

Service  
Service  
Service



# Service Manual

Horizontal Frequency  
30 kHz to 83 kHz

## Table of Contents

| Description                                      | Page | Description  | Page |
|--|------|--|------|
| <a href="#">Table Of Contents</a>                | 1    | <a href="#">5.2.Electrical Block Diagram</a>           | 22   |
| <a href="#">Revision List</a>                    | 2    | <a href="#">6. Mechanical Instructions</a>             | 24   |
| <a href="#">ECN History</a>                      | 3    | <a href="#">7. Schematic Diagram</a>                   | 29   |
| <a href="#">Important Safety Notice</a>          | 4    | <a href="#">7.1 Main Board</a>                         | 29   |
| <a href="#">1.Monitor Specifications</a>         | 5    | <a href="#">7.2 Power Board</a>                        | 33   |
| <a href="#">2.LCD Monitor Description</a>        | 6    | <a href="#">8. PCB Layout</a>                          | 35   |
| <a href="#">3.Operation Instructions</a>         | 7    | <a href="#">8.1. Main Board</a>                        | 35   |
| <a href="#">3.1.General Instructions</a>         | 7    | <a href="#">8.2. Power Board</a>                       | 38   |
| <a href="#">3.2.Control Buttons</a>              | 8    | <a href="#">8.3. Key Board</a>                         | 41   |
| <a href="#">3.3 Adjusting the Picture</a>        | 10   | <a href="#">9. Maintainability</a>                     | 42   |
| <a href="#">4. Input/Output Specification</a>    | 16   | <a href="#">9.1.Equipments and Tools Requirement</a>   | 42   |
| <a href="#">4.1.Input Signal Connector</a>       | 16   | <a href="#">9.2.Trouble Shooting</a>                   | 43   |
| <a href="#">4.2.Factory Preset Display Modes</a> | 17   | <a href="#">10.White-Balance, Luminance adjustment</a> | 49   |
| <a href="#">4.3.Power Supply Requirements</a>    | 17   | <a href="#">11.ISP Instruction</a>                     | 50   |
| <a href="#">4.4.Panel Specification</a>          | 18   | <a href="#">12. Monitor Exploded View</a>              | 54   |
| <a href="#">4.5.Definition of Pixel Defects</a>  | 19   | <a href="#">13. Recommended Parts&amp;BOM List</a>     | 55   |
| <a href="#">5.Block Diagram</a>                  | 20   | <a href="#">14. Different Parts List</a>               | 66   |
| <a href="#">5.1.Software Flow Chart</a>          | 20   |  |      |

## SAFETY NOTICE

ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

## Revision List

| Revision | Release Date | Revise history  | TPV model  |
|----------|--------------|---|--|
| A00      | Jul.-18-2007 | Initial Release   | T77GMRHFYWDRNN<br>T77GMRHJYWDRNN<br>T77GMRHKYWDRNN<br>T77GMRHLYWDRNN<br>T77GMRHMYWDLNN<br>T77GMRHMYWDRNN                                     |
| A01      | Sep.-06-2007 | Add new models in Item 14                               | T77GMRHJYWDRNC<br>T77GMRHFYWDRNC<br>T77GMRHMYWDLNC<br>T77GMRHBYWDRNN<br>T77GMRHBYWDRNC<br>T77GMRHKYWDRNC<br>T77HMRHKYWDRNN<br>T77HMRHKYWDRNC |
| A02      | Sep.-16-2007 | Add new models in Item 14                               | T77HMRHFYWDRNC<br>T77HMRHMYWDLNC<br>T77HMRHLYWDRNC<br>T77HMRHJYWDRNC<br>T77HMRHMYWDRNC   |
| A03      | Oct.-28-2007 | Add new models in Item 14                               | T77HMRHBYWDRNC   |
| A04      | Dec.-05-2007 | Add "ECN History"                                       |  |
| A05      | Mar.-05-2008 | Add new models in Item 14                               | T77GMRHFYWDMNC<br>T77GMRHMPWDMNC<br>T77GMRHMYWDMNC<br>T77GMRHMYWDNNC   |
| A06      | Jul.-05-2008 | Add new models in Item 14                               | T77GMRHMYWDNNC   |
| A07      | Dec.-24-2008 | Change Y value to Ymin (min luminance value) in item 10 | ALL  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |
|          |              |   |  |

**ECN History**

| ECN No. | Change Description | Service Deposition | Cut-in date | MSR |
|---------|--------------------|--------------------|-------------|-----|
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |
|         |                    |                    |             |     |

**Important Safety Notice**

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

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. AOC could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, AOC has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by AOC must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

Hereafter throughout this manual, AOC Company will be referred to as AOC.

**WARNING**

Use of substitute replacement parts, which do not have the same, specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from AOC. AOC assumes no liability, express or implied, arising out of any unauthorized modification of design.

Servicer assumes all liability.

**FOR PRODUCTS CONTAINING LASER:**

DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.

CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

Take care during handling the LCD module with backlight unit

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body is grounded through wristband.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

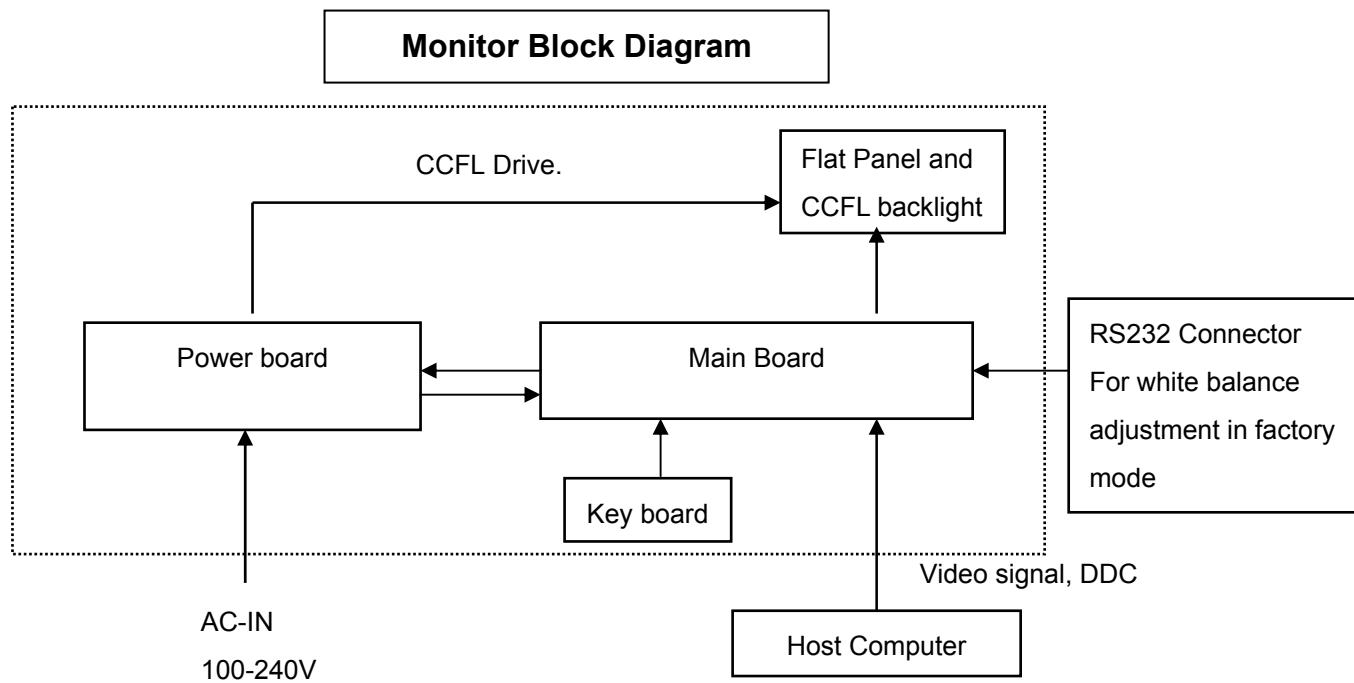
## 1. Monitor Specifications

|                              |   |   |
|------------------------------|---|---|
| LCD Panel                    | Screen type   | Active matrix - TFT LCD   |
|                              | Panel Type  | LM171WX3-TLB1 KR ZBD LPL  |
|                              | Size  | 17 inches (17-inch diagonal viewable image size)                |
|                              | Pixel pitch   | 0.255 mm x 0.255 mm   |
|                              | Viewable angle  | Viewing angle 160° (vertical) typ, 160° (horizontal) typ(CR>10) |
|                              | Response time   | 8 ms typical (Black to White)                                   |
| Input                        | Video   | Analog RGB: 0.7 Volts +/-5%, 75 ohm input impedance             |
|                              | Separate Sync   | H/V TTL   |
|                              | H-Frequency   | 30 kHz to 83 kHz (automatic)                                    |
|                              | V-Frequency   | 50 Hz to 75 Hz  |
| Display Colors               | 16.7M   |   |
| Dot Clock                    | 135MHz (Max.)   |   |
| Max. Resolution              | 1440 x 900 at 60 Hz   |   |
| Plug & Play                  | VESA DDC  |   |
| EPA ENERGY STAR®             | ON Mode   | 34 W (typical)  |
|                              | OFF Mode  | <1W   |
| Input Connector              | 15-pin D-subminiature, blue connector   |   |
| Maximum Screen Size          | Horizontal : 367.2 mm(14.46 inches)<br>Vertical: 229.5 mm(9.04 inches)                    |   |
| Power Source                 | 100 to 240 VAC / 50-60 Hz / 0.6A (100V)& 0.35A(240V)Max.                                  |   |
| Environmental Considerations | Operating Temp: 5° to 35°C<br>Operating Humidity: 10% to 80%<br>Storage Temp.: 0° to 60°C |   |
| Weight                       | Weight with packaging: 5.31 kg (11.68 lb )  |   |
|                              | Monitor (Stand and Head): 3.86 kg ( 8.49 lb)  |   |
|                              | Monitor Flat panel only (VESA Mode): 2.70 kg (5.95 lb)                                    |   |

## 2. LCD Monitor Description

The LCD monitor will contain a main board, power board, key board, which house the flat panel control logic, brightness control logic and DDC.

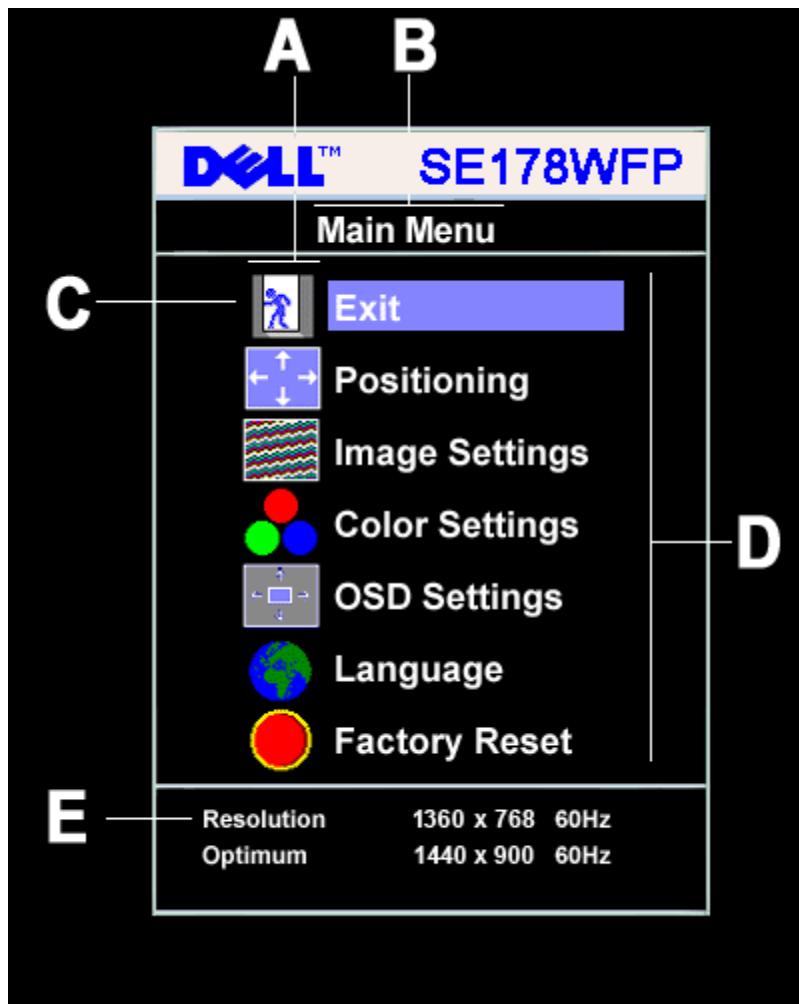
The power board will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.



### 3. Operation instructions

#### 3.1 General Instructions

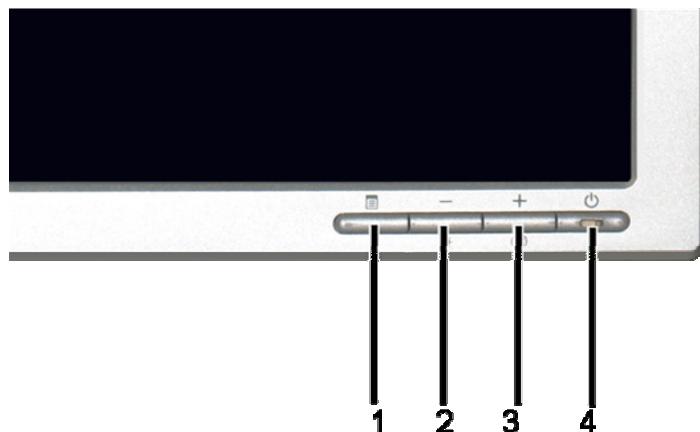
- With the menu off, press the **MENU** button to open the OSD system and display the main features menu.



|          |                |          |            |          |           |
|----------|----------------|----------|------------|----------|-----------|
| <b>A</b> | Function icons | <b>B</b> | Main Menu  | <b>C</b> | Menu icon |
| <b>D</b> | Sub-Menu name  | <b>E</b> | Resolution |          |           |

- Press the - and + buttons to move between the function icons. As you move from one icon to another, the function name is highlighted to reflect the function or group of functions (sub-menus) represented by that icon. See the table below for a complete list of all the functions available for the monitor.
- Press the **MENU** button once to activate the highlighted function. Press -/+ to select the desired parameter, press menu to enter the sidebar, then use the - and + buttons, according to the indicators on the menu, to make your changes.
- Press the **MENU** button once to return to the main menu to select another function or press the **MENU** button two or three times to exit from the OSD.

### 3.2 Control Buttons



|   |  |
|---|--|
| 1 | Menu selection button                  |
| 2 | Brightness Contrast / Down(-) button   |
| 3 | Auto-Adjust / Up(+) button             |
| 4 | Power On/Off button with LED indicator |

|     |   |  |
|-----|---|--|
| 1   | <br><b>MENU</b>                        | The 'MENU' button is used to open the on-screen display (OSD), select function icons, exit from menus and sub-menus, and to exit the OSD. See Accessing the Menu System              |
| 2   | <br><b>Brightness/Contrast Hot Key</b> | Use this button for direct access to the 'Brightness' and 'Contrast' control menu.   |
| 2,3 | <br><b>- and + buttons</b>             | Use these buttons to adjust (decrease/increase ranges) items in the OSD.<br><br><b>NOTE:</b> You can activate automatic scroll feature by pressing and holding either + or - button. |
| 3   | <br><b>Auto Adjust</b>                 | Use this button to activate automatic setup and adjustment. The following dialog will appear on screen as the monitor self-adjusts to the current input:                             |

|   |  |  |
|---|--|--|
|   |  | <b>Auto Adjust In Progress</b>   |
|   |  | <p>Auto Adjustment  button allows the monitor to self-adjust to the incoming video signal. After using 'Auto Adjustment', you can further tune your monitor by using the 'Pixel Clock' and 'Phase' controls in the OSD.</p> <p><b>NOTE:</b> Auto Adjust will not occur if you press the button while there are no active video input signals, or attached cables.</p> |
| 4 | <br><b>Power Button and Indicator</b> | <p>The green LED indicates the monitor is on and fully functional. An amber LED indicates DPMS power save mode.</p> <p>The Power button turns the monitor on and off.</p>  |

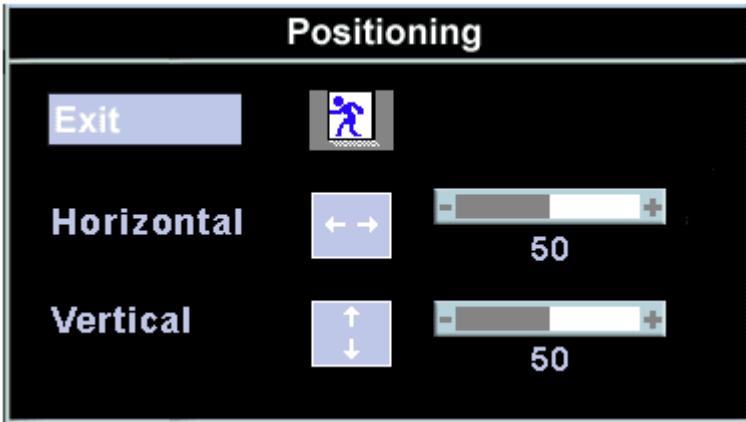
### On Screen Menu/Display (OSD)

