF0000 | Water-based Cleaning Agent               |            |
|        | Q52G160119100A00YY | TAPE                                     |            |
|        | Q52G1701 7 XW      | MESH PRINTTING_PAPER                     |            |
| Y05504 | Q55G 100622        | Rework Solder Wire                       |            |
|        | Q55G01SP0TF0HF0000 | Solder Paste                             |            |
| E715   | 715GA785M0ET00004G | MAIN BOARD PCB                           |            |
| R518   | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |            |
| C481   | 065G040210232K M   | CAP 0402 1NF 10% 50V X7R WBM155R71H102KA |            |
| C403   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C408   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C607   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| E715   | 715GA785M0ET00004K | MAIN BOARD PCB                           | 2nd Source |
| HS401  | P90T00592020000CYZ | HEAT SINK 41.95 38.35 6 THR 3.8          |            |
| ZD106  | 093G 39GA01 T B    | ZENER RLZ5V6B-TPV 5.6 0.5W LL-34         |            |
| C709   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C735   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C610   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| L602   | 373G253S256M00     | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |            |
| CN601  | 388G302G5G6ACL000R | PHONE JACK R/A 5P 1*1 GREEN 10mm         |            |
| C622   | 065G060315332K Y   | CAP 0603 15NF 10% 50V X7R CC0603KRX7R9BB |            |
| C703   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C632   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C781   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| L705   | 373G253S146D00     | SMD CHOKE 2.2uH 30% 4.6A 0.014R SWPA6045 |            |
| R482   | 061G0402470 JY     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |            |
| C553   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C760   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| C721   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| L603   | 373G253S256M00     | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |            |
| C477   | 065G040210232K M   | CAP 0402 1NF 10% 50V X7R WBM155R71H102KA |            |
| ZD101  | 093G 39GA01 T B    | ZENER RLZ5V6B-TPV 5.6 0.5W LL-34         |            |
| C409   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C402   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C753   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| R112   | 061G0402472 JY     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |            |
| C782   | 365G040210422K000M | CAP 0402 0.1uF 10% 25V X7R GRM155R71E10  |            |
| C704   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C541   | 365G080522522K00ST | CAP 0805 2.2UF 10% 25V X7R TMJ212CB725KG |            |
| R520   | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |            |
| C626   | 065G040222322K F   | CAP 0402 22nF 10% 25V X7R 0402B223K250NT |            |
| C624   | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |            |
| C755   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| R444   | 061G0402101 JY     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |            |
| C405   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C747   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| R478   | 061G0402472 JY     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |            |
| C714   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C725   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| C427   | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |            |
| C419   | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |            |
| C761   | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |            |
| L604   | 373G253S256M00     | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |            |

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| R624  | 061G0402101 JY     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| FB413 | 071G 59G301 TA     | CHIP BEAD 300OHM 200mA FCM1608KF-301T02  |  |
| C407  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C555  | 365G080522522K00ST | CAP 0805 2.2UF 10% 25V X7R TMJ212CB725KG |  |
| C478  | 065G040210232K M   | CAP 0402 1NF 10% 50V X7R WBM155R71H102KA |  |
| ZD103 | 093G 39GA01 T B    | ZENER RLZ5V6B-TPV 5.6 0.5W LL-34         |  |
| C713  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C762  | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |  |
| R749  | 061G0402101 JY     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| C625  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |
| C706  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C631  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| R481  | 061G0402470 JY     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |  |
| C479  | 065G040210232K M   | CAP 0402 1NF 10% 50V X7R WBM155R71H102KA |  |
| C719  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C718  | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |  |
| R512  | 061G0402472 JY     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |  |
| C623  | 065G060315332K Y   | CAP 0603 15NF 10% 50V X7R CC0603KRX7R9BB |  |
| C418  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C763  | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |  |
| ZD104 | 093G 39GA01 T B    | ZENER RLZ5V6B-TPV 5.6 0.5W LL-34         |  |
| C748  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C422  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| L601  | 373G253S256M00     | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |  |
| R409  | 061G0402101 JY     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| R630  | 061G0402102 JY     | RST 0402 1K 5% 1/16W -                   |  |
| C633  | 065G040222322K F   | CAP 0402 22nF 10% 25V X7R 0402B223K250NT |  |
