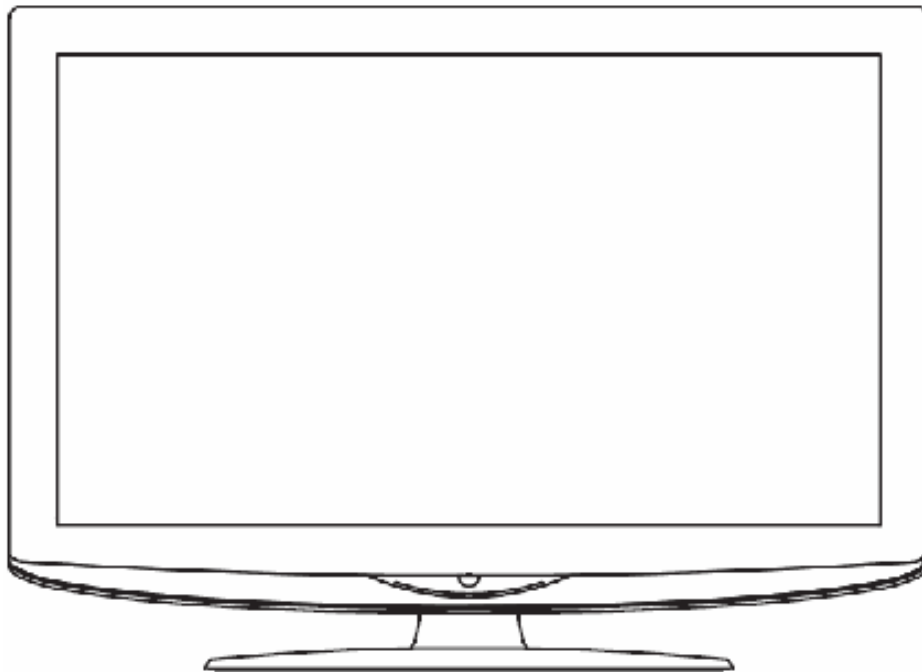




## **Acer AT2645 & AT2646 Service Guide**

## Service Guide Version and Revision

[illegible]

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ACER AT2645 & AT2646 Service Manual.

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## Conventions

The following conventions are used in this manual:

|                 |                                                                                      |
|-----------------|--------------------------------------------------------------------------------------|
| Screen messages | Denotes actual messages that appear on screen.                                       |
| NOTE            | Gives bits and pieces of additional information related to the current topic.        |
| WARNING         | Alerts you to any damage that might result from doing or not doing specific actions. |
| CAUTION         | Gives precautionary measures to avoid possible hardware or software problems.        |
| IMPORTANT       | Remind you to do specific actions relevant to the accomplishment of procedures.      |

## Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office may have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

## Warning: (For FCC Certified Models)

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

## Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

As ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

## Warning:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerous high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

## Precautions

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet 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 supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

## Special Notes On LCD TV Monitors

The following symptoms are normal with LCD TV monitor and do not indicate a problem.

## Notes

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD TV screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD TV screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

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## General Specifications

|                               |                            |                          |                          |                          |
|-------------------------------|----------------------------|--------------------------|--------------------------|--------------------------|
| Model                         | AT1945/AT1946              | A2245/AT2246             | AT2645/AT2646            | AT3245/AT3246            |
| Panel spec                    |                            |                          |                          |                          |
| Resolution (pixels)           | 1440 x 900                 | 1680 x 1050              | 1366 x 768               |                          |
| Brightness (tpe.)             | 300 nit                    |                          | 500 nit                  |                          |
| Contrast Ratio (tpe.)         | 1000 : 1                   |                          | 800 : 1                  | 1500 : 1                 |
| Dynamic Contrast Ratio (tpe.) | 4000 : 1                   |                          | 3200 : 1                 | 6000 : 1                 |
| Display colour                | 16.7 M                     |                          |                          |                          |
| Viewing angle (tpe.)          | H: 170° ; V:160°           |                          | H: 160° ; V:150°         | H: 176° ; V:176°         |
| Response (tpe.)               | 5 ms (Gray to Gray)        |                          | 8 ms (Gray to Gray)      | 6.5 ms (Gray to Gray)    |
| Power supply                  |                            |                          |                          |                          |
| Input                         | 100 to 240 V AC (50~60 Hz) |                          |                          |                          |
| Max. power consumption        | 50W                        | 65W                      | 110 W                    | 160 W                    |
| Power saving                  | <1 W                       |                          |                          |                          |
| Mechanical                    |                            |                          |                          |                          |
| Dimensions (W x H x D mm)     | 446.15 x 358.5 x 144.44    | 511.65 x 400.02 x 144.44 | 651.93 x 480.96 x 218.13 | 782.54 x 558.62 x 207.36 |
| Weight (kg)                   | 4.5                        | 6                        | 8.8                      | 11.25                    |
| Weight (lbs.)                 | 9.9                        | 13.2                     | 19.38                    | 24.78                    |
| Gross weight (Kg)             | 6                          | 7.5                      | 11.4                     | 13.97                    |
| Gross weight (lbs)            | 13.2                       | 16.5                     | 25.11                    | 30.77                    |
| Wall-mounting holes           | 100mm x 100mm              |                          | 200mm x 100mm            | 200mm x 200mm            |
| Analog TV system              |                            |                          |                          |                          |
| Colour system                 | PAL, SECAM                 |                          |                          |                          |
| Sound system                  | B/G/D/K/I/L/L'             |                          |                          |                          |
| Stereo system                 | NICAM/A2                   |                          |                          |                          |
| Subtitle                      | Teletext 1.5 (1000 pages)  |                          |                          |                          |

| Digital TV system           |                                                      |                                                |           |
|-----------------------------|------------------------------------------------------|------------------------------------------------|-----------|
| Digital TV standard         | DVB-T                                                |                                                |           |
| Sound system                | ISO11172-3 layer1 & layer2<br>32KHz,44.1KHz,48KHz    |                                                |           |
| Stereo system               | PCM / MPEG ( Layer I & II ) Stereo 32 / 44.1 / 48KHz |                                                |           |
| Frequency                   | 7/8 MHz                                              |                                                |           |
| Terminal                    |                                                      |                                                |           |
| Analog/<br>Digital Tuner In | Hybird                                               |                                                |           |
| SCART 1                     | CVBS(In/Out), RGB(In), Audio R/L                     | CVBS(In/Out), S-Video (In), RGB(In), Audio R/L |           |
| SCART 2                     | N/A                                                  | CVBS(In/Out), S-Video (In), Audio R/L          |           |
| Component in                | YPbPr, Audio (R/L)                                   |                                                |           |
| AV-in                       | CVBS, S Video, Audio (R/L)                           |                                                |           |
| HDMI 1                      | Yes (HDMI 1.3)                                       |                                                |           |
| HDMI 2                      | Yes (HDMI 1.3)                                       |                                                |           |
| HDMI 3                      | N/A                                                  | Yes (HDMI 1.3)                                 |           |
| PC D-sub in                 | Yes                                                  |                                                |           |
| PC audio-in                 | Yes                                                  |                                                |           |
| RCA Audio Out               | N/A                                                  | Yes                                            |           |
| SPDIF out                   | Yes (Coxial)                                         |                                                |           |
| Headphone out               | Yes                                                  |                                                |           |
| Service Port                | Yes                                                  |                                                |           |
| Resolution                  |                                                      |                                                |           |
| HDMI                        | 480i/p, 576i/p, 720p, 1080i                          |                                                |           |
| Audio system                |                                                      |                                                |           |
| Speakers                    | 3W + 3W                                              | 5W + 5 W                                       | 10W + 10W |

## LCD TV Description

The LCD TV will contain a main board (include audio), a switching power board, a function keyboard, an IR Board and a side board. The main board and power board will house the flat panel to control logic I2C bus, DDC, brightness control logic for LCD panel, DC-DC conversion to supply the appropriate power to the whole board and transmitting TTL level signals into LCD Module to drive the LCD display circuit.

The inverter board will drive the five CCFLs (Cold Cathode Fluorescent Lamp).

The switching power board will provides the power ON/OFF to control the TV and control LED indicator for DPMS.

The function keyboard and Remote Control will provide the OSD control signal to the Main Board.

## Precautions And Notices

### 1-1 Assembly Precaution

- (1) Please do not press or scratch LCD panel surface with anything hard. And do not soil LCD panel surface by touching with bare hands (Polarize film, surface of LCD panel is easy to be flawed)  
In the LCD panel, the gap between two glass plates is kept perfectly even to maintain display characteristic and reliability. If this panel is subject to hard pressing, the following occurs :
  - (a) Uniform color            (b) Orientation of liquid crystal becomes disorder
- (2) Please wipe out LCD panel surface with absorbent cotton or soft cloth in case of it being soiled.
- (3) Please wipe out drops of adhesive like saliva and water in LCD panel surface immediately.  
They might damage to cause panel surface variation and color change.
- (4) Do not apply any strong mechanical shock to the LCD panel.

### 1-2 Operating Precaution

- (1) Please be sure to unplug the power cord before remove the back-cover. (be sure the power is turn-off)
- (2) Please do not change variable resistance settings in MAIN-BOARD; they are adjusted to the most suitable value. If they are changed, it might happen LUMINANCE does not satisfy the white balance spec.
- (3) Please consider that LCD backlight takes longer time to become stable of radiation characteristic in low temperature than in room temperature.
- (4) Please pay attention to displaying the same pattern for very long-time. Image might stick on LCD.

### 1-3 Storage Precaution

- (1) When you store LCD for a long time, it is recommended to keep the temperature between -20°C - 60°C without the exposure of sunlight and to keep the humidity less than 85% RH.
- (2) Please do not leave the LCD in the environment of high humidity and high temperature such as 60°C, 95%RH.
- (3) Please do not operate the LCD in the environment of abnormal temperature, below 0°C.

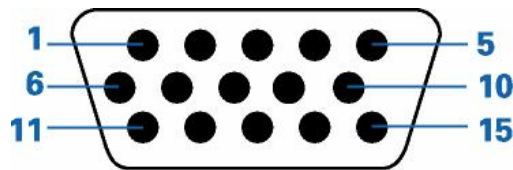
### 1- 4 High Voltage Warning

The high voltage was only generated by Power support part, if carelessly contacted the transformer on this module, can cause a serious shock.

## D-SUB PIN Distribution

This procedure gives you instructions for installing and using the LCD TV display.

- (1) Position the display on the desired operation and plug the power cord into a convenient AC outlet. Three-wire power cord must be shielded and is provided as a safety precaution as it connects the chassis and cabinet to the electrical conduct ground. If the AC outlet in your location does not have provisions for the grounded type plug, the installer should attach the proper adapter to ensure a safe ground potential.
- (2) Connect the 15-pin color display shielded signal cable to your signal system device and lock both screws on the connector to ensure firm grounding. The connector information is as follow:



15 - Pin Color Display Signal Cable

| Pin NO. | Description            | Pin NO. | Description            |
|---------|------------------------|---------|------------------------|
| 1       | Red video input        | 9       | DDC +3.3V (or 5V)      |
| 2       | Green video input /SOG | 10      | Logic ground           |
| 3       | Blue video input       | 11      | GND                    |
| 4       | GND                    | 12      | Serial data line (SDA) |
| 5       | GND— cable detect      | 13      | H. Sync / H+V          |
| 6       | Red video ground       | 14      | V. Sync                |
| 7       | Green video ground     | 15      | Data clock line (SCL)  |
| 8       | Blue video ground      |         |                        |

## Factory Preset Display Modes:

VGA/HDMI Input Signal Reference Chart

|    | Resolution | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Standard | Format |
|----|------------|----------------------------|-------------------------|----------|--------|
| 1  | 640 x 480  | 31.5                       | 60.0                    | VGA      |        |
| 2  | 640 x 480  | 37.9                       | 72.8                    | VGA      |        |
| 3  | 640 x 480  | 37.5                       | 75.0                    | VGA      |        |
| 4  | 640 x 480  | 35.0                       | 66.7                    | MAC      |        |
| 5  | 720 x 400  | 31.5                       | 70.1                    | VESA     |        |
| 6  | 800 x 600  | 35.2                       | 56.3                    | SVGA     |        |
| 7  | 800 x 600  | 37.9                       | 60.3                    | SVGA     |        |
| 8  | 800 x 600  | 48.1                       | 72.2                    | SVGA     |        |
| 9  | 800 x 600  | 46.9                       | 75.0                    | SVGA     |        |
| 10 | 832 x 624  | 49.7                       | 74.6                    | MAC      |        |
| 11 | 1024 x 768 | 48.4                       | 60.0                    | XGA      |        |
| 12 | 1024 x 768 | 56.5                       | 70.1                    | XGA      |        |
| 13 | 1024 x 768 | 60.0                       | 75.0                    | XGA      |        |
| 14 | 1280 x 720 | 45.0                       | 59.9                    | VESA     | 16:9   |
| 15 | 1280 x 768 | 60.3                       | 74.9                    | VESA     |        |
| 16 | 1360 x 768 | 47.7                       | 60.0                    | WXGA     |        |

## LCD TV Panel Specification

V260B1- L11 is a TFT Liquid Crystal Display module with 5U-CCFL Backlight unit and 1ch-LVDS interface. The display diagonal is 26". This module supports 1366 x 768 WXGA format and can display 16.2M colors (6-bit+FRC colors). The inverter module for backlight is built-in.

### Panel Features

- Excellent Brightness 500nits
- Contrast Ratio (800:1)
- Fast Response Time (8ms)
- Color Saturation NTSC 72%
- WXGA (1366 x 768 pixels) Resolution
- DE (Data Enable) Only Mode
- LVDS (Low Voltage Differential Signaling) Interface
- Viewing Angle: 160(H)/150(V) (CR>10) TN Technology
- Color Reproduction (Nature Color)

### General Specifications

| Item                    | Specification                                      | Unit  | Note |
|-------------------------|----------------------------------------------------|-------|------|
| Active Area             | 575.769 (H) x 323.712 (V) (26" Diagonal)           | mm    | (1)  |
| Bezel Opening Area      | 580.8 (H) x 328.8 (V)                              | mm    |      |
| Driver Element          | a-si TFT Active Matrix                             | —     |      |
| Pixel Number            | 1366 x R.G.B. x 768                                | pixel |      |
| Pixel Pitch (Sub Pixel) | 0.1405 (H) x 0.4215 (V)                            | mm    |      |
| Pixel Arrangement       | RGB Vertical Stripe                                | —     |      |
| Display Colors          | 16.2M                                              | color |      |
| Display Operation Mode  | Transmissive Mode / Normally White                 | —     |      |
| Surface Treatment       | Anti-Glare Coating (Haze 25%)<br>Hard Coating (3H) | —     |      |

### Mechanical Specification

| Item        |               | Min. | Typ. | Max. | Unit | Note              |
|-------------|---------------|------|------|------|------|-------------------|
| Module Size | Horizontal(H) | 625  | 626  | 627  | mm   |                   |
|             | Vertical(V)   | 372  | 373  | 374  | mm   |                   |
|             | Depth(D)      | 31   | 32   | 33   | mm   | To Rear           |
|             | Depth(D)      | 45.7 | 46.7 | 47.7 | mm   | To Inverter Cover |
| Weight      |               | —    | 4200 | —    | g    |                   |

## Electrical Characteristics

| Parameter                   |                                           | Symbol     | Value |      |       | Unit | Note |
|-----------------------------|-------------------------------------------|------------|-------|------|-------|------|------|
|                             |                                           |            | Min.  | Typ. | Max.  |      |      |
| Power Supply Voltage        |                                           | $V_{CC}$   | 11.4  | 12.0 | 12.6  | V    | (1)  |
| Power Supply Ripple Voltage |                                           | $V_{RP}$   | —     | —    | 300   | mV   |      |
| Rush Current                |                                           | $I_{RUSH}$ | —     | —    | 3.0   | A    | (2)  |
| Power Supply Current        | White                                     | $I_{CC}$   | —     | 0.2  | 0.25  | A    | (3)  |
|                             | Black                                     |            | —     | 0.5  | 0.55  | A    |      |
|                             | Vertical Stripe                           |            | —     | 0.4  | 0.45  | A    |      |
| LVDS Interface              | Differential Input High Threshold Voltage | $V_{LVTH}$ | —     | —    | +100  | mV   |      |
|                             | Differential Input Low Threshold Voltage  | $V_{LVTL}$ | -100  | —    | —     | mV   |      |
|                             | Common Input Voltage                      | $V_{LVC}$  | 1.125 | 1.25 | 1.375 | V    |      |
|                             | Terminating Resistor                      | $R_T$      | —     | 100  | —     | ohm  |      |
| CMOS interface              | Input High Threshold Voltage              | $V_{IH}$   | 2.7   | —    | 3.3   | V    |      |
|                             | Input Low Threshold Voltage               | $V_{IL}$   | 0     | —    | 0.7   | V    |      |

## Optical Specifications

### Test Conditions

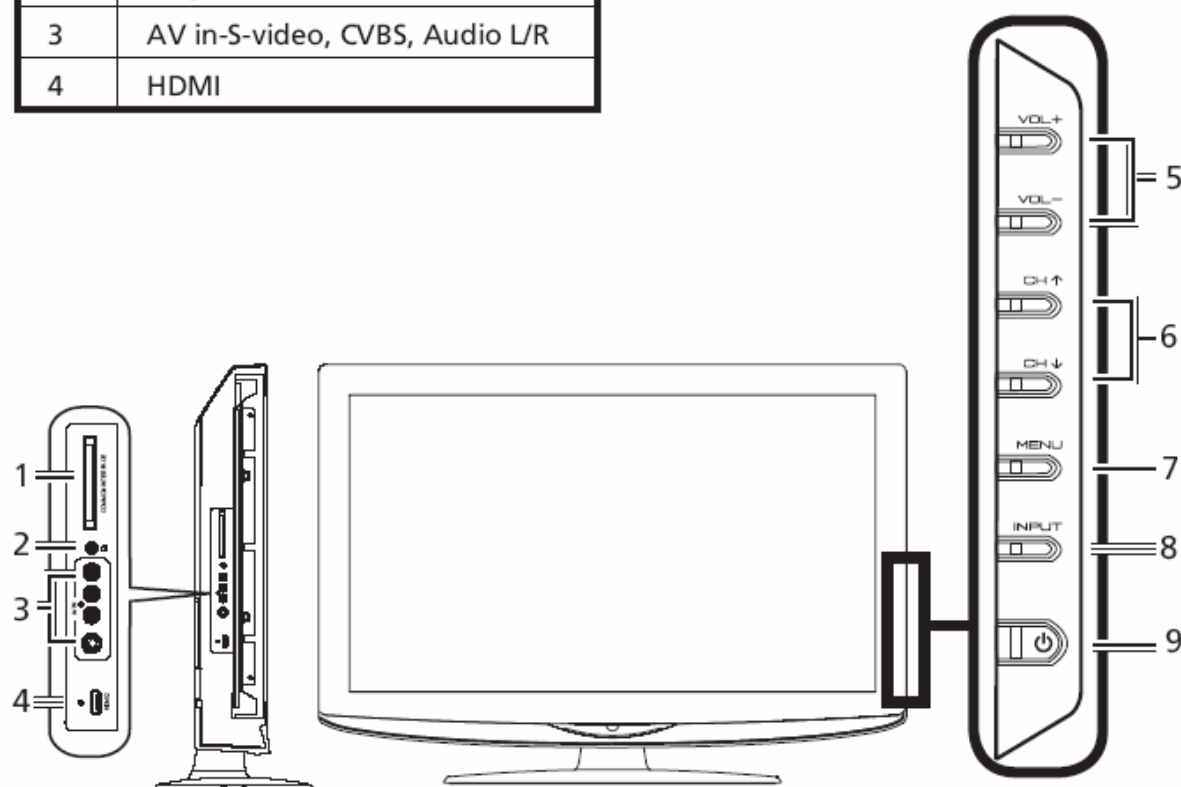
| Item                             | Symbol                                                        | Value     | Unit |
|----------------------------------|---------------------------------------------------------------|-----------|------|
| Ambient Temperature              | $T_a$                                                         | 25±2      | °C   |
| Ambient Humidity                 | $H_a$                                                         | 50±10     | %RH  |
| Supply Voltage                   | $V_{CC}$                                                      | 12.0      | V    |
| Input Signal                     | According to typical value in "3. ELECTRICAL CHARACTERISTICS" |           |      |
| Lamp Current                     | $I_L$                                                         | 7.5 ± 0.5 | mA   |
| Oscillating Frequency (Inverter) | $F_W$                                                         | 66 ± 3    | KHz  |
| Vertical Frame Rate              | $Fr$                                                          | 60        | Hz   |

### Optical Specifications

| Item                      |                  | Symbol          | Condition                                                                    | Min.            | Typ.    | Max.          | Unit | Note |               |
|---------------------------|------------------|-----------------|------------------------------------------------------------------------------|-----------------|---------|---------------|------|------|---------------|
| Contrast Ratio            |                  | CR              | $\theta_x=0^\circ, \theta_Y=0^\circ$<br>Viewing Angle at<br>Normal Direction | (600)           | (800)   |               | -    | (2)  |               |
| Response Time             |                  | T <sub>R</sub>  |                                                                              |                 | (3)     | (5)           | ms   | (3)  |               |
|                           |                  | T <sub>F</sub>  |                                                                              |                 | (5)     | (8)           |      |      |               |
| Center Luminance of White |                  | L <sub>C</sub>  |                                                                              | (400)           | (500)   |               |      | (4)  |               |
| White Variation           |                  | δW              |                                                                              |                 |         | (1.3)         | -    | (7)  |               |
| Cross Talk                |                  | CT              |                                                                              |                 |         | (4)           | %    | (5)  |               |
| Color Chromaticity        | Red              | R <sub>x</sub>  |                                                                              | Typ.<br>-0.03   | (0.639) | Typ.<br>+0.03 | -    | (6)  |               |
|                           |                  | R <sub>y</sub>  |                                                                              |                 | (0.330) |               | -    |      |               |
|                           | Green            | G <sub>x</sub>  |                                                                              |                 | (0.275) |               | -    |      |               |
|                           |                  | G <sub>y</sub>  |                                                                              |                 | (0.593) |               | -    |      |               |
|                           | Blue             | B <sub>x</sub>  |                                                                              |                 | (0.151) |               | -    |      |               |
|                           |                  | B <sub>y</sub>  |                                                                              |                 | (0.064) |               | -    |      |               |
|                           | White            | W <sub>x</sub>  |                                                                              |                 | (0.280) |               | -    |      |               |
|                           |                  | W <sub>y</sub>  |                                                                              |                 | (0.285) |               | -    |      |               |
|                           | Color Gamut      |                 |                                                                              | CG              | (68)    | (72)          |      | %    | NTSC<br>Ratio |
|                           | Viewing<br>Angle | Horizontal      |                                                                              | θ <sub>x+</sub> | CR≥10   | (70)          | (80) | Deg. | (1)           |
| θ <sub>x-</sub>           |                  |                 | (70)                                                                         | (80)            |         |               |      |      |               |
| Vertical                  |                  | θ <sub>y+</sub> | (70)                                                                         | (80)            |         |               |      |      |               |
|                           |                  | θ <sub>y-</sub> | (60)                                                                         | (70)            |         |               |      |      |               |

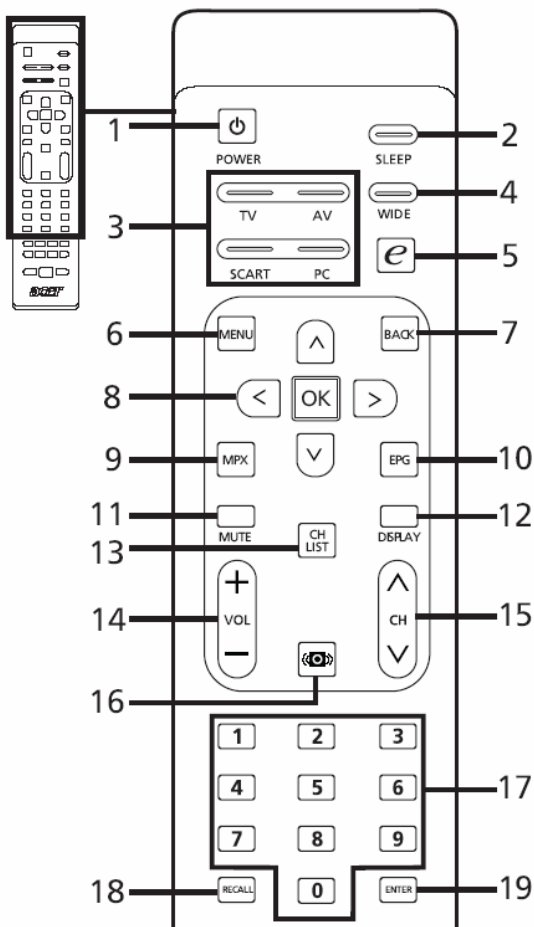
## Front panel controls

| Front panel view |                                |
|------------------|--------------------------------|
| 1                | Common interface               |
| 2                | Earphone                       |
| 3                | AV in-S-video, CVBS, Audio L/R |
| 4                | HDMI                           |



|   |                                                                                     |              |                                                                                           |
|---|-------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------|
| 5 |  | Volume up    | When the OSD is on, functions the same as the Right arrow.                                |
|   |  | Volume down  | When the OSD is on, functions the same as the Left arrow.                                 |
| 6 |  | Channel up   | When the OSD is on, functions the same as the Up arrow.                                   |
|   |  | Channel down | When the OSD is on, functions the same as the Down arrow.                                 |
| 7 |  | Menu key     | Turns the OSD menu ON and OFF.                                                            |
| 8 |  | Input key    | Press to change input source. When the OSD is on, press this button to confirm selection. |
| 9 |  | Power On/Off | Turns the power ON and OFF.                                                               |

## Using the Remote Control



### 1 POWER

Press to turn your TV on/off.

### 2 SLEEP

Press to set a time period after which the TV will switch itself to standby (5, 30, 45, 60, 90 or 20 minutes).

### 3 Input buttons (TV/AV/SCART/PC)

Press to select correct input mode.

### 4 WIDE

Press to toggle scaling mode between Wide detect, 4:3, 6:9, Full\*, Panorama and Letterbox, 2, 3 modes.

### 5 e (Empowering Technology)

Press to activate Acer Empowering Technology.

### 6 MENU

Press to open or close the Menu.

### 7 Back

Press to back to previous Menu.

### 8 Directional keys/OK

### 9 MPX

Press to select the audio type, displayed in the top right-hand corner (mono, stereo, bilingual).

### 10 EPG

Press to launch Electronic Programme Guide (EPG) mode (Digital TV mode only).

### 11 MUTE

Press to toggle audio on and off.

### 12 DISPLAY

Press to display or change input/channel information (dependent on input/source type).

### 13 CH LIST

Press to launch the channel list. See page 40.

### 14 VOL (+/-)

Press to increase or decrease the volume.

### 15 CH (up/down)

Press to sequentially select the TV channel.