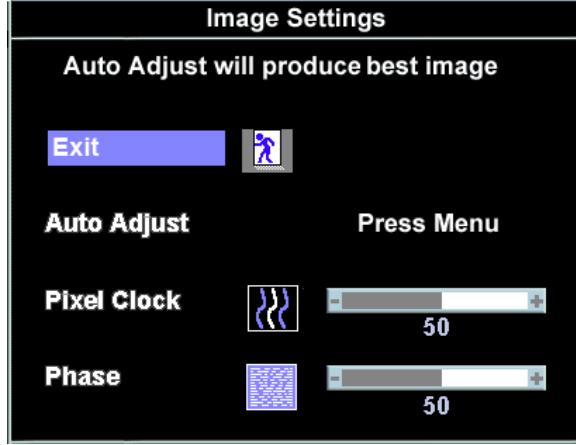
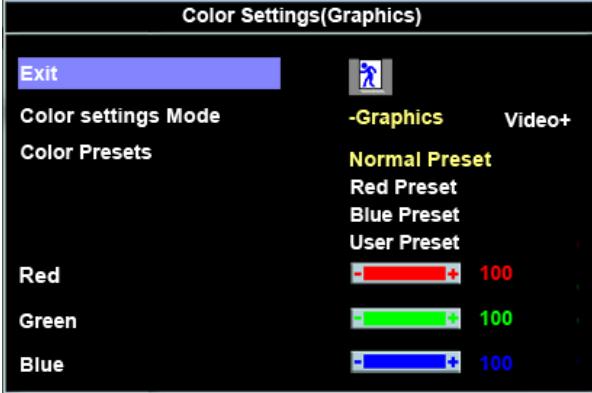
#### Direct-Access Functions

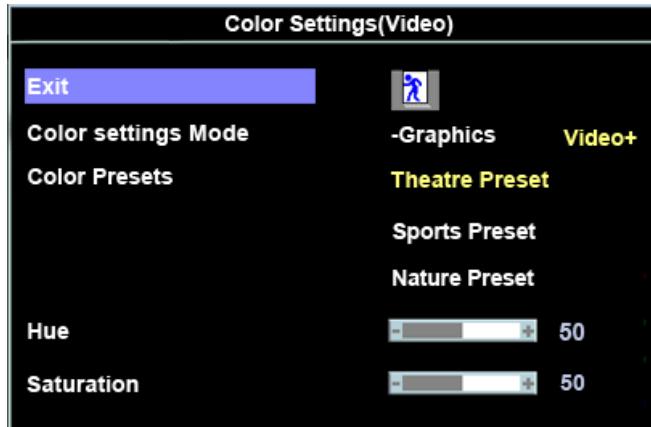
| Function                     | Adjustment Method  |
|------------------------------|--|
| <b>Auto adjustment</b>       | <p>Use this button to activate automatic setup and adjustment. The following dialog will appear on screen as the monitor self-adjusts to the current input:</p> <div style="text-align: center;"><b>Auto Adjust In Progress</b></div> <p>Auto Adjustment  button allows the monitor to self-adjust to the incoming video signal. After using 'Auto Adjustment', you can further tune your monitor by using the 'Pixel Clock' and 'Phase' controls in the OSD.</p> <p><b>NOTE:</b> Auto Adjust will not occur if you press the button while there are no active video input signals, or attached cables.</p> |
| <b>Brightness / Contrast</b> |  <p>With the menu off, press  button to display the 'Brightness' and 'Contrast' adjustment menu.</p> <p>The 'Brightness' function adjusts the luminance of the flat panel.</p> <p>Adjust 'Brightness' first, and then adjust 'Contrast' only if further adjustment is necessary.</p> <p>"+" increase 'brightness'<br/>" - " decrease 'brightness'</p>  |

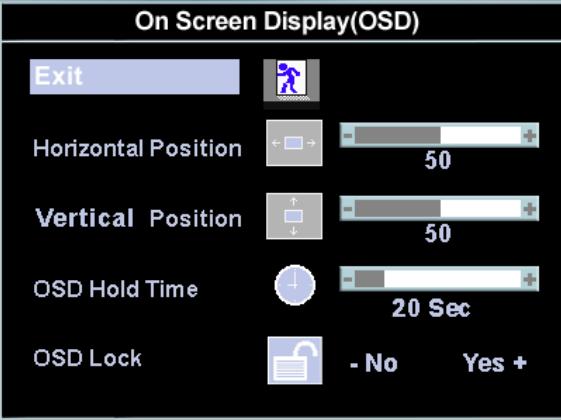
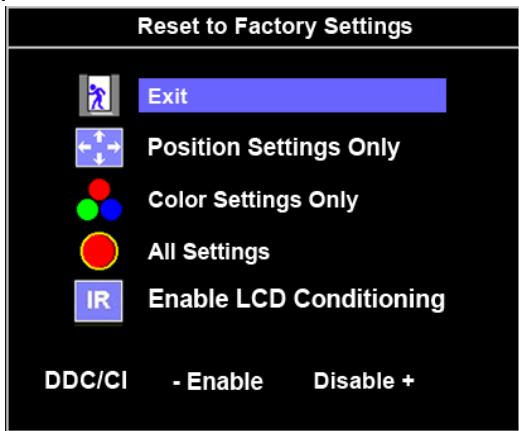
|  |  |
|--|--|
|  | <p>The 'Contrast' function adjusts the degree of difference between darkness and lightness on the display screen.</p> <p>"+" increase the 'contrast'<br/>"-" decrease the 'contrast'</p> |
|--|--|

### 3.3 Adjusting the Picture

| Icon | Menu and Submenus   | Description   |
|------|---|---|
|      | <b>Exit</b>   | This is used to exit out of the Main Menu.  |
|      | <b>Positioning:</b><br><br><b>Horizontal</b><br><b>Vertical</b> | <p>'Positioning' moves the viewing area around on the monitor screen.</p> <p>When making changes to either the <b>Horizontal</b> or <b>Vertical</b> settings, no changes occur to the size of the viewing area; the image gets shifted based on what you select.</p> <p>Minimum is '0' (-). Maximum is '100' (+).</p>   |
|      | <b>Image settings:</b><br><br><b>Auto Adjust</b>                | <p>Even though your computer system can recognize your new flat panel monitor on startup, the 'Auto Adjustment' function will optimize the display settings for use with your particular setup.</p> <p><b>NOTE:</b> In most cases, 'Auto Adjust' produces the best image for your configuration; you can directly access this function via Auto Adjustment hotkey.</p> <p>The <b>Phase</b> and <b>Pixel Clock</b> adjustments allow you to more closely adjust your monitor to your preference. Select Image Settings in the main OSD to access</p> |

|  |  |   |
|--|--|---|
|  | <p><b>Phase</b></p>             | <p>these settings.</p> <p>Use the - and + buttons to adjust interference. Minimum: 0 ~ Maximum: 100</p> <p>If satisfactory results are not obtained using the <b>Phase</b> adjustment, use the <b>Pixel Clock</b> adjustment and then use <b>Phase</b> again.</p>  <p><b>NOTE:</b> This function may change the width of the display image. Use the 'Horizontal' function of the 'Position' menu to center the display image on the screen.</p>   |
|  | <p><b>Color Settings</b></p>  | <p>Adjusts the color temperature and saturation.</p>  <p>Color Settings adjust the color temperature.</p> <p>Color Settings has the following options: Color Management :</p> <p>Color Settings Mode : You can choose between a Graphics and a Video mode. If your computer is connected to your monitor, choose Video.</p> <p>Color Presets: You can choose different color presets for different viewing modes.</p> <p>As soon as choose Graphics, you can choose Normal Preset, Red Preset, Blue Preset or User Preset.</p> <p>Select Red Preset for a warm color.</p> <p>Select Blue Preset for a cool color.</p> |

|   |  |
|---|--|
|   | <p>You can adjust the monitor color using User Preset, R, G, B.Normal Preset mean color temperature 6500K.</p> <p>Select Blue Preset for a bluish tint. This color setting is used for text based applications (spreadsheets, programming, text editors, etc.).</p> <p>Select Red Preset for a reddish tint. This color setting is used for color-intensive applications (photograph image editing, multimedia, movies, etc.).</p> <p>Select Normal Preset for default color settings. This setting is also the "sRGB" standard default color space.</p> <p>User Preset: Use the plus and minus buttons to increase or decrease each of the three colors (R, G, B) independently, in single digit increments, from 0 to 100.</p> <p>There are three video modes: Theater Preset, Sports Preset, and Nature Preset.</p>  |
|    | <p><b>OSD Settings:</b> Each time the OSD opens, it displays in the same location on the screen. 'OSD Settings' (horizontal/vertical) provides control over this location.</p> <p><b>Horizontal Position</b> - and + buttons move OSD to the left and right.</p> <p><b>Vertical Position</b> - and + buttons move OSD down and up.</p> <p><b>OSD Hold Time</b> The OSD stays active for as long as it is in use.<br/>         'OSD Hold Time': Sets the length of time the OSD will remain active after the last time you pressed a button.<br/>         Use the - and + buttons to adjust the slider in 5 second increments, from 5 to 60 seconds</p>   |

|  |  |   |
|--|--|---|
|  | <b>OSD Lock</b><br>         | <p><b>NOTE:</b> Default 'OSD hold time' is 20 seconds.</p> <p>Controls user access to adjustments. When 'Yes' (+) is selected, no user adjustments are allowed. All buttons, except Menu, are locked.</p> <p>All buttons can be locked or unlocked. Press the 'Menu' button for over 15 seconds to unlock the OSD menu.</p>  <p><b>NOTE:</b> When the OSD is locked, pressing the 'Menu' button will take the user directly to the 'OSD settings' menu, with 'OSD Lock' preselected on entry. Select 'No' (-) to unlock and allow user access to all applicable settings.</p> |
|  | <b>Language</b><br>       | <p>Language sets the OSD to display in one of five languages (English, Español, Français, Deutsch, and Japanese).</p>  <p><b>NOTE:</b> The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.</p>   |
|  | <b>Factory Reset:</b><br> | <p><b>Factory Reset</b> returns the settings to the factory preset values for the selected group of functions.</p>  <p><b>Exit</b> is used to exit out of <b>Factory Reset</b> menu.</p>  |

For **All settings**, all user adjustable settings are reset at one time except **Language settings**.

**IR** — This feature will help reduce minor cases of image retention.

**Enable LCD Conditioning:** If an image appears to be stuck on the monitor, select **LCD Conditioning** to help eliminate any image retention. Using the LCD Conditioning feature may take several hours. Severe cases of image retention are known as burn-in, the LCD Conditioning feature does not remove burn-in.

**NOTE:** Use LCD Conditioning only when you experience a problem with image retention.

Below warning message appears once user select "Enable LCD Conditioning":

This feature will help reduce minor cases of image retention.  
Depending on the degree of image retention, the program may take some time to run.

Do you want to continue?

- No

Yes +

**NOTE:** Press any button on the monitor to terminate LCD Conditioning at any time.

LCD Conditioning is currently in progress. Press any button on the monitor to terminate LCD Conditioning at any time.

**DDC/CI** (Display Data Channel/Command Interface) allows you to adjust the monitor parameters (brightness, color, balance, etc.) via software applications on your PC.

Select **Disable** to disable this feature.

For best user experience and optimum performance of your monitor, keep this feature enabled.

The function of adjusting display settings using PC applications will be disabled.

Do you want to disable DDC/CI?

- No

Yes +

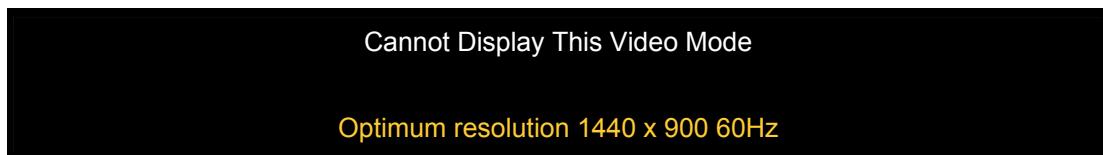
**NOTE:** If user select 'disable' for DDC/CI, the warning message will appear on screen. Then user can select Yes or No according to need.

## Automatic Save

With the OSD open, if you make an adjustment and then either proceed to another menu, or exit the OSD, the monitor automatically saves any adjustments you have made. If you make an adjustment and then wait for the OSD to disappear the adjustment will also be saved.

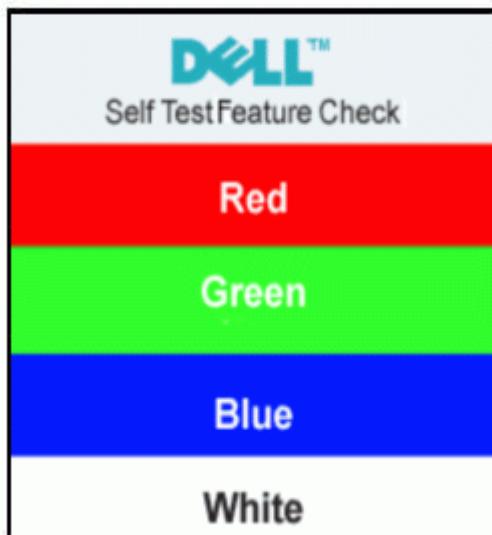
## OSD Warning Messages

A warning message may appear on the screen indicating that the monitor is out of sync.



This means that the monitor cannot synchronize with the signal that it is receiving from the computer. Either the signal is too high or too low for the monitor to use. See Specifications for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 1440 X 900 @ 60Hz.

 NOTE: The floating 'Dell - self-test Feature Check' dialog appears on the screen if the monitor cannot sense a video signal.



Occasionally, no warning message appears, but the screen is blank. This could also indicate that the monitor is not synchronizing with the computer. See Troubleshooting for more information.

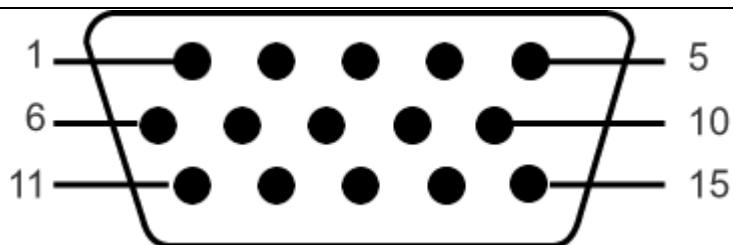
## 4. Input/Output Specification

### 4.1 Input Signal Connector

#### VGA Connector:

| Pin No. | Description | Pin No. | Description      |
|---------|-------------|---------|------------------|
| 1       | Video-Red   | 9       | Computer 5V/3.3V |
| 2       | Video-Green | 10      | GND-sync         |
| 3       | Video-Blue  | 11      | GND              |
| 4       | GND         | 12      | DDC data         |
| 5       | Self-test   | 13      | H-sync           |
| 6       | GND-R       | 14      | V-sync           |
| 7       | GND-G       | 15      | DDC clock        |
| 8       | GND-B       |         |                  |

VGA Connector layout



## 4.2 Factory Preset Display Modes

| Display Mode      | Horizontal Frequency (kHz) | Vertical Frequency (Hz) | Pixel Clock (MHz) | Sync Polarity (Horizontal/Vertical) |
|-------------------|----------------------------|-------------------------|-------------------|-------------------------------------|
| VGA, 720 x 400    | 31.5                       | 70.1                    | 28.3              | -/+                                 |
| VGA, 640 x 480    | 31.5                       | 60.0                    | 25.2              | -/-                                 |
| VESA, 640 x 480   | 37.5                       | 75.0                    | 31.5              | -/-                                 |
| VESA, 800 x 600   | 37.9                       | 60.3                    | 40.0              | +/+                                 |
| VESA, 800 x 600   | 46.9                       | 75.0                    | 49.5              | -/+                                 |
| VESA, 1024 x 768  | 48.4                       | 60.0                    | 65.0              | -/-                                 |
| VESA, 1024 x 768  | 60.0                       | 75.0                    | 78.8              | +/+                                 |
| VESA, 1152 x 864  | 67.5                       | 75.0                    | 108.0             | +/+                                 |
| VESA, 1280 x 1024 | 64.0                       | 60.0                    | 108.0             | +/+                                 |
| VESA, 1280 x 1024 | 80.0                       | 75.0                    | 135.0             | +/+                                 |
| VESA, 1440 x 900  | 55.935                     | 60.0                    | 106.5             | -/+                                 |

## 4.3 Power Supply Requirements

|                          |   |
|--------------------------|---|
| A/C Line voltage range   | : 100 V ~ 240 V± 10 %   |
| A/C Line frequency range | : 50 ± 3Hz, 60 ± 3Hz  |
| Input Voltage transients | : 280 volts AC for 10 sec @40°C   |
| Current                  | : 0.6A max. at 100V, 0.35A max. at 240 V  |
| Peak surge current       | : < 60A peak at 240 VAC and cold starting<br>: < 30A peak at 120VAC and cold starting                       |
| Leakage current          | : < 3.5mA   |
| Power line surge         | : No advance effects (no loss of information or defect)<br>with a maximum of 1 half-wave missing per second |

**4.4 Panel Specification****LM171WX3-TLB1 KR ZBD LPL****4.4.1 Display Characteristics**

|                        |   |  |  |  |  |
|------------------------|---|--|--|--|--|
| Active Screen Size     | 17.1 inches(43.3019cm) diagonal (Aspect ratio 16:10)  |  |  |  |  |
| Outline Dimension      | 389.2(H)x254.5(V)x11.5(D) mm (Typ.)                   |  |  |  |  |
| Pixel Pitch            | 0.255mm x 0.255mm                                     |  |  |  |  |
| Pixel Format           | 1440 horiz. By 900 vert. Pixels RGB strip arrangement |  |  |  |  |
| Color Depth            | 16.7M colors  |  |  |  |  |
| Luminance, White       | 250 cd/m <sup>2</sup> (Center 1 points Typ.)          |  |  |  |  |
| Viewing Angle (CR>10)  | R/L 160(Typ.), U/D 160(Typ)                           |  |  |  |  |
| Power Consumption      | Total   | 12.92 Watt(Typ.) (2.6 Watt@V <sub>LCD</sub> , 10.32 Watt@250cd/[Lamp=8mA]) |  |  |  |
| Weight                 | 1360 g (Typ.)   |  |  |  |  |
| Display Operating Mode | Transmissive mode, normally white                     |  |  |  |  |
| Surface Treatment      | Glare treatment of the front polarizer                |  |  |  |  |