| C720  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| R516  | 061G0402470 JY     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |  |
| R702  | 061G06031002FT     | RST CHIP 10K 1/10W 1%                    |  |
| C620  | 065G040222322K F   | CAP 0402 22nF 10% 25V X7R 0402B223K250NT |  |
| C754  | 365G080510626K000A | CAP 0805 10UF 10% 25V X6S CL21X106KAYNNN |  |
| R479  | 061G0402472 JY     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |  |
| C480  | 065G040210232K M   | CAP 0402 1NF 10% 50V X7R WBM155R71H102KA |  |
| C416  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| C722  | 365G080547523K000M | CAP 0805 4.7UF 10% 25V X7S GRM21BC71E475 |  |
| R711  | 061G06031202FT     | RST CHIP 12K 1/10W 1%                    |  |
| C404  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| R705  | 061G06031202FT     | RST CHIP 12K 1/10W 1%                    |  |
| FB414 | 371G042P221M00     | CHIP BEAD 0402 220R 25% MGLB1005M221T1R  |  |
| C120  | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| C614  | 365G080510613K000M | CAP 0805 10UF 10% 16V X7S GRM21BC71C106K |  |
| R523  | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |  |
| R788  | 061G1206122 JF     | RST CHIPR 1.2KOHM +-5% 1/4W FENGHUA      |  |
| R522  | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |  |
| R505  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| R524  | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |  |
| R507  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| C724  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |
| R506  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| C611  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |
| R504  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| C723  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |

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| R480  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| R122  | 061G0402222 JY   | RST 0402 2.2K 5% 1/16W RC0402JR-072K2L   |  |
| L701  | 373G253S256M00   | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |  |
| C452  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| C615  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R714  | 061G06031332FT   | RST 0603 13.3K 1% 1/10W                  |  |
| L703  | 373G253S256M00   | SMD CHOKE --2.2 30% --2.95 --0.03 MPIT4  |  |
| R521  | 061G0402000 JT   | RST 0402 0.05R MAX 1/16W -               |  |
| C440  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| U704  | 356GD563005325   | C/DC SY8089A1AAC 5.5V 2A SOT23-5         |  |
| R410  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| R519  | 061G0402000 JT   | RST 0402 0.05R MAX 1/16W -               |  |
| U401  | 356G0562156F07   | SCALER RTD2556R-CG LQFP156               |  |
| R458  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| C757  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R729  | 061G0603513 JT   | RST CHIP 51K 1/10W 5% TZAI YUAN          |  |
| R121  | 061G0402222 JY   | RST 0402 2.2K 5% 1/16W RC0402JR-072K2L   |  |
| R431  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| C612  | 065G060322515K A | CAP 0603 2.2uF 10% 16V X5R CL10A225K08NN |  |
| FB701 | 071G 56121 TA    | HIP BEAD 0805 120R/3A HCB2012KF-121T30   |  |
| FB406 | 071G 59A121 TA   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| R114  | 061G0402100 JY   | RST 0402 10R 5% 1/16W RC0402JR-0710RL    |  |
| U507  | 056G 662 35      | ESD PROTECT TVU1240R1A N/A               |  |
| R754  | 061G0603753 JF   | RST CHIPR 75KOHM 5% 1/10W FENGHUA        |  |
| FB405 | 071G 59A121 TA   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C436  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R476  | 061G0402222 JY   | RST 0402 2.2K 5% 1/16W RC0402JR-072K2L   |  |
| FB702 | 071G 56121 TA    | HIP BEAD 0805 120R/3A HCB2012KF-121T30   |  |
| C756  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| U502  | 356G0662010019   | ESD PROTECT DF10G6M4N DFN10              |  |
| R109  | 061G0805750 JF   | RST CHIPR 75 OHM +-5% 1/8W FENGHUA       |  |
| FB771 | 071G 56121 TA    | HIP BEAD 0805 120R/3A HCB2012KF-121T30   |  |
| C434  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R103  | 061G0402100 JY   | RST 0402 10R 5% 1/16W RC0402JR-0710RL    |  |
| C428  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| U503  | 356G0662010019   | ESD PROTECT DF10G6M4N DFN10              |  |
| R704  | 061G06038202FT   | RST CHIPR 82K OHM +- 1% 1/10W            |  |
| R105  | 061G0805750 JF   | RST CHIPR 75 OHM +-5% 1/8W FENGHUA       |  |
| C111  | 065G060347332K Y | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |  |
| C431  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R602  | 061G0402223 JY   | RST 0402 22K 5% 1/16W -                  |  |
| R616  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| C758  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R706  | 061G0603513 JT   | RST CHIP 51K 1/10W 5% TZAI YUAN          |  |
| R619  | 061G0402223 JY   | RST 0402 22K 5% 1/16W -                  |  |
| R607  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| C411  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R716  | 061G0603101 JT   | RST CHIP 100R 1/10W 5% TZAI YUAN         |  |
| C453  | 065G040210412K M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R514  | 061G0402223 JY   | RST 0402 22K 5% 1/16W -                  |  |
| R490  | 061G0402222 JY   | RST 0402 2.2K 5% 1/16W RC0402JR-072K2L   |  |
| R510  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |
| R423  | 061G0402101 JY   | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |  |

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| R605  | 061G0402223 JY |     | RST 0402 22K 5% 1/16W -                  |
| R730  | 061G0603513 JT |     | RST CHIP 51K 1/10W 5% TZAI YUAN          |
| C417  | 065G040210412K | M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C121  | 065G040210412K | M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| R701  | 061G0603513 JT |     | RST CHIP 51K 1/10W 5% TZAI YUAN          |