### 16 Sound

Press to turn audio mode to Surround mode.

### 17 Number keys.

### 18 RECALL

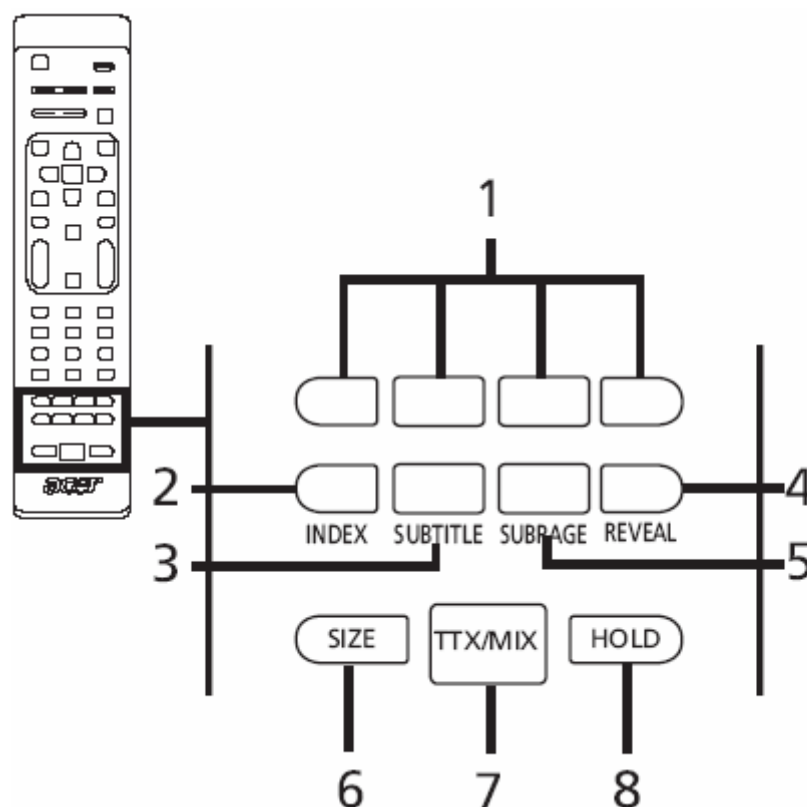
Press to return to the previous channel.

### 19 ENTER

Press to confirm channel number selection.

PS: The 26" and 32" models does not support Full mode.

## Teletext



### **1 Color buttons (R/G/Y/B)**

Operates corresponding button on the teletext page.

### **2 INDEX**

Press to go to the index page.

### **3 SUBTITLE**

Press to view subtitles on the screen.

### **4 REVEAL**

Press to reveal hidden teletext information.

### **5 SUBPAGE**

Press to access the teletext's subpages directly.

### **6 SIZE**

Press once to zoom teletext page to 2X.

Press again to resume.

### **7 TTX/MIX (TELETEXT/MIX)**

Press to switch from TV/AV to Teletext mode.

Press to overlay teletext page on the TV image.

### **8 HOLD**

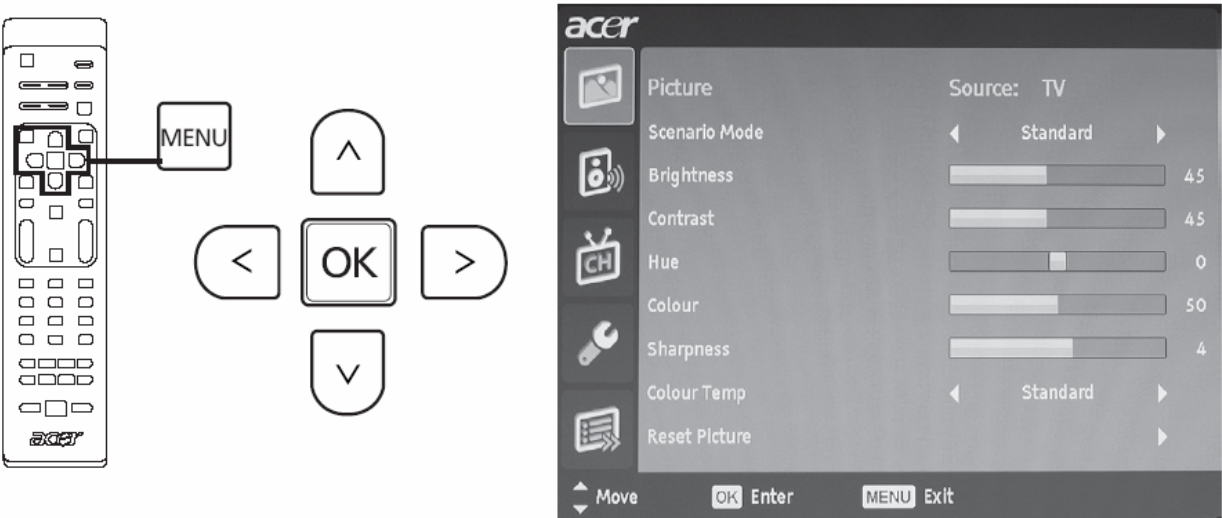
Press to pause the current teletext page in multi-page viewing mode.

# Using the OSD Menus

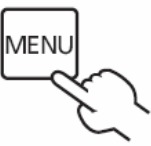
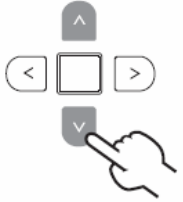
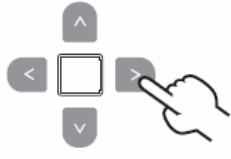
Many of the advanced settings and adjustments are available through using the OSD (onscreen display) menus, as shown in the example screenshot below.

Basic operations required to navigate these menus (Picture, Audio, Channel management, Settings and Advance) are described in this section.

## Navigating the OSD with the remote control



 You can also interact with these menus using the right panel controls. Please see "Front panel view" on page 8 for details.

|                                                                                                                                                       |                                                                                     |                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| There are five main OSD menus. These are: Picture, Audio, Channel management, Settings and Advance. Use the following method to navigate these menus. |                                                                                     |                                                                                                                                                                                                                                                                                           |
| 1                                                                                                                                                     |  | Press the <b>MENU</b> button on the remote control or the <b>MENU</b> button on the control panel.                                                                                                                                                                                        |
| 2                                                                                                                                                     |  | Select your desired menu by using the up and down <b>directional keys</b> to switch between the five menus.                                                                                                                                                                               |
| 3                                                                                                                                                     |  | Use the <b>directional keys</b> to interact with the menu. The up / down directions will scroll through the menu options, while left/right will adjust the different settings (for example, in the Picture menu, settings such as brightness, contrast, etc.). Press <b>MENU</b> to exit. |

# Adjusting the OSD settings

The OSD can be used for adjusting the settings of your LCD TV.

Press the **MENU** key to open the OSD. You can use the OSD to adjust the picture quality, audio settings, channel settings and general settings. For advanced settings, please refer to following page:

## Adjusting the picture quality



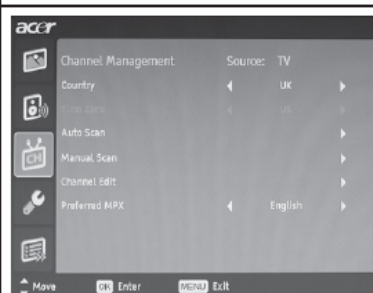
- 1 Press the **MENU** key to bring up the OSD.
- 2 Using the directional keys, select **Picture** from the OSD. Then navigate to the picture element you wish to adjust.
- 3 Use the left or right keys to adjust the sliding scales.
- 4 The **Picture** menu can be used to adjust the current **Scenario Mode, Brightness, Contrast, Hue, Colour, Sharpness** and other image-related qualities.

## Adjusting the audio settings



- 1 Press the **MENU** key to bring up the OSD.
- 2 Using the directional keys, select **Audio** from the onscreen display. Then navigate to the feature you wish to adjust.
- 3 Use the left or right keys to adjust the sliding scale. Press **OK** to save.
- 4 The **Audio** menu can also be used to adjust the the current **Scenario Mode, Treble, Bass, Balance, Steady Sound, Sound Effect** and other important sound-related settings.

## Adjusting the channel management



- 1 Press the **MENU** key to bring up the OSD.
- 2 Using the directional keys, select **Channel Management** from the OSD.
- 3 Use the directional keys to navigate the menus.
- 4 The **Channel management** menu can be used to adjust **Country, Time Zone, Auto Scan, Manual Scan, Channel Edit** and other important channel-related settings.

## Adjusting the settings



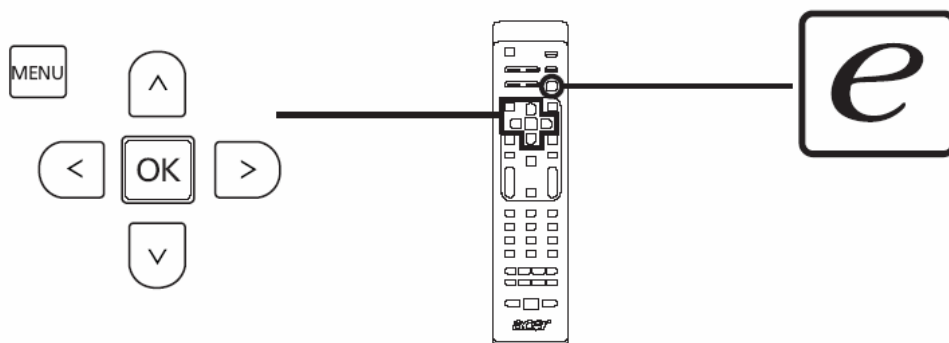
- 1 Press the **MENU** key to bring up the OSD.
- 2 Using the directional keys, select **Setting** from the OSD. Then navigate to the feature you wish to adjust.
- 3 The **Settings** menu can be used to adjust the screen **Wide Mode, Menu Language, Sleep, Empowering Key Settings** and other important settings.

## Adjusting the advance settings



- 1 Press the **MENU** key to bring up the OSD.
- 2 Using the directional keys, select **Advance** from the OSD. Then navigate to the feature you wish to adjust.
- 3 The **Advance** menu can be used to adjust the **Parental Control**, **Advanced Picture Adjust**, **SCART**, **Preferred Subtitle** and other important settings.

# Empowering Technology



The Empowering Key opens up the Acer Empowering Technology functions.

Empowering Technology has choice is between Scenario mode and Favourite channel.

## Set-up Empowering mode

To change your Empowering Key's default setting:

| Set-up Empowering mode |  |                                                                                                                           |
|------------------------|--|---------------------------------------------------------------------------------------------------------------------------|
| 1                      |  | Press the <b>MENU</b> key on the remote control to bring up the OSD.                                                      |
| 2                      |  | Use the <b>directional keys</b> to navigate and select <b>Setting</b> .                                                   |
| 3                      |  | <p>Highlight <b>Empowering key settings</b>. Then, select the setting you wish to use and press <b>OK</b> to confirm.</p> |
| 4                      |  | Press <b>MENU</b> to exit.                                                                                                |

# Default setting in different Empowering mode

## Scenario mode in TV

Scenario mode has five preset viewing modes designed to give you the best picture quality when watching a particular kind of programme. There are five pre-defined audio and video settings for optimal enjoyment of the following scenarios: Standard TV, Movie, Game, Sport, Concert, User.

|                                                                                   |                                                                             |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
|  | Pressing the <b>Empowering Key</b> will toggle between the different modes. |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|

| Mode     | Information                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard | Standard mode allows you to watch your favourite channels with sharp, brilliant imagery via adaptive brightness and contrast adjustments, and listen to clear-sounding audio.                                                                                                                                                                                                                       |
| Movie    | For comfortably enjoying movies at home, Movie mode displays dim scenes in clear detail; compensates for colour; and smoothly presents motion images. This is accomplished through optimal Gamma correction plus saturation, brightness and contrast adjustments. Movie mode makes the most of high-definition movie soundtracks.                                                                   |
| Game     | Game mode carefully details the exquisite graphics of modern video games, providing lifelike entertainment while protecting your eyesight by adjusting brightness and contrast. What's more, Game mode provides a heightened audio experience.                                                                                                                                                      |
| Sport    | Sport mode is suited for outdoor sports programmes, with accurate background depth and clear gradation between the bright, outdoor playing field and darker auditoriums. Sports mode also brilliantly enhances colours and presents swiftly moving pictures without residual images. All of this is achieved via specific Gamma corrections and saturation adjustments. Precise audio can be heard. |
| Concert  | Concert mode places you in a virtual concert hall, opera house or other dim environment by means of adaptive brightness and contrast adjustments. Concert mode accentuates symphonic harmonies and the tenor audio range.                                                                                                                                                                           |
| User     | User mode allows you to save your favourite video and audio settings.                                                                                                                                                                                                                                                                                                                               |

## Favourite channel mode in TV mode (default setting)

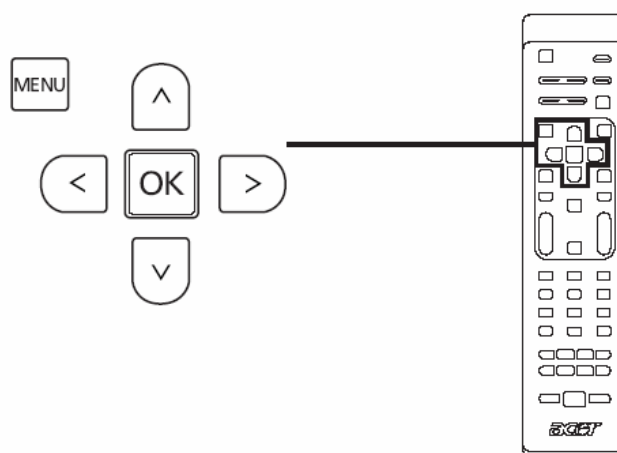
Favourite channel allows you to store your favourite TV channels and flick between them at the touch of a button.

To set Favourite channel as the default, follow the steps described on this page.

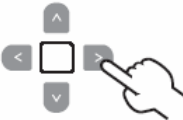
| Storing favourite channels      |                                                                                     |                                                                                                                                                                    |
|---------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                               |    | Press the <b>CH LIST</b> key on the remote control. This will bring up the channel list menu.                                                                      |
| 2                               |    | The current channel will be highlighted and press the <b>Empowering Key</b> to storing favourite channel.                                                          |
| 3                               |   | Press the <b>CH LIST</b> key on the remote control to exit.                                                                                                        |
| Viewing your favourite channels |                                                                                     |                                                                                                                                                                    |
|                                 |  | On the remote control, if you press the <b>Empowering Key</b> , the TV will jump between the stored TV channels sequentially according to your list of favourites. |

# Advanced features

## Advanced Picture Adjustment



| Advanced Picture Adjustment |  |                                                                                                    |                                                                                                                                                                      |
|-----------------------------|--|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                           |  | Press the <b>Menu</b> key from the remote control hand set, to invoke the OSD (On Screen Display). |                                                                                                                                                                      |
| 2                           |  |                                                                                                    | Using the <b>directional keys</b> to navigate, select <b>Advance</b> from the OSD. Scroll to ' <b>Advanced Picture Adjust</b> ' sub-menu to adjust picture settings. |
| 3                           |  |                                                                                                    | Using the <b>directional keys</b> , to navigate through ' <b>Noise Reduction</b> ', ' <b>Back Light Control</b> ' or ' <b>ACM</b> '.                                 |

|   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 |  | <ul style="list-style-type: none"> <li>* <b>Noise Reduction:</b> This function filters noise from a signal. You can set to <b>Off</b>, <b>Low</b>, <b>Medium</b> or <b>High</b> depending on your preference.</li> <li>* <b>Back Light Control:</b> This setting adjusts the picture displays 'backlight / brightness'. Use the <b>Left</b> or <b>Right direction keys</b> to adjust this feature.</li> <li>* <b>ACM:</b> This function (Adaptive Contrast Management) automatically adjusts picture contrast, depending on the brightness of the video content. You can turn this feature either to '<b>on</b>' or '<b>off</b>'.</li> </ul> |
| 5 |  | <p>Press <b>MENU</b> to exit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Logo

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.



### How To Optimize The DOS-Mode

#### Plug And Play

#### Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I<sup>2</sup>C protocol. The host can request EDID information over the DDC2B channel.

**This monitor will appear to be non-functional if there is no video input signal. In order for this monitor to operate properly, there must be a video input signal.**

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signals this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

#### Using The Right Power Cord

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.

Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.

Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

This chapter contains step-by-step procedures on how to disassemble the monitor for maintenance.

The tools listed as below are that we may use during this procedure:

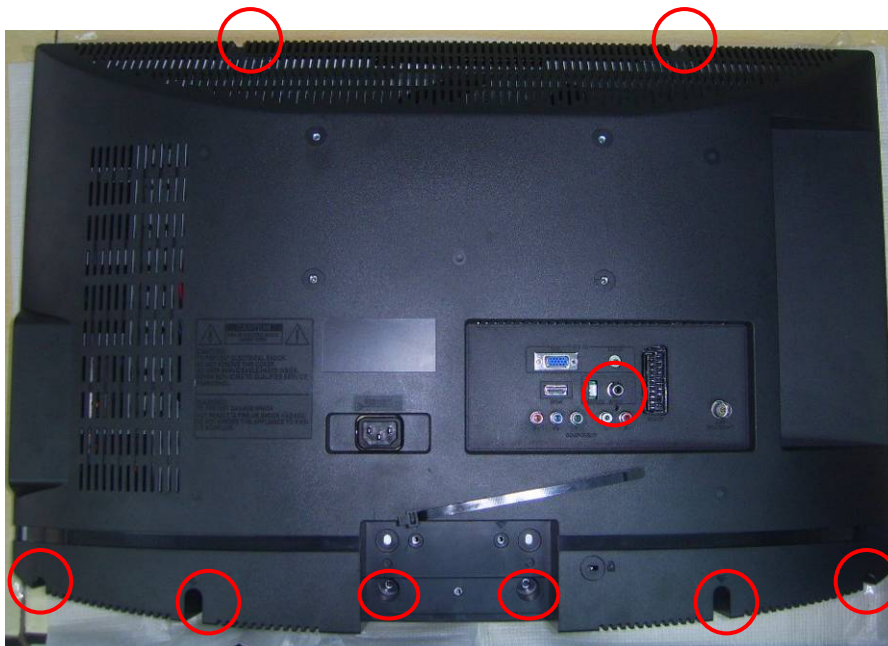
1. A proper screwdriver
2. A pair of glove
3. A pliers
4. A plastic knife

### Disassembly Procedure

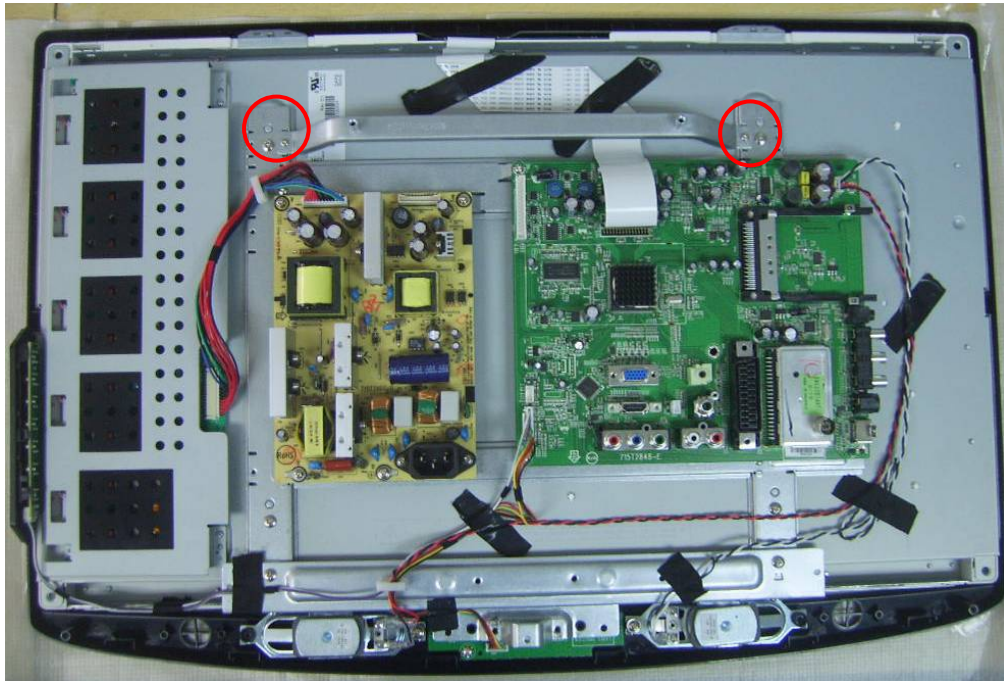
1. Remove the 3 screws to remove the stand.



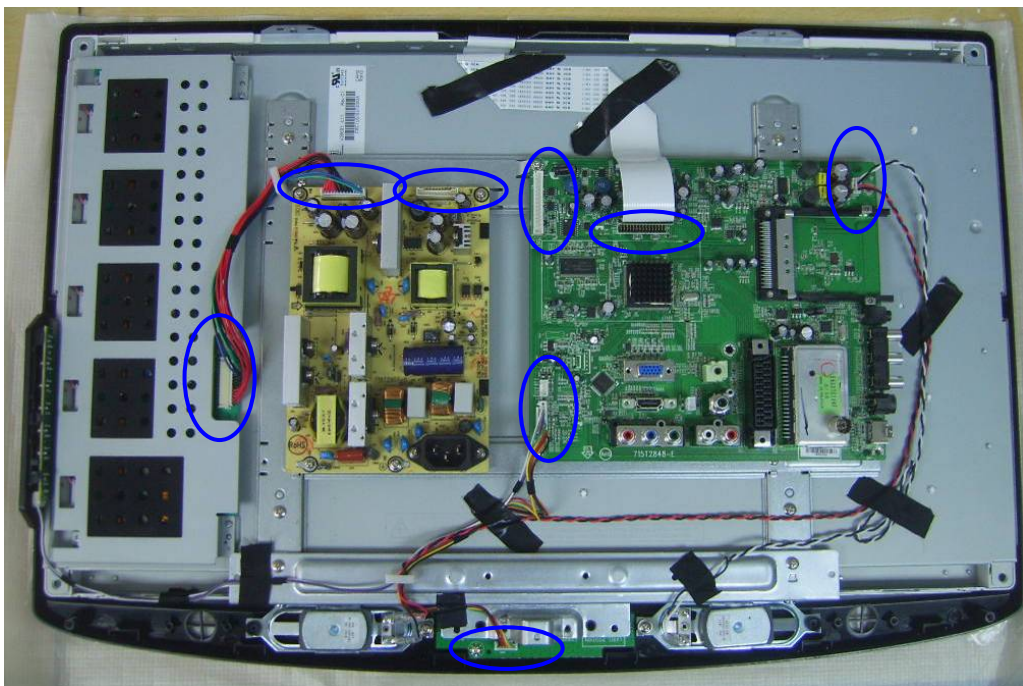
2. Remove 9 screws to remove the rear cover.



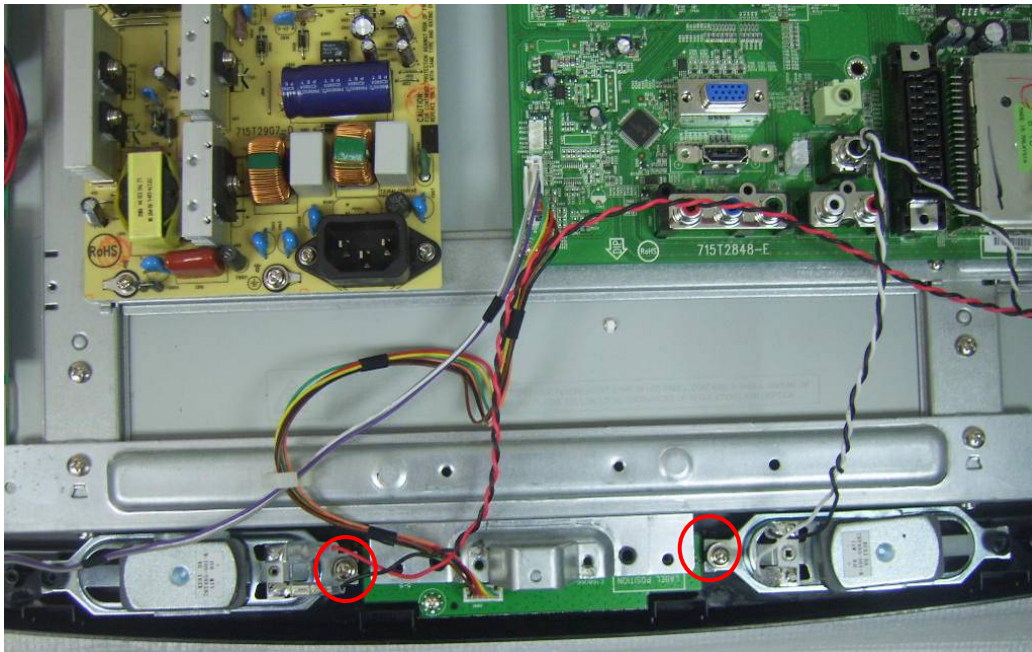
3. Remove 2 screws to remove the bkt-vesa.



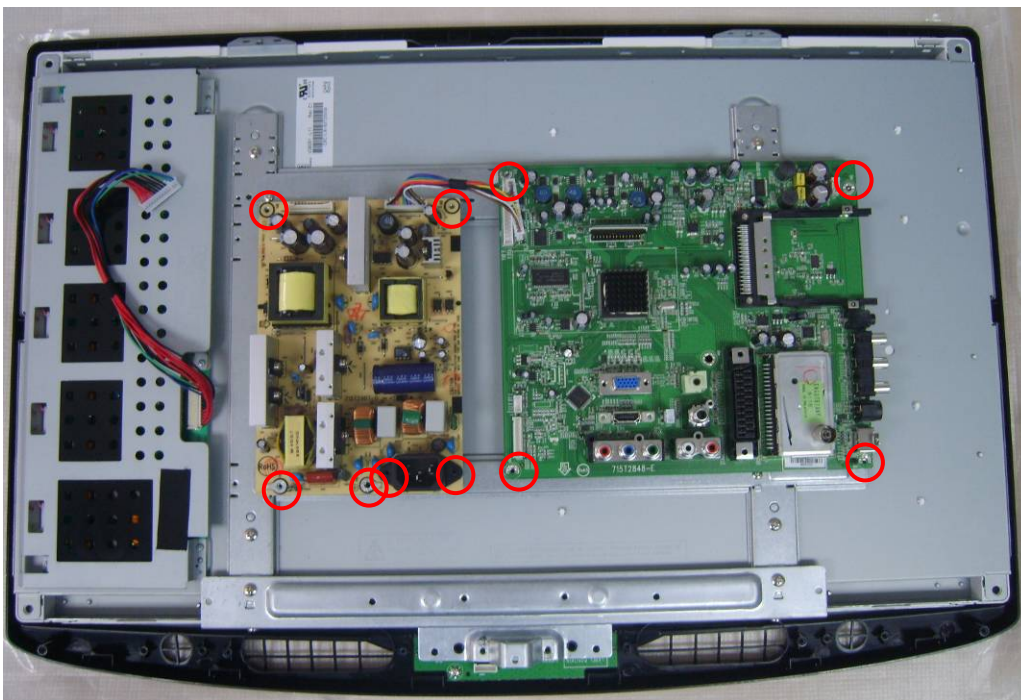
4. Release the connectors.