**4.4.2 Optical Characteristics**Ta= 25±2°C, V<sub>LCD</sub>=5.0V, fV=60Hz, Dclk=106.5MHz, ILamp=8mA

| Parameter                   | Symbol                | Values          |           |         | Units             | Notes  |
|-----------------------------|-----------------------|-----------------|-----------|---------|-------------------|--------|
|                             |                       | Min             | Typ       | Max     |                   |        |
| Contrast Ratio              | CR                    | 500             | 800       | -       |                   | 1      |
| Surface Luminance, white    | L <sub>WH</sub>       | 200             | 250       | -       | cd/m <sup>2</sup> | 2      |
| Luminance Variation         | δ <sub>WHITE</sub>    | 75              |           |         | %                 | 3      |
| Response Time               | Rise Time             | Tr <sub>R</sub> | -         | 2       | 5                 | ms     |
|                             | Decay Time            | Tr <sub>D</sub> | -         | 6       | 11                | ms     |
| Color Coordinates [CIE1931] | RED                   | Rx              | Typ -0.03 | 0.610   | Typ +0.03         |        |
|                             |                       | Ry              |           | 0.339   |                   |        |
|                             | GREEN                 | Gx              |           | 0.304   |                   |        |
|                             |                       | Gy              |           | 0.594   |                   |        |
|                             | BLUE                  | Bx              |           | 0.150   |                   |        |
|                             |                       | By              |           | 0.086   |                   |        |
|                             | WHITE                 | Wx              |           | 0.313   |                   |        |
|                             |                       | Wy              |           | 0.329   |                   |        |
| Viewing Angle (CR>10)       |                       |                 |           | 160/160 |                   |        |
| x axis, right(ϕ=0°)         | x axis, right(ϕ=0°)   | θr              | 70        | 80      | -                 | degree |
|                             | x axis, left (ϕ=180°) | θl              | 70        | 80      | -                 |        |
|                             | y axis, up (ϕ=90°)    | θu              | 60        | 75      | -                 |        |
|                             | y axis, down (ϕ=270°) | θd              | 70        | 85      | -                 |        |
| Gray Scale                  |                       |                 | 1.9       | 2.2     | 2.5               |        |
| Cross talk                  |                       |                 |           |         | 1.5               | %      |
|                             |                       |                 |           |         |                   | Fig 5  |

#### 4.5 Definition of Pixel Defects

##### 4.5.1 Inspection environment conditions:

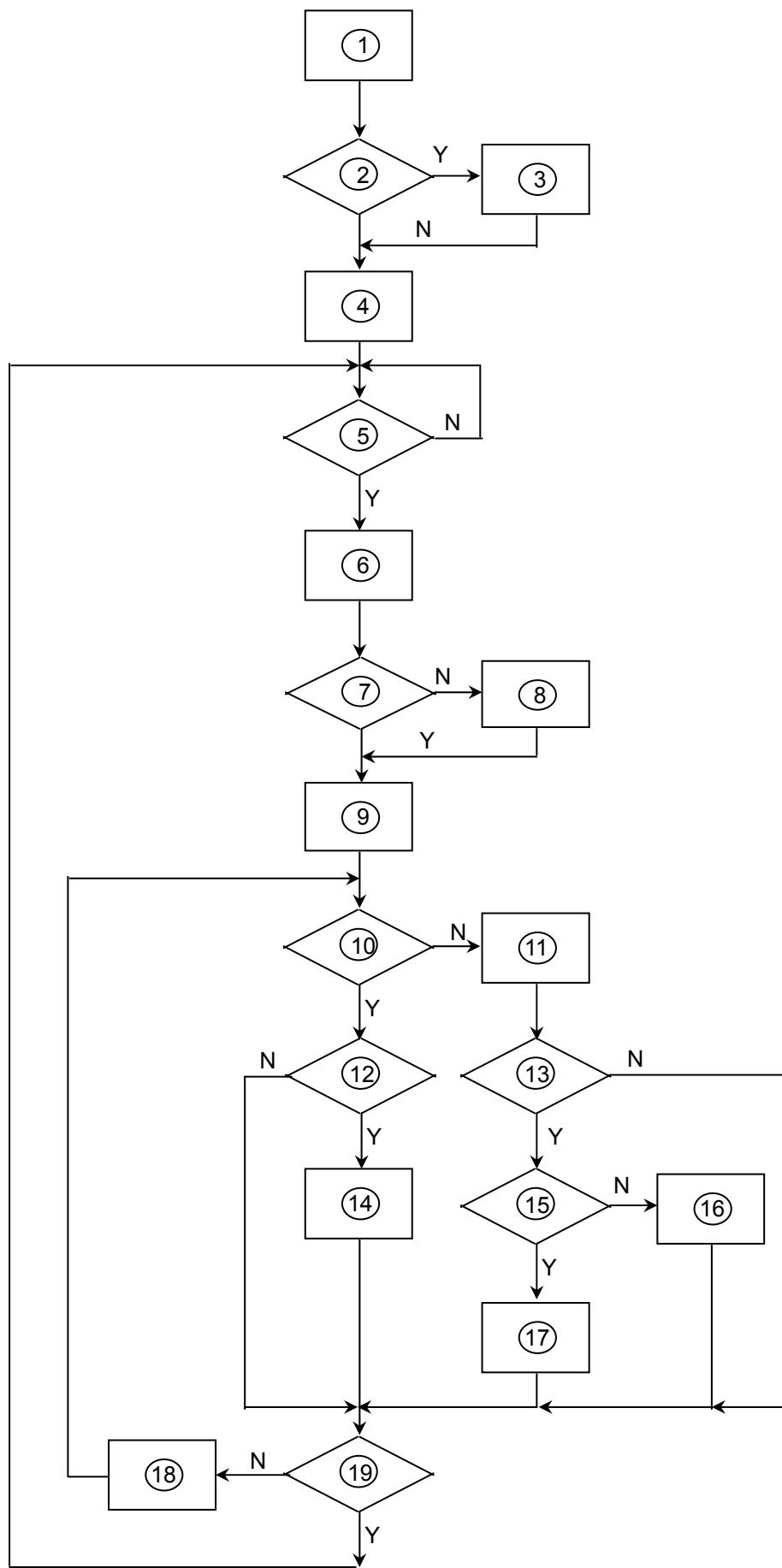
- ◆ Room temperature: 20 ~ 25 C
- ◆ Humidity: 65 ± 5% RH.
- ◆ Illumination: Fluorescent light (Day-Light Type) display surface illumination to be 300 ~ 700 Lux. (standard 500Lux.)
- ◆ To be a distance about 35±5 cm in front of LCD unit, viewing line should be perpendicular to the surface of the module judge the visual appearance with human's eyes. (Stand up the panel for judge and ±30° viewing edge will be allowed)
- ◆ Take off the protection film of polarizer while judging the display area.
- ◆ If there is any question while judging, check the panel again in operating mode.

##### 4.5.2. Display Defect Requirements

1. Max. 0 red, green or blue bright dots (sub-pixels), max. 0 green dots, max. 0 joined bright dot.
2. Max. 4 black dots. Max. 2 joined (2 adjacent) black dots, no defect with 3 adjacent black dots. Min. distance between 2 black dots: 10mm. Black dots are tested with full screen white (R.G.B. = 100,100,100)/ red (R.G.B. = 100,0,0)/green (R.G.B. = 0,100,0)/blue (R.G.B. = 0,0,100) pattern.
3. Total amount of Dot Defects are 5 Max. (Including bright and dark dot defects)

## 5. Block Diagram

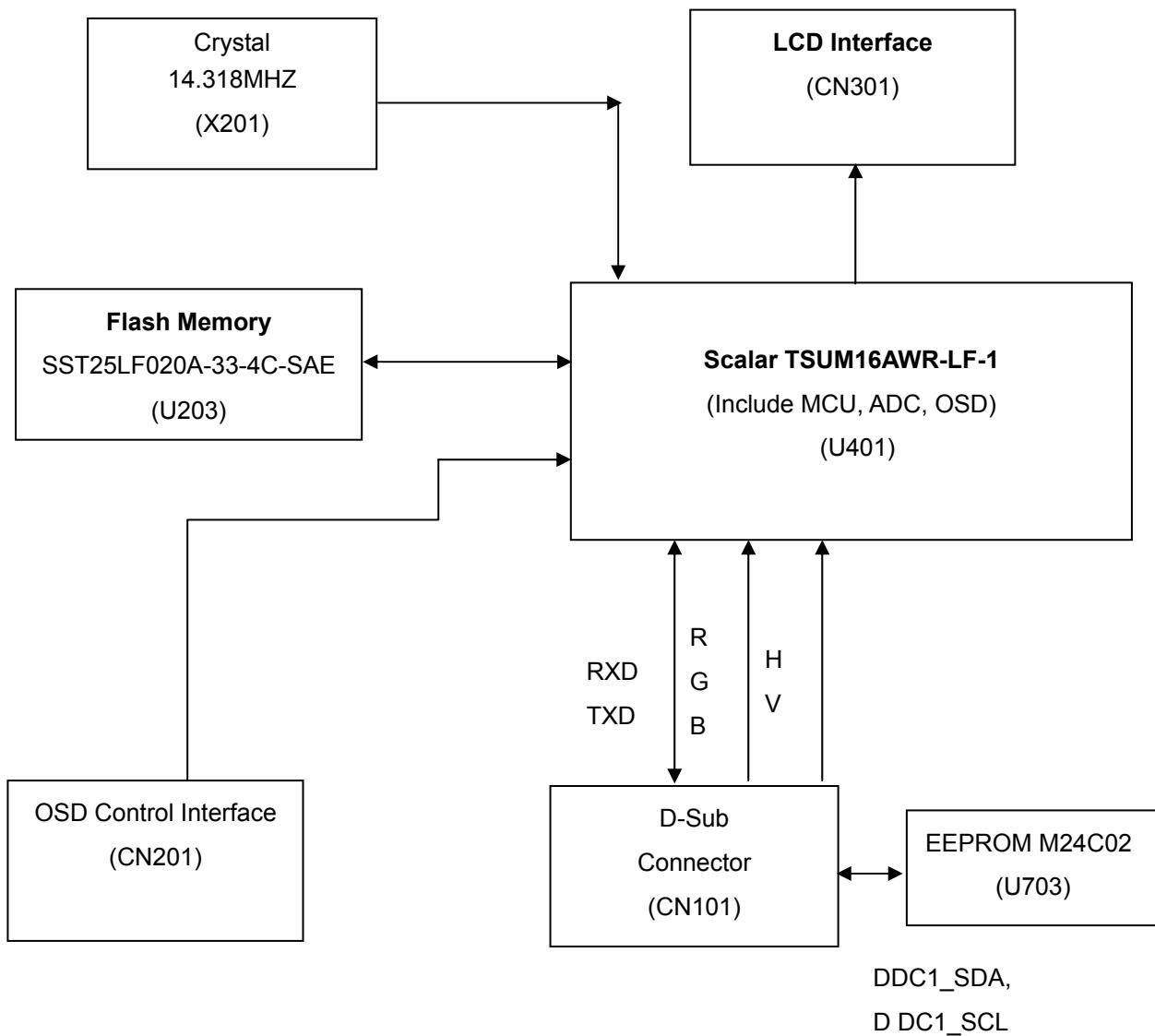
### 5.1 Software Flow Chart



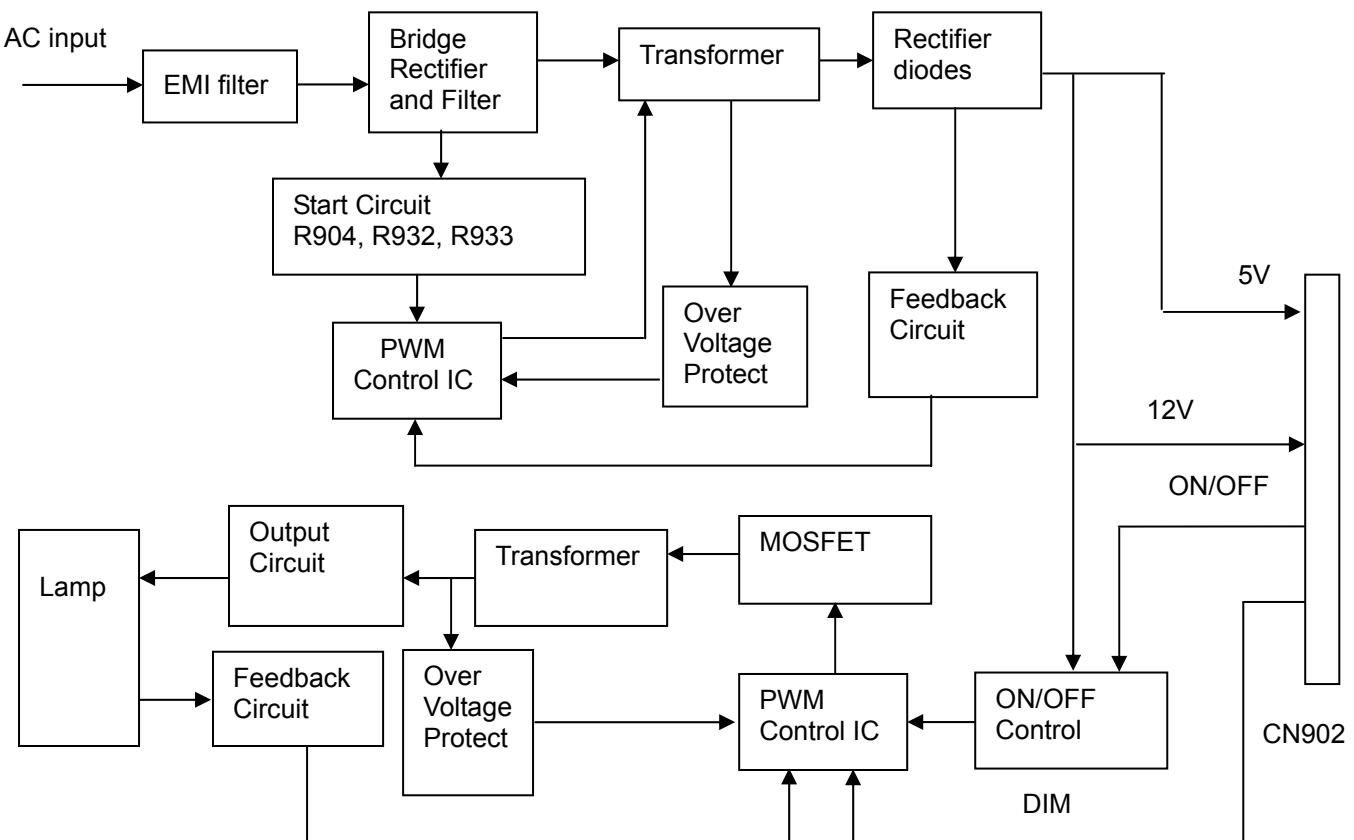
- 1) MCU Initializes.
- 2) Is the EEprom blank?
- 3) Program the EEprom by default values.
- 4) Get the PWM value of brightness from EEprom.
- 5) Is the power key pressed?
- 6) Clear all global flags.
- 7) Are the AUTO and SELECT keys pressed?
- 8) Enter factory mode.
- 9) Save the power key status into EEprom. Turn on the LED and set it to green color. Scalar initializes.
- 10) In standby mode?
- 11) Update the lifetime of back light.
- 12) Check the analog port, are there any signals coming?
- 13) Does the scalar send out an interrupt request?
- 14) Wake up the scalar.
- 15) Are there any signals coming from analog port?
- 16) Display "No connection Check Signal Cable" message. And go into standby mode after the message disappears.
- 17) Program the scalar to be able to show the coming mode.
- 18) Process the OSD display.
- 19) Read the keyboard. Is the power key pressed?