| R487  | 061G0603471 JT |     | RST CHIPR 470OHM +-5% 1/10W TZAI YUAN    |
| U703  | 356GD563005325 |     | C/DC SY8089A1AAC 5.5V 2A SOT23-5         |
| U601  | 356G0616020194 |     | AUDIO APA2604CQAI-TRG 3W QFN4x4-20A --   |
| R725  | 061G06032002FT |     | RST CHIP 20K 1/10W 1%                    |
| U541  | 356G0563003026 |     | LDO AP7361C-33DR-13 1A 3.3V TO252R       |
| C727  | 367G311X151GLT |     | EC SMD 150UF 20% 35V 10*7.7 2000 hr 450  |
| R752  | 061G06037501FY |     | RST CHIPR 7.5KOHM +-1% 1/10W YAGEO       |
| FB101 | 071G 59C600    | M   | CHIP BEAD 60 OHM 0603 600mA              |
| R703  | 061G0603104 JT |     | RST CHIP 100K 1/10W 5% TZAI YUAN         |
| U702  | 356GD563005315 |     | DC/DC SY8088IAAC 5.5V 1A SOT23-5         |
| U545  | 356G0667006600 |     | Power Switch G529A1TB1U SOT-23-6         |
| R477  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| R102  | 061G0402470 JY |     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |
| R513  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| R115  | 061G0402470 JY |     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |
| R111  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| C501  | 065G060322432K | F   | CAP CHIP 0603 0.22UF K 50V X7            |
| FB602 | 071G 59C601    | TA  | CHIP BEAD 600R/200mA FCM1608K-601T02     |
| R548  | 061G0402105 JY |     | RST 0402 1M 5% 1/16W RC0402JR-071ML      |
| R511  | 061G0402333 JY |     | RST 0402 33K 5% 1/16W RC0402JR-0733KL    |
| U402  | 356G2233008089 |     | NOR FLASH MX25L8006EM1I-12G 8Mb SOP-8(1  |
| R799  | 061G0603200 JT |     | RST CHIP 20R 1/10W 5% TZAI YUAN          |
| R613  | 061G0402471 JY |     | RST 0402 470R 5% 1/16W RC0402JR-07470RL  |
| Q701  | 057G 417518    |     | SMALLTRAN LMBT3904LT1G 0.2A 40V SOT-23   |
| U705  | 356GD563005315 |     | DC/DC SY8088IAAC 5.5V 1A SOT23-5         |
| C733  | 065G080510615K | M   | CAP 0805 10UF 10% 16V X5R GRM21BR61C106K |
| R617  | 061G0402471 JY |     | RST 0402 470R 5% 1/16W RC0402JR-07470RL  |
| R712  | 061G0603229 JT |     | RST 0603 2.2R 5% 1/10W                   |
| R792  | 361G06034022FF |     | RST 0603 40.2K ohm 1% 1/10W RS-03K4022FT |
| R106  | 061G0402470 JY |     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |
| R485  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| R110  | 061G0402470 JY |     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |
| R734  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| R791  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| R517  | 061G0402470 JY |     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |
| R402  | 061G0402101 JY |     | RST 0402 100R 5% 1/16W RC0402JR-07100RL  |
| ZD102 | 093G 39GA01    | T B | ZENER RLZ5V6B-TPV 5.6 0.5W LL-34         |
| R756  | 061G0402472 JY |     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |
| U403  | 056G1133 56    |     | EEPROM M24C16-WMN6TP 16Kb SOIC-8         |
| ZD541 | 093G 39S957    | T   | ZENER RLZ6V2B 6.2V 0.5W LL-34            |
| C102  | 065G060347332K | Y   | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |
| C113  | 065G080522432K | Y   | CAP 0805 220nF 10% 50V X7R CC0805KKX7R9B |
| C108  | 065G060347332K | Y   | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |
| CN701 | 311GW200A09ADJ |     | CONN 2.0mm 9P R/A PHB-9AWB               |
| ZD105 | 093G 39S957    | T   | ZENER RLZ6V2B 6.2V 0.5W LL-34            |
| C112  | 065G060347332K | Y   | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |
| ZD501 | 093G 39S957    | T   | ZENER RLZ6V2B 6.2V 0.5W LL-34            |
| L702  | 373G253S146D00 |     | SMD CHOKE 2.2uH 30% 4.6A 0.014R SWPA6045 |

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| R789  | 061G1206122 JF     | RST CHIPR 1.2KOHM +-5% 1/4W FENGHUA      |  |
| C104  | 065G060347332K Y   | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |  |
| R751  | 061G08054022FY     | RST CHIP 40K2 1/8W 1%                    |  |
| R525  | 061G0402000 JT     | RST 0402 0.05R MAX 1/16W -               |  |
| R491  | 061G0402472 JY     | RST 0402 4.7K 5% 1/16W RC0402JR-074K7L   |  |
| R484  | 061G0402000 JY     | RST 0402 0.05R MAX 1/16W RC0402JR-070RL  |  |
| R508  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| R421  | 061G0402000 JY     | RST 0402 0.05R MAX 1/16W RC0402JR-070RL  |  |
| R501  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| R489  | 061G0402000 JY     | RST 0402 0.05R MAX 1/16W RC0402JR-070RL  |  |
| R503  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| C636  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |
| R502  | 061G0402000 JF     | RST CHIPR MAX0R05 1/16W FENGHUA          |  |
| C621  | 065G060310432K F   | CAP 0603 100nF 10% 50V X7R 0603B104K500N |  |
| C777  | 365G080510625K000M | CAP 0805 10UF 10% 25V X5R GRM21BR61E106  |  |
| C450  | 065G040210232K F   | CAP 0402 1nF 10% 50V X7R 0402B102K500NT  |  |
| C451  | 065G040210232K F   | CAP 0402 1nF 10% 50V X7R 0402B102K500NT  |  |
| R104  | 061G0402470 JY     | RST 0402 47R 5% 1/16W RC0402JR-0747RL    |  |
| D102  | 093G 64 33         | SWITCHING BAV99 0.2A 85V SOT-23          |  |
| CN501 | 388G340CJ05AAT     | HDMI R/A 19P 1*1 BLACK 6.2mm             |  |
| D104  | 093G 64 33         | SWITCHING BAV99 0.2A 85V SOT-23          |  |
| CN402 | 311GF100A06ADJ     | FFC CONN 1.0mm 6P R/A 1.0S-17-6PWB       |  |
| D103  | 093G 64 33         | SWITCHING BAV99 0.2A 85V SOT-23          |  |
| R419  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| CN708 | 311GW125D10ADJ     | WAFER 1.25mm 10P R/A 1.25T-11-10PWB      |  |
| R750  | 061G0603200 JF     | RST CHIPR 20OHM 1/10W FENGHUA            |  |
| R426  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| FB603 | 071G 59A121 TA     | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C449  | 065G060333031J F   | CAP 0603 33PF 5% 50V NP0 0603CG330J500NT |  |
| U771  | 356GD563008281     | DC/DC MP2330GTL-Z 24V 3A SOT583          |  |
| R550  | 061G0402104 JY     | RST 0402 100K 5% 1/16W -                 |  |