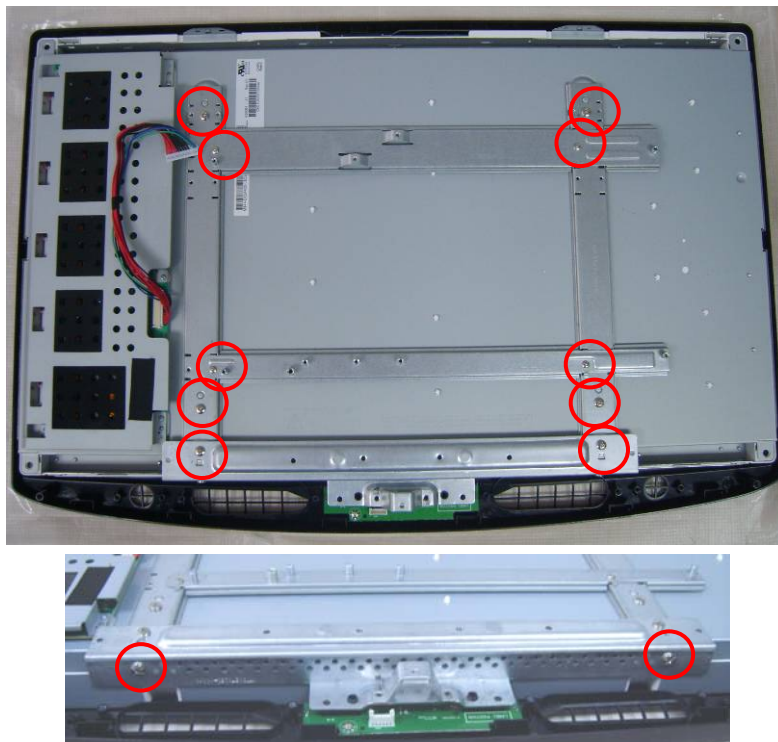
5. Remove the speakers.



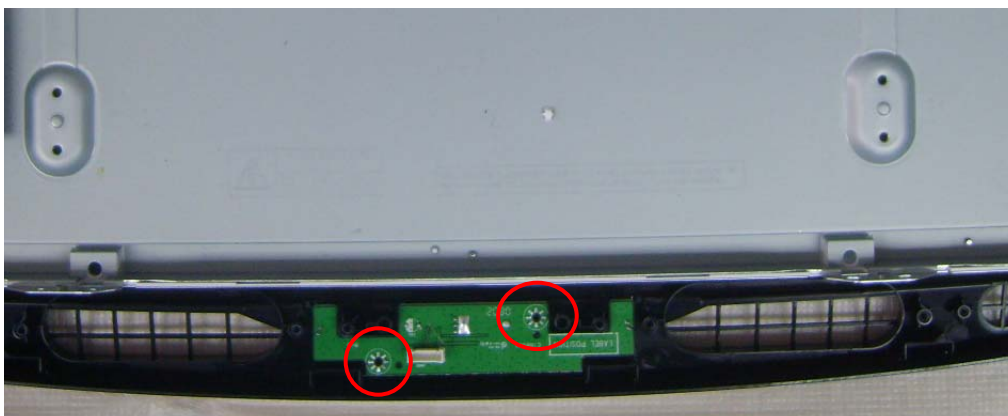
6. Remove the main board, power board



7. Remove the BKT-PCB-holder and BKT-panel-support.



8. Release the IR board.



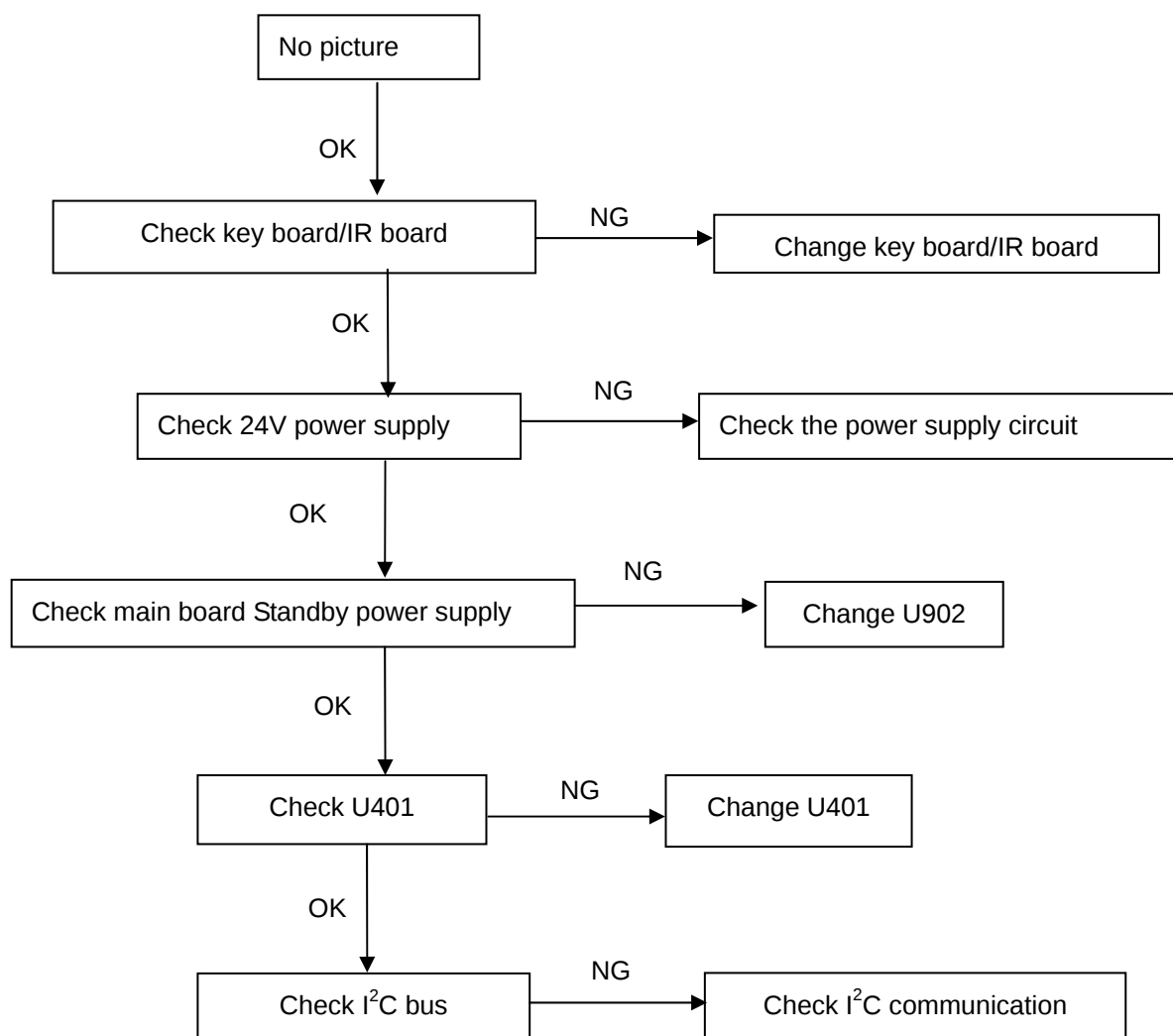
9. Remove the bezel.



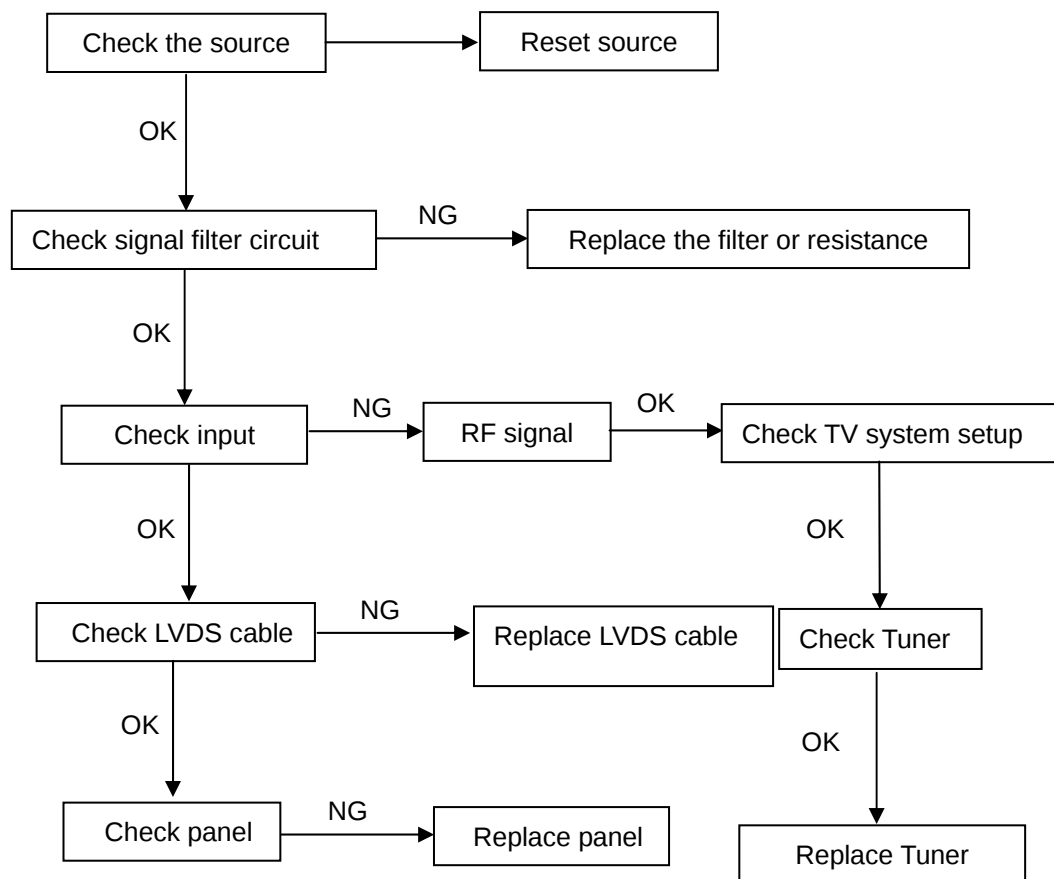
10. Remove the 4 screws to release the panel.



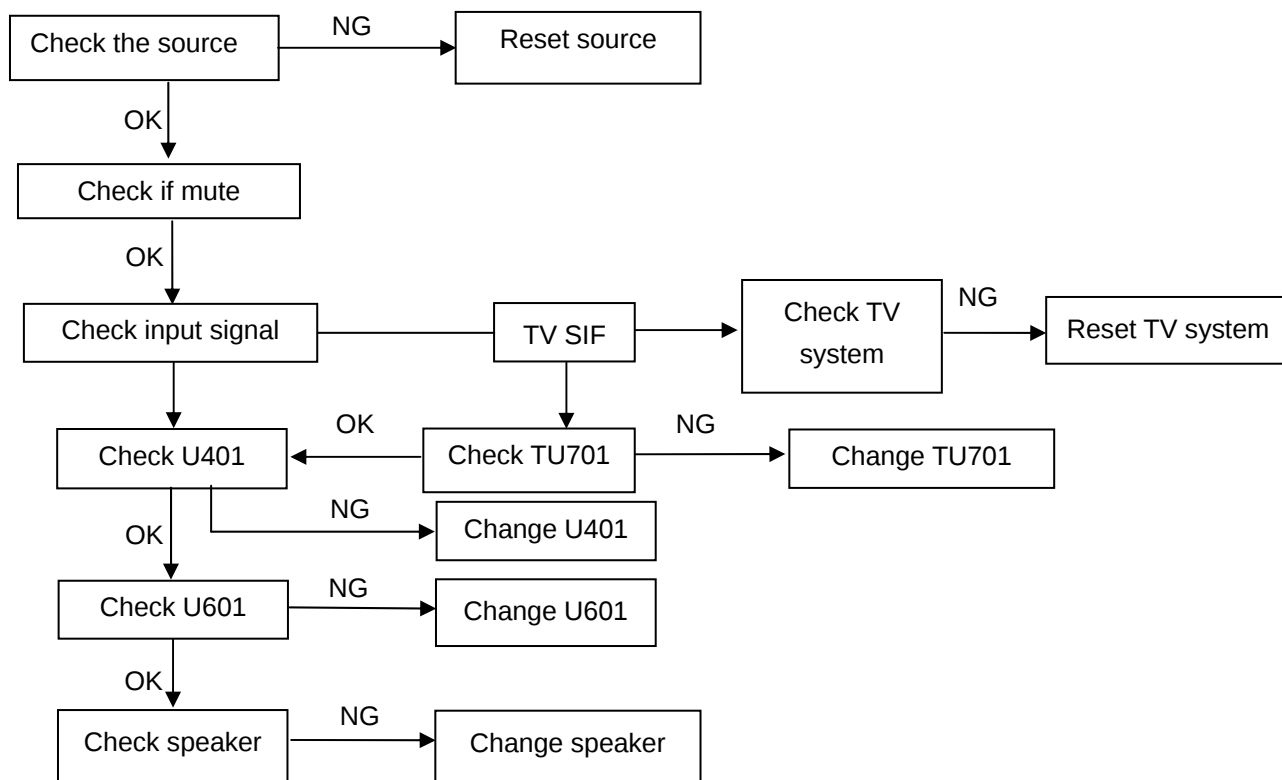
## No picture (LED orange)



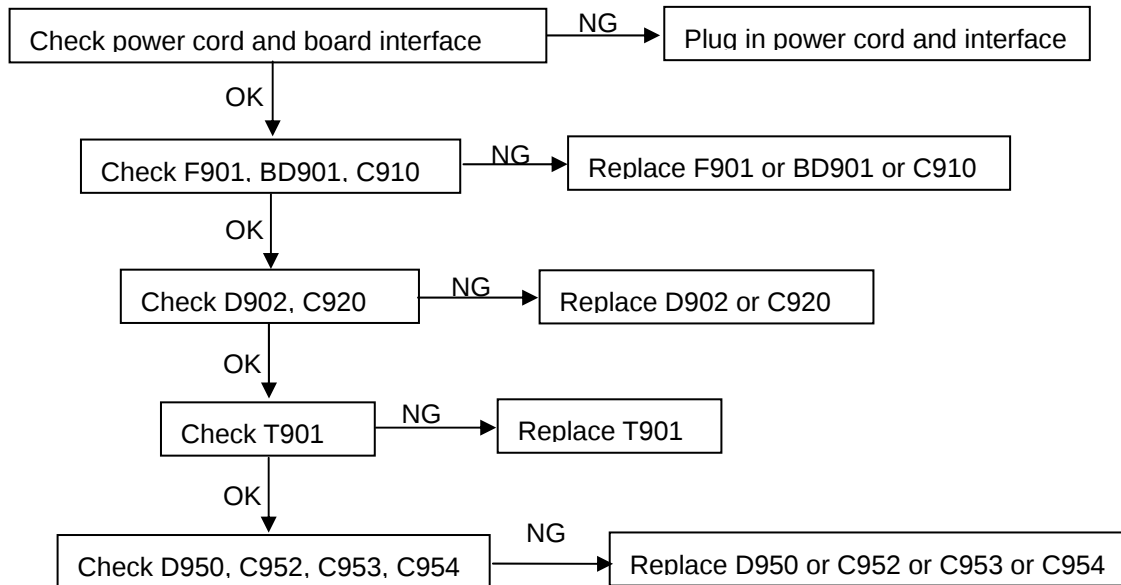
## Abnormal display



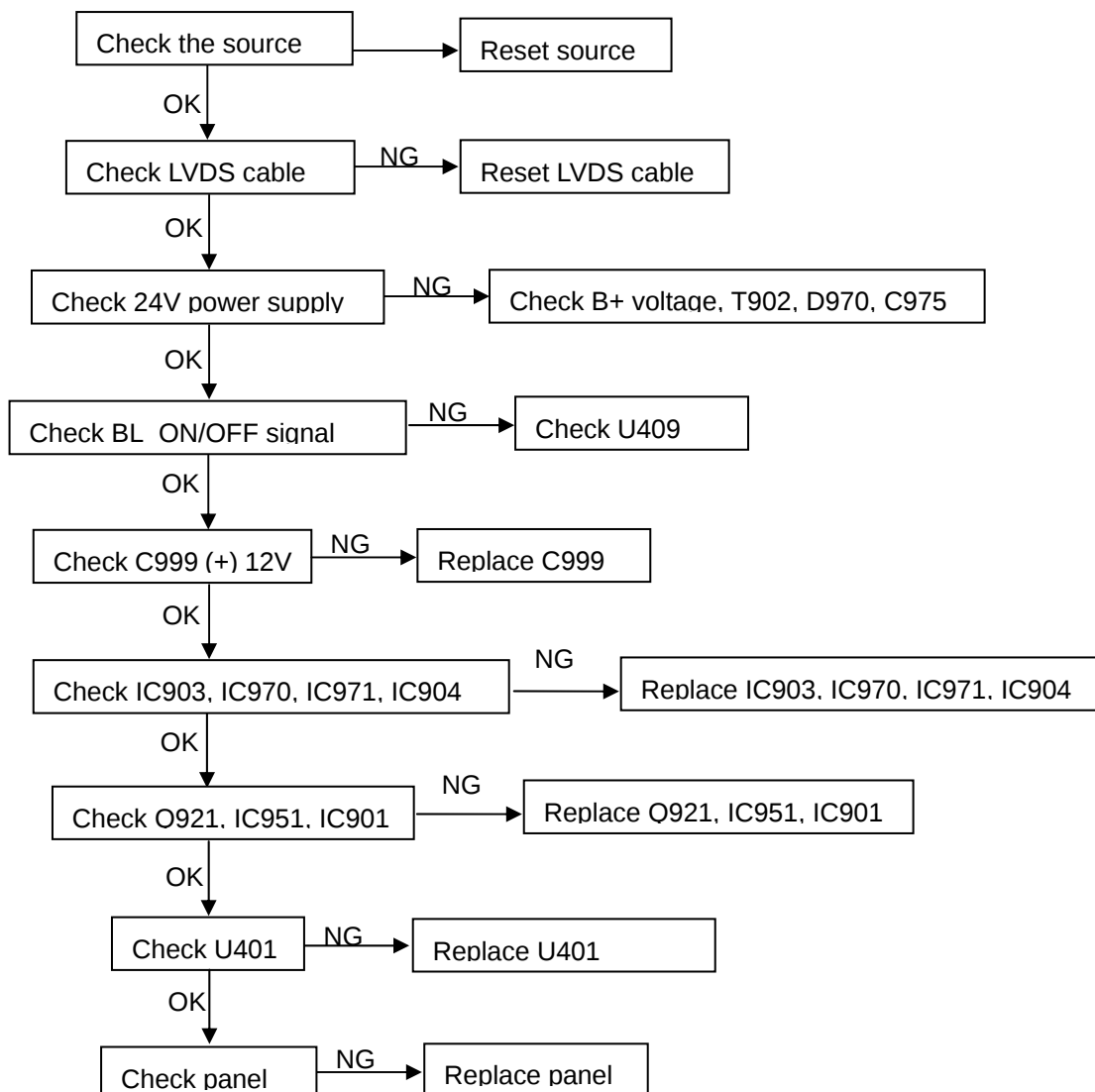
## No sound



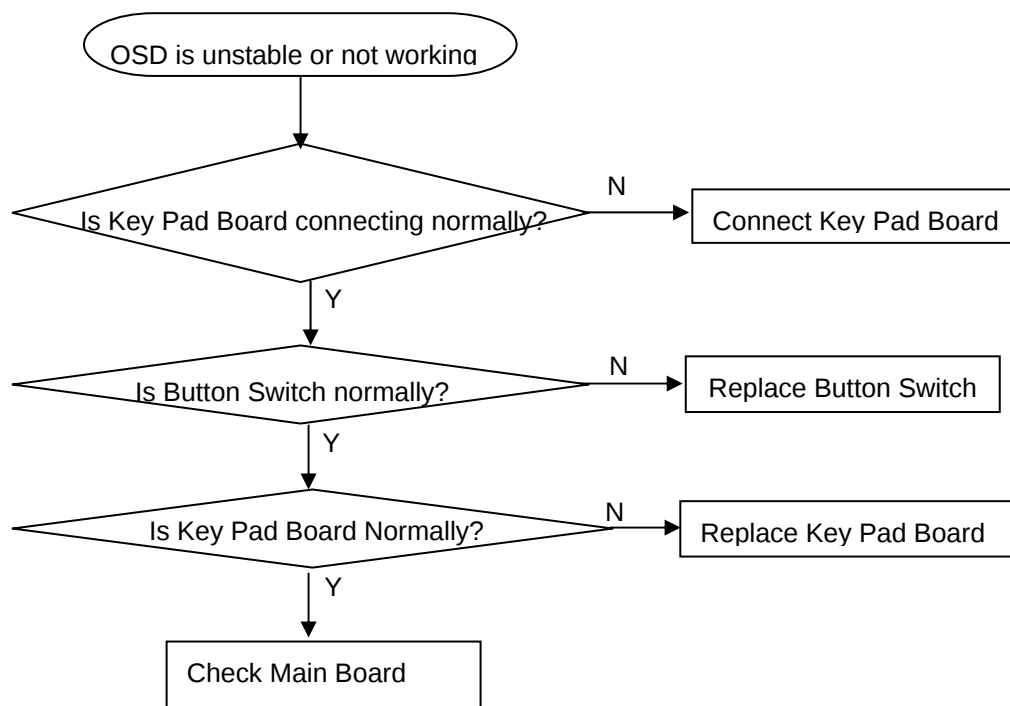
### No Power (No LED indicator)



### No display (LED indicator green)

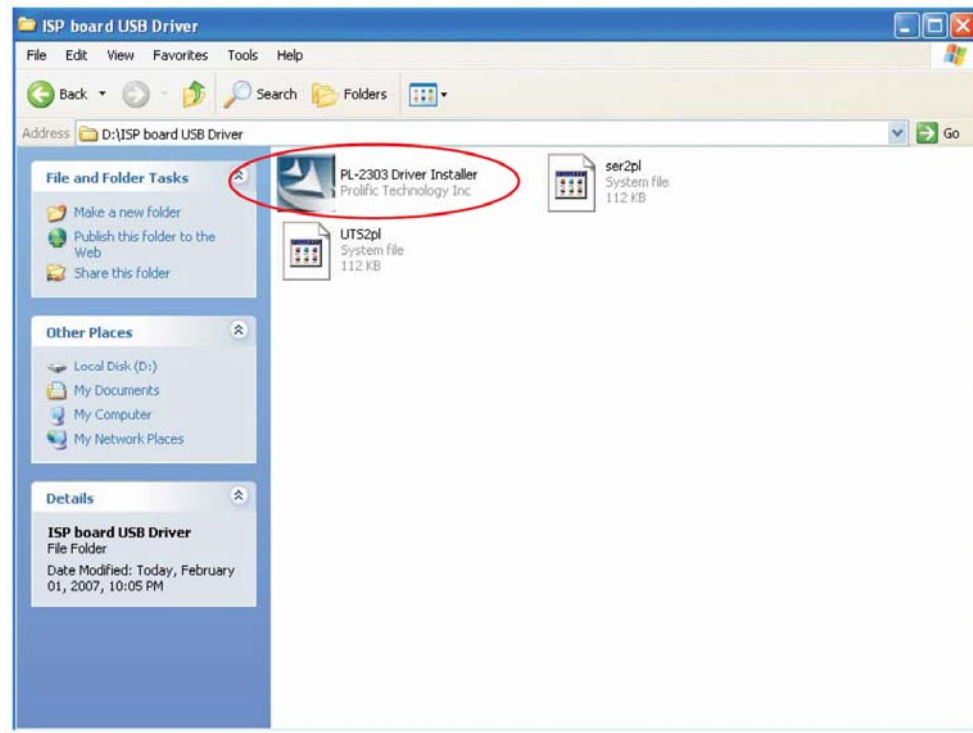


## Key Board

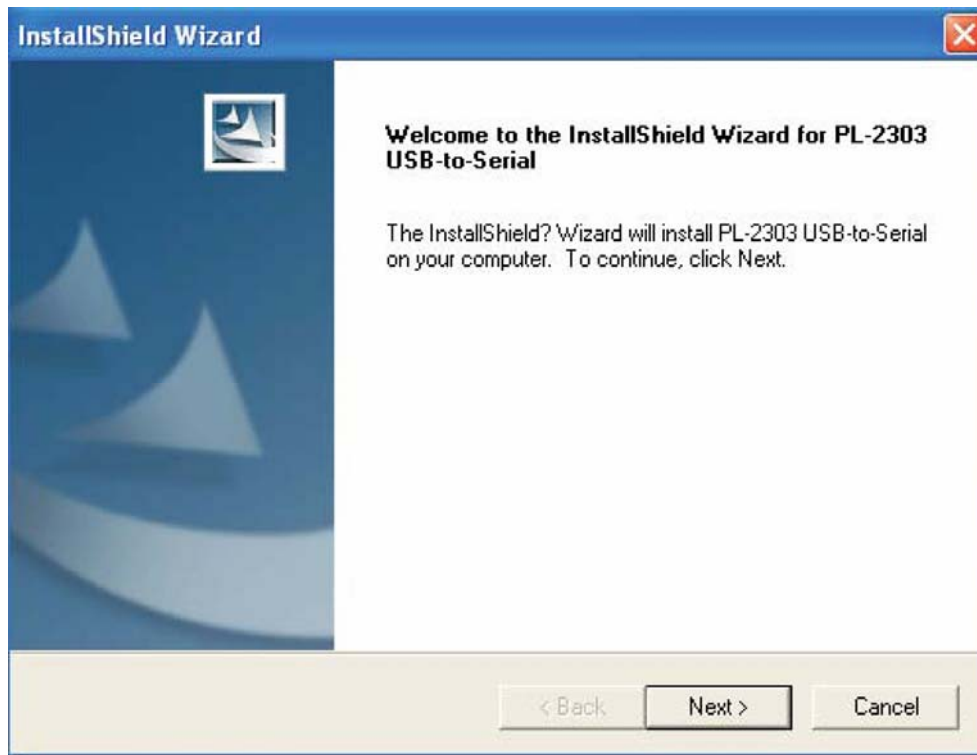


### Step 1: Install USB driver to your computer from the ISP board USB Driver file.

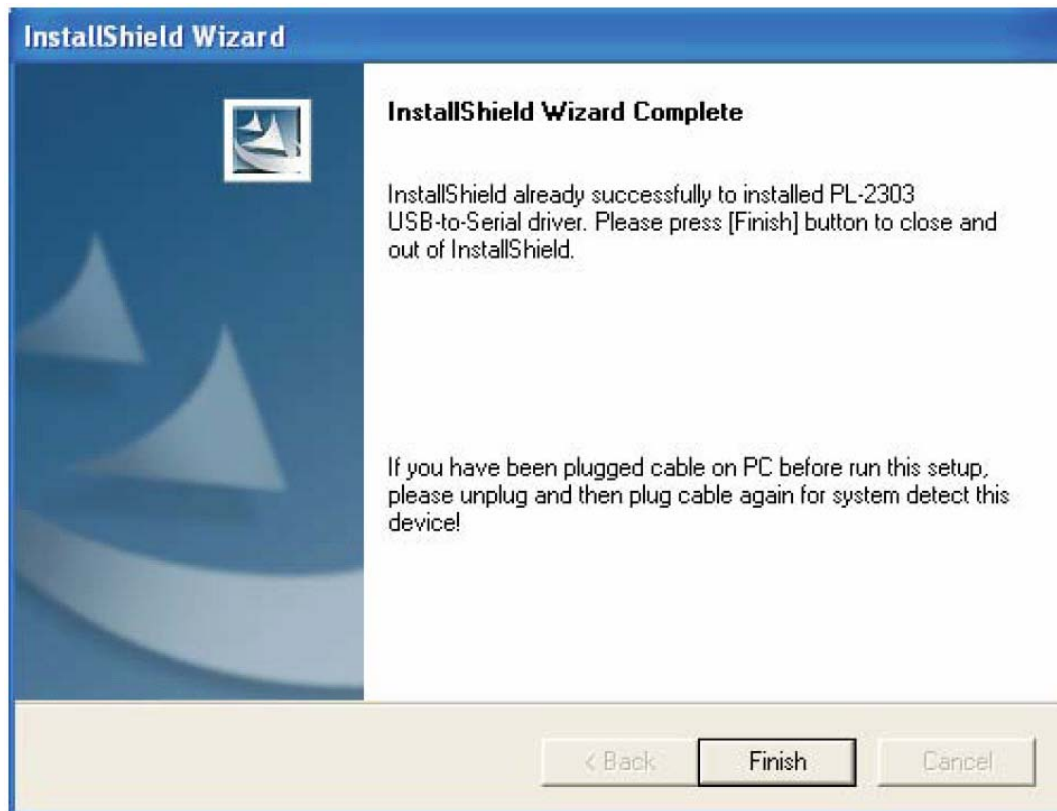
ISP board USB driver include three files:



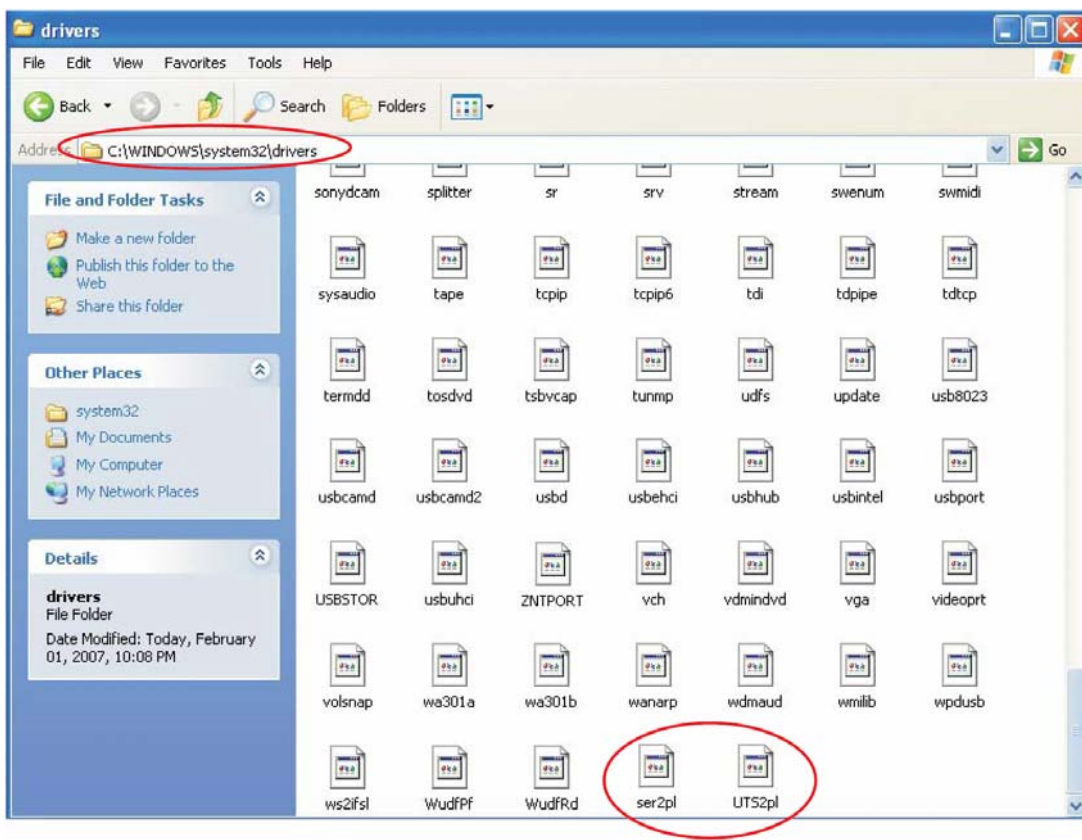
1. PL-2303 Driver InstallerV2021.exe
  2. ser2pl.sys
  3. UTS2pl.sys
  4. Install PL-2303 Driver InstallerV2021.exe
- Push "Next".



Push "Finish".



5. ser2pl.sys & UTS2pl.sys two files should copy to C:\WINDOWS\system32\drivers & replace original files.

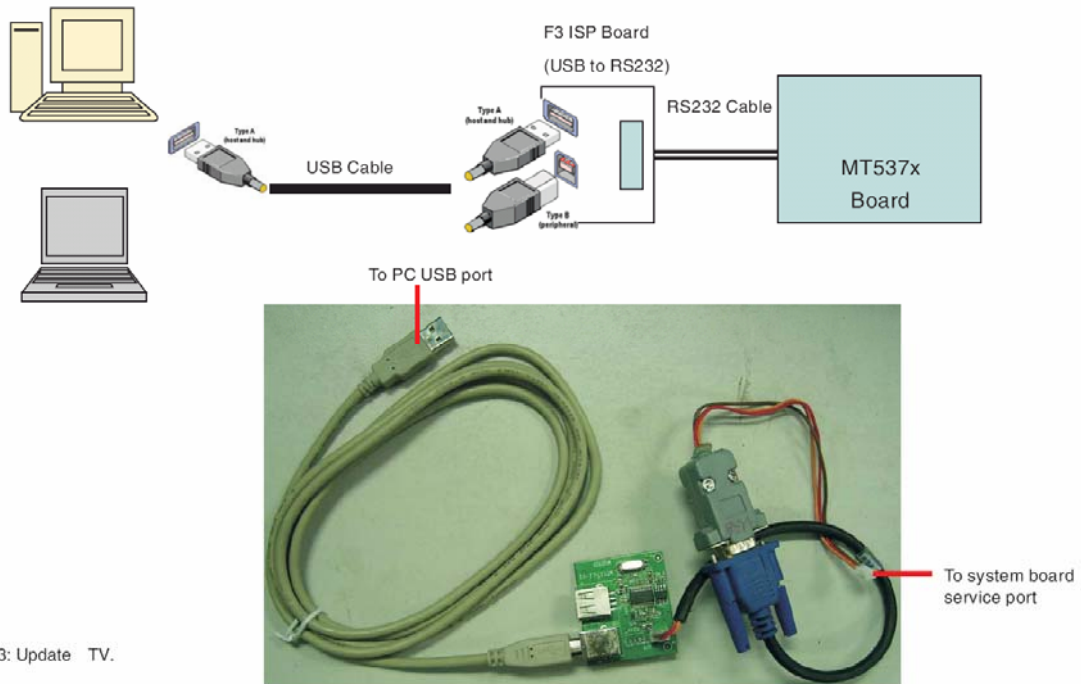


## Step 2: Connect to ISP Board.

Use USB port connecting PC & MT537x (or MT5335) Board via ISP board(Code number: 715G537XL2).

USB Cable

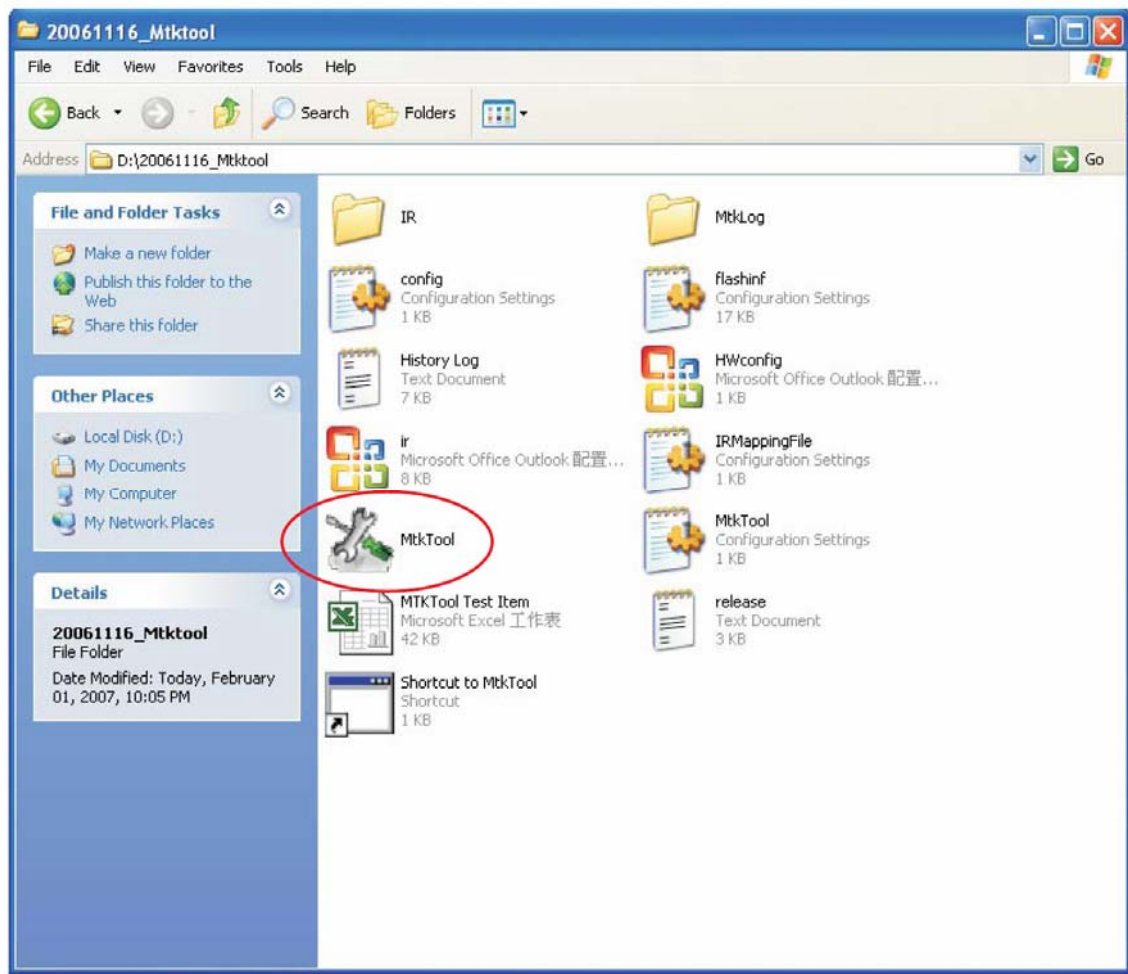
Use Desktop PC or Notebook USB Port

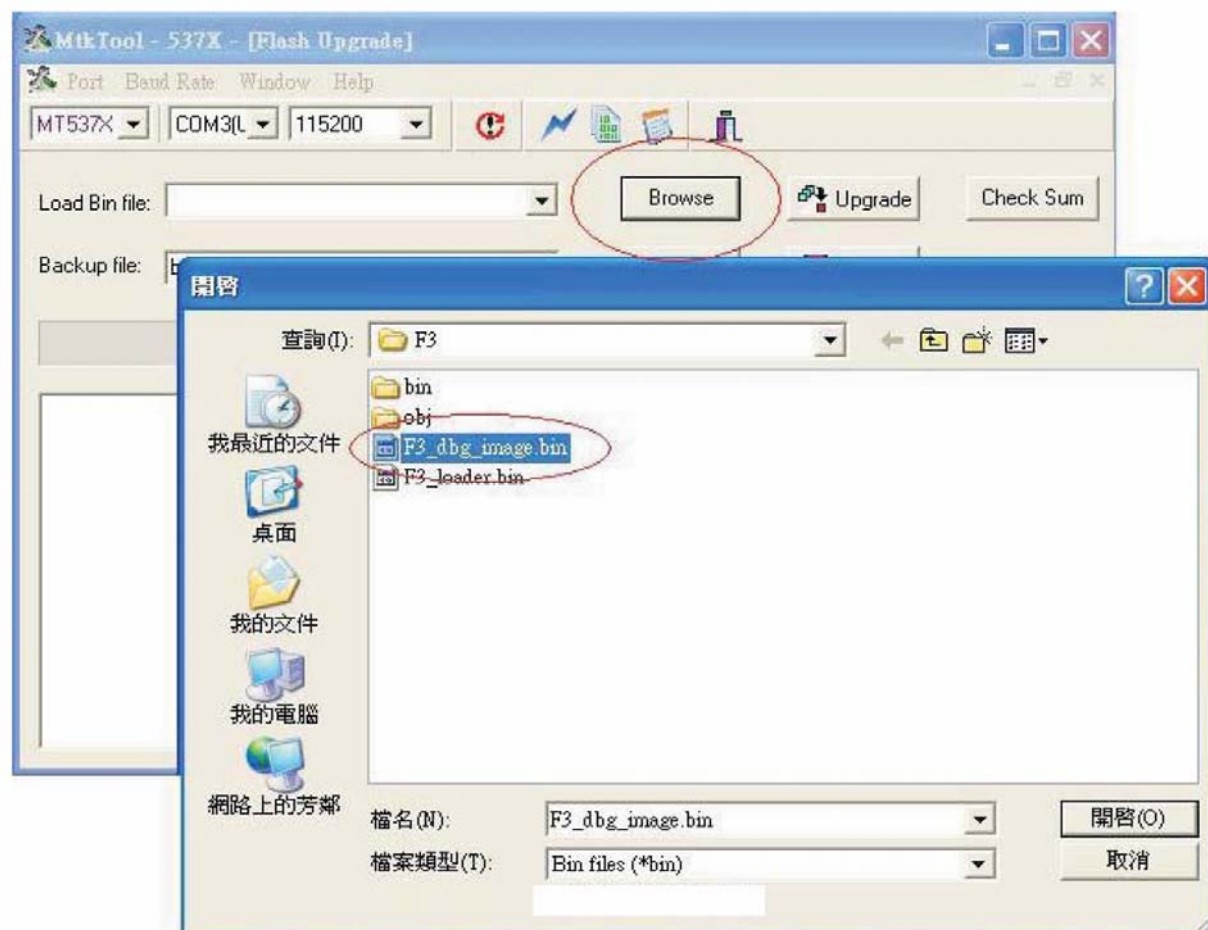
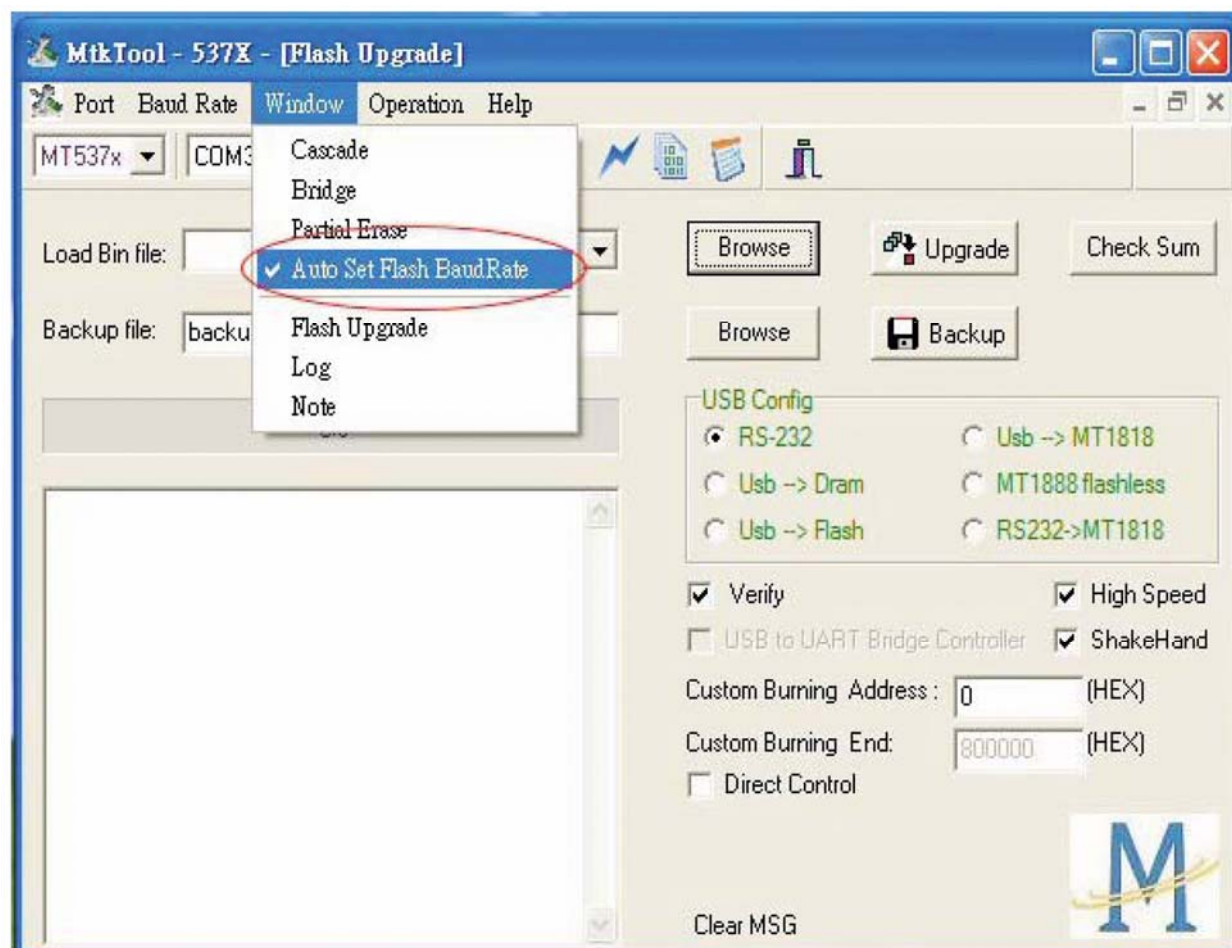


Step 3: Update TV.

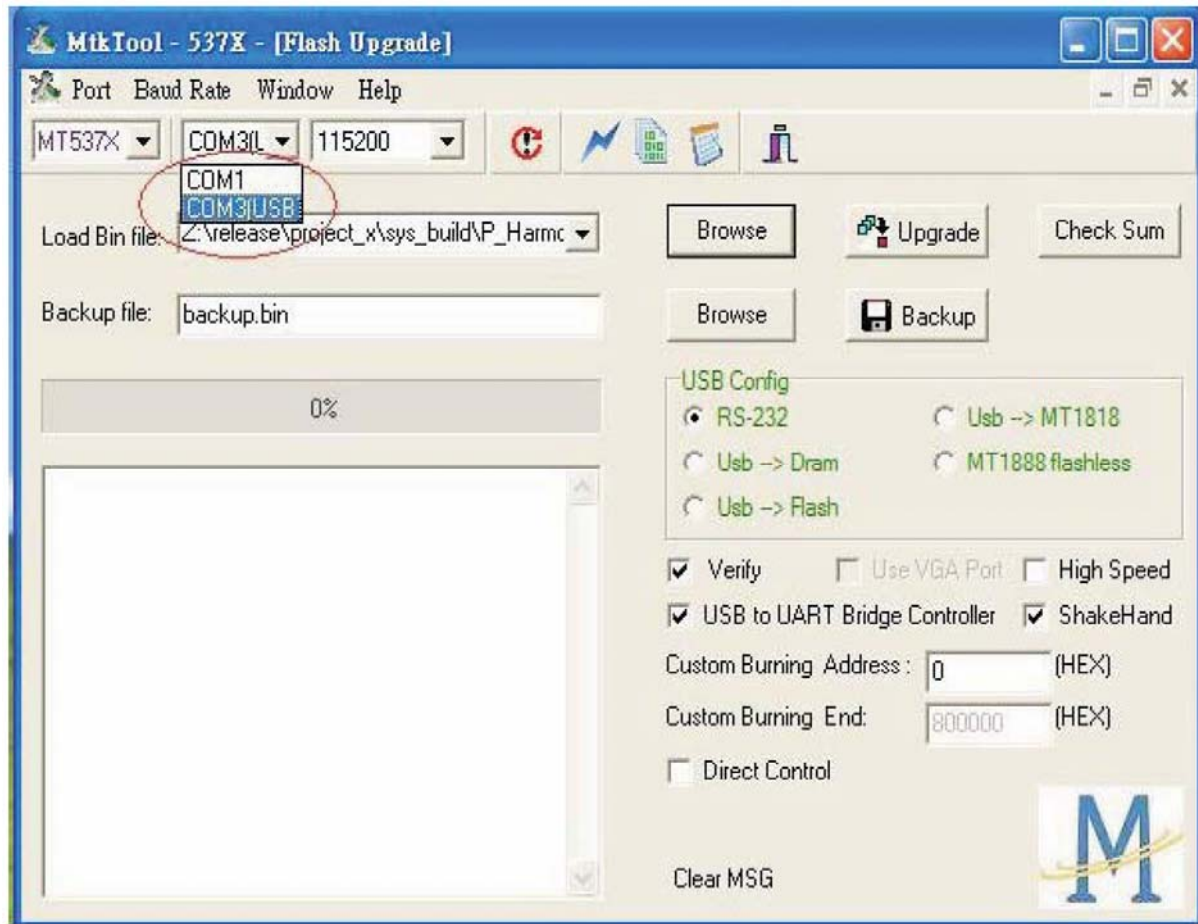
## Step 3: Update TV.

I. Open the MtkTool to Load .bin file (Example: F3\_dbg\_image.bin) & Set Auto Set Flash BaudRate

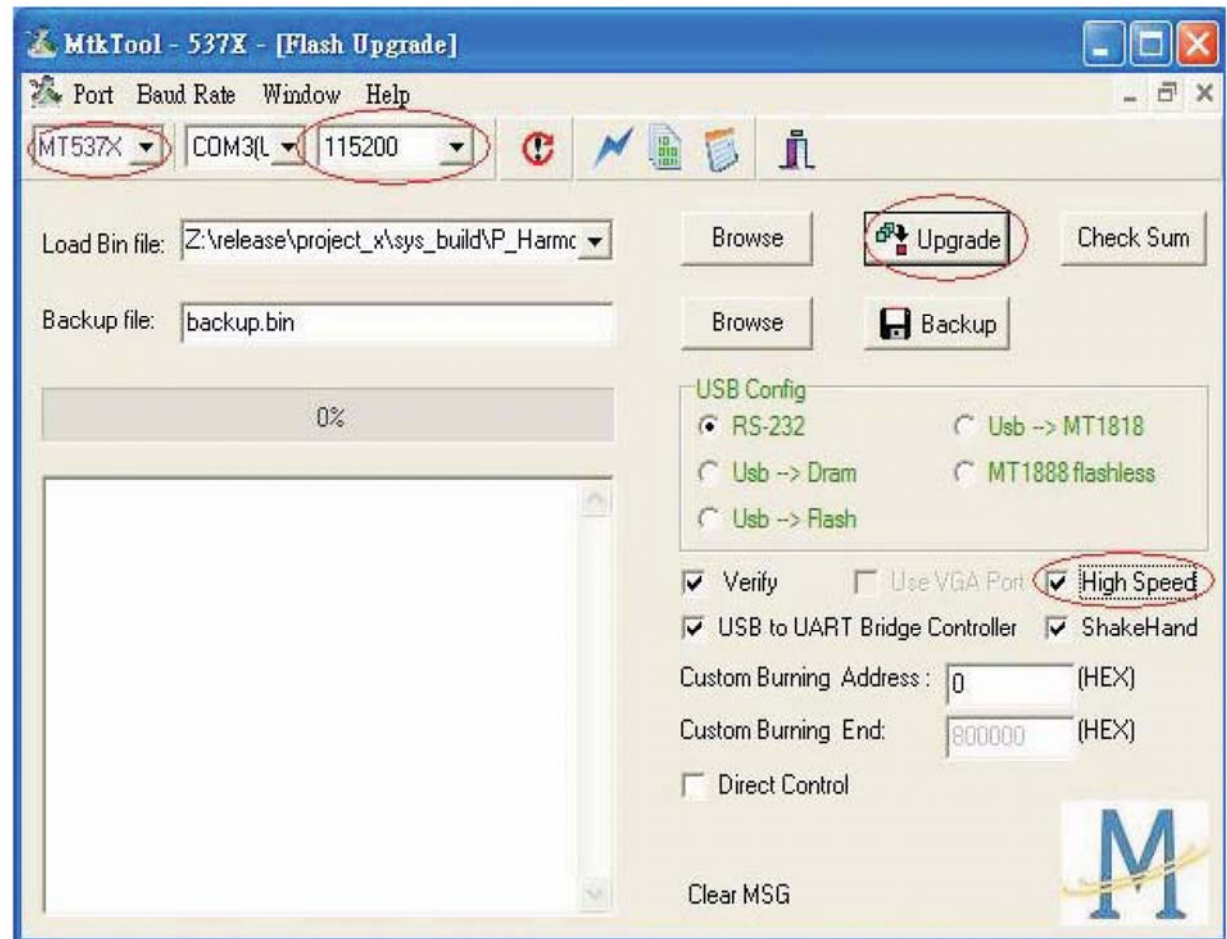




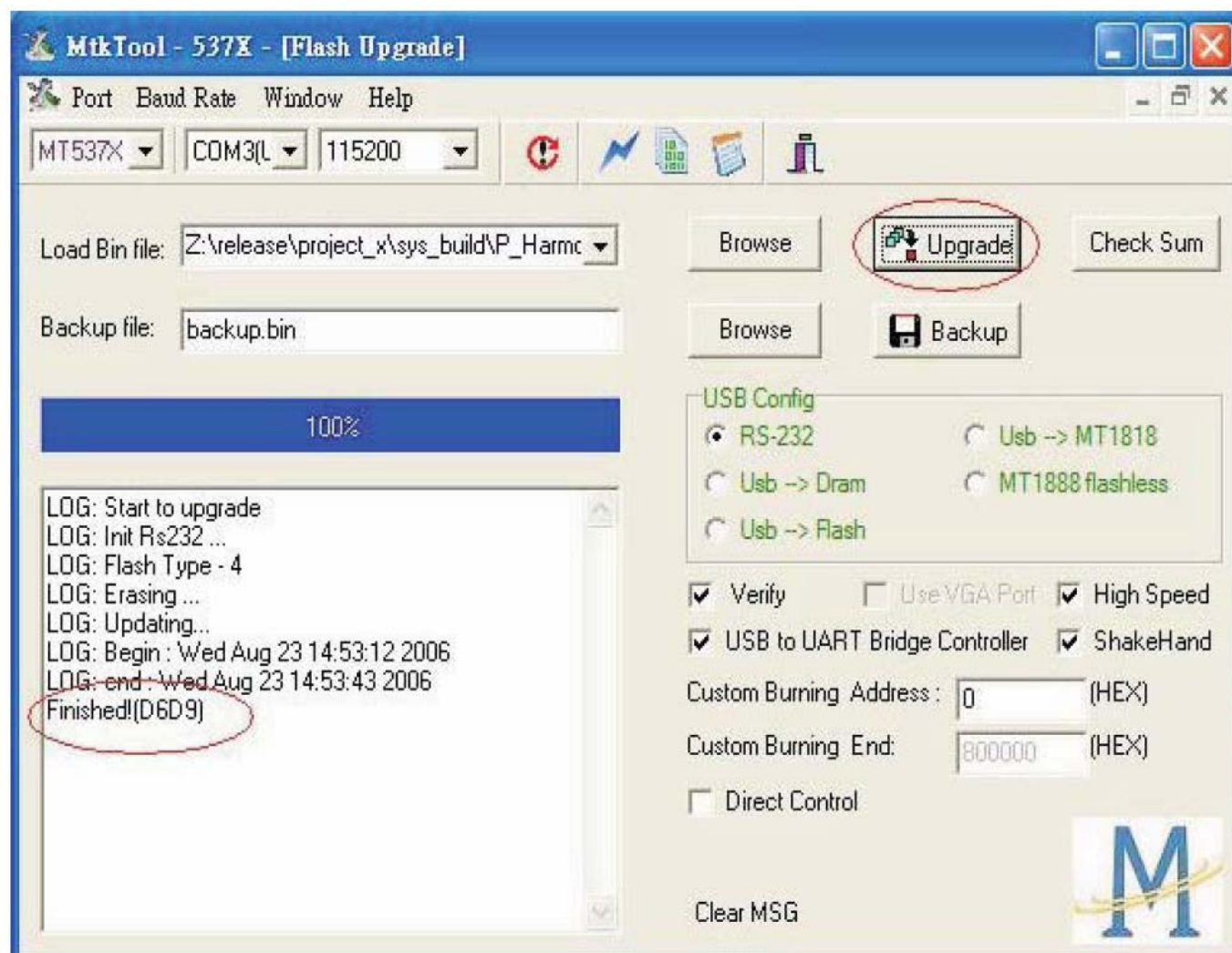
II. Set COM port resource that used by USB Port.