## 5.2 Electrical Block Diagram

### 5.2.1 Main Board



### 5.2.2 Inverter and Power Board

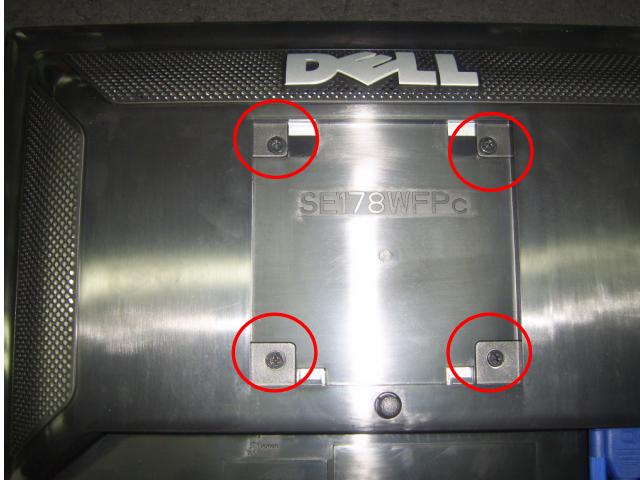


## 6. Mechanical Instructions

**Tools:** 2 Power screwdrivers ( $\phi=5\text{mm}, L=60\text{mm}$ ); 1 small cross screwdriver; turnbuckle driver;

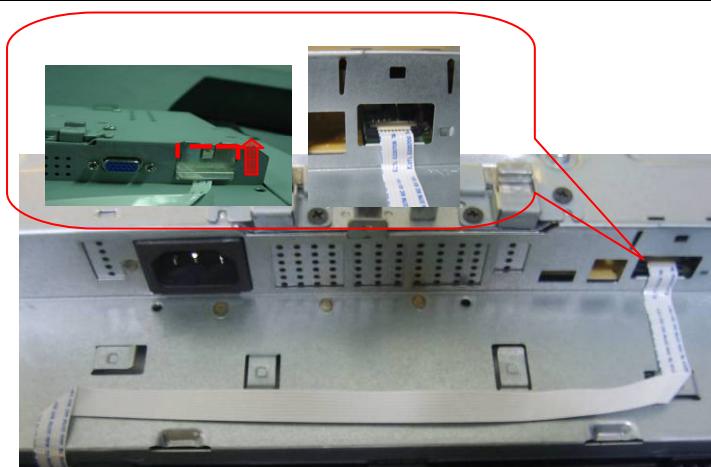
**Setting:** Power screwdriver torque A=11 kgF. Cm; torque B=6 kgF. Cm

**Note:** Firstly, put the monitor on a soft, flat and clean surface, wear gloves.

| Fig   | Remark   |
|---|--|
|    | <p><b>Remove stand:</b></p> <ol style="list-style-type: none"> <li>1. Rotate the stand to allow access to the stand release button.</li> <li>2. Press the Stand release button and lift up the Stand and away from the monitor.</li> </ol> |
|   | <p><b>Remove rear cover :</b></p> <ol style="list-style-type: none"> <li>1. Remove the 4 screws by <b>torque A</b></li> </ol>  |
|  | <ol style="list-style-type: none"> <li>2. Pry the monitor up then find out the hooks' position, use the tool (like the picture or other card) to insert into the gap of bezel and rear cover.</li> </ol>                                   |

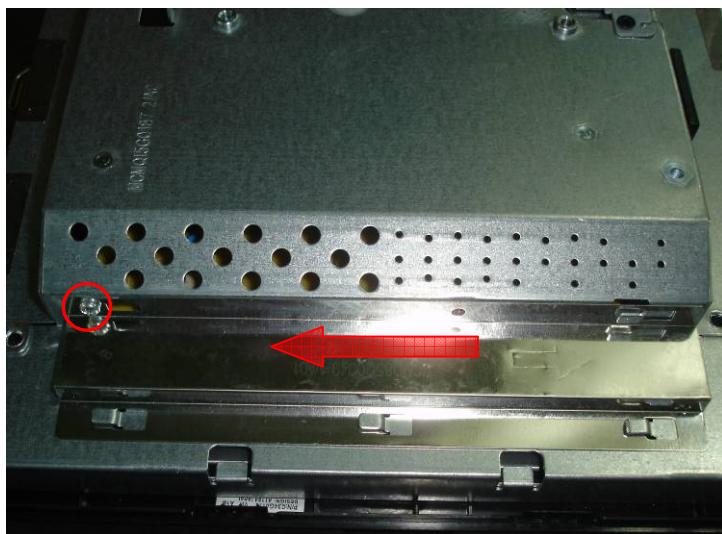


3. Turn over the monitor as the Fig, hold the rear cover, and then slightly remove it.



#### Remove the small shield:

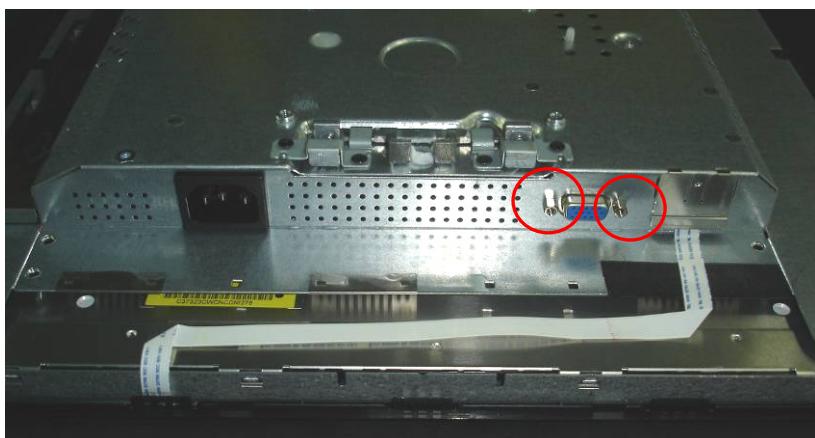
Remove the small shield as the arrowhead direction, disconnects the keyboard connector, and then remove the bezel.



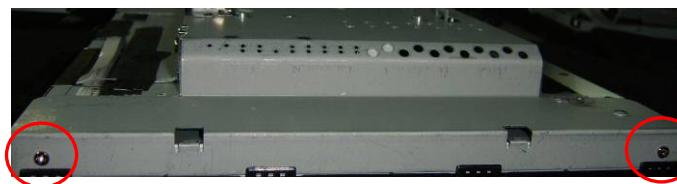
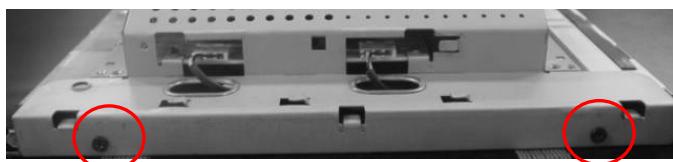
#### Remove the shield :

1. Remove the screw by **Torque B** or by manual and remove the small shield



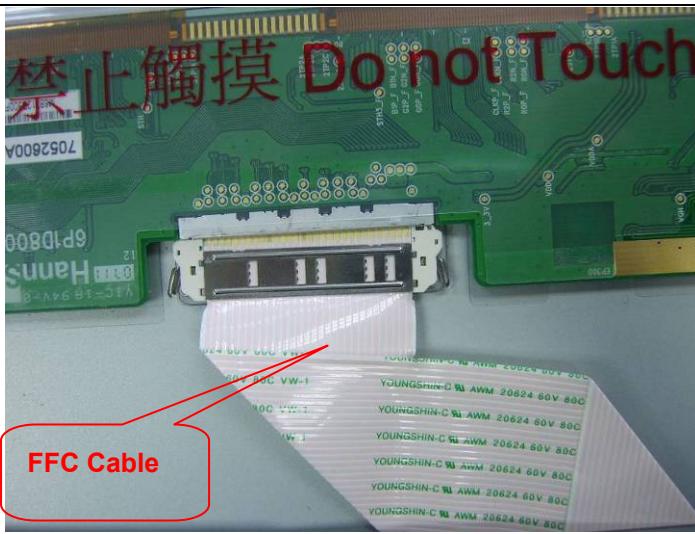


Remove the two screws by **Torque B.**



**Remove the main frame:**

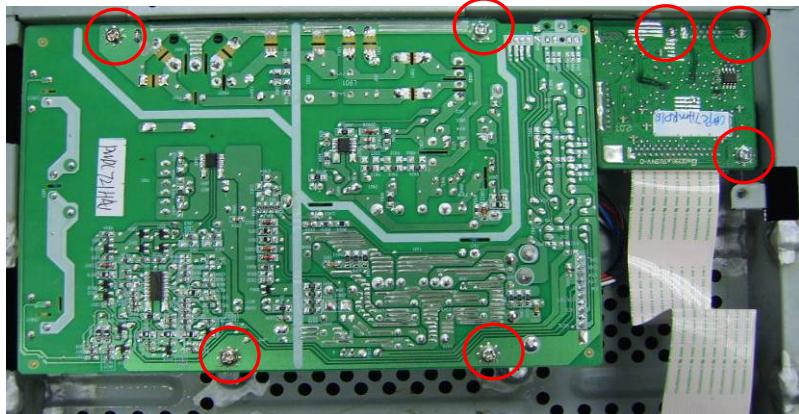
Remove the 4 screws by **manual or torque = 3kgF.Cm** and remove the main frame



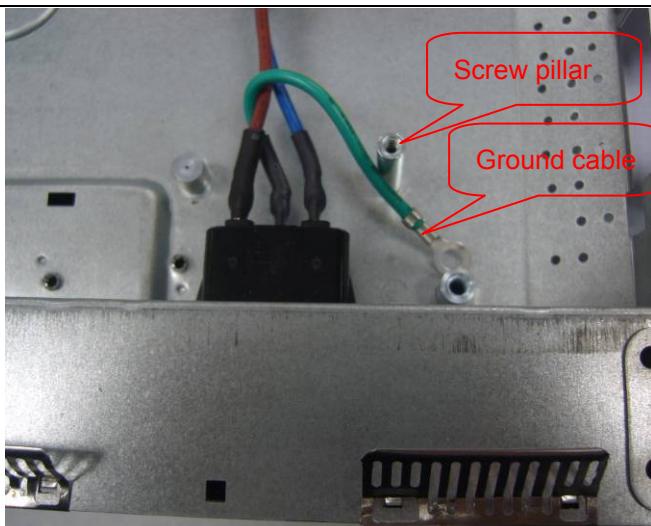
**Install:**

Fix the FFC connector as the figure.

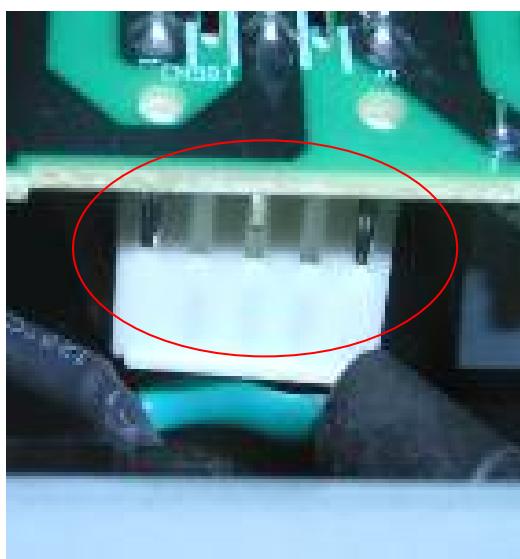
**Note:** Make LVDS connector's metal side adown .

**Remove the Boards:**

Remove the seven screws by **Torque B** and remove the Power Board and Main Board.

**Install:**

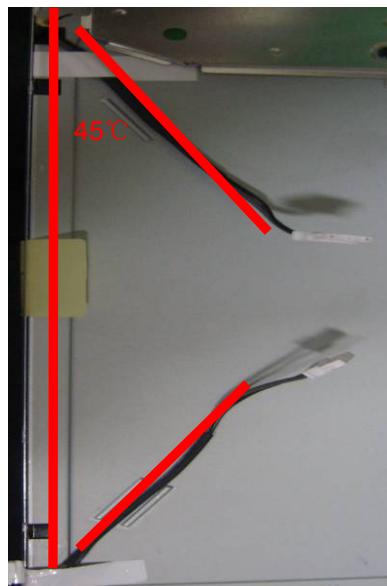
The ground cable should be laid above the other two cables and below the screw pillar.

**Install:**

**Note:** The pins can't touch the blue and purple lines.



The end

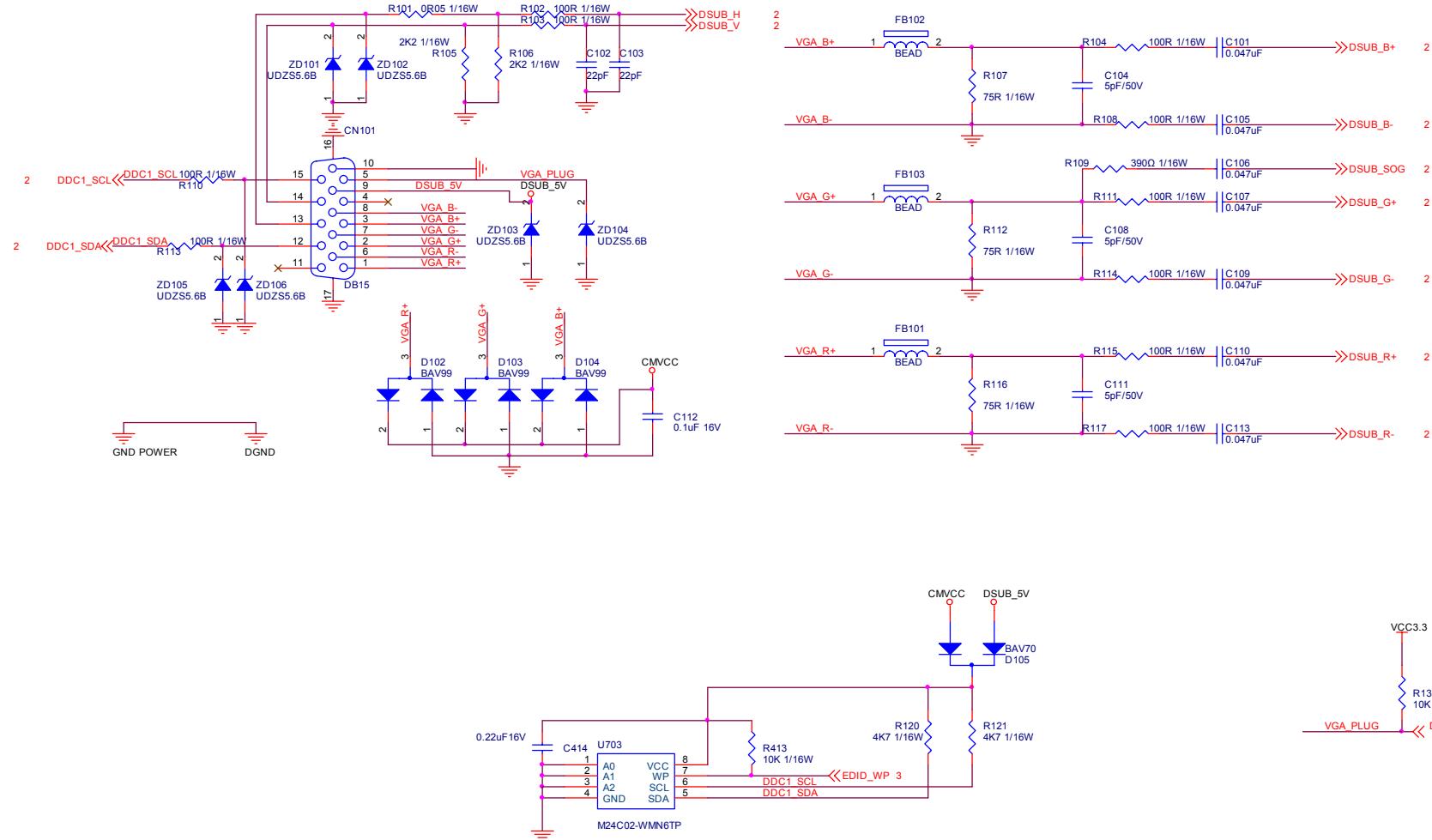


Install:

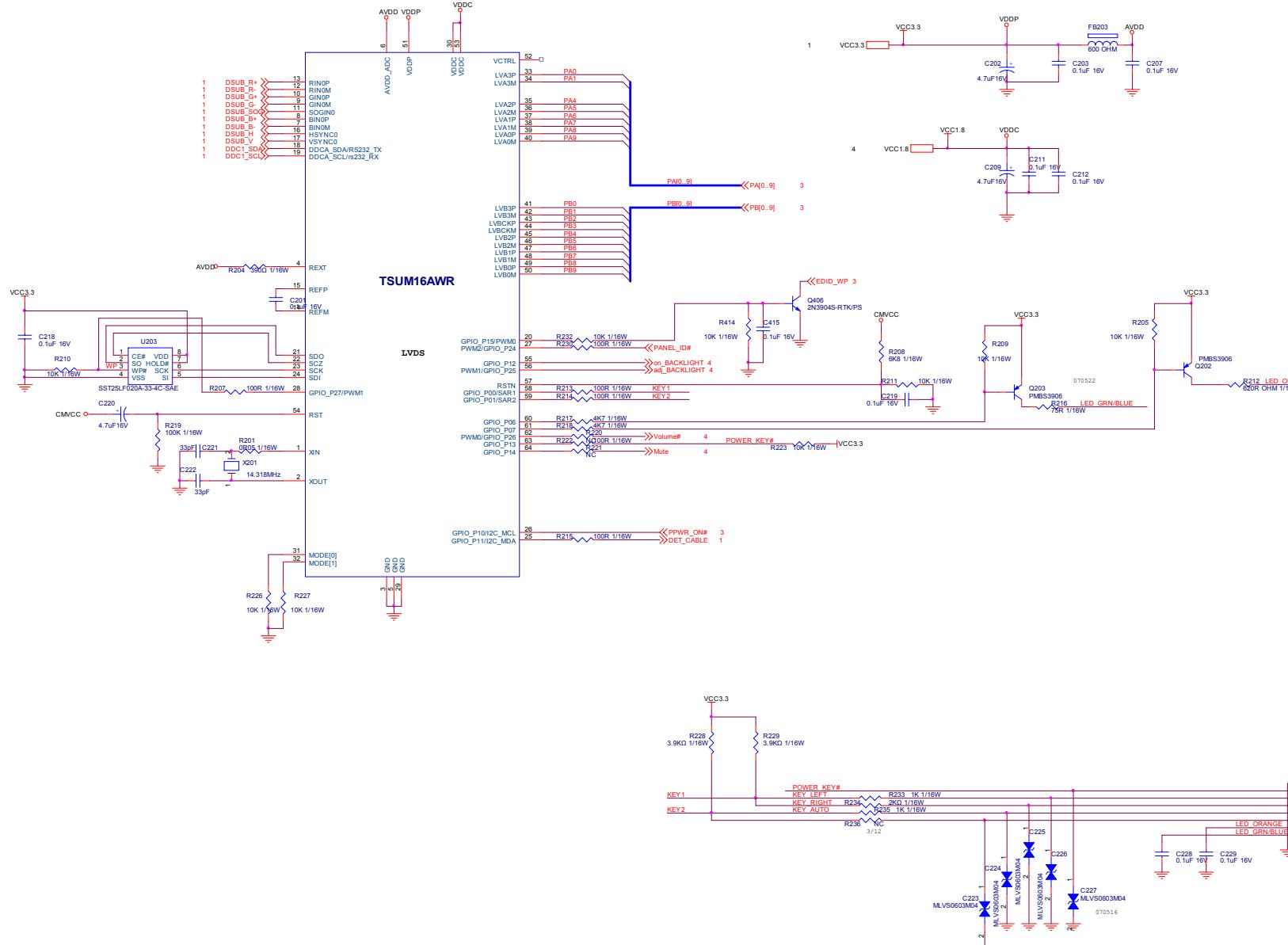
The angle between CCFL line and vertical direction should be 45 degree.