| C605  | 065G060347131J F   | CAP 0603 470PF 5% 50V NP0 0603CG471J500N |  |
| R784  | 061G0402153 JY     | RST 0402 15K 5% 1/16W -                  |  |
| X401  | 393G022SA5400J     | CRYSTAL NXE14.31818AC32F-BK8 30ppm 32pF  |  |
| CN401 | 311GF050P51ADP     | CONN 0.5mm 51P R/A 187107-51221          |  |
| C715  | 065G040210232K F   | CAP 0402 1nF 10% 50V X7R 0402B102K500NT  |  |
| CN603 | 311GW200A04ADJ     | WAFER 2.0mm 4P R/A 12mm 9.8mm            |  |
| C737  | 065G040210332K F   | CAP 0402 10nF 10% 50V X7R 0402B103K500NT |  |
| R123  | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R771  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R404  | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| C780  | 065G040268232K F   | CAP 0402 6.8NF 10% 50V X7R 0402B682K500N |  |
| R125  | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| D101  | 093G 64 42 L       | SWITCHING LBAV70LT1G 0.15A 75V SOT-23    |  |
| C635  | 065G060310522K T   | CAP 0603 1UF 10% 25V X7R -               |  |
| Q501  | 057G 417525        | SMALLTRAN MMBT3904 200mA 40V SOT-23      |  |
| C117  | 065G040222031J F   | CAP 0402 22pF 5% 50V NP0 0402CG220J500NT |  |
| R418  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| C759  | 065G040222031J F   | CAP 0402 22pF 5% 50V NP0 0402CG220J500NT |  |
| R461  | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R427  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R713  | 061G0402104 JY     | RST 0402 100K 5% 1/16W -                 |  |
| R757  | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |

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| C118      | 065G040222031J F   | CAP 0402 22pF 5% 50V NP0 0402CG220J500NT |  |
| R759      | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R553      | 061G0402104 JY     | RST 0402 100K 5% 1/16W -                 |  |
| C476      | 065G060322432K F   | CAP CHIP 0603 0.22UF K 50V X7            |  |
| FB601     | 071G 59C601 TA     | CHIP BEAD 600R/200mA FCM1608K-601T02     |  |
| R608      | 061G0603103 JT     | RST CHIP 10K 1/10W 5% TZAI YUAN          |  |
| R611      | 061G0402333 JY     | RST 0402 33K 5% 1/16W RC0402JR-0733KL    |  |
| C444      | 065G060322432K F   | CAP CHIP 0603 0.22UF K 50V X7            |  |
| CN503     | 388G343GK01ABL     | DP R/A 20P 1*1 BLACK --                  |  |
| D501      | 093G 60518SEM      | SCHOTTKY BAT54C-HAF 0.2A 30V SOT-23      |  |
| R635      | 061G04021202FY     | RST 0402 12K 1% 1/16W RC0402FR-07 12KL   |  |
| R710      | 061G06031102FT     | .ST CHIP 11K 1/10W 1%                    |  |
| R424      | 061G04021202FY     | RST 0402 12K 1% 1/16W RC0402FR-07 12KL   |  |
| HDCP-U402 | 070GHDCP500HDC     | HDCP CODE                                |  |
| R610      | 061G0402333 JY     | RST 0402 33K 5% 1/16W RC0402JR-0733KL    |  |
| R715      | 061G0402333 JY     | RST 0402 33K 5% 1/16W RC0402JR-0733KL    |  |
| R493      | 061G0603331 JT     | ST 0603 330R 5% 1/10W                    |  |
| U706      | 356GD563008170     | DC/DC MP2315GJ-Z 3A 24V TSOT23-8         |  |
| R117      | 061G0603201 JT     | RST CHIP 200R 1/10W 5% TZAI YUAN         |  |
| R116      | 061G0603201 JT     | RST CHIP 200R 1/10W 5% TZAI YUAN         |  |
| R722      | 061G06036342FT     | RST 0603 63.4K 1% 1/10W                  |  |
| R753      | 061G0603203 JF     | RST CHIPR 20K OHM +-5% 1/10W FENGHUA     |  |
| R420      | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R515      | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R124      | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R614      | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R403      | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R401      | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R408      | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| ZD702     | 393G039SA5200T000P | ZENER RLZ12B 12V 500mW LL-34             |  |
| C604      | 365G060347422K000F | CAP 0603 470nF 10% 25V X7R 0603B474K250  |  |
| R118      | 061G0603201 JT     | RST CHIP 200R 1/10W 5% TZAI YUAN         |  |
| C602      | 365G060347422K000F | CAP 0603 470nF 10% 25V X7R 0603B474K250  |  |
| R407      | 061G0603000 JT     | RST CHIP MAX 0R05 1/10W TZAI YUAN        |  |
| R758      | 061G0402103 JY     | RST 0402 10K 5% 1/16W -                  |  |
| R547      | 061G0402105 JY     | RST 0402 1M 5% 1/16W RC0402JR-071ML      |  |
| FB402     | 071G 59A121 TA     | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C406      | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R708      | 061G06031802FT     | RST CHIP 18K 1/10W 1%                    |  |
| FB407     | 071G 59A121 TA     | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C783      | 365G060310535K000A | CAP 0603 1uF 10% 50V X5R CL10A105KB8NNNC |  |
| R604      | 061G0402102 JY     | RST 0402 1K 5% 1/16W -                   |  |
| U506      | 056G 662 35        | ESD PROTECT TVU1240R1A N/A               |  |
| FB409     | 071G 59A121 TA     | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C424      | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| C415      | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R509      | 061G0402102 JY     | RST 0402 1K 5% 1/16W -                   |  |
| FB403     | 071G 59A121 TA     | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |  |
| C554      | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R721      | 061G0603101 JT     | RST CHIP 100R 1/10W 5% TZAI YUAN         |  |
| C716      | 065G060322031J F   | CAP CHIP 0603 22PF J 50V NPO             |  |
| R744      | 061G0402102 JY     | RST 0402 1K 5% 1/16W -                   |  |
| C503      | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |

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| R549  | 061G0402102 JY |   | RST 0402 1K 5% 1/16W -                   |
| U505  | 056G 662 35    |   | ESD PROTECT TVU1240R1A N/A               |
| C778  | 065G040210031J | F | CAP 0402 10pF 5% 50V NP0 0402CG100J500NT |