III. Set Baud rate 115200 & High speed item Enable. & MT537x(MT5335).



IV. Click "Upgrade" button.(Waiting for "Finished!" message.)



V. Main board Power Off \_ On.

Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment.

### YPbPr Mode display adjustment

#### White balance adjustment (B)

##### General set-up :

Equipment Requirements: Minolta CA-110 or Equivalent Color analyzer

Quantum Data Pattern Generator 802G , 802BT or equivalent instrument

Input requirements:

Input Signal Type: YPbPr signal

1. 720P mode, TVBar100 pattern by 802G or 802BT.

2. Select Smart picture to User mode and check the x, y data.

Input Signal Strength: 1 Vpp for Y signal; 700 mVpp for Pb & Pr signal

Input Injection Point: YPbPr (RAC jack)

720P, TVBar100 pattern



##### Alignment method:

Initial Set-up:

1. Select source as "**Component**".
2. Set Smart picture as "**User**" and to be Contrast =50(**TBD**) (CMO), Brightness=50(**TBD**) (CMO), at normal menu mode.
3. Apply "TVBar100" pattern with color bar pattern by signal generator.
4. Enter factory mode menu: press "MENU+ "234" then enter FAC mode.

##### Alignment:

1. At FAC mode menu, select **FACTORY->Picture ->ADC -> Auto Colour** item. Then press ">" key to adjust ADC\_GAIN\_R, ADC\_GAIN\_G, ADC\_GAIN\_B and ADC\_OFFSET\_R, ADC\_OFFSET\_G, ADC\_OFFSET\_B. Then store those values to NVM.

##### White- Balance alignment :

1. Select source as "**HDMI1**".
2. Apply Flat pattern (**100% white pattern**) , at FAC mode menu, select **Factory -> Picture -> Colour Temp** item
3. Set color temperature to "**Standard**".
4. Adjust the R Gain, G Gain, B Gain values to meet "Standard" color coordinates specification below. Then store those values to NVM.
5. Set color temperature to "**Warm**".
6. Adjust the R Gain, G Gain, B Gain values to meet "Warm" color coordinates specification below. Then store those values to NVM.
7. Set color temperature to "**Cold**".
8. Adjust the R Gain, G Gain, B Gain values to meet "Cold" color coordinates specification below. Then store those values to NVM.

Color temperature **Standard/Warm/Cold** (x, y) co-ordinates specification:

| Picture Mode            | x                  | Y                  |
|-------------------------|--------------------|--------------------|
| <b>Normal (10000°K)</b> | <b>0.281±0.003</b> | <b>0.288±0.003</b> |
| <b>Warm (8000°K)</b>    | <b>0.295±0.003</b> | <b>0.305±0.003</b> |
| <b>Cold (13000°K)</b>   | <b>0.269±0.003</b> | <b>0.274±0.003</b> |

Table: Reading with Minolta CA-110.

Note:

1. Use Minolta CA-110 for color coordinates and luminance check.
2. **Luminance** > 400 **cd/m<sup>2</sup>** in the center of the screen when Brightness control at 100; Contrast control at 100
3. Reset AV setting, smart picture shall be recalled to be "**Standard**" and Contrast= **(TBD)** (CMO), Brightness=**(TBD)** (CMO)

## PC mode display adjustment

### WHITE-D adjustment (B)

#### General set-up:

Equipment Requirements: Minolta CA-110 or Equivalent Color analyzer  
Chroma 2250 or equivalent PC signal generator

Input requirements:

Input Signal Type: PC VGA signal

**1024X768/60Hz** PC mode with **PGCWRGB** pattern. (see pattern-1)

Input Signal Strength: 0.7 Vp-p linear voltage.

Input Injection Point: PC D-SUB input



Pattern-1

#### Alignment method:

Initial Set-up:

1. Select source as "**VGA**".
2. Set Contrast = 50 (CMO) and Brightness=50 (CMO) , at **Standard** menu mode.
3. Apply "**PGCWRGB**"(**pattern-1**) pattern by VGA pattern generator.
4. Enter factory mode menu: press "MENU+ "234" then enter FAC mode

#### Alignment:

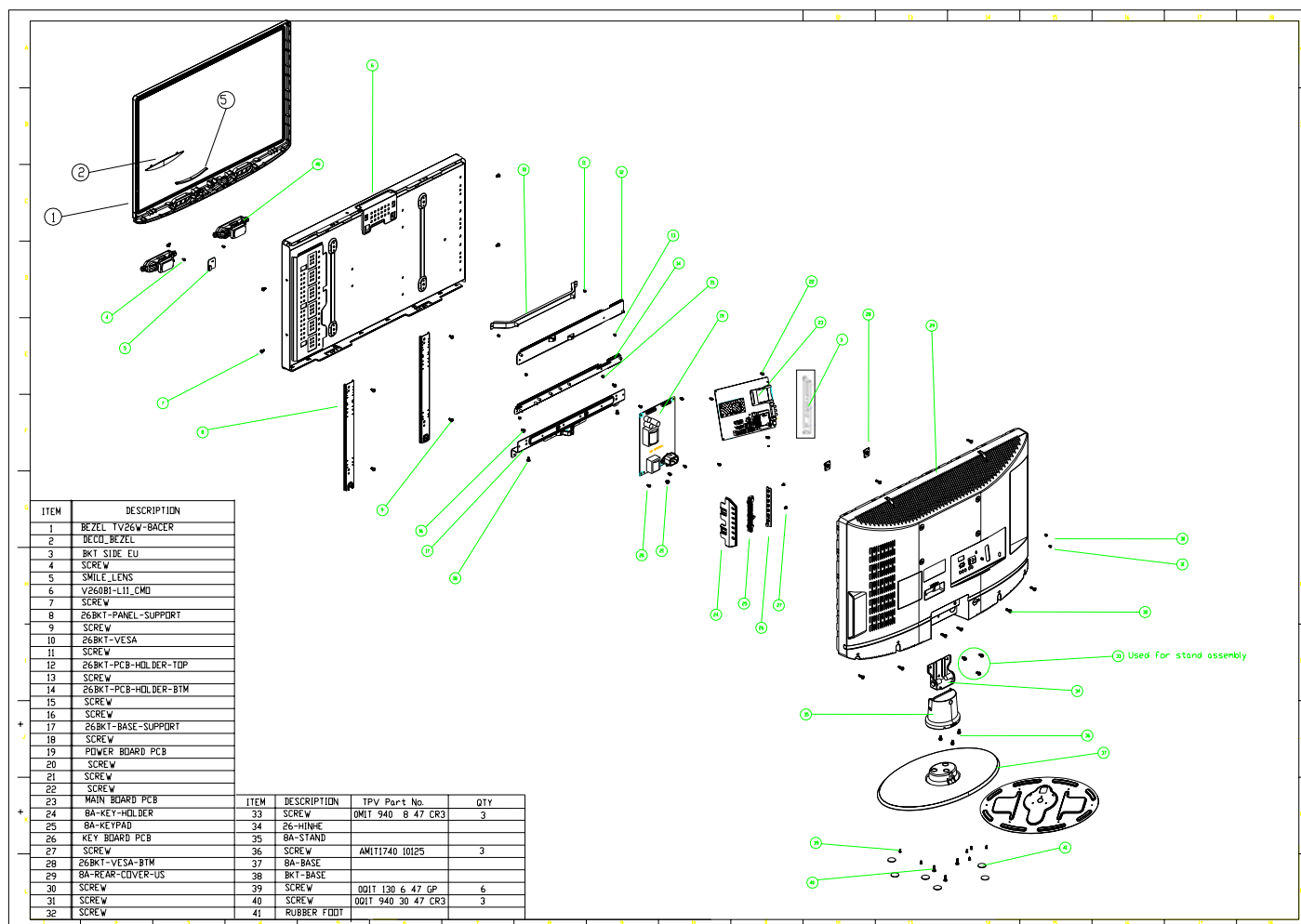
1. At FAC mode menu, select **FACTORY->Picture ->ADC -> Auto Colour** item. Then press ">" key to adjust ADC\_GAIN\_R, ADC\_GAIN\_G, ADC\_GAIN\_B and ADC\_OFFSET\_R, ADC\_OFFSET\_G, ADC\_OFFSET\_B. Then store those values to NVM.

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of AT2645 & AT2646. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

**NOTE:** Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel (<http://aicsl.acer.com.tw/spl/>). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

### Exploded Diagram (Model: AT2645 & AT2646)



## EDID Data

DDC DATA for For D-SUB Input

EDID data (128 bytes)

\*\*\*\*\*

00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

-----

00| 00 FF FF FF FF FF FF 00 04 72 45 26 39 30 00 00

10| 09 12 01 03 68 39 20 78 2A 1F 9C A3 54 42 97 26

20| 0F 47 49 BF EE 00 81 C0 01 01 01 01 01 01 01 01

30| 01 01 01 01 01 01 66 21 56 A8 51 00 1E 30 45 8F

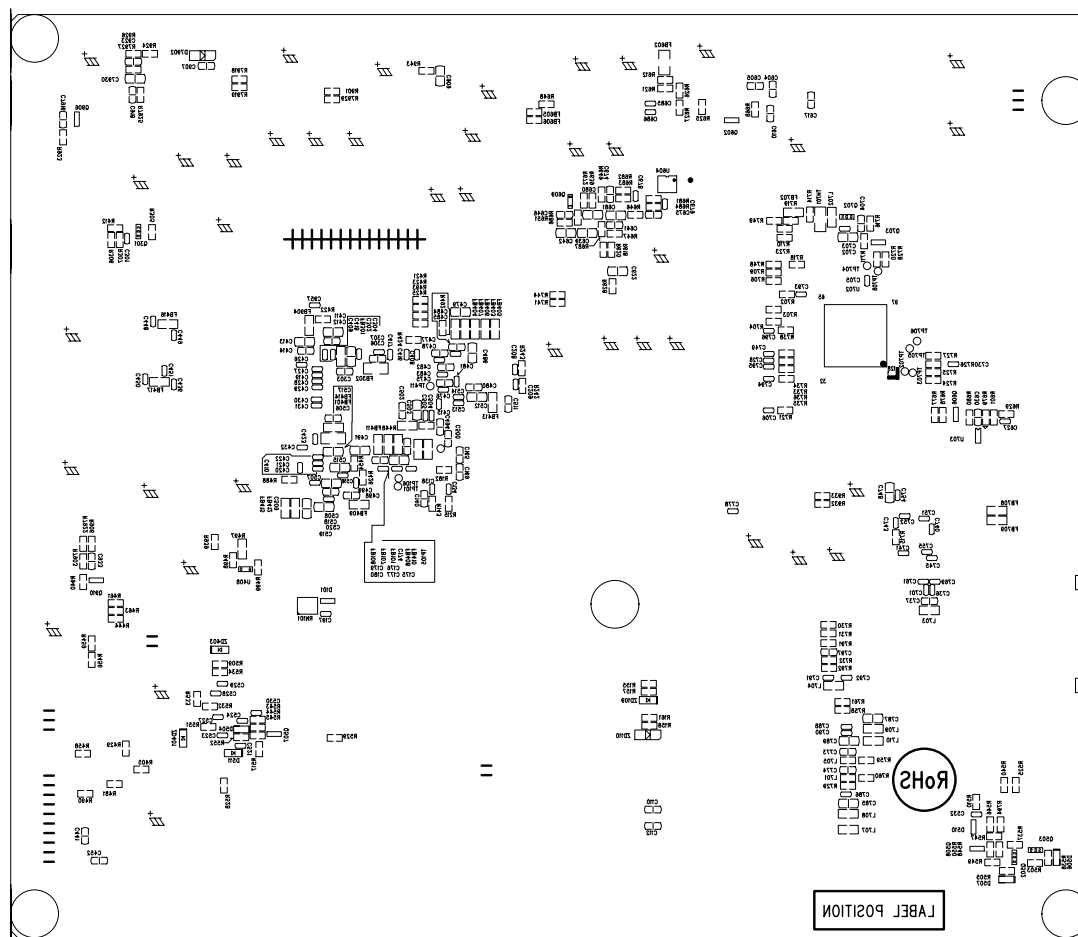
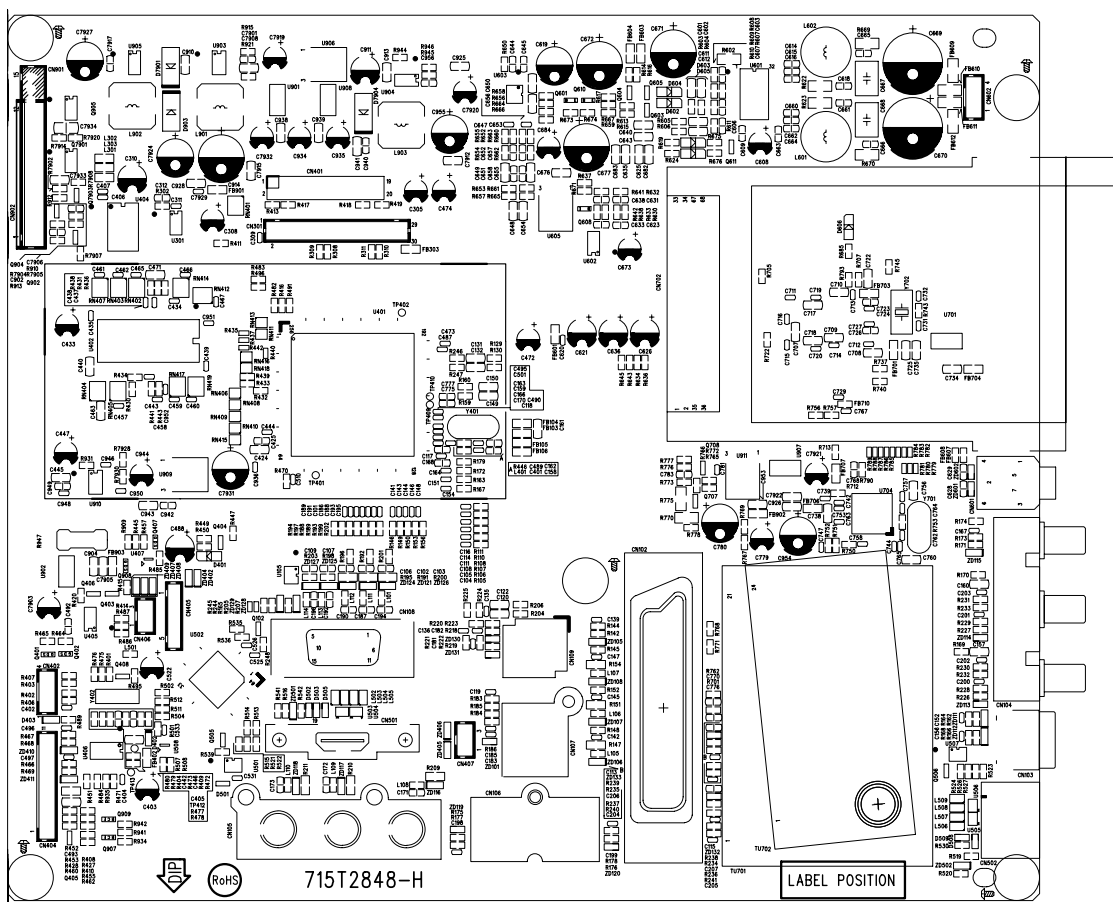
40| 3A 00 3A 40 21 00 00 1C 00 00 00 FF 00 31 31 31

50| 31 31 31 31 31 31 31 31 31 31 00 00 00 FD 00 38

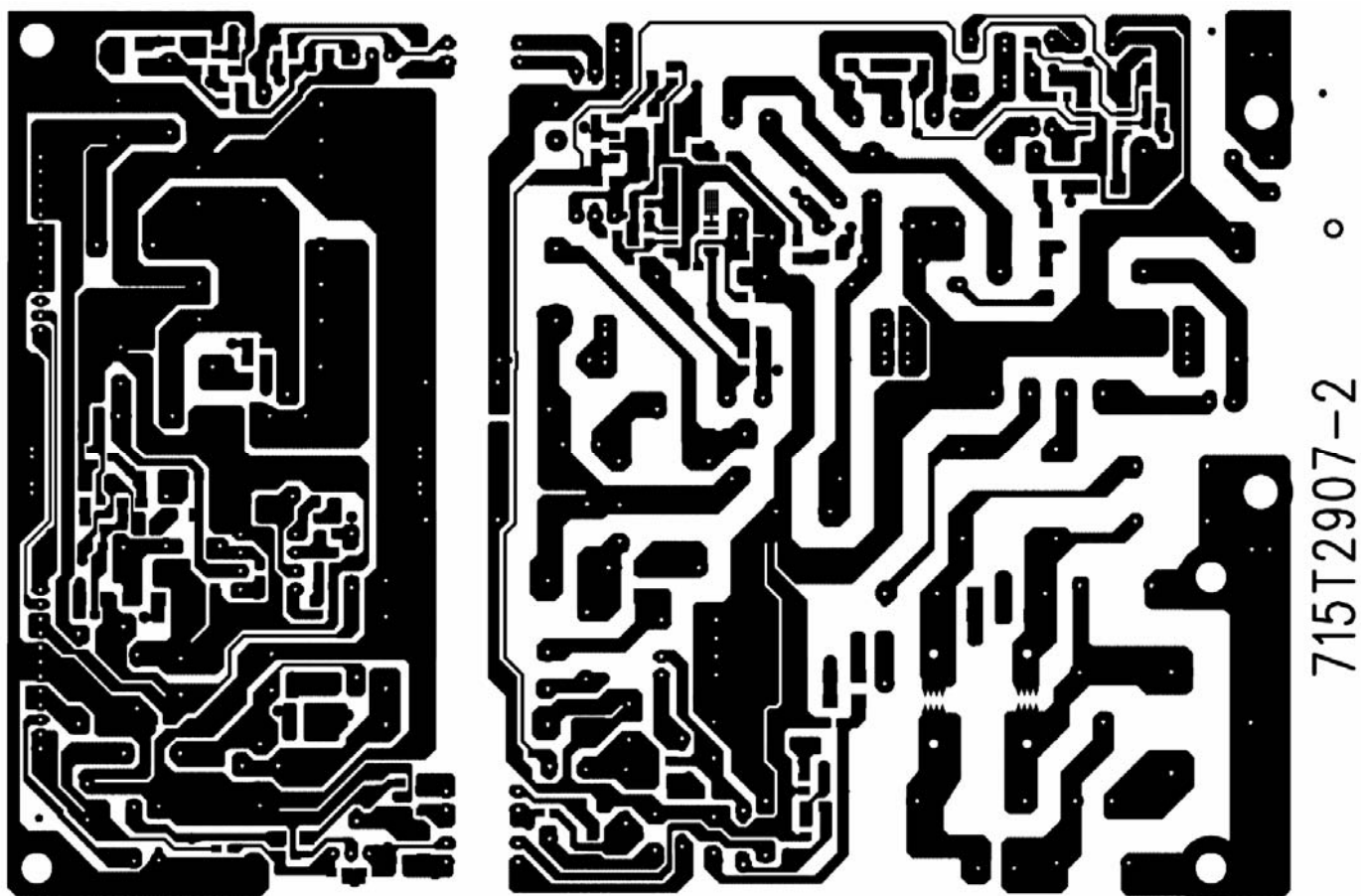
60| 4B 1E 50 11 00 0A 20 20 20 20 20 20 00 00 00 FC

70| 00 41 54 32 36 34 35 0A 20 20 20 20 20 20 00 94

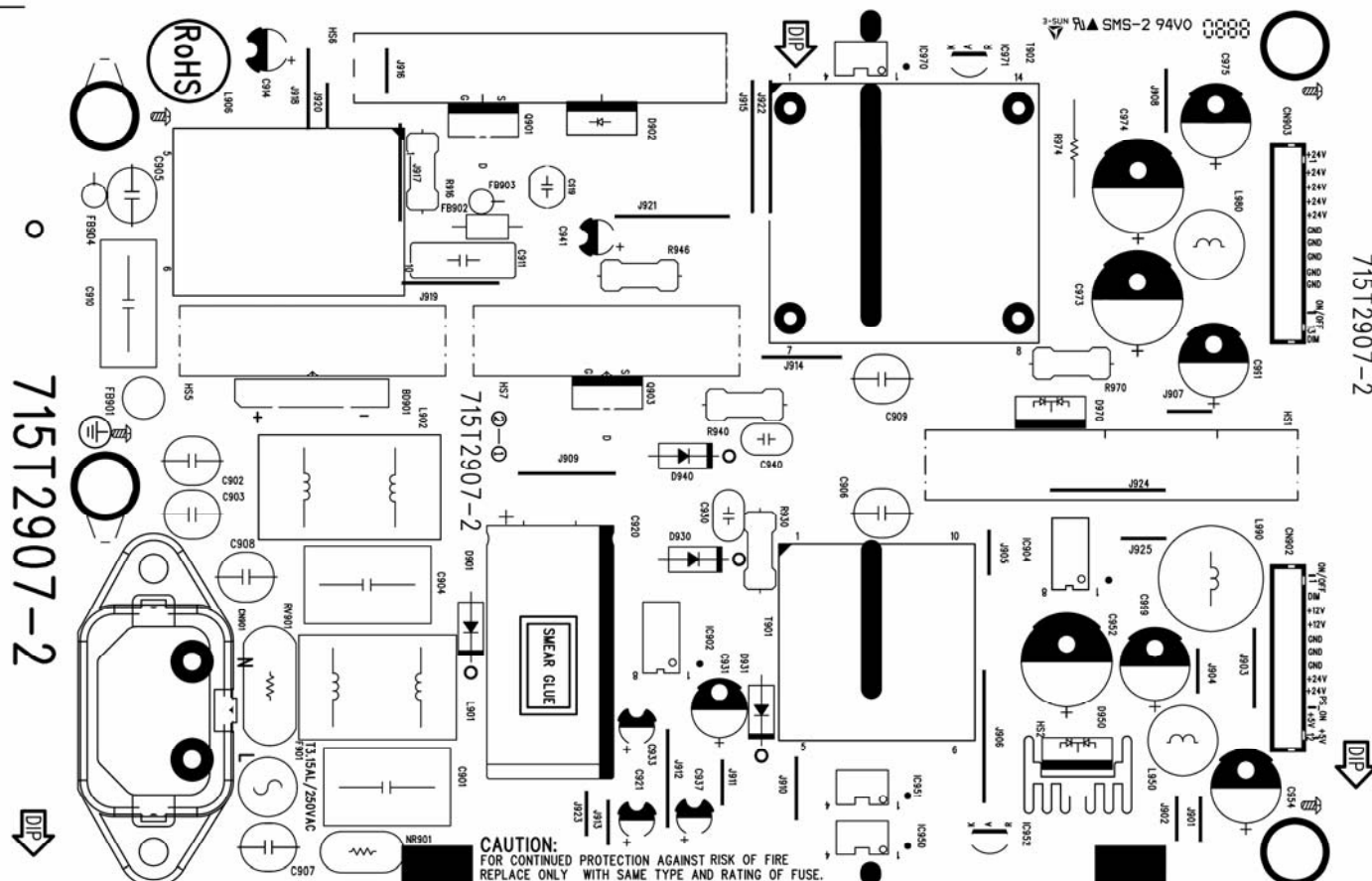
## Main Board Layout



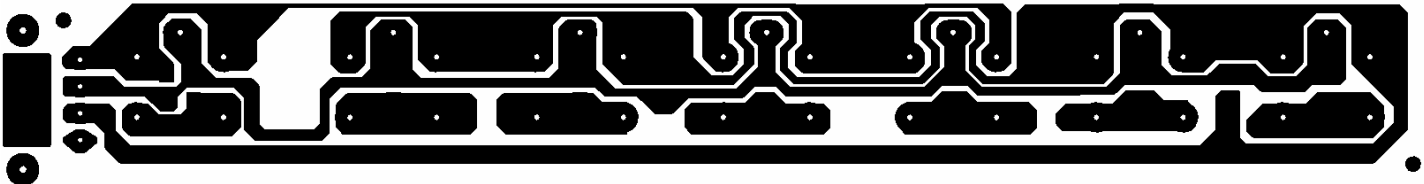
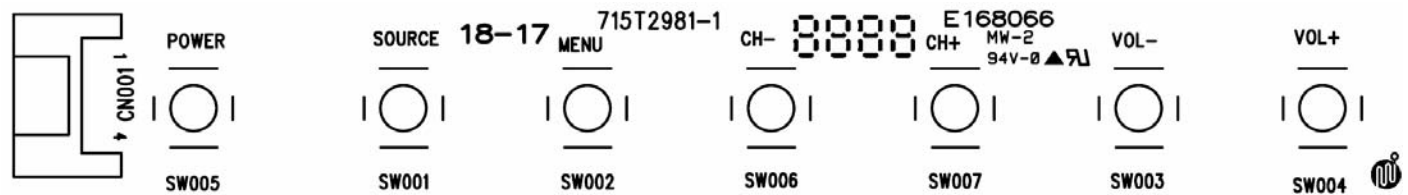
# Power Board