## 7. Schematic Diagram

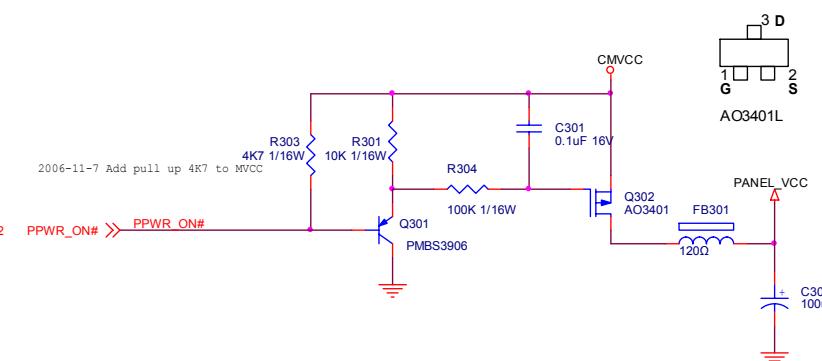
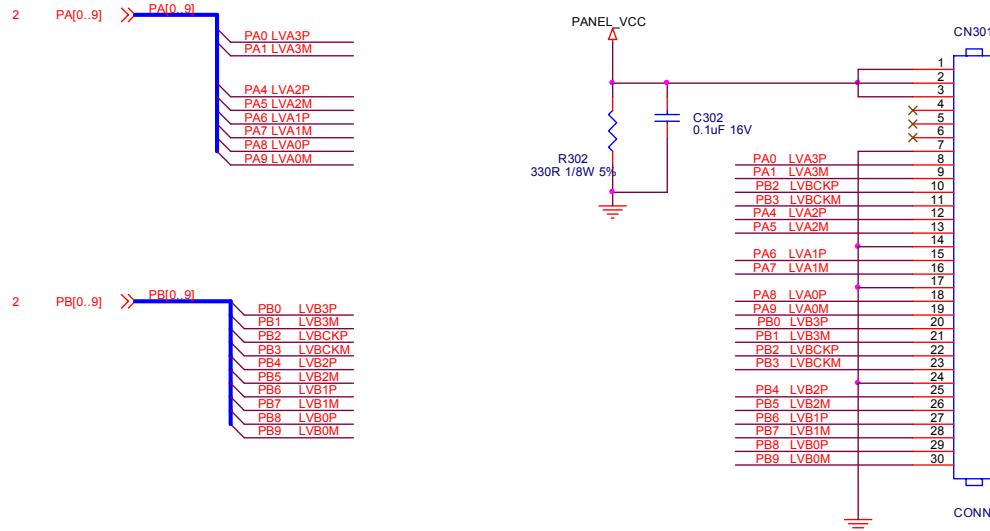
### 7.1 Main Board



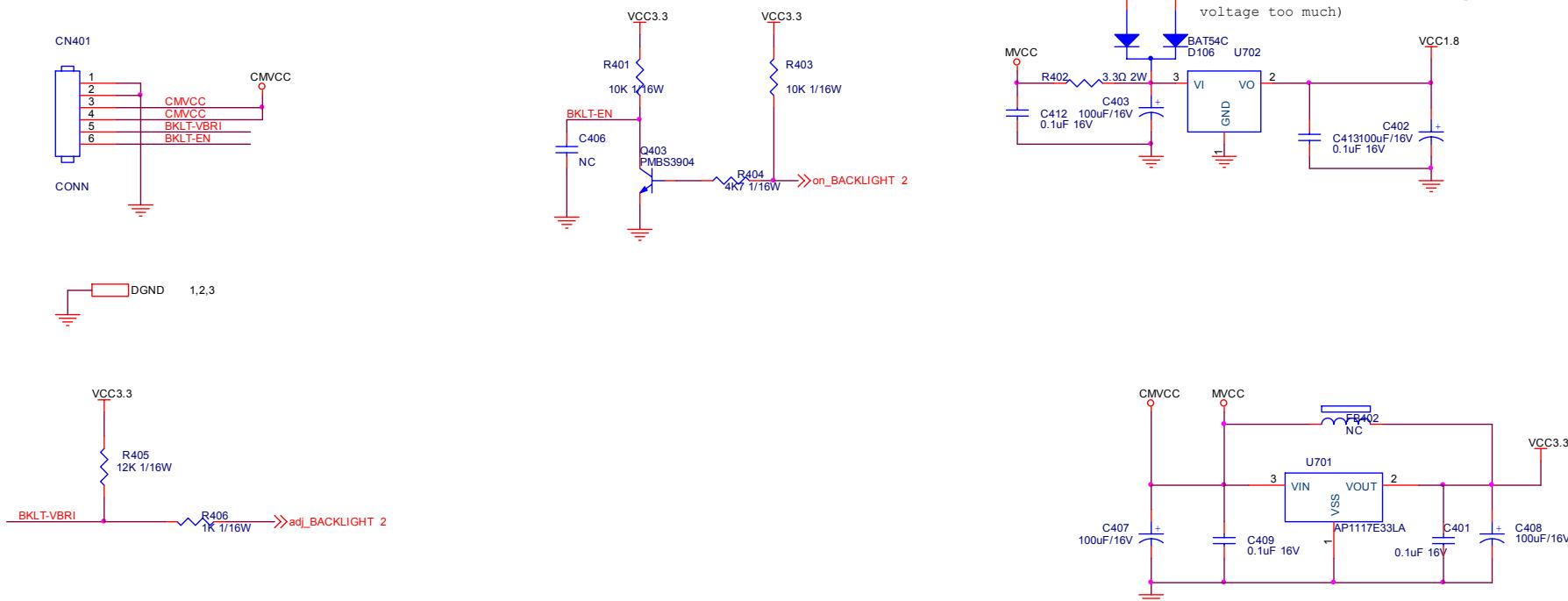
| TPV (Top Victory) Electronics Co., Ltd. |                         |              |
|---|-------------------------|--------------|
| INPUT                                   |                         |              |
| Size                                    | Document Number         | Rev          |
| B                                       | G2 659-1-DEL-X-2-070619 | A            |
| Date:                                   | Tuesday, June 19, 2007  | Sheet 1 of 5 |



|   |  |
|---|--|
| TPV (Top Victory) Electronics Co., Ltd. |  |
| Title SCALAR                            |  |
| Size C                                  | Document Number G2659-1-DEL-X-2-070619 |
| Date: Wednesday, June 20, 2007          | Rev A                                  |
| Sheet 2 of 5                            |  |

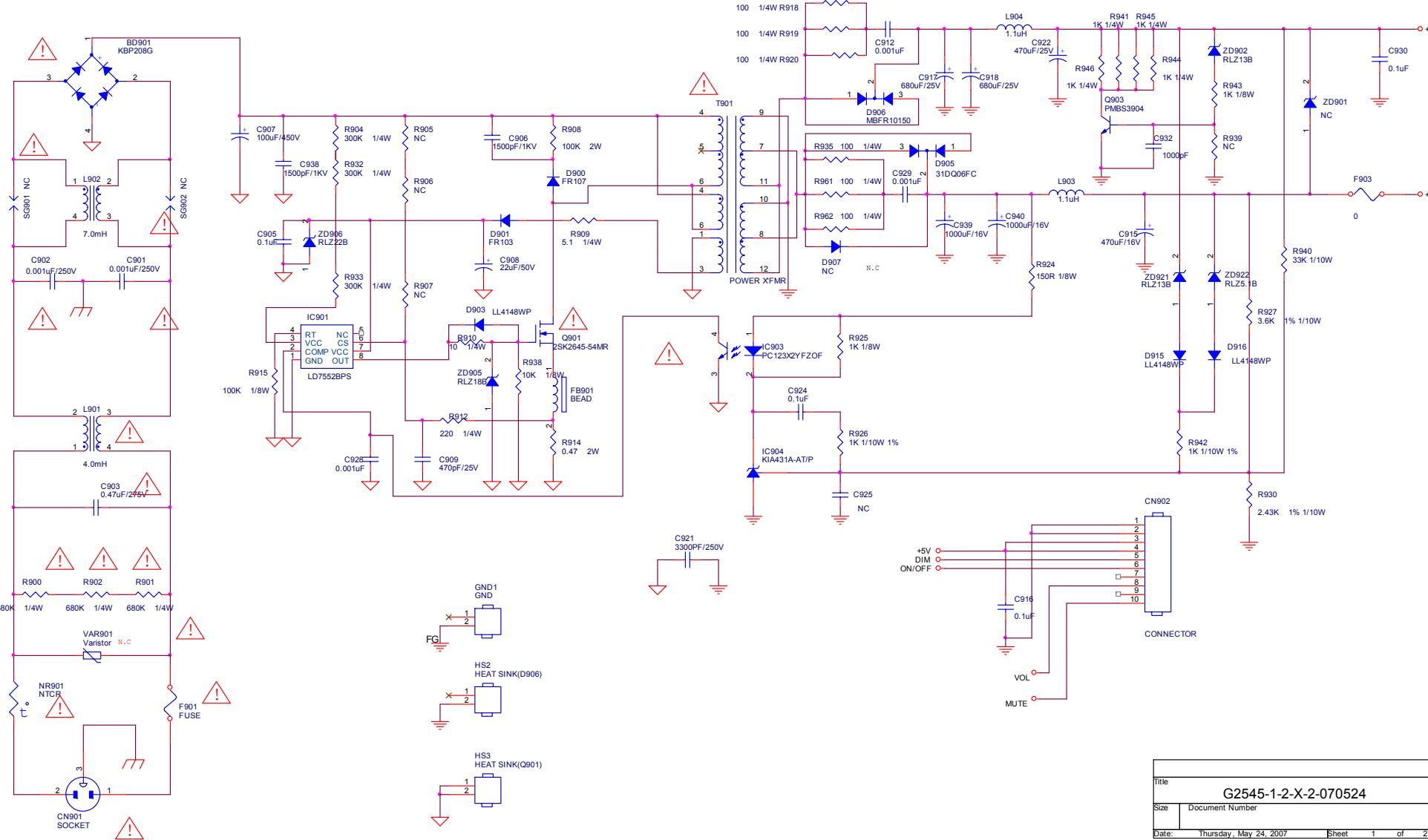


|   |  |       |
|---|--|-------|
| TPV (Top Victory) Electronics Co., Ltd. |  |       |
| Title OUTPUT                            |  |       |
| Size B                                  | Document Number G2659-1-DEL-X-2-070619 | Rev A |
| Date: Tuesday, June 19, 2007            | Sheet 3 of 5                           |       |

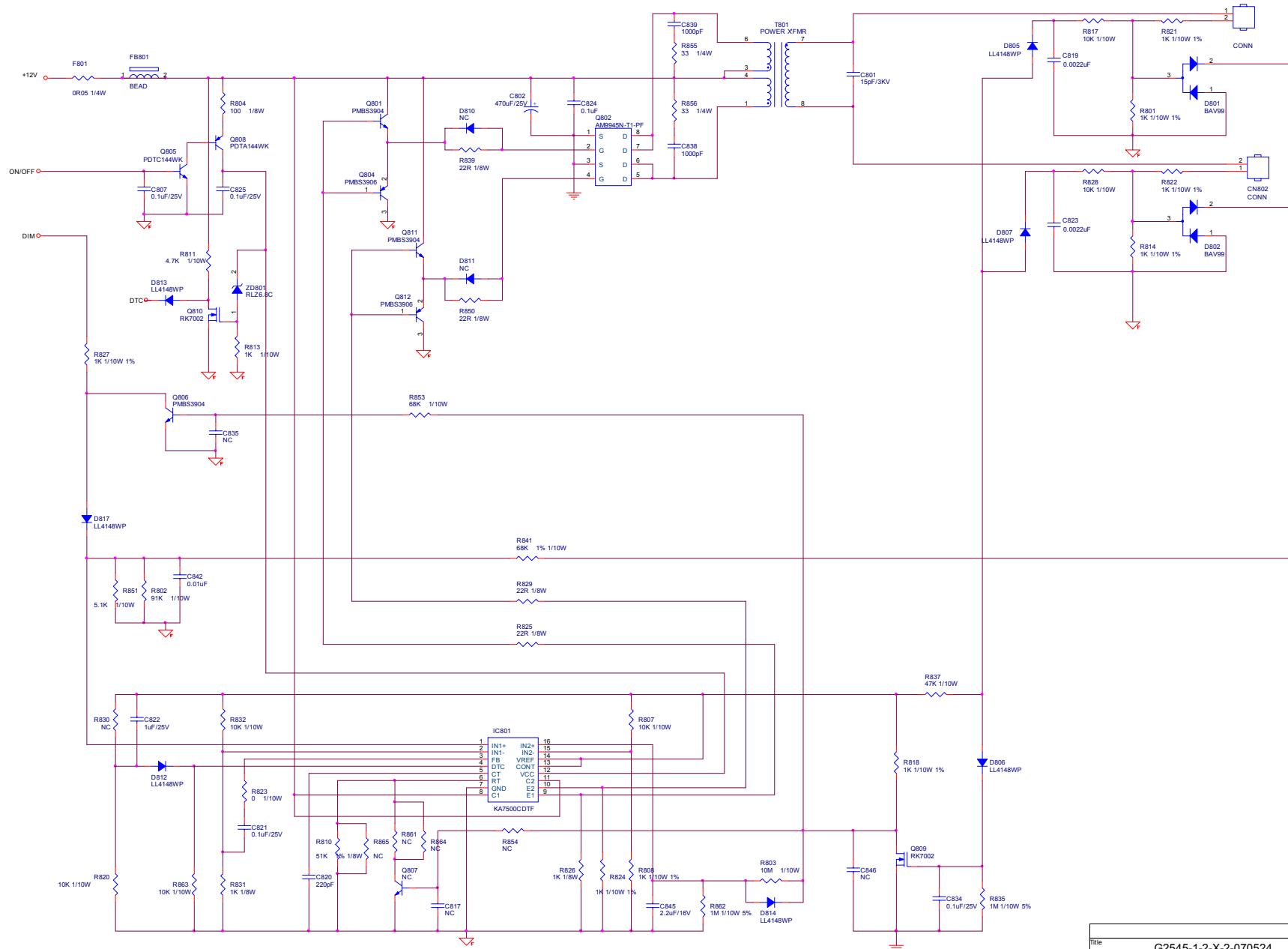


|   |                          |              |
|---|--------------------------|--------------|
| TPV (Top Victory) Electronics Co., Ltd. |                          |              |
| Title                                   |                          |              |
| Power                                   |                          |              |
| Size                                    | Document Number          | Rev          |
| B                                       | G2659-1-DEL-X-2-070619   | A            |
| Date:                                   | Wednesday, June 20, 2007 | Sheet 4 of 5 |

## 7.2 Power Board



| Title                        |                 | G2545-1-2-X-2-070524 |
|------------------------------|-----------------|----------------------|
| Size                         | Document Number | Rev 1                |
| Date: Thursday, May 24, 2007 | Sheet 1 of 2    |                      |