| C423  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C435  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C426  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| L704  | 373G253S071JL0 |   | SMD CHOKE 2.2uh 20% 8.2a 0.02 JSHC0630H- |
| R745  | 061G06031009FT |   | RST CHIP R 10ohm +/-1% 1/10W             |
| R108  | 061G0402100 JY |   | RST 0402 10R 5% 1/16W RC0402JR-0710RL    |
| C433  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C421  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C116  | 065G060347332K | Y | CAP 0603 47NF 10% 50V X7R CC0603KRX7R9BB |
| R101  | 061G0805750 JF |   | RST CHIPR 75 OHM +-5% 1/8W FENGHUA       |
| R119  | 061G0402101 JT |   | RST CHIP 100R 1/16W 5% TZAI YUAN         |
| C420  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| U501  | 356G0662010019 |   | ESD PROTECT DF10G6M4N DFN10              |
| R718  | 061G06031003FT |   | RST CHIP 100K 1/10W 1%                   |
| R120  | 061G0402101 JT |   | RST CHIP 100R 1/16W 5% TZAI YUAN         |
| R554  | 061G0402102 JY |   | RST 0402 1K 5% 1/16W -                   |
| FB404 | 071G 59A121 TA |   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |
| C601  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| R638  | 061G06035102FT |   | RST CHIP 51K 1/10W 1%                    |
| R640  | 061G04021001FY |   | RST 0402 1K 1% 1/16W RC0402FR-07 1KL     |
| FB412 | 071G 59A121 TA |   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |
| C412  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| R544  | 061G0402102 JY |   | RST 0402 1K 5% 1/16W -                   |
| C708  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| FB411 | 071G 59A121 TA |   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |
| C119  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| FB410 | 071G 59A121 TA |   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |
| C425  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C448  | 065G060333031J | F | CAP 0603 33PF 5% 50V NP0 0603CG330J500NT |
| C438  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C710  | 065G040210332K | F | CAP 0402 10nF 10% 50V X7R 0402B103K500NT |
| R543  | 061G0402105 JY |   | RST 0402 1M 5% 1/16W RC0402JR-071ML      |
| R787  | 361G06032871FY |   | RST 0603 2.87K 1% 1/10W RC0603FR-072K87  |
| R542  | 061G0402105 JY |   | RST 0402 1M 5% 1/16W RC0402JR-071ML      |
| C726  | 065G040210332K | F | CAP 0402 10nF 10% 50V X7R 0402B103K500NT |
| R546  | 061G0402105 JY |   | RST 0402 1M 5% 1/16W RC0402JR-071ML      |
| C606  | 065G060347131J | F | CAP 0603 470PF 5% 50V NP0 0603CG471J500N |
| FB401 | 071G 59A121 TA |   | CHIP BEAD 120R/3000mA HCB1608KF-121T30   |
| L706  | 373G253S350H00 |   | SMD CHOKE 10UH 20% 4A 0.042R -           |
| L771  | 373G253S357M00 |   | SMD CHOKE 10uH 20% 4A 0.042ohm MPIT8040  |
| R545  | 061G0402105 JY |   | RST 0402 1M 5% 1/16W RC0402JR-071ML      |
| Q477  | 057G 417526    |   | SMALLTRAN MMBT3906 -0.2A -40V SOT-23     |
| C410  | 065G060310522K | T | CAP 0603 1UF 10% 25V X7R -               |
| Q476  | 057G 417526    |   | SMALLTRAN MMBT3906 -0.2A -40V SOT-23     |
| C728  | 065G060310432K | Y | CAP 0603 100NF 10% 50V X7R CC0603KRX7R9B |
| U701  | 356GD563020271 |   | C/DC SY8286ARAC 23V 6A QFN3x3-20         |
| C432  | 065G040210412K | M | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |
| C401  | 065G060368031J | F | CAP 0603 68PF 5% 50V NP0 0603CG680J500NT |
| C736  | 065G060322031J | F | CAP CHIP 0603 22PF J 50V NPO             |
| R707  | 061G0603101 JT |   | RST CHIP 100R 1/10W 5% TZAI YUAN         |

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| R495  | 061G0402392 JY     | RST 0402 3.9K 5% 1/16W RC0402JR-073K9L   |  |
| C437  | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| D541  | 093G3004 2 HF      | R34H PAN JIT                             |  |
| C705  | 065G060322031J F   | CAP CHIP 0603 22PF J 50V NPO             |  |
| R496  | 061G0402392 JY     | RST 0402 3.9K 5% 1/16W RC0402JR-073K9L   |  |
| C439  | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R113  | 061G0402223 JY     | RST 0402 22K 5% 1/16W -                  |  |
| R637  | 061G04023001FY     | RST 0402 3K 1% 1/16W RC0402FR-073KL      |  |
| C413  | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R494  | 061G0402392 JY     | RST 0402 3.9K 5% 1/16W RC0402JR-073K9L   |  |
| C702  | 065G060322031J F   | CAP CHIP 0603 22PF J 50V NPO             |  |
| U504  | 356G1133002019     | EEPROM BL24C02A-PARC 2Kb SOP-8           |  |
| C414  | 065G040210412K M   | CAP 0402 0.1UF 10% 16V X7R WBM155R71C104 |  |
| R786  | 061G0402512 JY     | RST 0402 5.1K 5% 1/16W -                 |  |
| C609  | 065G060322031J F   | CAP CHIP 0603 22PF J 50V NPO             |  |
| U101  | 356G1133002019     | EEPROM BL24C02A-PARC 2Kb SOP-8           |  |
| C608  | 065G060322031J F   | CAP CHIP 0603 22PF J 50V NPO             |  |
|       | KEPCNQUB           | KEY BOARD                                |  |
| CN001 | 395G076Q06N6710000 | FFC CABLE 6p 750MM 1.0MM                 |  |
| CN001 | 395G076W06N6710000 | FFC CABLE 6p 750mm 1.0MM                 |  |
|       | 709G76960QM001     | COMSUMPTIVE ASSY                         |  |
|       | Q52G160119100A00YY | TAPE                                     |  |
|       | Q52G6022 33        | TAPE                                     |  |
|       | 055G 23520         | Cleaning Naphtha                         |  |
| R004  | 061G06030001FT     | RST 0603 0.01 1% 1/10W -                 |  |
| R003  | 061G06030001FT     | RST 0603 0.01 1% 1/10W -                 |  |
| R007  | 061G06030001FT     | RST 0603 0.01 1% 1/10W -                 |  |
| R007  | 061G06030001FY     | RST CHIPR 0 OHM +-1% 1/10W YAGEO         |  |
| R001  | 061G06031001FF     | RST CHIPR 1 KOHM +-1% 1/10W FENGHUA      |  |
| R006  | 061G06031001FF     | RST CHIPR 1 KOHM +-1% 1/10W FENGHUA      |  |
| R001  | 061G06031001FT     | RST CHIP 1K 1/10W 1%                     |  |
| R006  | 061G06031001FT     | RST CHIP 1K 1/10W 1%                     |  |