715T2907-2



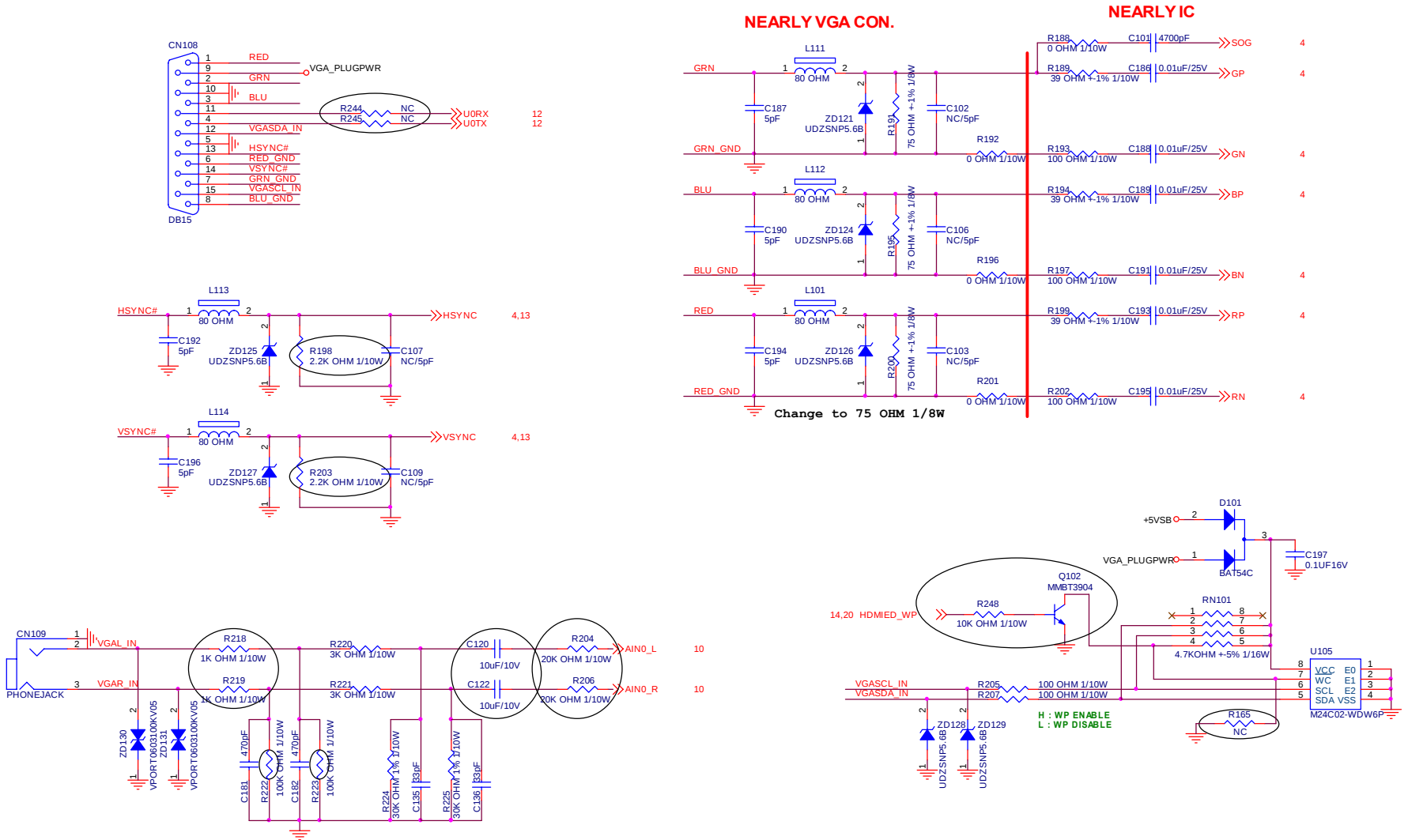
Key Board



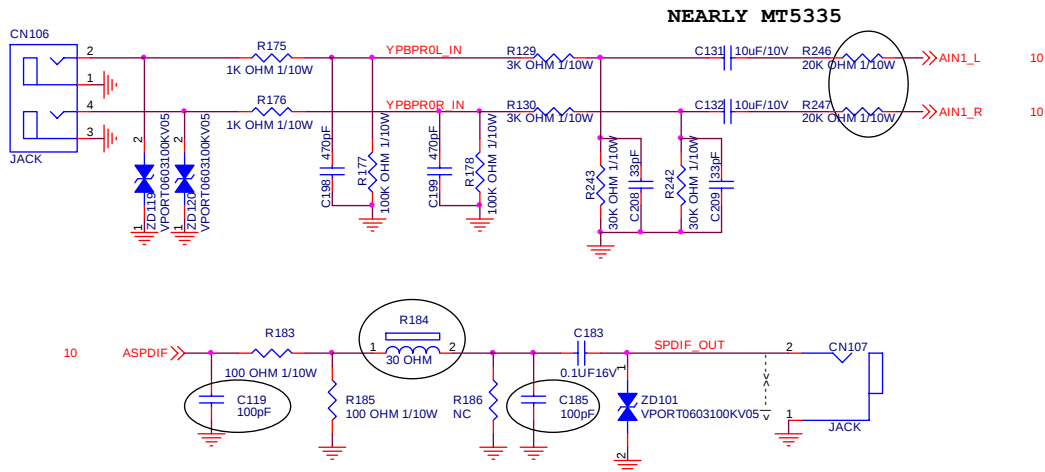
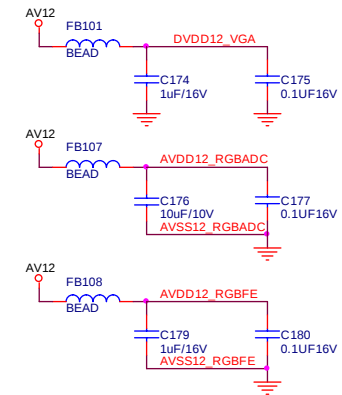
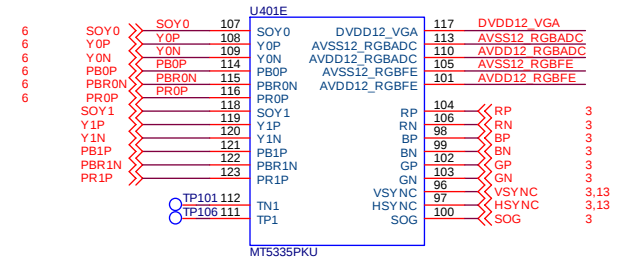
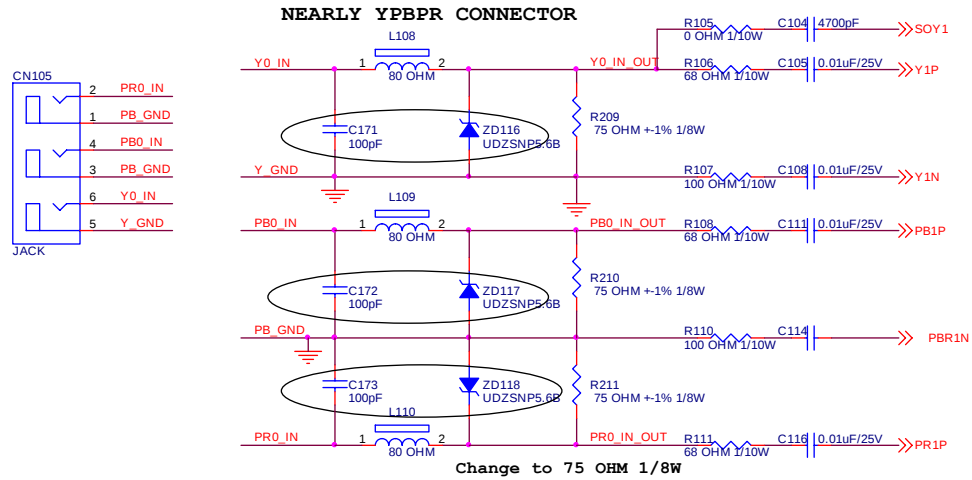
# Schematic Diagram

# Chapter 10

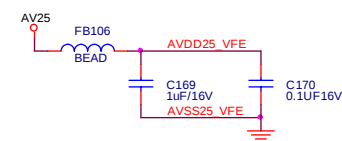
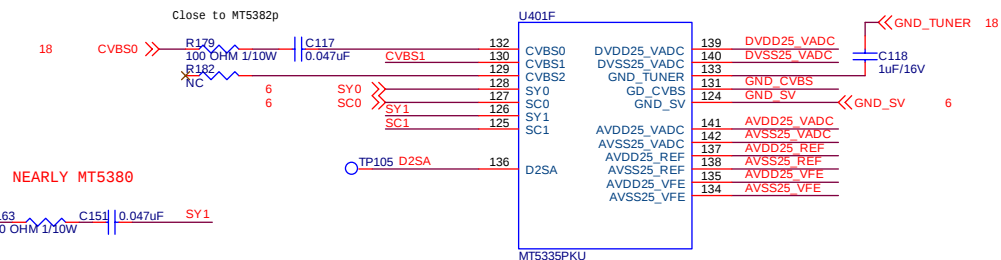
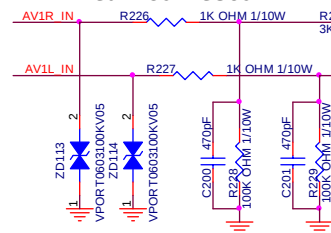
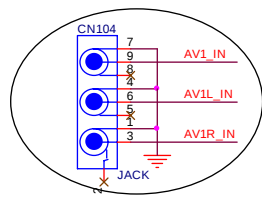
## Main Board



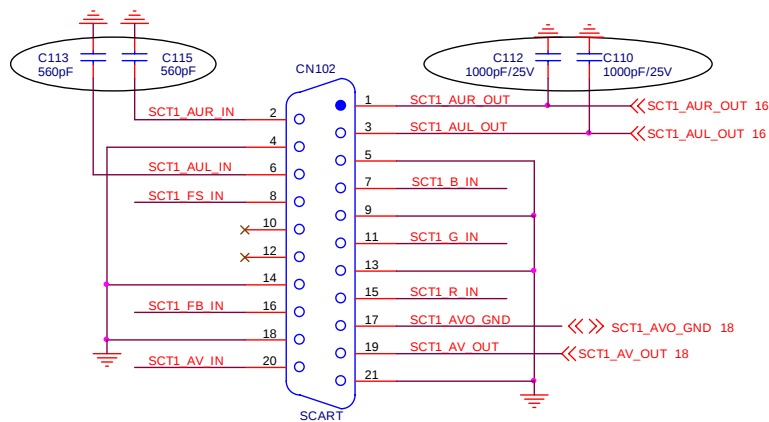
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|---------------------------------------------|------------------------|-----------|-------------|---------|
| T P V ( Top Victory Electronics Co., Ltd. ) | OEM MODEL              | AT2645    | Size        | B       |
| 据 隔 瓜 膜 腹                                   | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev     |
| Key Component                               | VGA IN/L/R             | PCB NAME  | 715T2848-H  | 称 号     |
| Date                                        | Friday, April 11, 2008 | Sheet     | 3 of 22     | < 称 号 > |



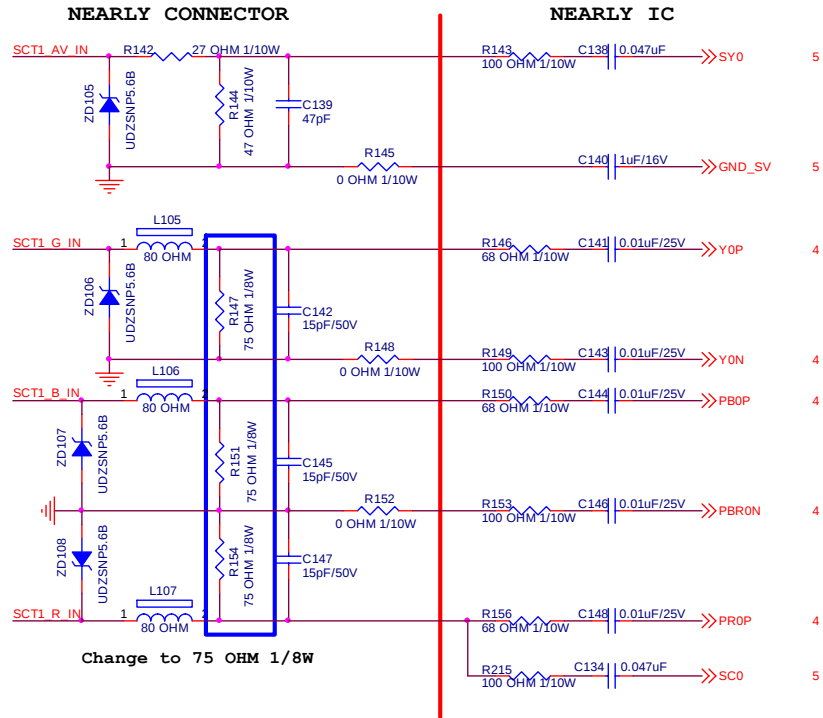
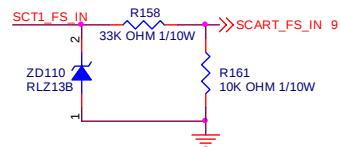
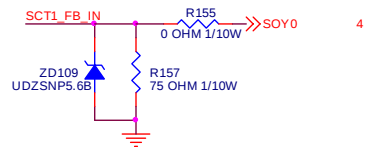
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|-----------------------------------------|------------------------|-----------|-------------|------|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL              | AT2645    | Size        | B    |
| 話隔瓜銀版                                   | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev  |
| Key Component                           | YPbPR/L/R & SPDIF      | PCB NAME  | 715T2848-H  | 称爹   |
| Date                                    | Friday, April 11, 2008 | Sheet     | 4 of 22     | <称爹> |



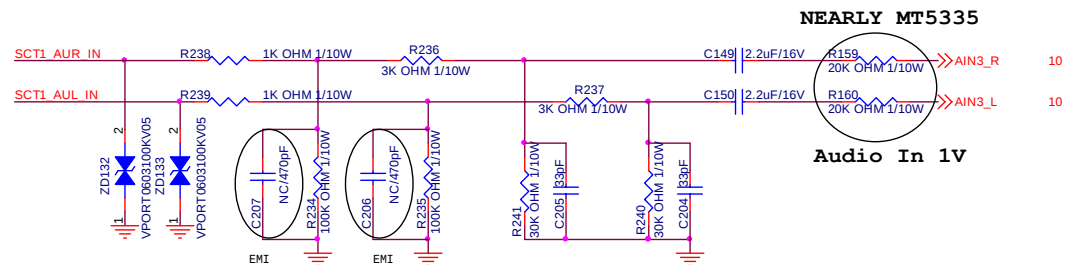
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|-----------------------------------------|------------------------|------------------|-------------|----------|------------|
| TPV (Top Victory Electronics Co., Ltd.) |                        | OEM MODEL        | AT2645      | Size     | B          |
| 碓隔瓜網版 T2848-H-X-X-2-032408              |                        | TPV MODEL        | TV2668W-AED | Rev      | C          |
| Key Component                           |                        | S-video/CVBS/L/R |             | PCB NAME | 715T2848-H |
| Date                                    | Friday, April 11, 2008 | Sheet            | 5 of 22     | 修簽       | <修簽>       |



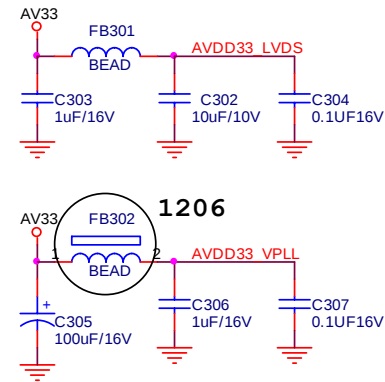
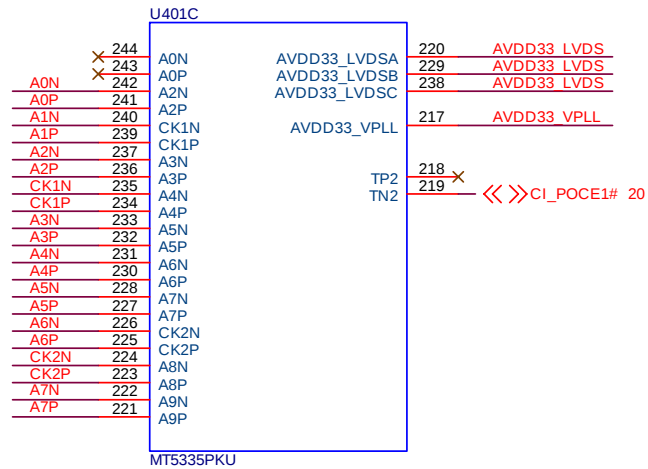
Full SCART



Change to 75 OHM 1/8W

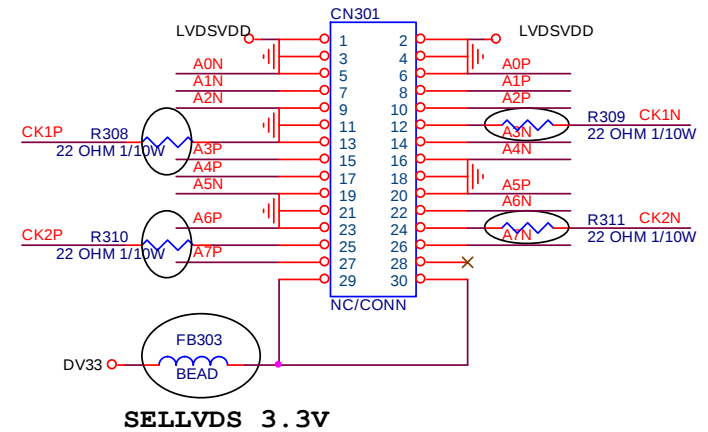


|                                         |                        |           |             |         |
|-----------------------------------------|------------------------|-----------|-------------|---------|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL              | AT2645    | Size        | B       |
| 絨隔瓜鋼腹                                   | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev     |
| Key Component                           | SCART connector        | PCB NAME  | 715T2848-H  | 稱參 <稱參> |
| Date                                    | Friday, April 11, 2008 | Sheet     | 6 of 22     |         |

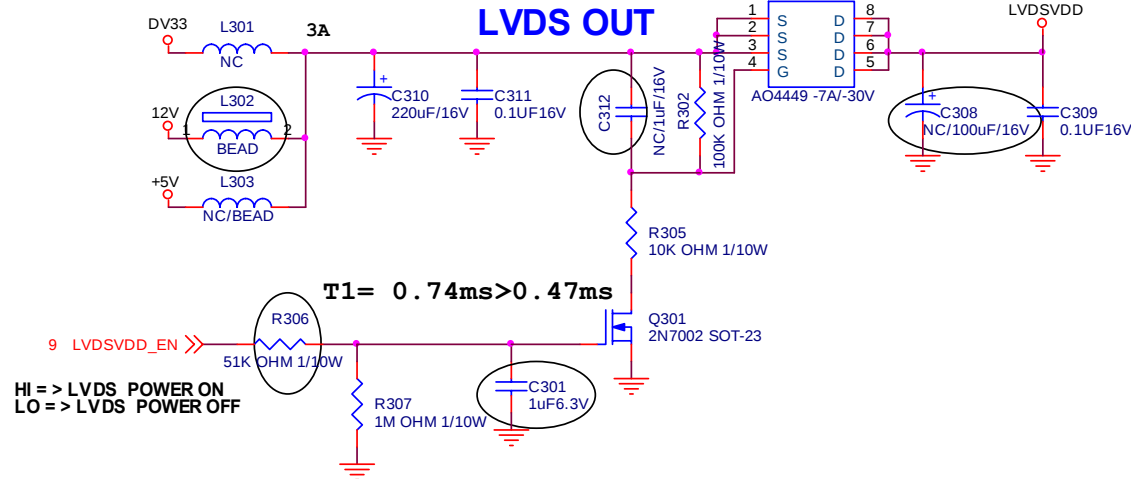


## NC FOR FFC Board

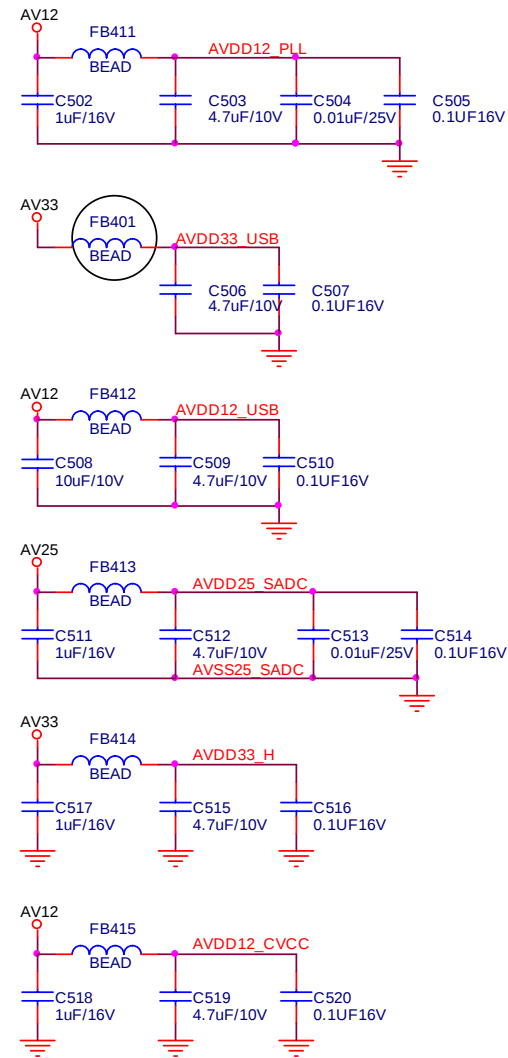
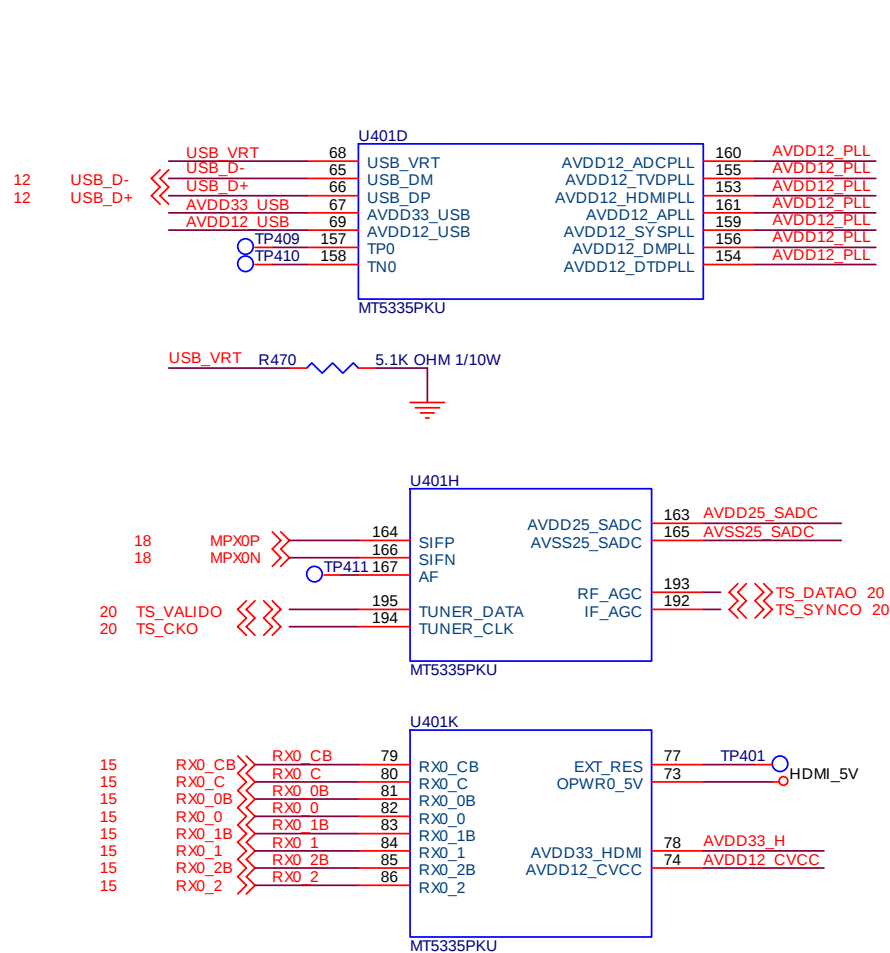
33T8027 30 GP