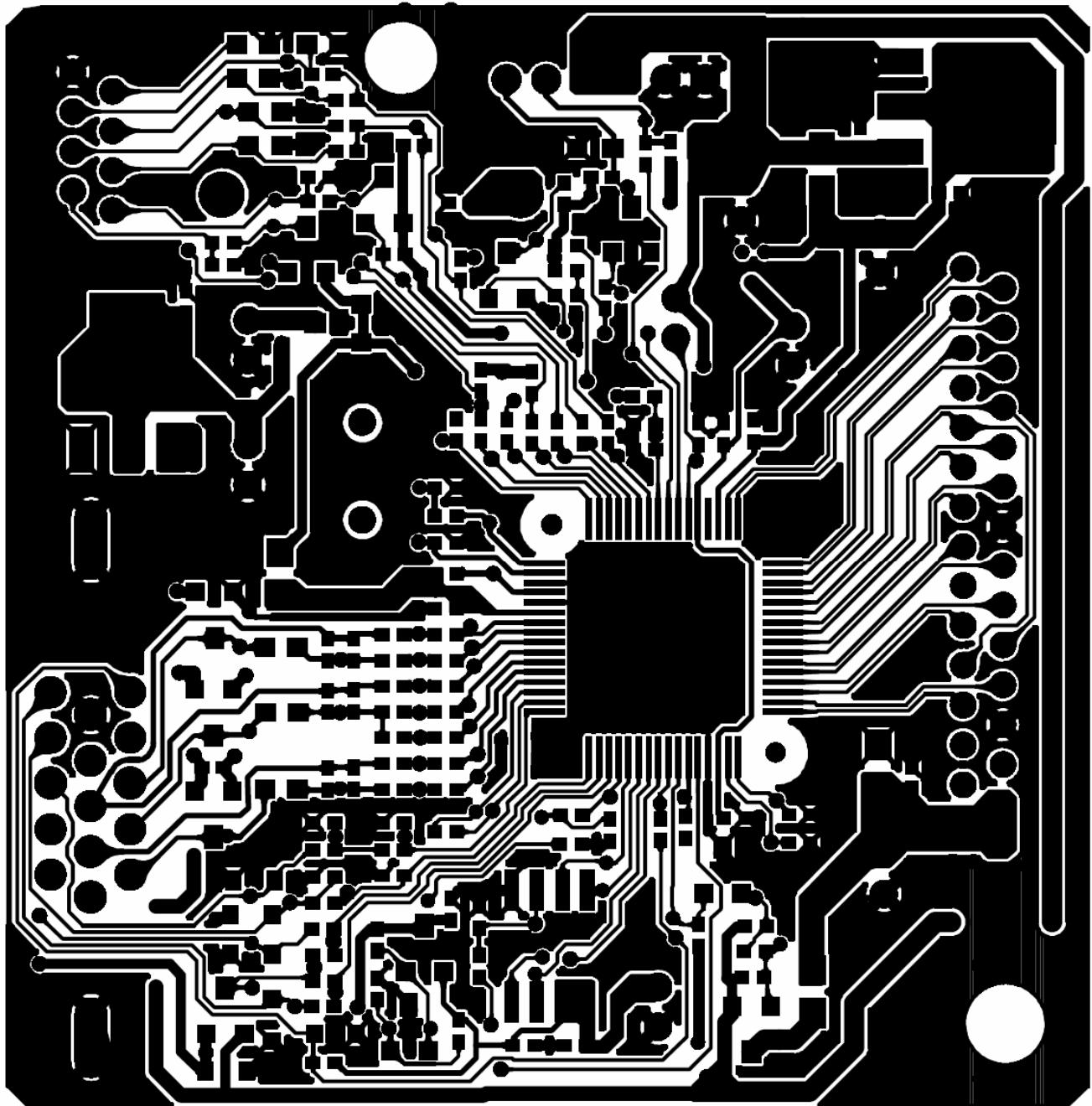


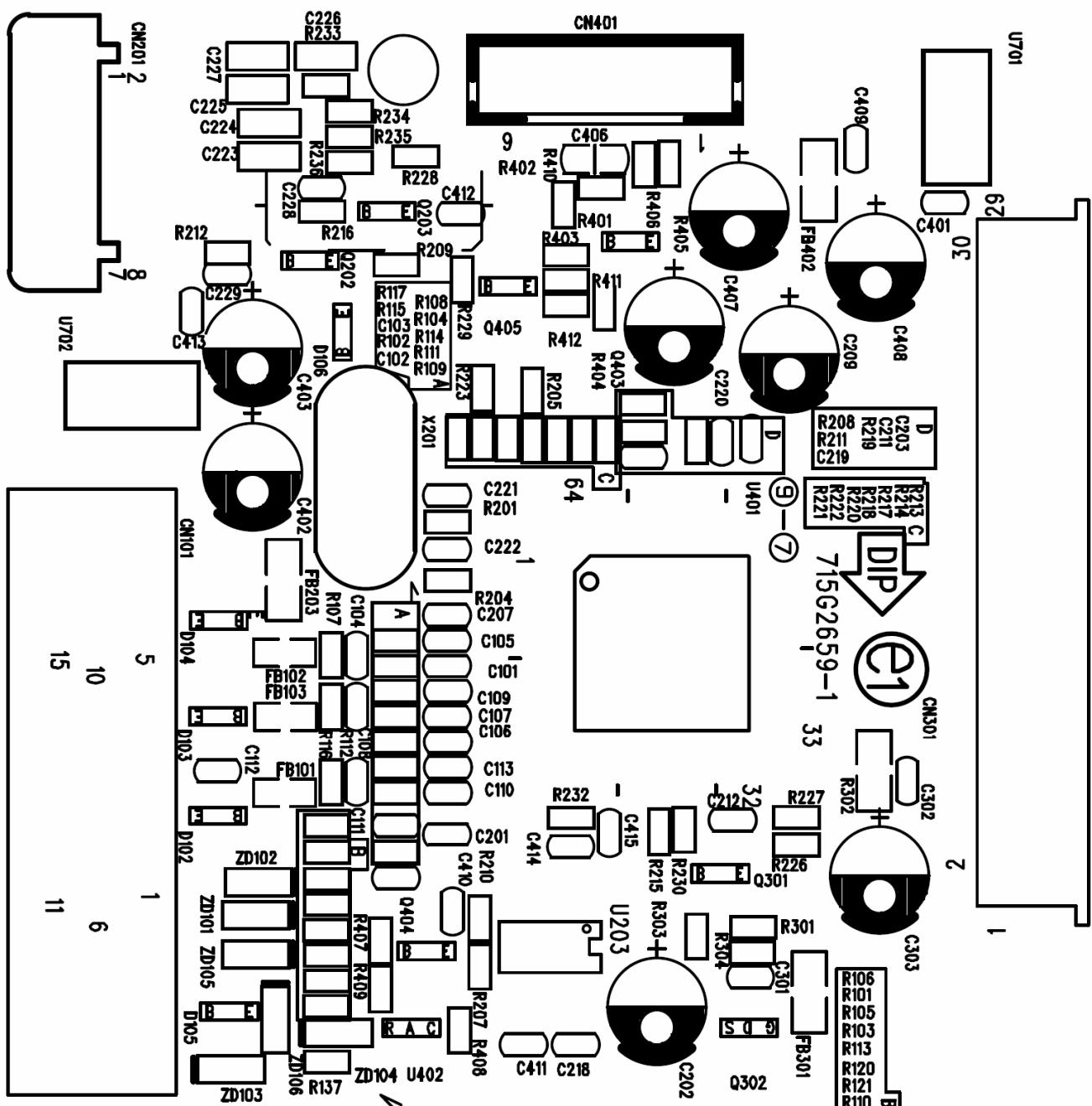
| G2545-1-2-X-2-070524 |                 |     |
|----------------------|-----------------|-----|
| Size                 | Document Number | Rev |
|                      | Custom 1.0      | 1   |

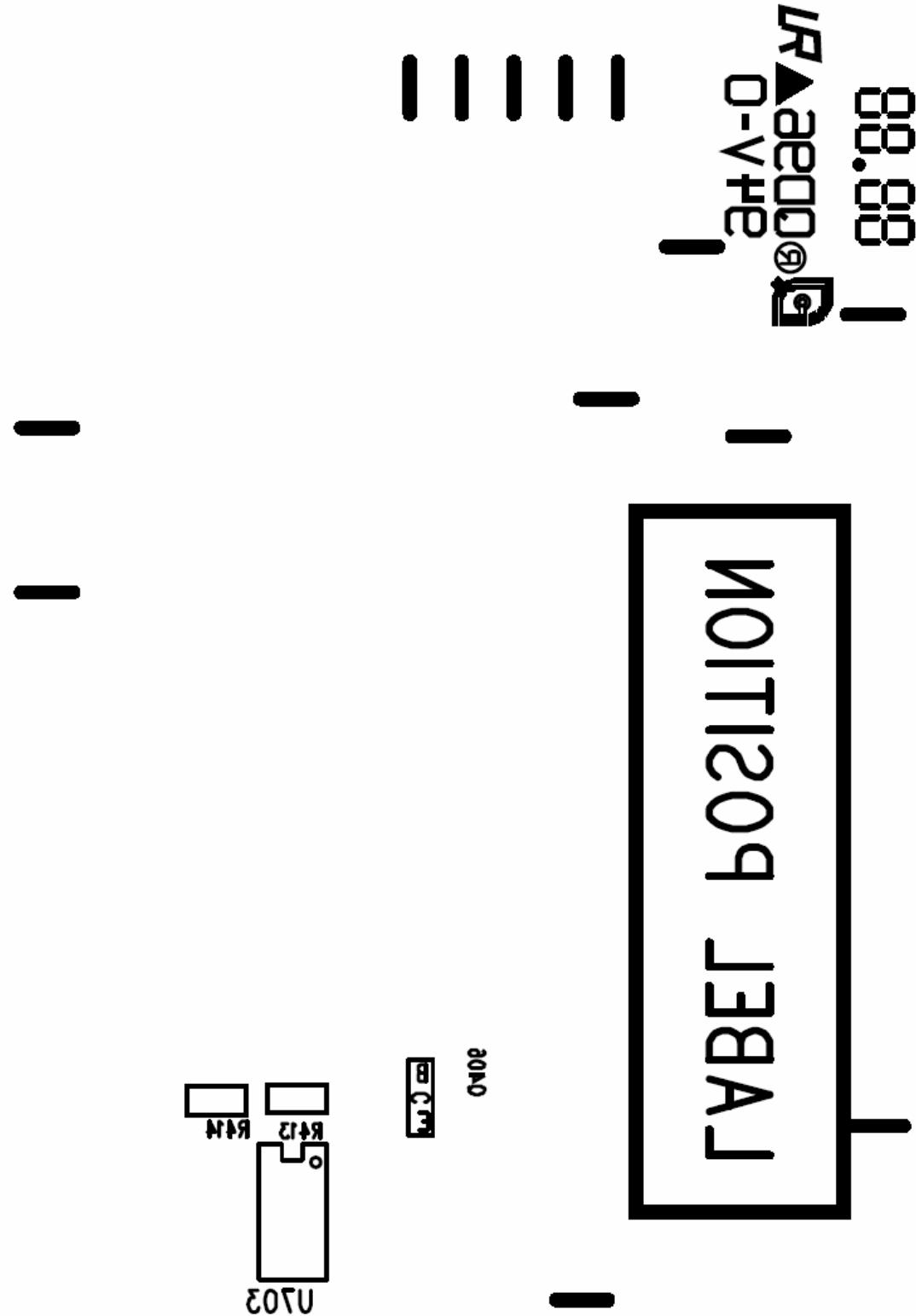
Date: Thursday, May 24, 2007 Sheet 2 of 2

## 8. PCB Layout

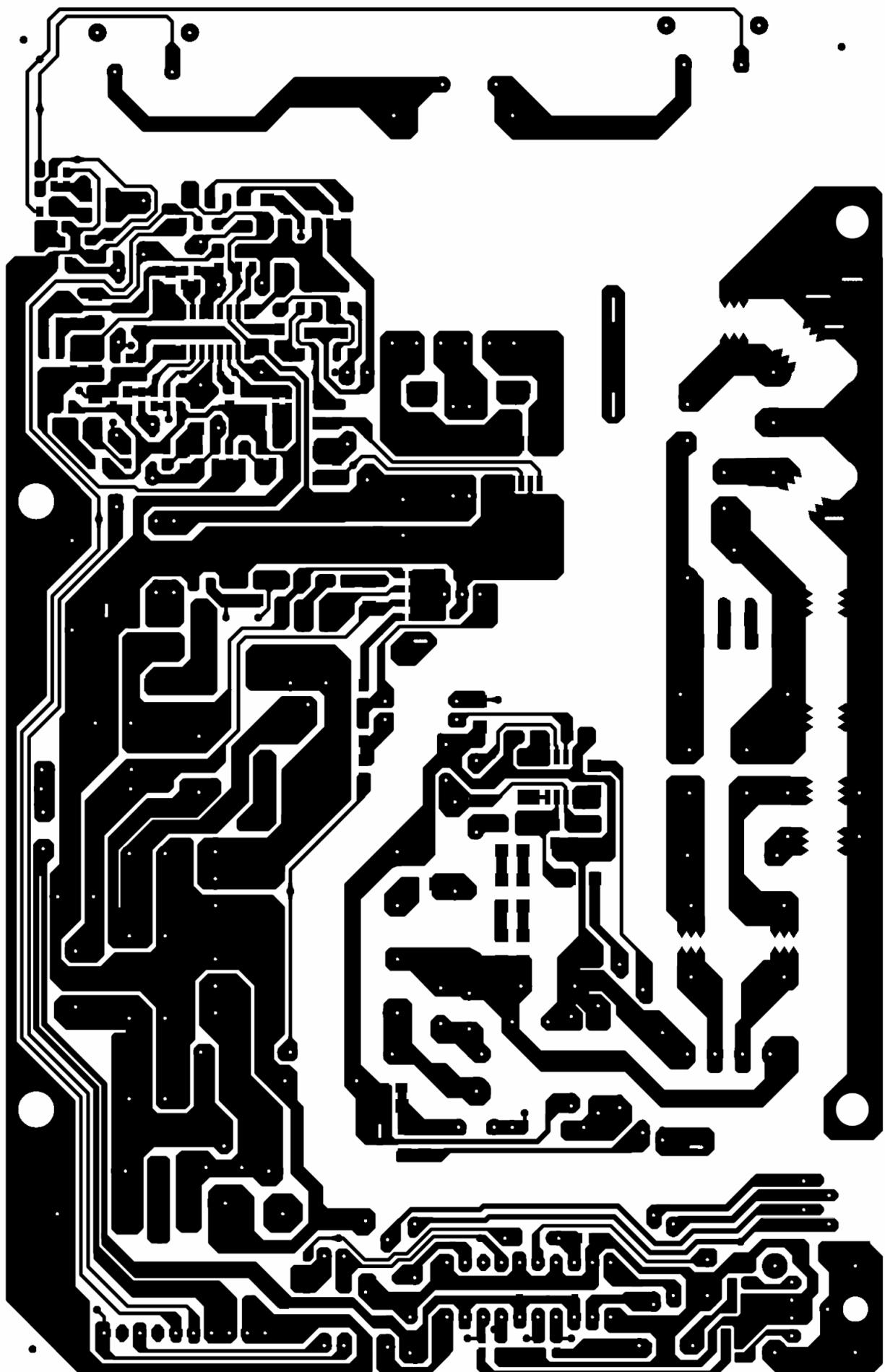
### 8.1 Main Board



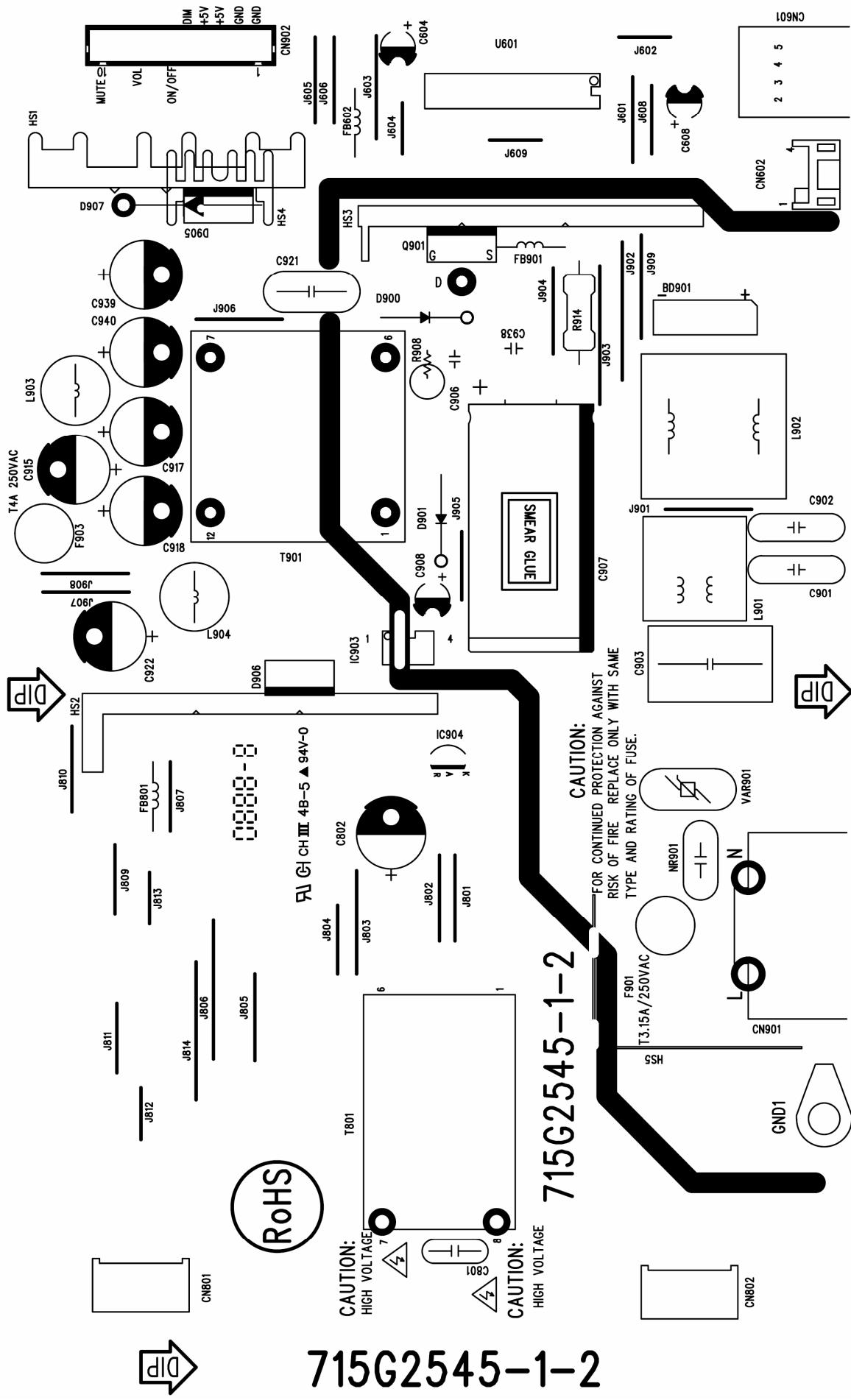


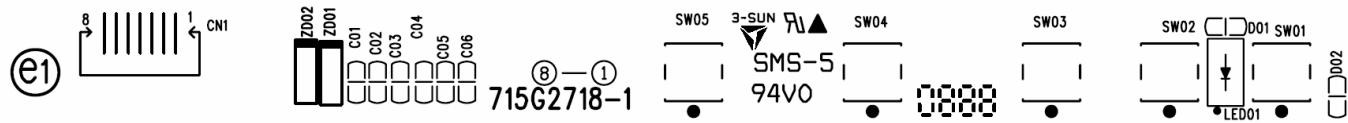
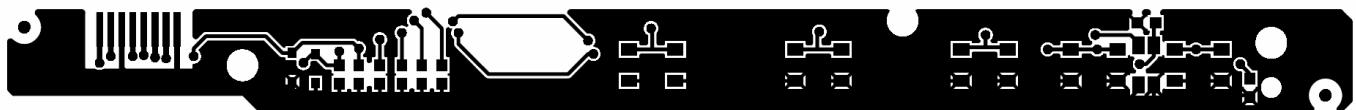