| R002  | 061G06032001FF     | RST CHIP 2KOHM 1% 1/10W FENGHUA          |  |
| R005  | 061G06032001FF     | RST CHIP 2KOHM 1% 1/10W FENGHUA          |  |
| R002  | 061G06032001FT     | RST CHIP R 2Kohm 1/10W +/-1%             |  |
| R005  | 061G06032001FT     | RST CHIP R 2Kohm 1/10W +/-1%             |  |
| ZD006 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD007 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD005 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD008 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD004 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD001 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD003 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD002 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| ZD009 | 093G 64 59 SU      | ESD mlvs0603m04 4V 0603                  |  |
| SW001 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW002 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW006 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW003 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW005 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW004 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW007 | 377G06050050HC     | TACT SW 4P 0.55mm 200g SMD               |  |
| SW001 | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |

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| SW002  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| SW006  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| SW003  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| SW005  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| SW004  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| SW007  | 377G06050050YG     | TACT SW 4P 0.55 200g SMD                 |  |
| LED001 | 381G0B151WY0GP     | CHIP LED white/orange GPTD12048OW1-R     |  |
| ZD006  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD007  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD009  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD002  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD003  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD001  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD004  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD008  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
| ZD005  | 393G064S0590SF     | ESD SFI0603ML080CS-LF 4V 0603            |  |
|        | 709G76960QS001     | COMSUMPTIVE ASSY                         |  |
|        | Q09G6012 1         | PIN                                      |  |
|        | Q52G160119100A00YY | TAPE                                     |  |
|        | Q49G 51100         | Water-based Cleaning Agent               |  |
|        | 055G 23520         | Cleaning Naphtha                         |  |
|        | Q55G 100622        | Rework Solder Wire                       |  |
|        | 055G 100610        | Solder Paste                             |  |
|        | Q05G6054 1         | SHEET                                    |  |
|        | Q52G1701 6 XW      | MESH PRINTTING_PAPER                     |  |
| E715   | 715G7696K01000004Y | KEY BOARD PCB                            |  |
|        | PLPCJB321KQXK      | ADAPTER BOARD                            |  |
|        | H40G 45762429A     | SN LABEL 27x9mm                          |  |
| C901   | 063G107K224 UM     | CAP X2 220NF 10% 275V 18*7.5*13.5 MPX-2  |  |
| C907   | 067G515Z82015K     | EC 82UF 20% 450V 18*30                   |  |
| C907   | 067G515Z82015L     | EC 82UF 20% 450V 18*31.5                 |  |
| L901   | 073G 174192 H      | LINE FILTER 30MH MIN LCL-12012 HA        |  |
| L901   | 073G 174192 X      | LINE FILTER 30MH MIN 0.8A 3TRET20-303M-1 |  |
| L902   | 073G 253191 H      | IND CHOKE 1.1uH DADON                    |  |
| L902   | 073G 253191 Z      | CHOKE COIL 1.1UH 30% - RL-0810-1R1-0-GJ  |  |
| L801   | 073G 253242 H      | CHOKE COIL 47UH 10% 2.5A L470M HA        |  |
| L801   | 073G 253242 X      | CHOKE COIL 47UH 10% DR8*7 2.5A           |  |
| BD901  | 093G 50460518      | BRIDGE KBP208G-C 2A 800V KBP             |  |
| BD901  | 093G 50460519      | BRIDGE KBP206G X0 2A 800V KBP 80A        |  |
| D904   | 093G 60988         | SCHOTTKY SB5100-E 5A 100V DO-201AD       |  |
| D901   | 093G 60988         | SCHOTTKY SB5100-E 5A 100V DO-201AD       |  |
| CN801  | 311GW200A06FEL     | WAFER 2.0mm 6P V/T B2009W06VT0E          |  |
| CN902  | 311GW250B07BAX     | CONN 2.5mm 7P N/A W2415-07SVA-V06-AH     |  |
| U901   | 356G0379012224     | AC/DC LNK6766V eDIP-12B                  |  |
| C901   | 363G107K224BRM     | CAP X2 220NF 10% 275V 18*13.5*7.5 MKP22  |  |
| T902   | 380GL19P533J00     | X'FMR 620uH 10% 6.5uH EFD25 BCK-04-LFDJ  |  |
| T902   | 380GL19P533P00     | X'FMR 620uH 10% 6.5uH EFD25 ph01009400   |  |
| CN901  | 387G050132GBCJ0002 | AC PLUG R/A 3P --                        |  |
| CN901  | 387G050132GBHC0002 | AC PLUG R/A 3P --                        |  |
| BD901  | 393G00504605190000 | BRIDGE GBP208R 2A 800V GBP               |  |
| BD901  | 393G0050460A18     | BRIDGE KBP208G 2A 800V KBPM              |  |
| D904   | 393G0060A6400K     | SCHOTTKY SBT5100VSS_F0_100A1 5A 100V DO- |  |
| D901   | 393G0060A6400K     | SCHOTTKY SBT5100VSS_F0_100A1 5A 100V DO- |  |

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| D801  | 393G0060A6400K     | SCHOTTKY SBT5100VSS_F0_100A1 5A 100V DO- |  |
| D904  | 393G0060A7100K0000 | SCHOTTKY SB5B0-C531B-3 5A 100V DO-201AD  |  |
| D901  | 393G0060A7100K0000 | SCHOTTKY SB5B0-C531B-3 5A 100V DO-201AD  |  |
| D801  | 393G0060A7100K0000 | SCHOTTKY SB5B0-C531B-3 5A 100V DO-201AD  |  |
|       | 709G69300QM001     | COMSUMPTIVE ASSY                         |  |
|       | 055G 23520         | Cleaning Naphtha                         |  |
|       | Q51G 6 4509 2L6    | Accelerant                               |  |
|       | Q52G160119100A00YY | TAPE                                     |  |