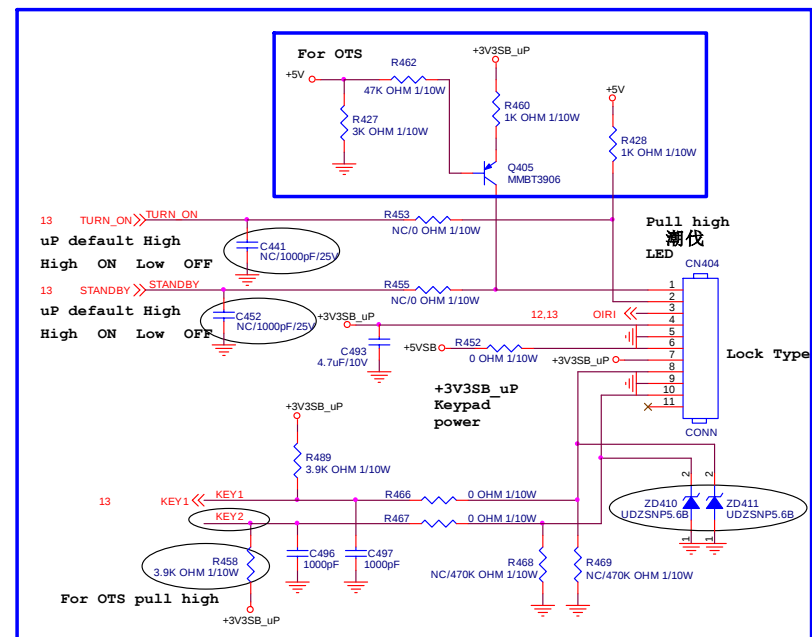
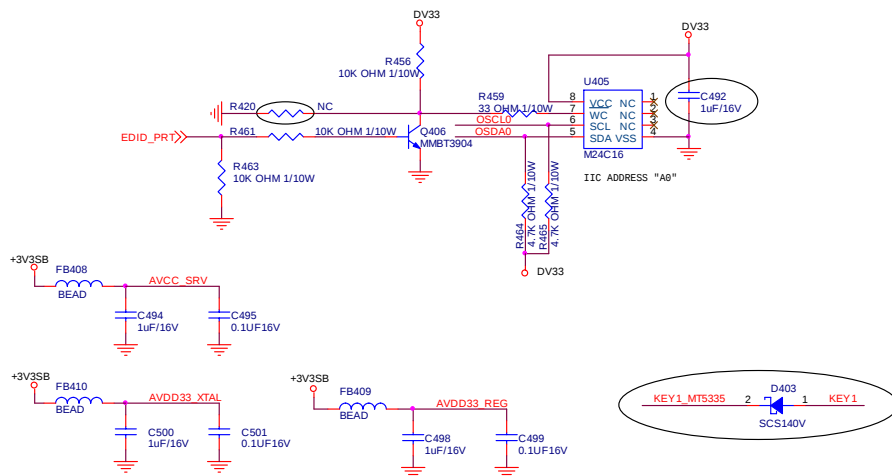
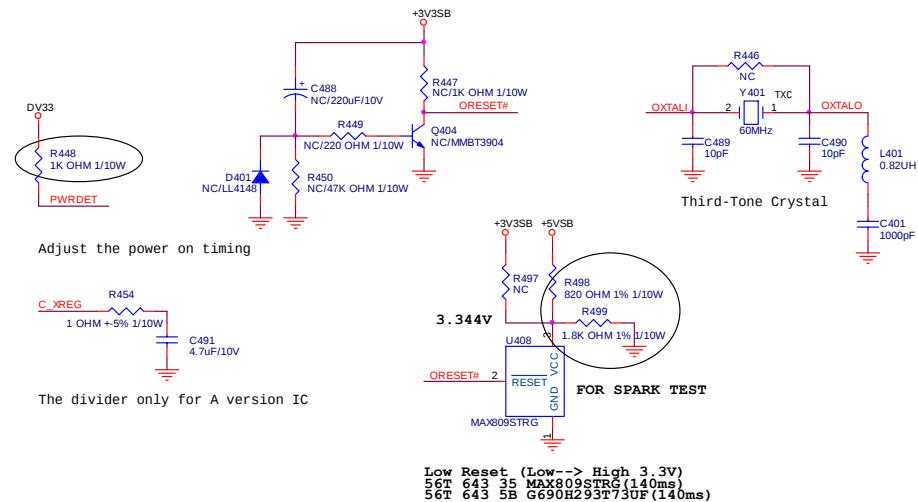
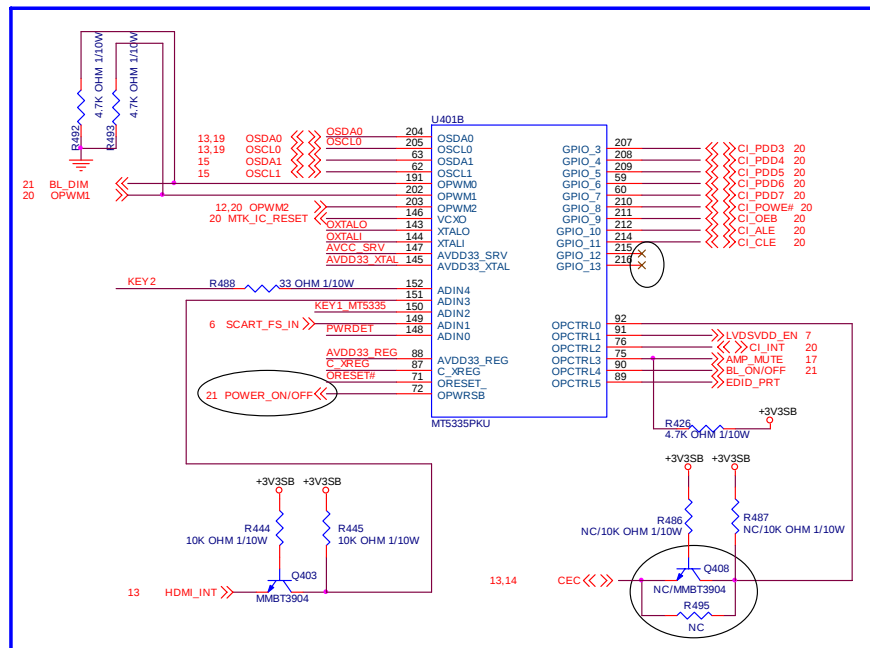
## For 26" Panel LVDS 12V



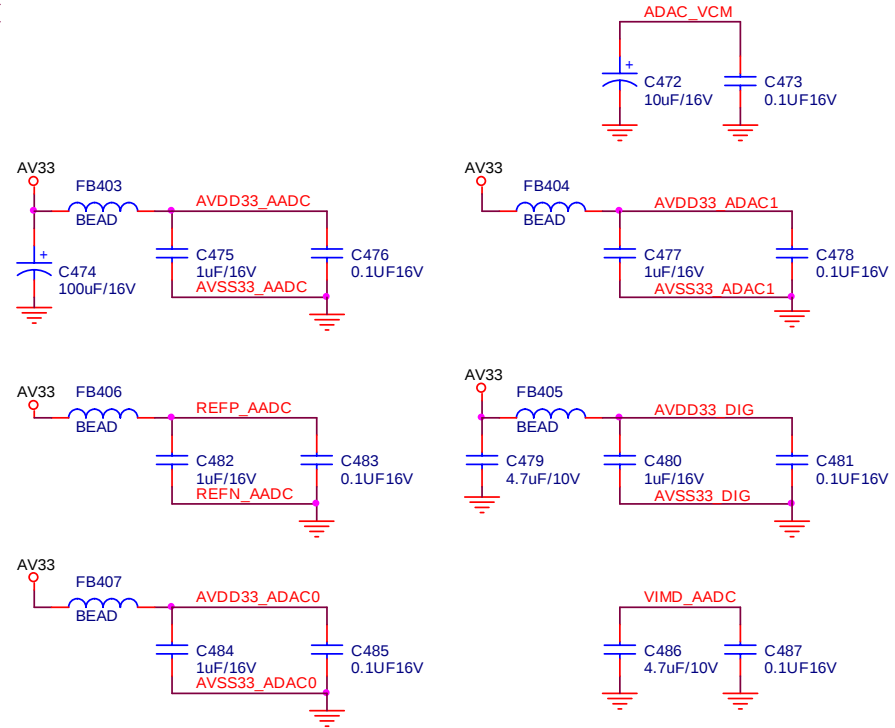
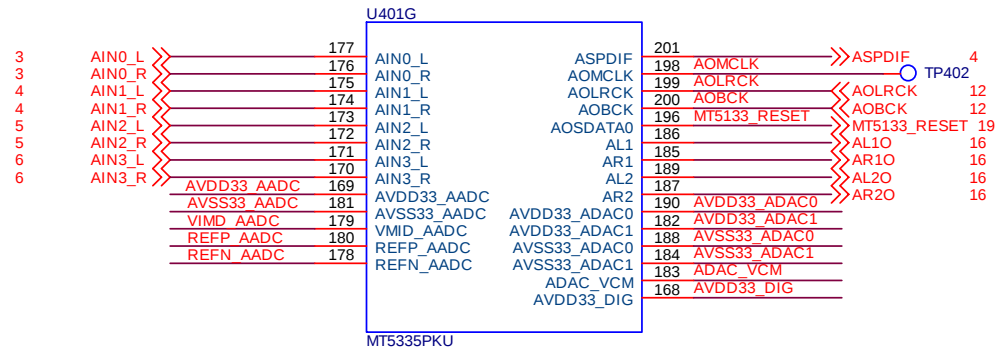
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|-----------------------------------------------|------------------------|-----------|-------------|------|------|
| T P V ( Top Victory Electronics Co . , Ltd. ) |                        | OEM MODEL | AT2645      | Size | A4   |
| 結構圖                                           | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev  | C    |
| Key Component                                 | LVDS OUT               | PCB NAME  | 715T2848-H  | 稱爹   | <稱爹> |
| Date                                          | Friday, April 11, 2008 | Sheet     | 7 of 22     |      |      |



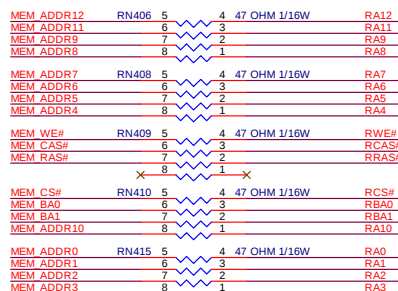
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|-----------------------------------------|------------------------|-----------|-------------|---------|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL              | AT2645    | Size        | A4      |
| 結隔瓜網腹                                   | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev     |
| Key Component                           | MT5335 HDMI/PLL        | PCB NAME  | 715T2848-H  | 称爹 <称爹> |
| Date                                    | Friday, April 11, 2008 | Sheet     | 8 of 22     |         |



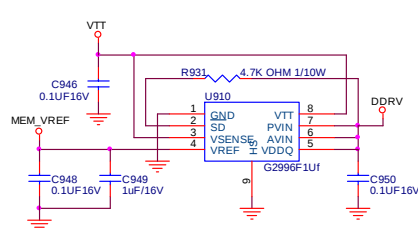
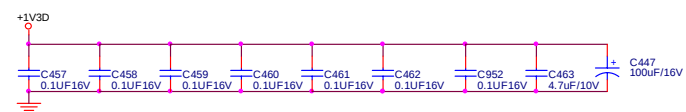
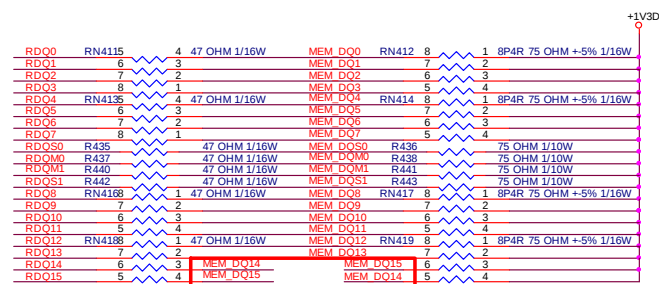
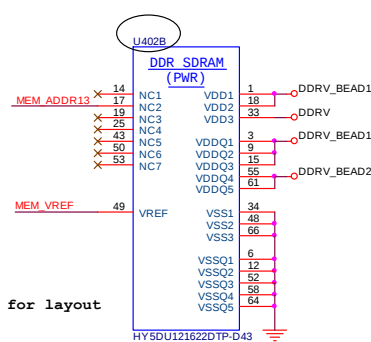
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| T P V ( Top Victory Electronics Co., Ltd. ) |                        | OEM MODEL                 | AT2645    | Size        | A3         |   |
| 話 隔 瓜 網 廠                                   |                        | T2848-H-X-X-2-032408      | TPV MODEL | TV2668W-AED | Rev        | C |
| Key Component                               |                        | MT5335 Control/IR/LED/Key | PCB NAME  |             | 715T2848-H |   |
| Date                                        | Friday, April 11, 2008 | Sheet                     | 9 of 22   |             | 陈孝 <陈孝>    |   |

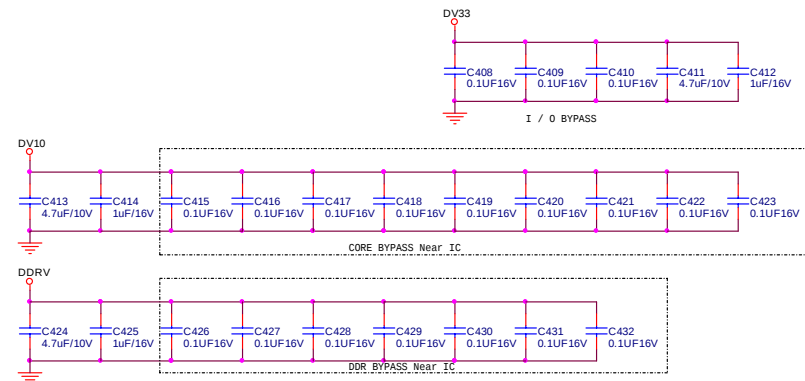
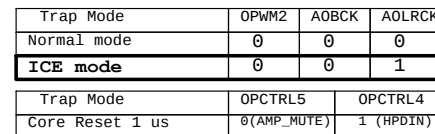
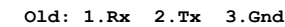
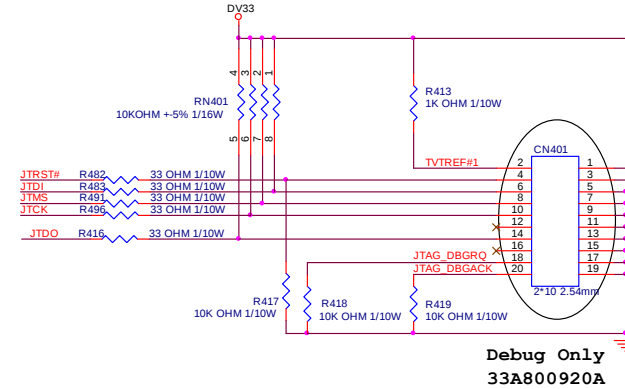


|                                         |           |             |      |      |
|-----------------------------------------|-----------|-------------|------|------|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL | AT2645      | Size | A4   |
| 錫隔瓜網腹 T2848-H-X-X-2-032408              | TPV MODEL | TV2668W-AED | Rev  | C    |
| Key Component MT5335 Audio In/Out       | PCB NAME  | 715T2848-H  | 稱爹   | <稱爹> |
| Date Friday, April 11, 2008             | Sheet     | 10 of 22    |      |      |

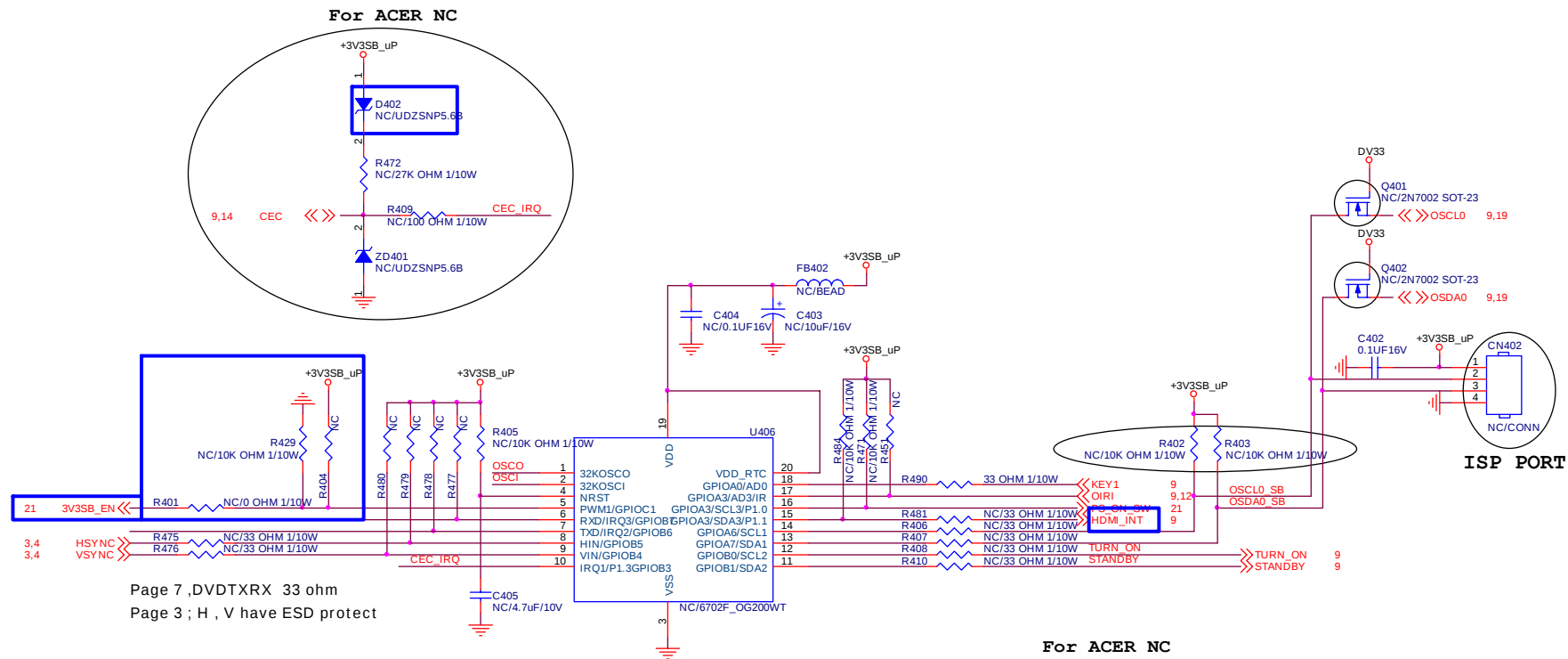


|            |       | For EMI   |                  |
|------------|-------|-----------|------------------|
|            |       | DDR SDRAM |                  |
|            | U402A |           |                  |
| MEM_ADDR12 | 42    | RES(A12)  | 2 MEM DQ0        |
| MEM_ADDR11 | 41    | A10       | 4 MEM DQ1        |
| MEM_ADDR10 | 28    | A9        | 5 MEM DQ2        |
| MEM_ADDR9  | 37    | A8        | 6 MEM DQ3        |
| MEM_ADDR8  | 39    | A7        | 8 MEM DQ4        |
| MEM_ADDR7  | 38    | A6        | 10 MEM DQ5       |
| MEM_ADDR6  | 36    | A5        | 11 MEM DQ6       |
| MEM_ADDR5  | 36    | A6        | 13 MEM DQ7       |
| MEM_ADDR4  | 35    | A5        |                  |
| MEM_ADDR3  | 32    | A4        |                  |
| MEM_ADDR2  | 31    | A3        |                  |
| MEM_ADDR1  | 30    | A2        |                  |
| MEM_ADDR0  | 29    | A1        | DQ8 54 MEM DQ8   |
|            |       | A0        | DQ9 56 MEM DQ9   |
| MEM_BA1    | 27    | B1        | DQ10 57 MEM DQ10 |
| MEM_BA0    | 26    | B0        | DQ11 60 MEM DQ11 |
| MEM_RAS#   | 23    | RAS       | DQ12 61 MEM DQ12 |
| MEM_CAS#   | 24    | CAS       | DQ13 62 MEM DQ13 |
| MEM_WE#    | 21    | WE        | DQ14 65 MEM DQ14 |
| MEM_DQM0   | 20    | UDM       |                  |
|            |       | LDM       |                  |
| MEM_CLK#0  | 46    | UDQS      | 51 MEM DQS1      |
| MEM_CLK0   | 46    |           |                  |
| MEM_CLK1   | 46    | LQDS      | 16 MEM DQS0      |
| MEM_CKEEN  | 44    | CS        | 24 MEM CS#       |
|            |       | CKE       |                  |

57

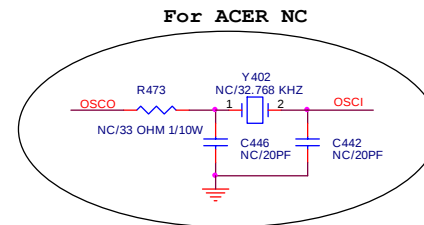


|                                         |                                       |           |             |      |      |
|-----------------------------------------|---------------------------------------|-----------|-------------|------|------|
| TPV (Top Victory Electronics Co., Ltd.) |                                       | OEM MODEL | AT2645      | Size | A3   |
| 括弧内記載                                   |                                       | TPV MODEL | TV2668W-AED | Rev  | C    |
| Key Component                           | FLASH/JTAG/UART/I <sup>2</sup> R/TRAP | PCB NAME  | 715T2848-H  | 修書   | 〈修書〉 |
| Date                                    | Friday, April 11, 2008                | Sheet     | 12 of 22    |      |      |



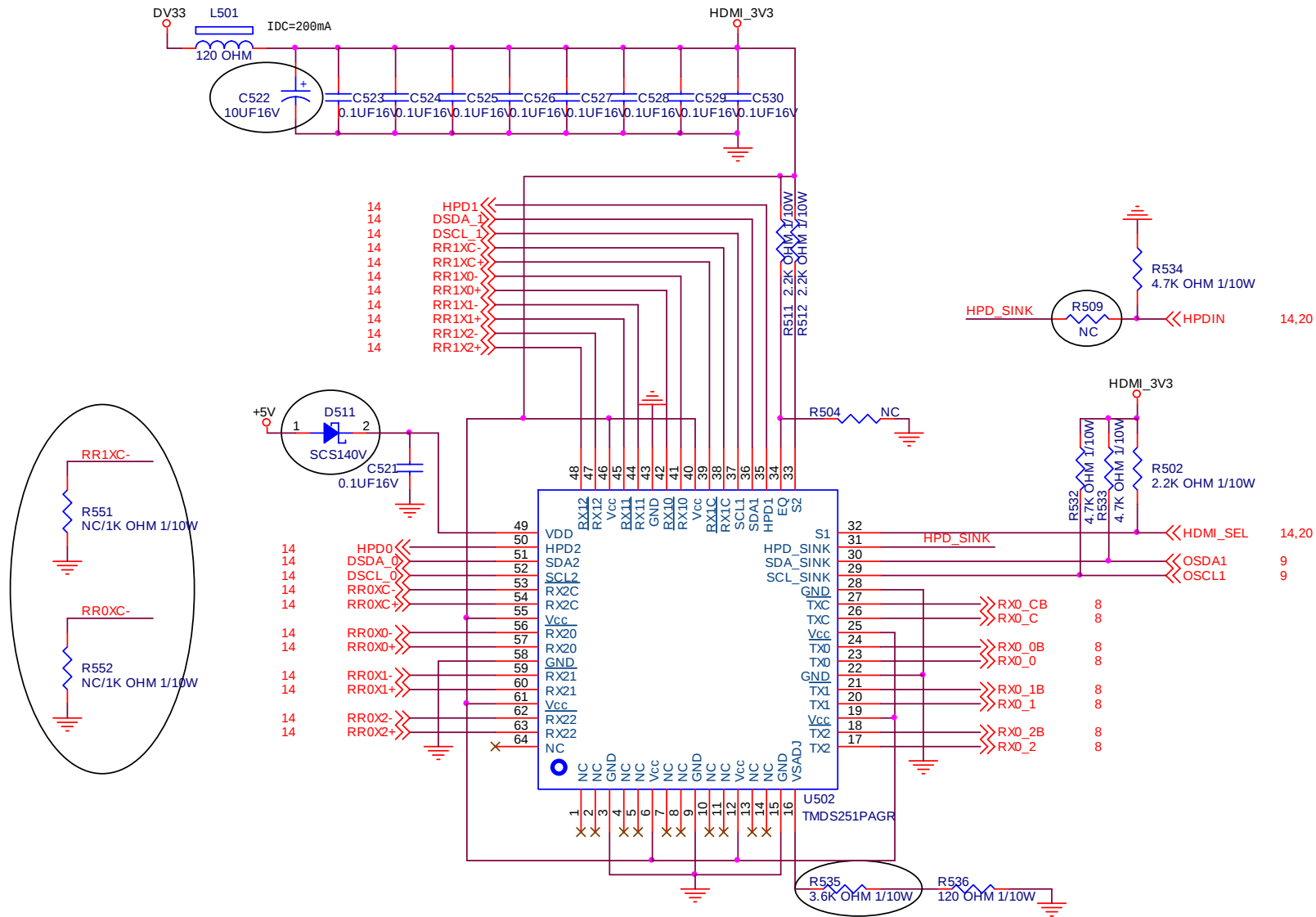
Page 7 ,DVDTXRX 33 ohm  
Page 3 ; H , V have ESD protect

OPTION for CEC Stand by Function

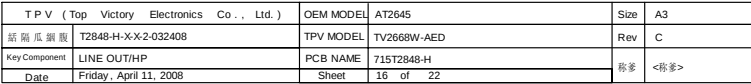


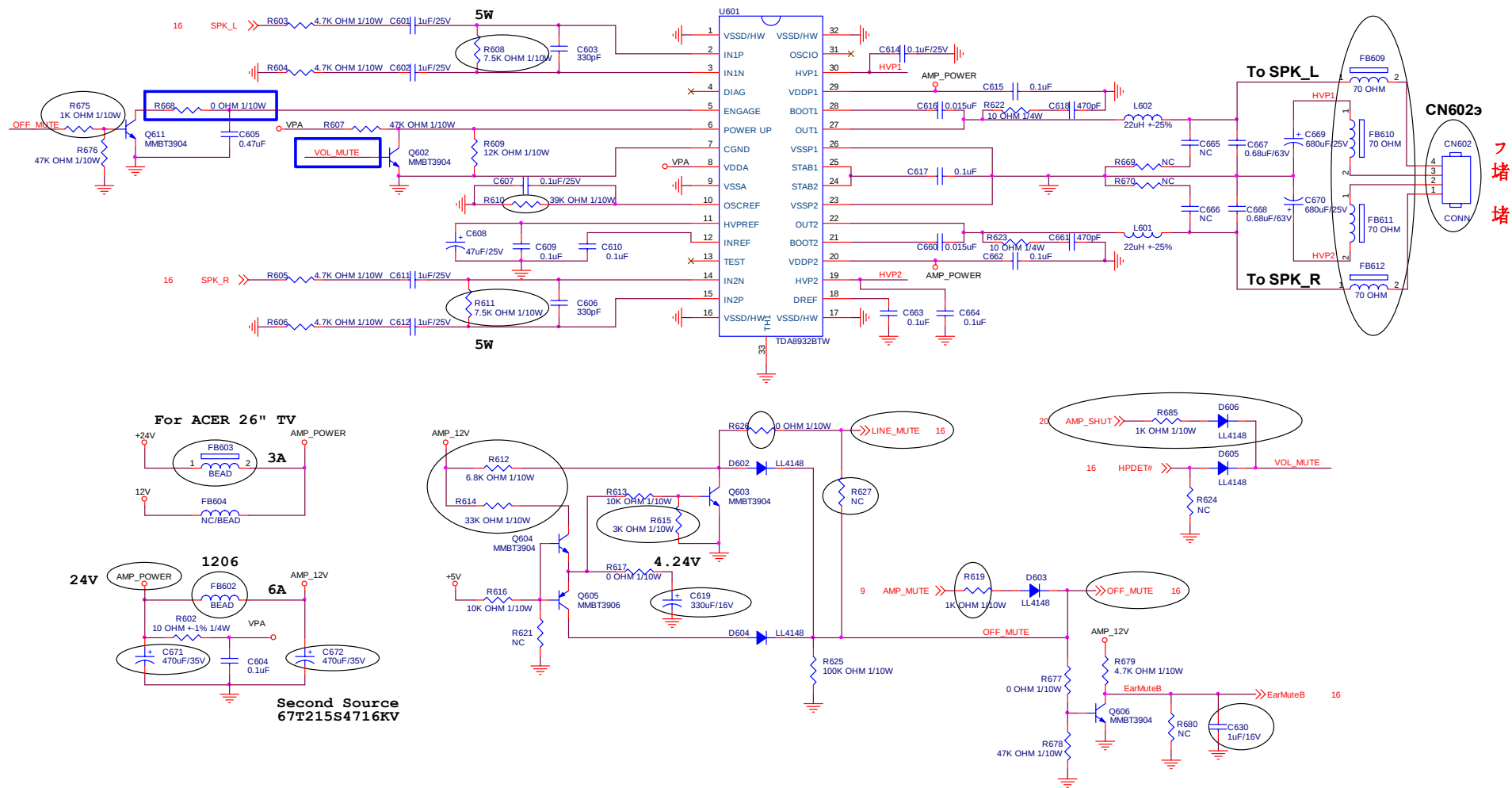
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|---------------------------------------------|------------------------|-----------|-------------|-----|-------|
| T P V ( Top Victory Electronics Co., Ltd. ) | OEM MODEL              | AT2645    | Size        | B   |       |
| 結隔瓜網廠                                       | T2848-H-X-X-2-032408   | TPV MODEL | TV2668W-AED | Rev | C     |
| Key Component                               | CEC uP                 | PCB NAME  | 715T2848-H  | 稱 號 | <稱 號> |
| Date                                        | Friday, April 11, 2008 | Sheet     | 13 of 22    |     |       |