8.2 Power Board







**8.3 Key Board**

## **9. Maintainability**

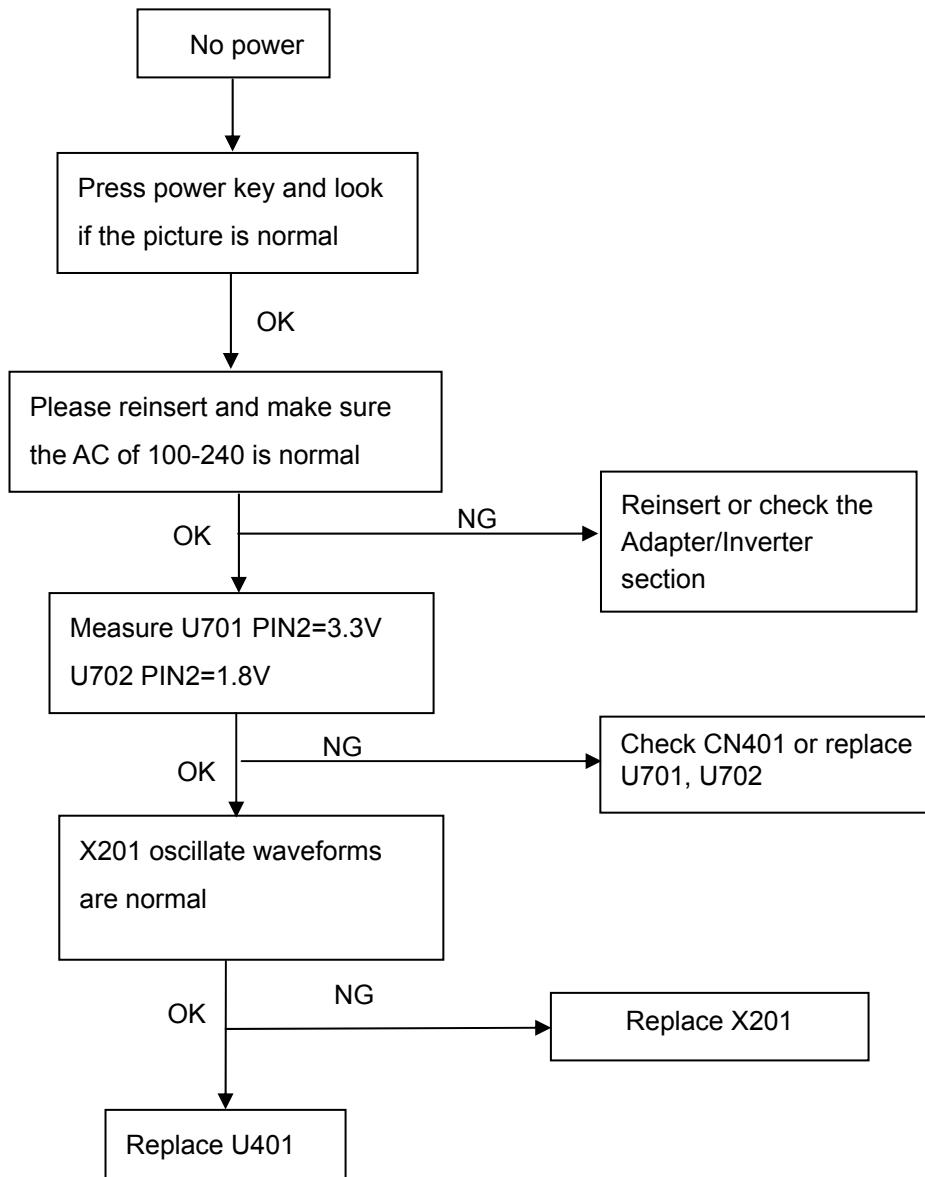
### **9.1 Equipments and Tools Requirement**

1. Voltage meter
2. Oscilloscope
3. Pattern Generator
4. LCD Color Analyzer
5. Service Manual
6. User Manual

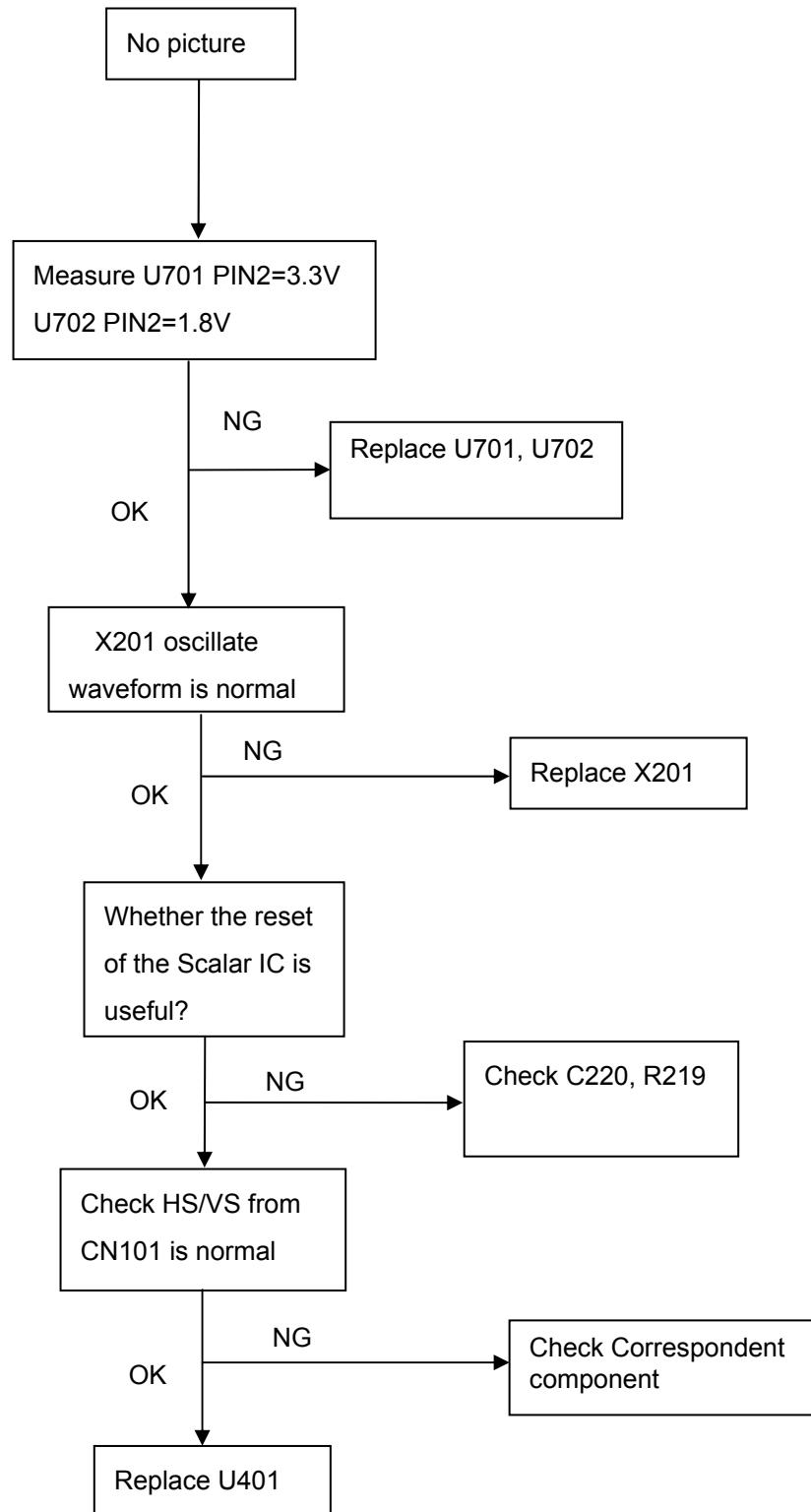
## 9.2 Trouble shooting

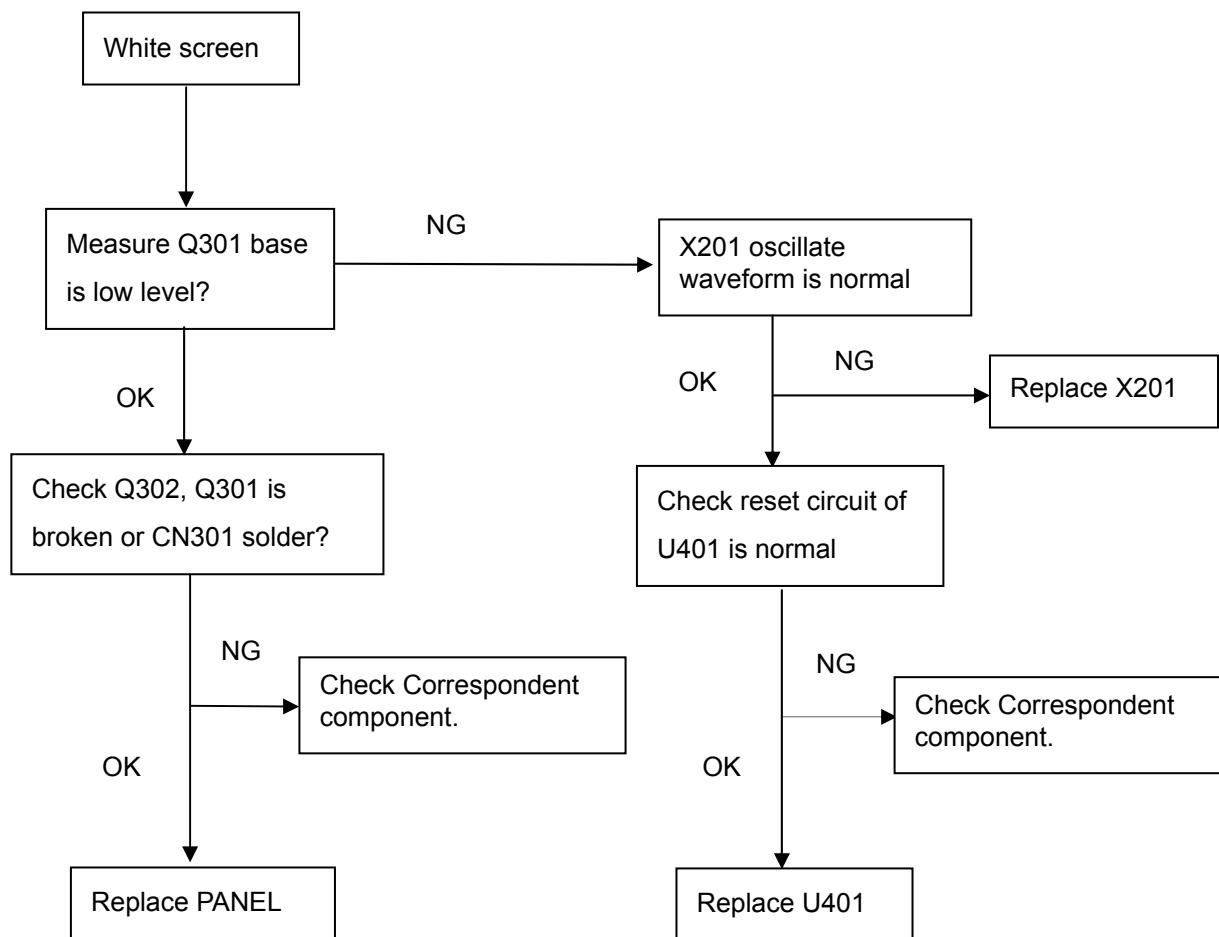
### 9.2.1 Main Board

No power



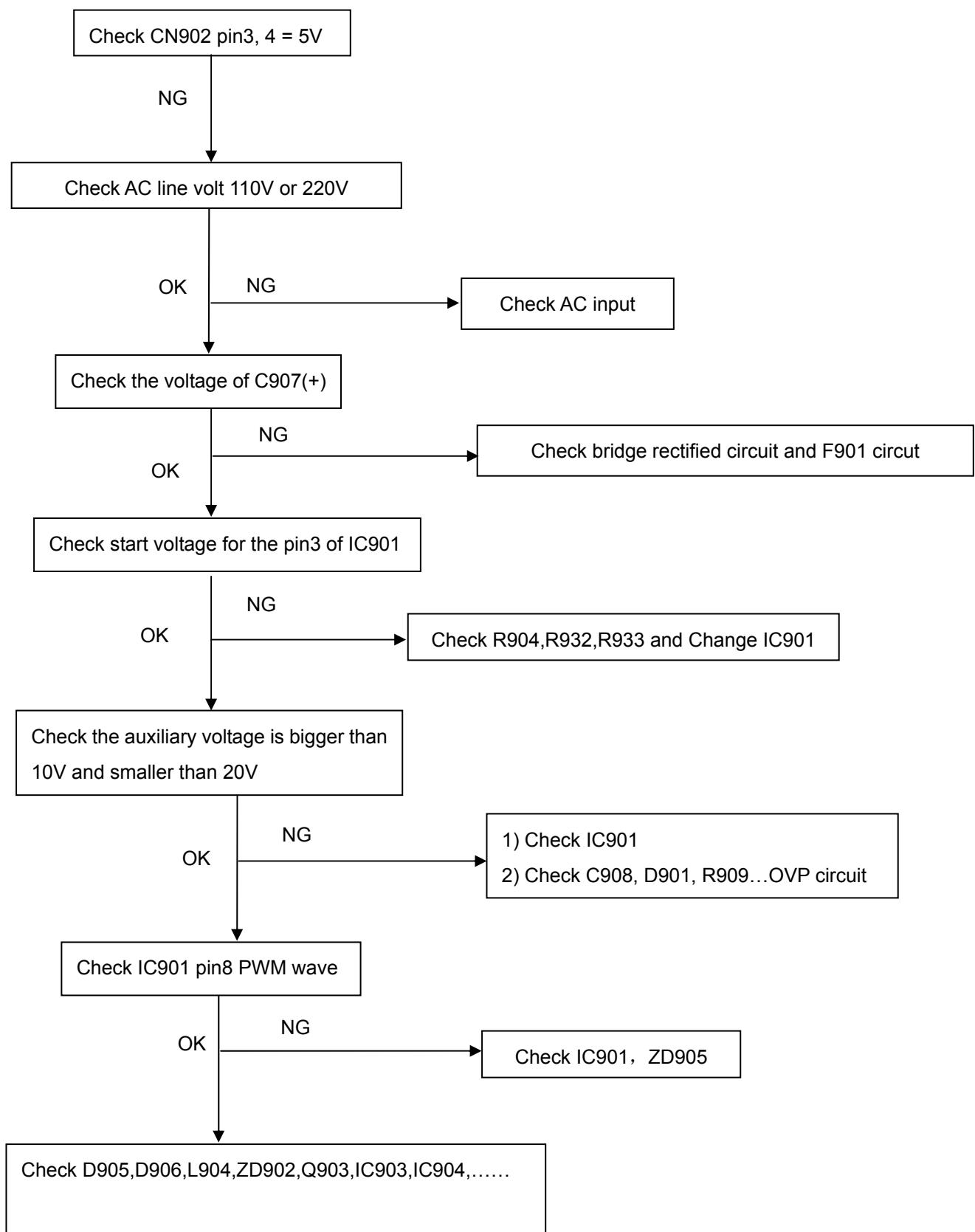
No picture (LED orange)