|       | Q55G 100655        | Solder Wire                              |  |
|       | Q55G 100625        | Solder Wire                              |  |
|       | Q55G50SW3AS0HF     | Solder Wire                              |  |
|       | Q49G 51100         | Water-based Cleaning Agent               |  |
|       | Q55G 100622        | Rework Solder Wire                       |  |
|       | 055G 23524         | Flux                                     |  |
|       | Q55G50SW3YX0HF     | Solder Wire                              |  |
| R910  | 061G06031003FF     | RST CHIPR 100KOHM +-1% 1/10W FENGHUA     |  |
| R803  | 061G0603304 JT     | RST CHIPR 300KOHM 1/10W TZAI YUAN        |  |
| R803  | 061G0603304 JY     | RST 0603 300K 1/10W -                    |  |
| R911  | 061G06033602FF     | RST CHIPR 36KOHM +-1% 1/10W FENGHUA      |  |
| R911  | 061G06033602FT     | RST 0603 36K 1% 1/10W                    |  |
| R905  | 061G06036802FT     | RST CHIPR 68KOHM +-1% 1/10W TZAI YUAN    |  |
| R905  | 061G06036802FY     | RST CHIPR 68KOHM +-1% 1/10W YAGEO        |  |
| R912  | 061G06038201FT     | ST CHIP 8K2 1/10W 1%                     |  |
| R912  | 061G06038201FY     | RST CHIP 8K2 1/10W 1%                    |  |
| R821  | 061G08051003FF     | RST CHIPR 100KOHM +-1% 1/8W FENGHUA      |  |
| R819  | 061G0805103 JF     | RST CHIPR 10K OHM +-5% 1/8W FENGHUA      |  |
| R809  | 061G08052003FF     | RST CHIPR 200KOHM +-1% 1/8W FENGHUA      |  |
| R913  | 061G0805220 JF     | RST CHIPR 22 OHM +-5% 1/8W FENGHUA       |  |
| R926  | 061G0805220 JF     | RST CHIPR 22 OHM +-5% 1/8W FENGHUA       |  |
| R920  | 061G0805229 JF     | RST CHIPR 2R2 +-5% 1/8W FENGHUA          |  |
| R811  | 061G08052401FF     | RST CHIPR 2.4KOHM +-1% 1/8W FENGHUA      |  |
| R811  | 061G08052401FT     | RST CHIP R 2K4 +/-1% 1/8W                |  |
| R816  | 061G08052702FF     | RST CHIPR 27KOHM +-1% 1/8W FENGHUA       |  |
| R816  | 061G08052702FT     | RST CHIP 27K 1/8W 1%                     |  |
| R802  | 061G0805304 JT     | +ST CHIP 300K 1/8W 5% TZAI YUAN          |  |
| R802  | 061G0805304 JY     | RST CHIPR 300K +-5% 1/8W YAGEO           |  |
| R810  | 061G08054701FT     | RST CHIP 4K7 1/8W 1%                     |  |
| R814  | 061G1206100 JF     | RST CHIPR 10 OHM +-5% 1/4W FENGHUA       |  |
| R919  | 061G1206100 JF     | RST CHIPR 10 OHM +-5% 1/4W FENGHUA       |  |
| R807  | 061G1206100 JF     | RST CHIPR 10 OHM +-5% 1/4W FENGHUA       |  |
| RJ801 | 061G12061008FF     | RST CHIPR 10OHM +-1% 1/4W FENGHUA        |  |
| R804  | 061G1206101 JF     | RST CHIPR 100 OHM +-5% 1/4W FENGHUA      |  |
| R804  | 061G1206101 JT     | RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN    |  |
| R806  | 061G1206102 JF     | RST CHIPR 1KOHM +-5% 1/4W FENGHUA        |  |
| R801  | 061G1206103 JF     | RST CHIPR 10KOHM +-5% 1/4W FENGHUA       |  |
| R915  | 061G1206103 JF     | RST CHIPR 10KOHM +-5% 1/4W FENGHUA       |  |
| R924  | 061G1206104 JF     | RST CHIPR 100KOHM +-5% 1/4W FENGHUA      |  |
| R921  | 061G1206104 JF     | RST CHIPR 100KOHM +-5% 1/4W FENGHUA      |  |
| R904  | 061G1206104 JF     | RST CHIPR 100KOHM +-5% 1/4W FENGHUA      |  |
| R925  | 061G1206104 JF     | RST CHIPR 100KOHM +-5% 1/4W FENGHUA      |  |
| R908  | 061G1206105 JF     | RST CHIPR 1 MOHM +-5% 1/4W FENGHUA       |  |
| R907  | 061G1206105 JF     | RST CHIPR 1 MOHM +-5% 1/4W FENGHUA       |  |
| R909  | 061G1206105 JF     | RST CHIPR 1 MOHM +-5% 1/4W FENGHUA       |  |

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| R917 | 061G1206121 JF |   | RST CHIPR 120 OHM+-5% 1/4W FENGHUA       |  |
| R916 | 061G1206121 JF |   | RST CHIPR 120 OHM+-5% 1/4W FENGHUA       |  |
| R918 | 061G1206121 JF |   | RST CHIPR 120 OHM+-5% 1/4W FENGHUA       |  |
| R906 | 061G1206123 JT |   | RST CHIP 12K 5% 1/4W TZAI YUAN           |  |
| R813 | 061G1206308 JF |   | RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA      |  |
| R812 | 061G1206308 JF |   | RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA      |  |
| R813 | 061G1206308 JT |   | RST 1206 0.3R 5% 1/4W                    |  |
| R812 | 061G1206308 JT |   | RST 1206 0.3R 5% 1/4W                    |  |
| C912 | 065G060310131J | F | CAP 0603 100pF 5% 50V NP0 0603CG101J500N |  |
| C912 | 065G060310131J | Y | CAP 0603 100PF 5% 50V NP0 CC0603JRNPO9BN |  |
| C918 | 065G060322031J | A | CAP 0603 22PF 50V NPO                    |  |
| C918 | 065G060322031J | F | CAP CHIP 0603 22PF J 50V NPO             |  |
| C918 | 065G060322031J | Y | CAP 0603 22PF 5% 50V NP0 -               |  |
| C919 | 065G060333332K | F | CAP 0603 33NF 10% 50V X7R 0603B333K500NT |  |
| C812 | 065G080510131J | A | CAP CHIP 0805 100pF J 50V NPO            |  |
| C812 | 065G080510131J | F | CAP CHIP 0805 100PF J 50V NPO            |  |
| C818 | 065G080510231J | F | CAP 0805 1NF 5% 50V NPO                  |  |
| C817 | 065G080510232K | F | CAP 0805 1nF 10% 50V X7R 0805B102K500NT  |  |
| C808 | 065G080510232K | F | CAP 0805 1nF 10% 50V X7R 0805B102K500NT  |  |
| C802 | 065G080510332K | F | CAP 0805 10NF 10% 50V X7R -              |  |
| C810 | 065G080510432K | F | CAP 0805 100nF 10% 50V X7R 0805B104K500N |  |
| C811 | 065G080510432K | F | CAP 0805 100nF 10% 50V X7R 0805B104K500N |  |
| C908 | 065G080510432K | F | CAP 0805 100nF 10% 50V X7R 0805B104K500N |  |
| C811 | 065G080510432K | W | CAP CHIP 0805 0.1UF K 50V X7R            |  |
| C810 | 065G080510432K | W | CAP CHIP 0805 0.1UF K 50V X7R            |  |
| C811 | 065G080510432K | Y | CAP 0805 100nF 10% 50V X7R CC0805KRX7R9B |  |
| C810 | 065G080510432K | Y | CAP 0805 100nF 10% 50V X7R CC0805KRX7R9B |  |
| C820 | 065G080510532K | A | CAP 0805 1UF 10% 50V X7R CL21B105KBFNNNE |  |
| C820 | 065G080510532K | T | CAP 0805 1UF 10% 50V X7R -               |  |
| C813 | 065G080522131J | F | CAP 0805 220PF 5% 50V NP0 -              |  |
| C805 | 065G080522522K | M | CAP 0805 2.2UF 10% 25V X7R GRM21BR71E225 |  |
| C805 | 065G080522522K | T | CAP 0805 2.2uF 10% 25V X7R CE TMK212 B72 |  |