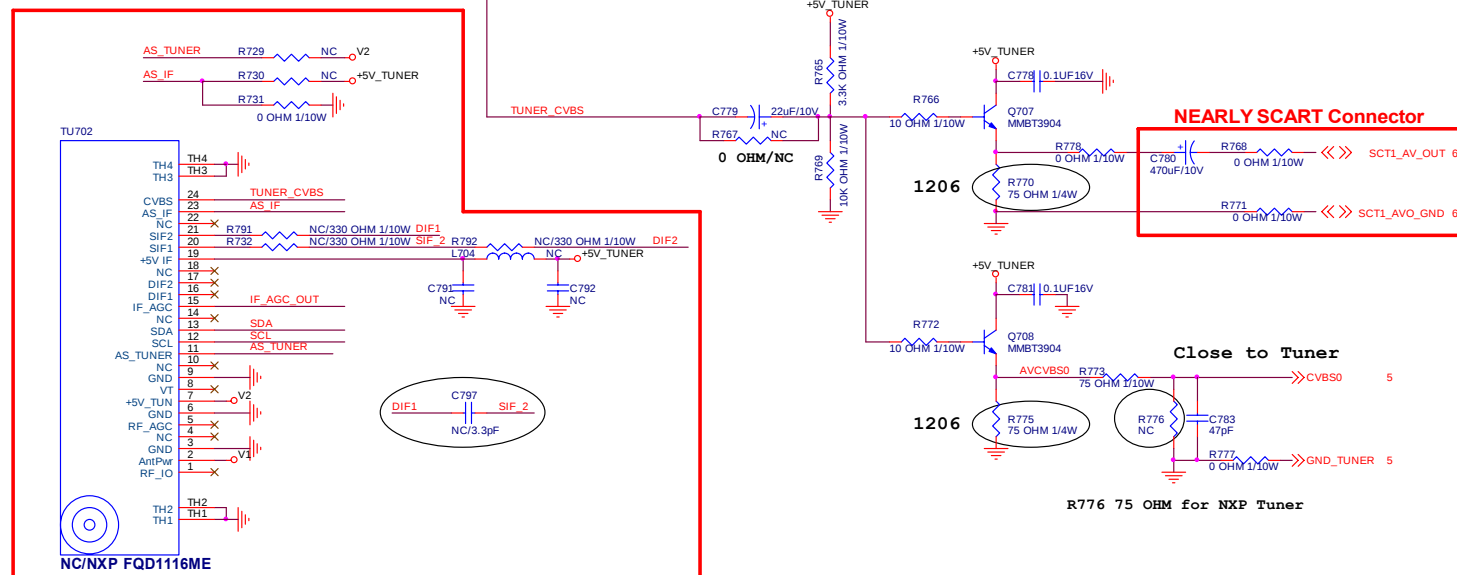
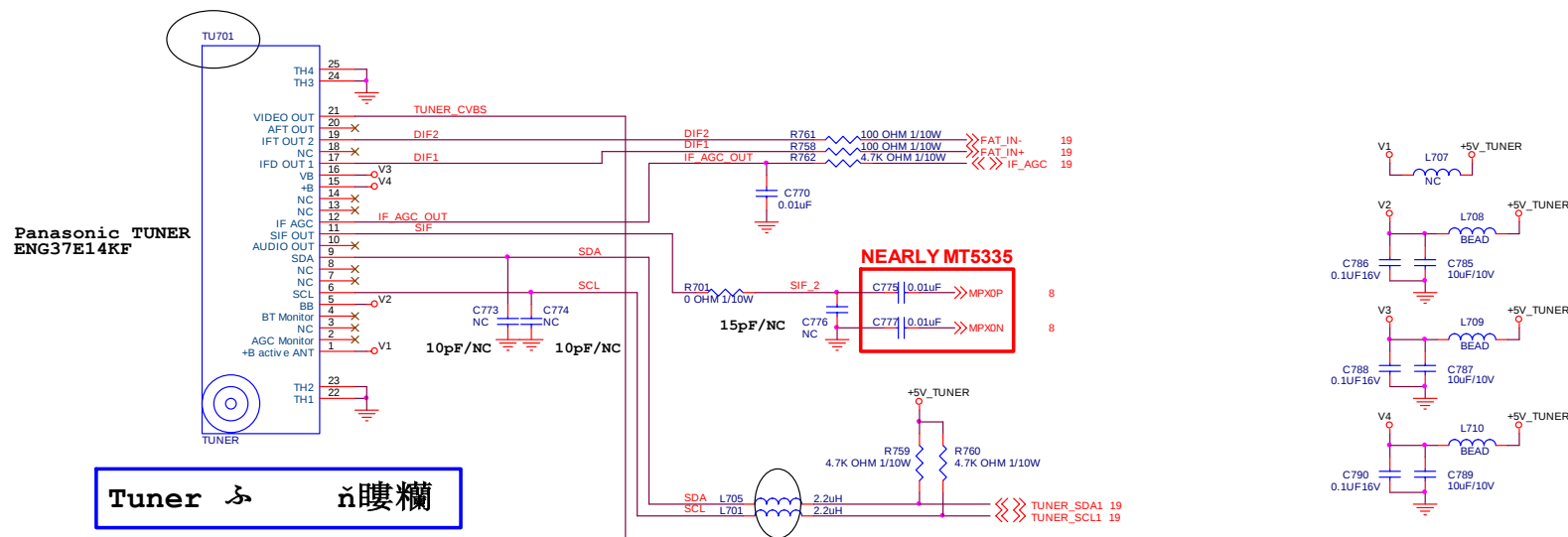


|                                               |                         |           |             |         |
|-----------------------------------------------|-------------------------|-----------|-------------|---------|
| T P V ( Top Victory Electronics Co . , Ltd. ) | OEM MODEL               | AT2645    | Size        | A4      |
| 結隔瓜網腹                                         | T2848-H-X-X-2-032408    | TPV MODEL | TV2668W-AED | Rev C   |
| Key Component                                 | TMDS251 HDMI 2:1 Switch | PCB NAME  | 715T2848-H  | 称爹 <称爹> |
| Date                                          | Friday , April 11, 2008 | Sheet     | 15 of 22    |         |





|                                         |                        |           |             |     |
|-----------------------------------------|------------------------|-----------|-------------|-----|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL              | AT2645    | Size        | A3  |
| 結構底圖                                    | T2848-H-X-2-032408     | TPV MODEL | TV2668W-AED | Rev |
| Key Component                           | AUDIO AMP CLASS D      | PCB NAME  | 715T2848-H  | Rev |
| Date                                    | Friday, April 11, 2008 | Sheet     | 17 of 22    | Rev |



|                                             |                        |           |             |      |      |
|---------------------------------------------|------------------------|-----------|-------------|------|------|
| T P V ( Top Victory Electronics Co., Ltd. ) |                        | OEM MODEL | AT2645      | Size | A3   |
| 新 隔 瓜 蝦 蝦 T2848-H-X-2-032408                |                        | TPV MODEL | TV2668W-AED | Rev  | C    |
| Key Component                               | EU Tuner Interface     | PCB NAME  | 715T2848-H  | 稱差   | <稱差> |
| Date                                        | Friday, April 11, 2008 | Sheet     | 18 of 22    |      |      |





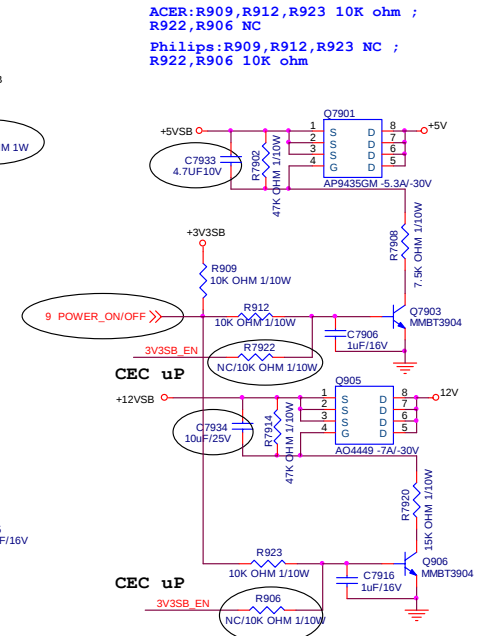
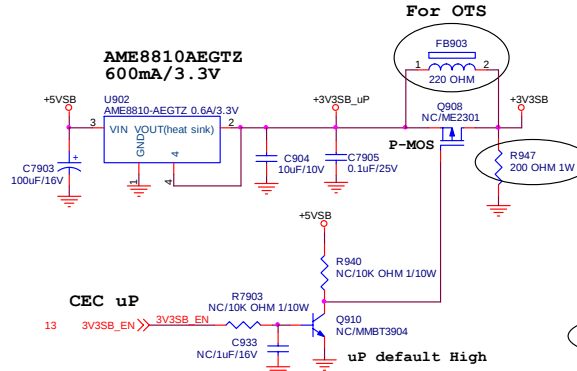
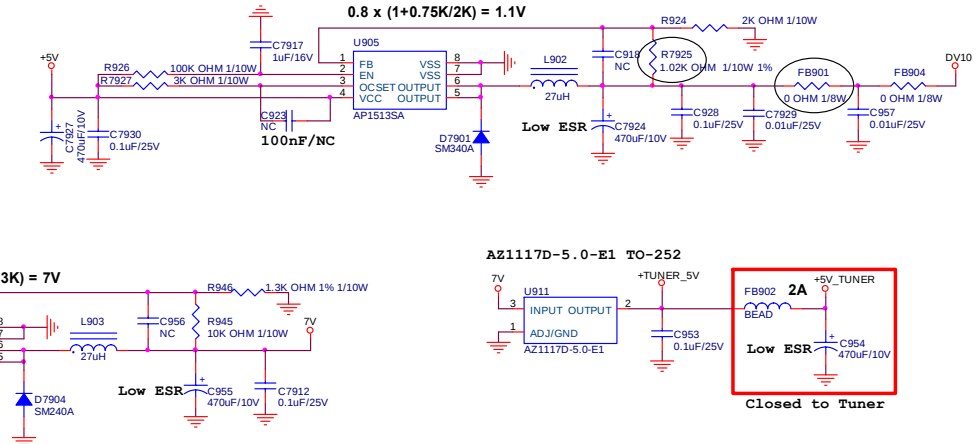
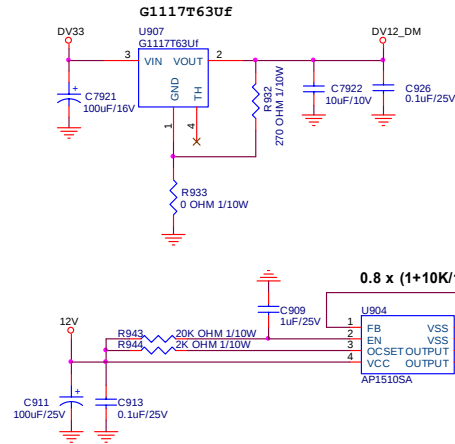
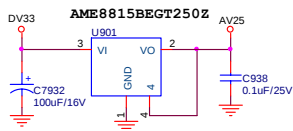
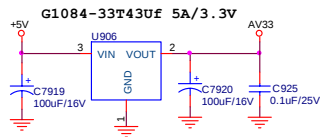
**33T3278 15 (2.5mm Pitch)**

The schematic diagram illustrates the LED driver circuit for the 33T3278 15 (2.5mm Pitch) LED strip. The LED strip's pins are connected to the driver circuit as follows:

- Pins 1-10:** Connected to the anodes of the LEDs.
- Pins 11-16:** Connected to the cathodes of the LEDs.

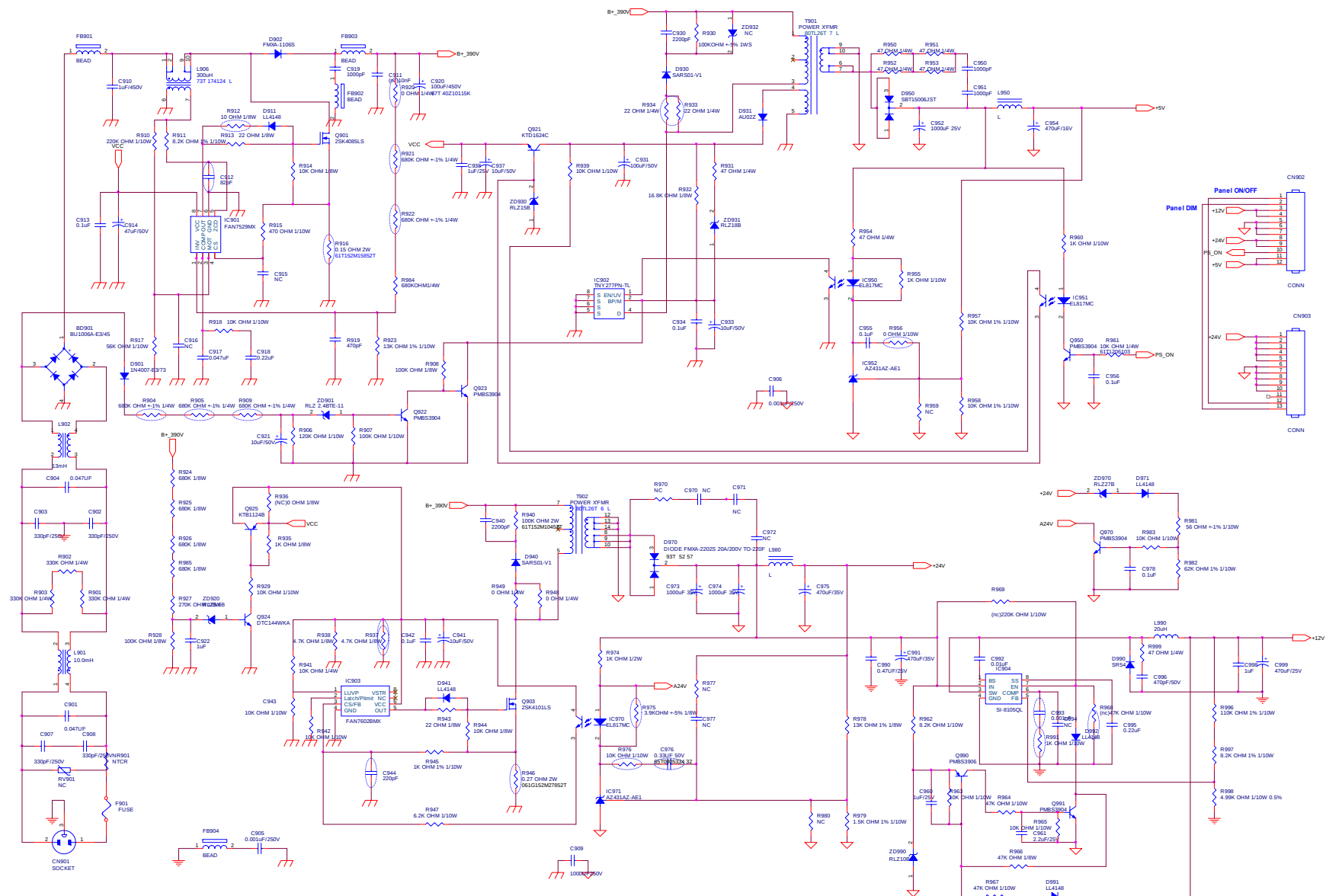
The circuit includes the following components and connections:

- Input:** 5V input connected to the driver circuit.
- Output:** 5V output connected to the driver circuit.
- 3.3V Output:** 3.3V output connected to the driver circuit.
- Resistors:** R7904, R7905, R7907, R910, R934, R941, R942, R935, R939, and R913.
- Capacitors:** C902 and C909.
- Labels:** Dimming, PS\_ON, BL\_EN, BL\_DIM, BL\_ON/OFF, and PS\_ON\_SW.



|                                         |                        |           |             |      |      |
|-----------------------------------------|------------------------|-----------|-------------|------|------|
| TPV (Top Victory Electronics Co., Ltd.) |                        | OEM MODEL | AT2645      | Size | A3   |
| 鋅鋼爪鎖眼 T2848 H×X2-032408                 |                        | TPV MODEL | TV2668W-AED | Rev  | C    |
| KeyComponent                            | POWER                  | PCB NAME  | 715T2848-H  | 料號   | <料號> |
| Date                                    | Friday, April 11, 2008 | Sheet     | 21 of 22    |      |      |

Power board

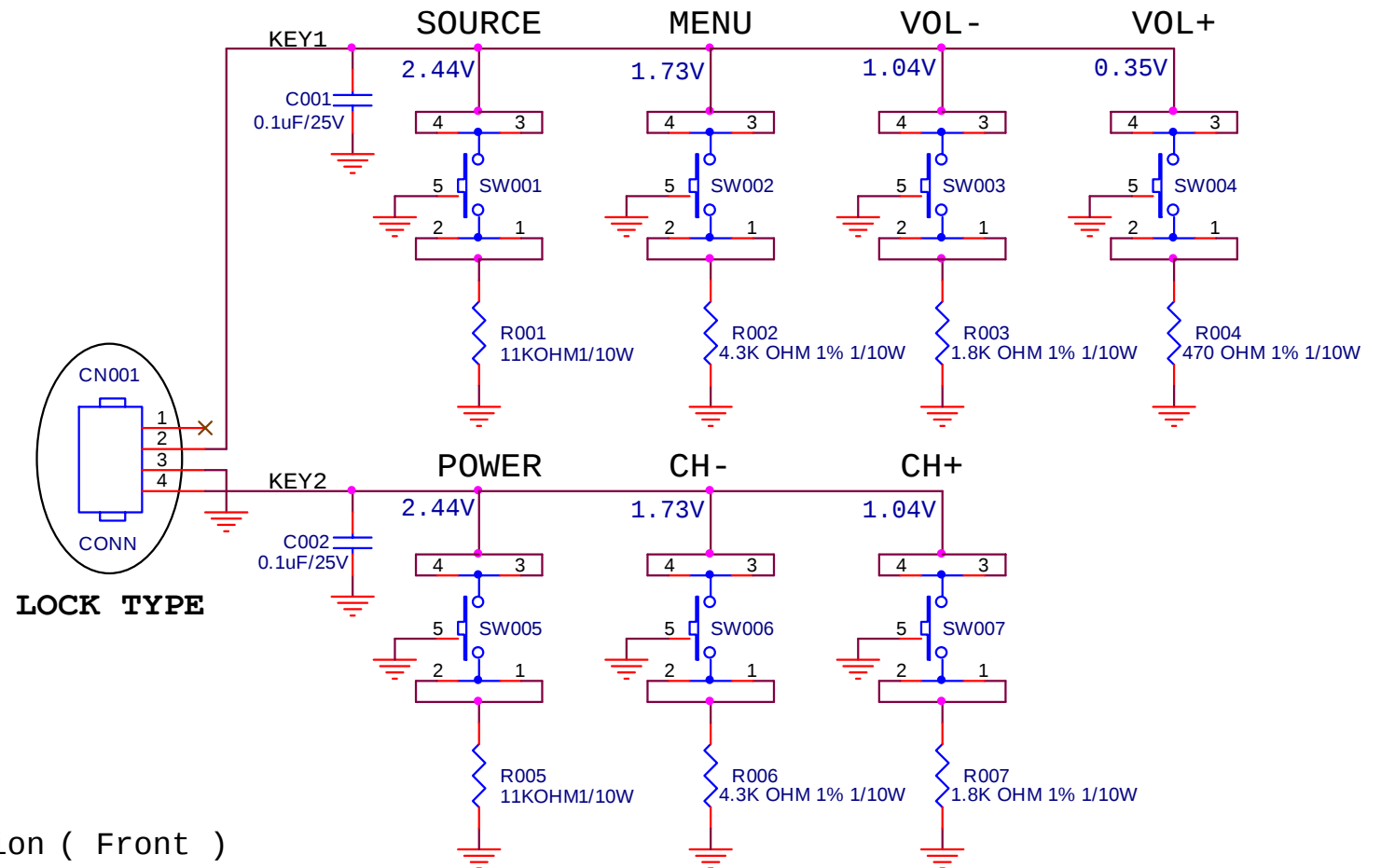


|                                           |           |            |   |
|-------------------------------------------|-----------|------------|---|
| T.P.V (Top Victory Electronics Co., Ltd.) | OEM MODEL | Size       | D |
| 兴能光电                                      | TPV MODEL | Rev        | A |
| Key Component: 02 POWER                   | PCB NAME  | 71572907_1 |   |
| Date: Thursday, January 24, 2008          | Sheet     | 1 of 1     |   |

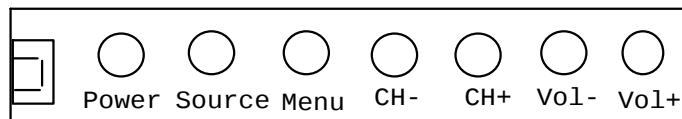
## Key board

### NOTE

Pull up R = 3.9K ohm to 3.3V

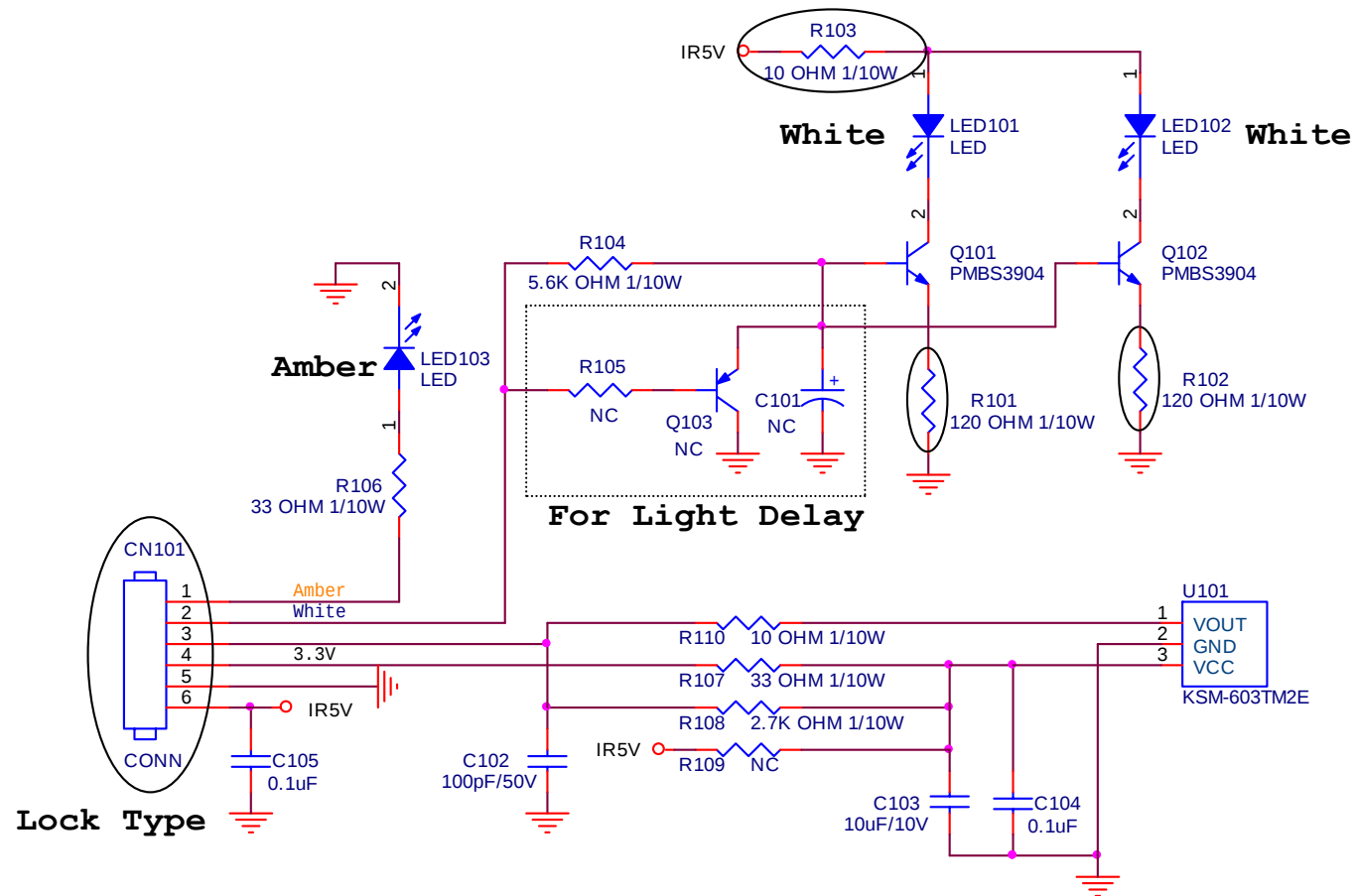


PCB key location ( Front )



Reset  
source

## IR Board



|                                         |                         |           |             |         |
|-----------------------------------------|-------------------------|-----------|-------------|---------|
| TPV (Top Victory Electronics Co., Ltd.) | OEM MODEL               | AT2645    | Size        | A       |
| 結隔瓜網腹                                   | T2992-A-X-X-1-080325    | TPV MODEL | TV2668W-AED | Rev 1.0 |
| Key Component                           | MT5335 IR/LED           | PCB NAME  | 715T2992-A  | 称爹 <称爹> |
| Date                                    | Tuesday, March 25, 2008 | Sheet     | 2 of 2      |         |