| C804 | 065G080547432K | F | CAP 0805 470nF 10% 50V X7R 0805B474K500N |  |
| C807 | 065G080547432K | F | CAP 0805 470nF 10% 50V X7R 0805B474K500N |  |
| C911 | 065G080547525K | A | CAP 0805 4.7UF 10% 25V X5R CL21A475KAQNN |  |
| C911 | 065G080547525K | M | CAP 0805 4.7uF 10% 25V X5R GRM21BR61E475 |  |
| C911 | 065G080547525K | T | CAP 0805 4.7UF 10% 25V X5R TMK212 BJ475K |  |
| C915 | 065G120610272K | A | CAP 1206 1NF 10% 500V X7R CL31B102KGFNNN |  |
| C915 | 065G120610272K | F | CAP 1206 1nF 10% 500V X7R 1206B102K501NT |  |
| U801 | 356G0700016088 |   | LED DRIVER OZ9998TGN-A-1-TR SOP-16       |  |
| Q801 | 357G0600100016 |   | MOSFET MTBA5N10J3 10A 100V TO252         |  |
| R814 | 361G1206100AJU |   | RST 1206 10R 5% 1/4W 1206W4J0100T5E      |  |
| R919 | 361G1206100AJU |   | RST 1206 10R 5% 1/4W 1206W4J0100T5E      |  |
| R807 | 361G1206100AJU |   | RST 1206 10R 5% 1/4W 1206W4J0100T5E      |  |
| R915 | 361G1206103AJU |   | RST 1206 10K 5% 1/4W 1206W4J0103T5E      |  |
| R801 | 361G1206103AJU |   | RST 1206 10K 5% 1/4W 1206W4J0103T5E      |  |
| R904 | 361G1206104AJU |   | RST 1206 100K 5% 1/4W 1206W4J0104T5E     |  |
| R921 | 361G1206104AJU |   | RST 1206 100K 5% 1/4W 1206W4J0104T5E     |  |
| R925 | 361G1206104AJU |   | RST 1206 100K 5% 1/4W 1206W4J0104T5E     |  |
| R924 | 361G1206104AJU |   | RST 1206 100K 5% 1/4W 1206W4J0104T5E     |  |
| R909 | 361G1206105AJU |   | RST 1206 1M 5% 1/4W 1206W4J0105T5E       |  |
| R907 | 361G1206105AJU |   | RST 1206 1M 5% 1/4W 1206W4J0105T5E       |  |
| R908 | 361G1206105AJU |   | RST 1206 1M 5% 1/4W 1206W4J0105T5E       |  |

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| C914  | 365G060347422K000F | CAP 0603 470nF 10% 25V X7R 0603B474K250  |  |
| D905  | 393G060SA2500T0000 | RECTIFIER RS1G 1A 400V DO-214AC(SMA)     |  |
|       | 709G69300QS001     | COMSUMPTIVE ASSY                         |  |
|       | Q05G6054 1         | SHEET                                    |  |
|       | 051G 100502        | Surface Mount Adhesives                  |  |
|       | Q49G 51100         | Water-based Cleaning Agent               |  |
|       | Q52G160119100A00YY | TAPE                                     |  |
|       | Q09G6012 1         | PIN                                      |  |
| CN901 | 006G 31500         | EYELET                                   |  |
| R818  | 061G 21010352T TZ  | RST MFR 10K 1/6W +-1% TZAI YUAN          |  |
| R836  | 061G 21010352T TZ  | RST MFR 10K 1/6W +-1% TZAI YUAN          |  |
| R820  | 061G 21010552T TZ  | RST MF 1M 1% 1/6W                        |  |
| R817  | 061G 21047152T TZ  | RST MFLM 470R 1/6W 1%                    |  |
| C909  | 065G 2K471 2T6921  | 470pF 2KV Y5P                            |  |
| C903  | 065G306K68123R     | CAP Y1 680PF 10% 250V Y5P                |  |
| C902  | 065G306K68123R     | CAP Y1 680PF 10% 250V Y5P                |  |
| C922  | 065G306M22233R     | CAP Y1 2.2NF 20% 250V Y5U                |  |
| C801  | 067G 3152214KT     | EC 220UF 25V ED 8*12mm                   |  |
| C809  | 067G 4153309LT     | EC 33uF 20% 100V 8*11.5 4000 hr 724mA RZ |  |
| C904  | 067G215D6814LT     | EC 680UF 20% 25V 10*20                   |  |
| C906  | 067G215D6814LT     | EC 680UF 20% 25V 10*20                   |  |
| C917  | 067G215D6814LT     | EC 680UF 20% 25V 10*20                   |  |
| C910  | 067G215Y1007LT     | EC 10UF 20% 50V 5*11                     |  |
| FB801 | 071G 55 29         | FERRITE BEAD                             |  |
| FB803 | 071G 55 29         | FERRITE BEAD                             |  |
| FB902 | 071G 55 29         | FERRITE BEAD                             |  |
| FB802 | 071G 55 29         | FERRITE BEAD                             |  |
| F901  | 084G 56 2 B        | FUSE 2.5A 250V SS-5-2.5A-AP              |  |
| F901  | 084G 56 2W         | FUSE 2.5A 250V                           |  |
| D903  | 093G 6038P52T      | PS102R                                   |  |
| D902  | 093G 60953         | SCHOTTKY FR107G-A0 1A 1000V DO-41        |  |
| D903  | 093G102090052T     | RECTIFIER PR1003G 1 200 DO-41            |  |
| D902  | 093G110090052T     | DIODE UG1007 1A 1000V DO-41              |  |
| J804  | 095G 90 23         | JUMP WIRE --                             |  |
| J902  | 095G 90 23         | JUMP WIRE --                             |  |
| J808  | 095G 90 23         | JUMP WIRE --                             |  |
| J802  | 095G 90 23         | JUMP WIRE --                             |  |
| J903  | 095G 90 23         | JUMP WIRE --                             |  |
| J807  | 095G 90 23         | JUMP WIRE --                             |  |
| J806  | 095G 90 23         | JUMP WIRE --                             |  |
| NR901 | 361G0058809MSN004A | NTCR 8Ω 20% 4W MF71-8D-13MOT             |  |
| C920  | 365G002K1006DT     | CAP CER 10PF 10% 2KV SL CC81-2KV-06A-SL- |  |
| C920  | 365G002K1006ST     | CAP CER 10PF 10% 2KV SL 8SL100K202N56G   |  |
| C909  | 365G002K4712DT     | CAP CER 470PF 10% 2KV Y5P TH-CT81-2KV-0  |  |
| C902  | 365G306K6812DR     | CAP Y1 680PF 10% 250V Y5P TH-CT81-250VAC |  |
| C903  | 365G306K6812DR     | CAP Y1 680PF 10% 250V Y5P TH-CT81-250VAC |  |
| C922  | 365G306M2223WR     | CAP Y1 2.2NF 20% 250V Y5U                |  |
| C917  | 367G215D6814AT     | EC 680uF 20% 25V 10*20 -- -- ERS1EM681G  |  |
| C906  | 367G215D6814AT     | EC 680uF 20% 25V 10*20 -- -- ERS1EM681G  |  |
| C904  | 367G215D6814AT     | EC 680uF 20% 25V 10*20 -- -- ERS1EM681G  |  |
| C801  | 367G315S2214AT     | EC 220UF 20% 25V 8*12 -- -- ERF1EM221F12 |  |
| C809  | 367G415X3309AT     | EC 33UF 20% 100V 8*12 RF                 |  |
| C910  | 367G515X1007AB     | EC 10UF 20% 50V -- -- -- ERS1HM100D11X25 |  |

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|      | 709G69300QA001     | COMSUMPTIVE ASSY |  |
|      | Q52G160119100A00YY | TAPE             |  |
| E715 | 715G6930P01012001R | POWER BOARD PCB  |  |
|      | Q51G 6 4509        | RTV Glue         |  |
| HS1  | Z90G0013201        | HEAT SINK        |  |