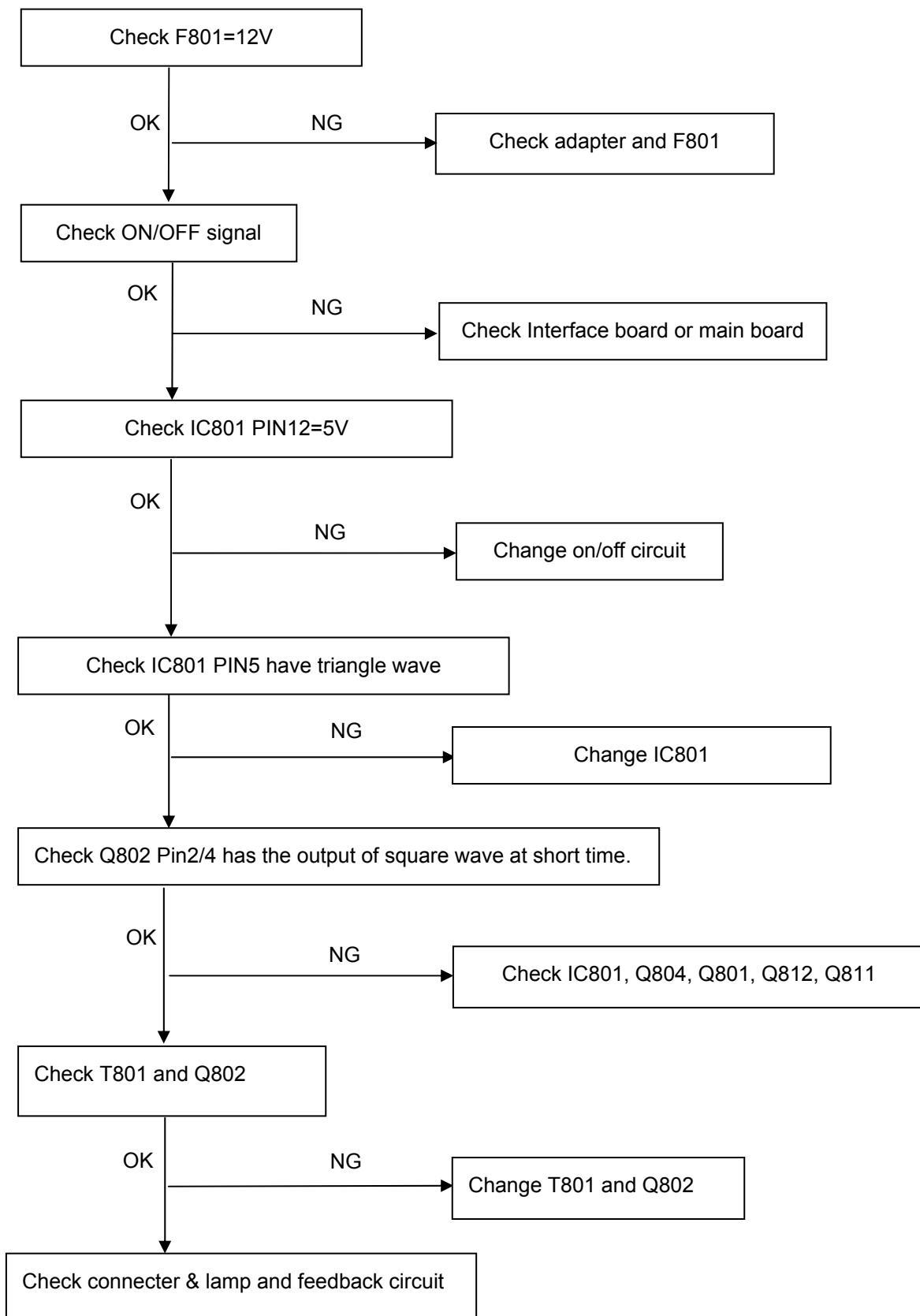


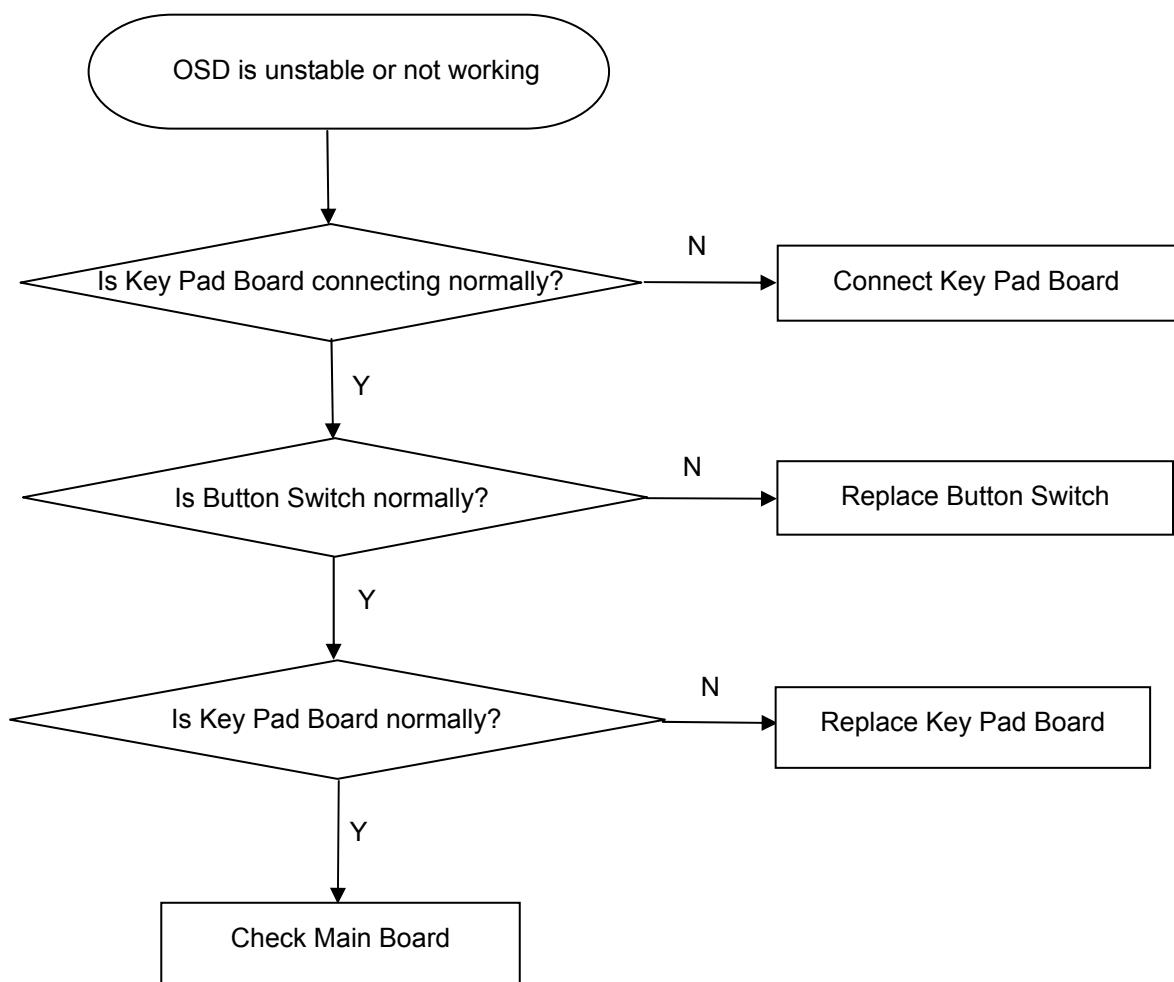
**White screen**

## 9.2.2 Power/Inverter Board

No power



**No Backlight**

**9.2.3 Keypad Board**

## 10. White balance, Luminance adjustment

Approximately 2 Hours should be allowed for warm up before proceeding White-Balance adjustment.

Before started adjust white balance, please setting the Chroma-7120 **MEM. Channel 3 to 6500<sup>0</sup>K** colors, **MEM. Channel 3 to 9300<sup>0</sup>K** colors, **MEM. Channel 3 to 5700<sup>0</sup>K** (our 9300 parameter is  $x=283\pm30$ ,  $y=297\pm30$ ,  $Y_{min}=140 \text{ cd/m}^2$ ; 6500 parameter is  $x=313\pm30$ ,  $y=329\pm30$ ,  $Y_{min}=180 \text{ cd/m}^2$ , and 5700 parameter is  $x=328\pm30$ ,  $y=140 \text{ cd/m}^2$ .)

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

### Enter into the factory mode:

Press MENU and “+” button during press Power button will activate the factory mode,

#### Gain adjustment:

Move cursor to “-Factory Setting-” and press MENU key to enter this sub-menu.

Move cursor to “Factory” and press MENU key.

Move cursor to “Auto Level” and press MENU key to adjust Gain and Offset automatically;

#### a. Adjust sRGB (6500<sup>0</sup>K) 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  $x = 313 \pm 30$ ,  $y = 329 \pm 30$ ,  $Y_{min} = 180 \text{ cd/m}^2$

#### b. Adjust Color1 (9300<sup>0</sup>K) color-temperature

4. Switch the Chroma-7120 to **RGB-mode** (with press “MODE” button)
5. Switch the MEM. channel to Channel 3 (with up or down arrow on Chroma-7120)
6. The LCD-indicator on Chroma-7120 will show  $x = 283 \pm 30$ ,  $y = 297 \pm 30$ ,  $Y_{min} = 140 \text{ cd/m}^2$

#### c. Adjust Color2 (5700<sup>0</sup>K) color-temperature

7. Switch the Chroma-7120 to **RGB-mode** (with press “MODE” button)
8. Switch the MEM. channel to Channel 3 (with up or down arrow on Chroma-7120)
9. The LCD-indicator on Chroma-7120 will show  $x = 328 \pm 30$ ,  $y = 344 \pm 30$ ,  $Y_{min} = 140 \text{ cd/m}^2$
10. Move cursor to “Exit/Save” sub-menu and press MENU key to save adjust value and exit.

**Turn the POWER-button off to on to quit from factory mode.**

**Max Brightness measurement: >200 cd/m<sup>2</sup>**

#### **Test conditions:**

- a. Switch to the full white pattern, in user mode main menu:
  1. Set <Color Settings> Red, Green, and Blue to the max.
  2. Set <Brightness> Brightness, Contrast to the max.
- b. The Minimum brightness is: < 40% of Max luminance (max luminance = max contrast + max brightness)

#### **Test conditions:**

Set <Brightness> Brightness, Contrast to the min.

## 11. ISP Instruction

### Configure and procedure

It is a windows-based program, which cannot be run in MS-DOS.

### System and equipment requirements

- (1). An i486 (or above) personal computer or computer or compatible.
- (2). Microsoft operation system Window 95/98/2000/XP.
- (3). ISP Tool: ISP board/printer cable/VGA cable as shown in Fig.1

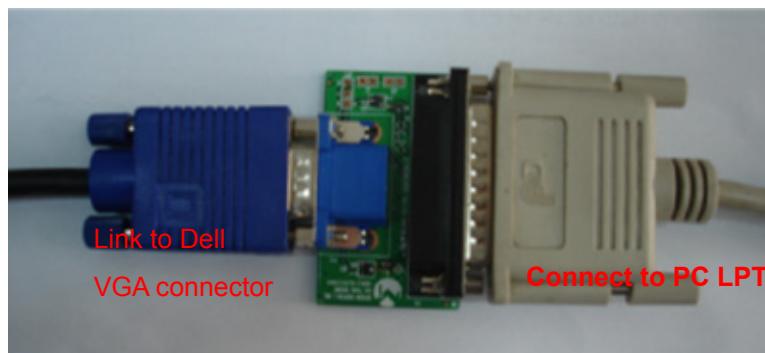
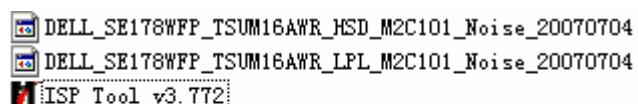


Fig.1

#### (4). ISP software checklist



#### (5). Update the firmware

Step 1: Double click the ISP\_Tool v3.772.exe icon and click Connect, bring up Fig.2



Fig.2

Step 2: Click OK and click Read, select program Bin file, bring up Fig.3

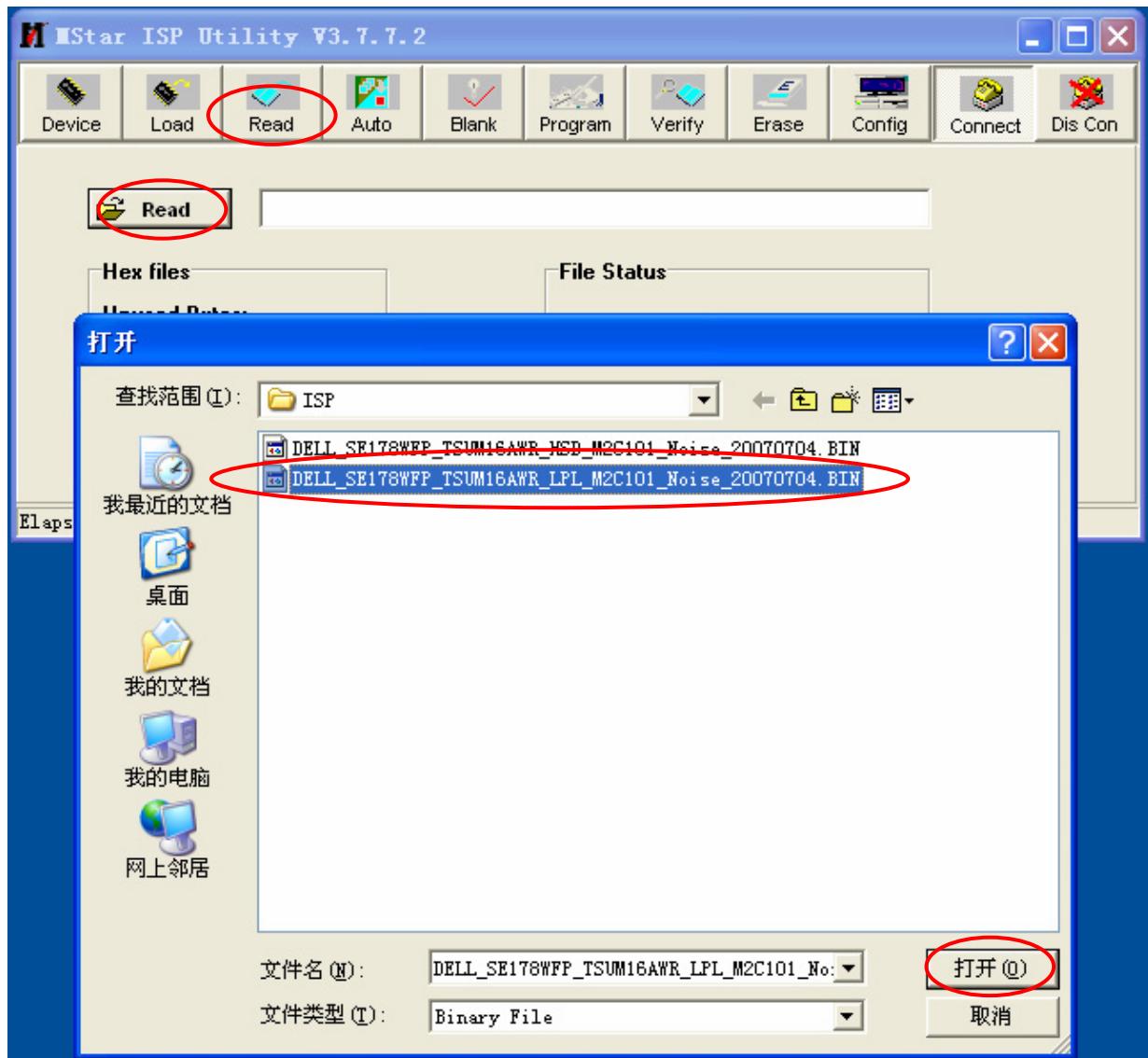


Fig.3

Step3: Click open and OK, bring up Fig.4 and Fig.5

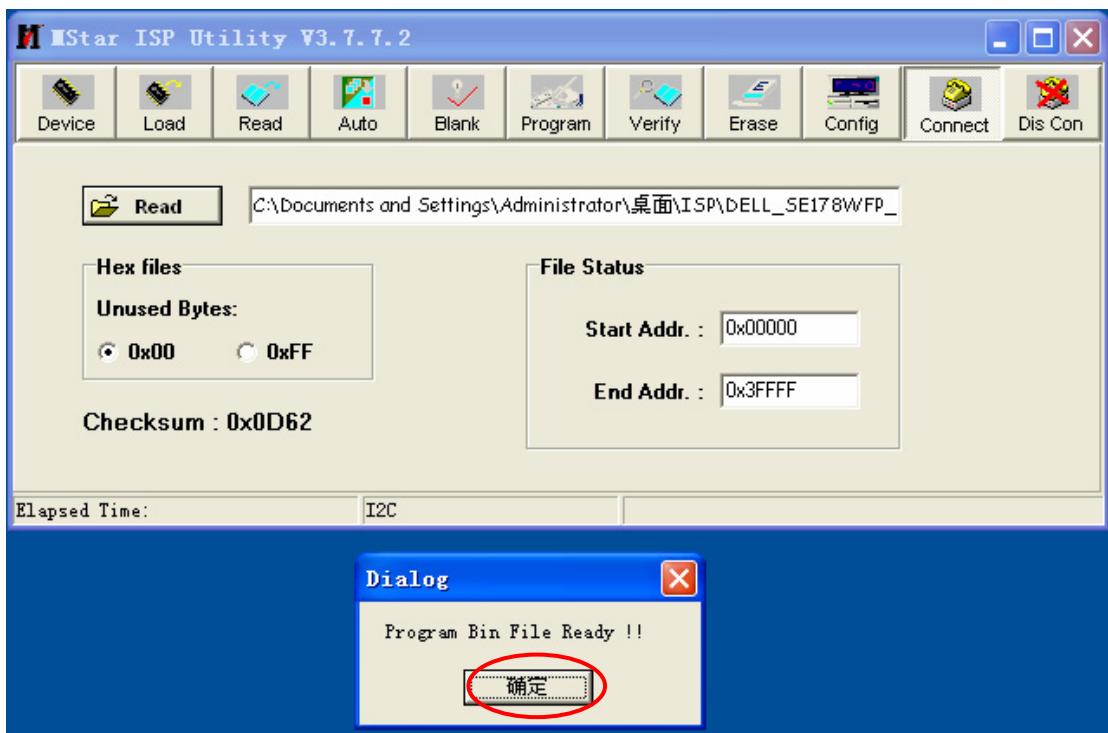


Fig.4

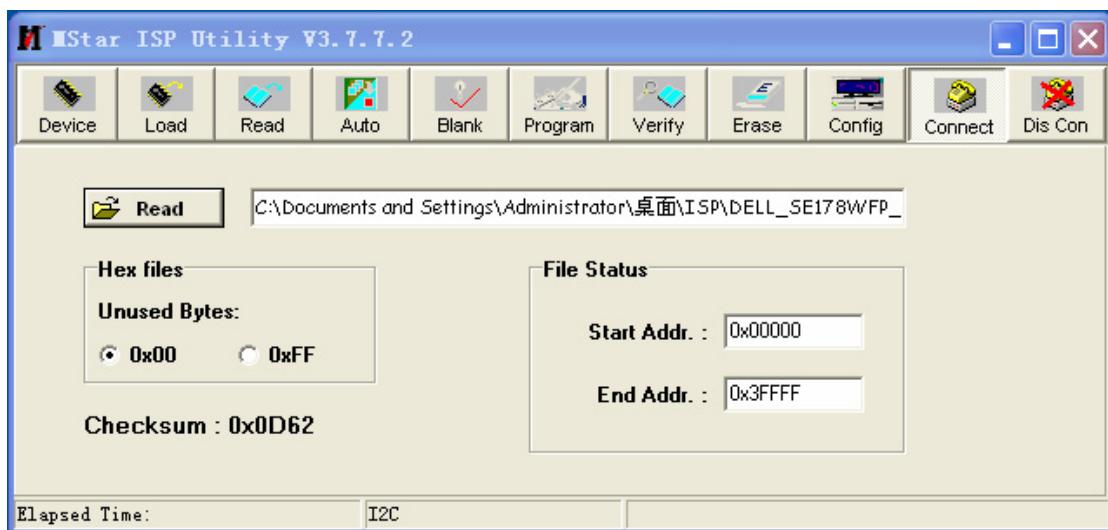


Fig.5

Step 4: Click Auto and Run, bring up Fig.6

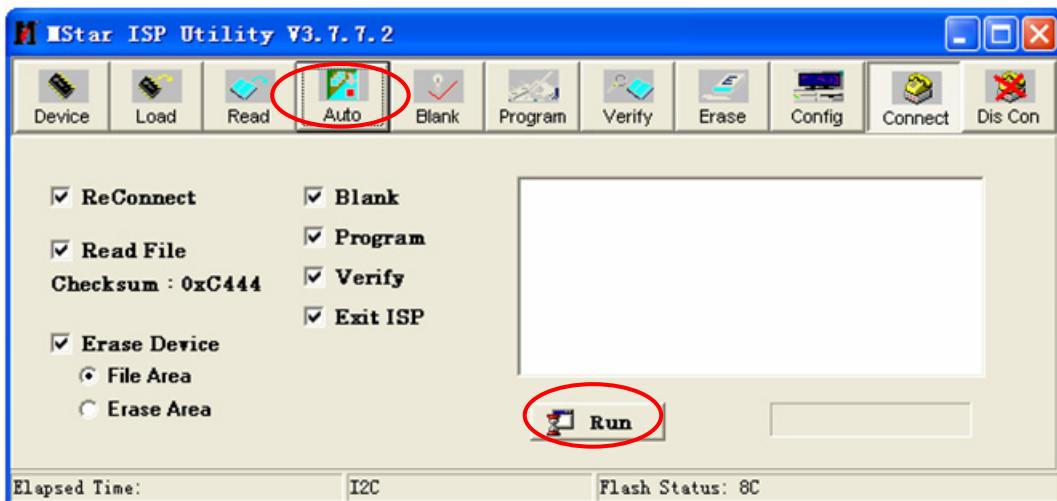


Fig.6

Step 5: When appear Verify OK, writer finished as shown Fig.7

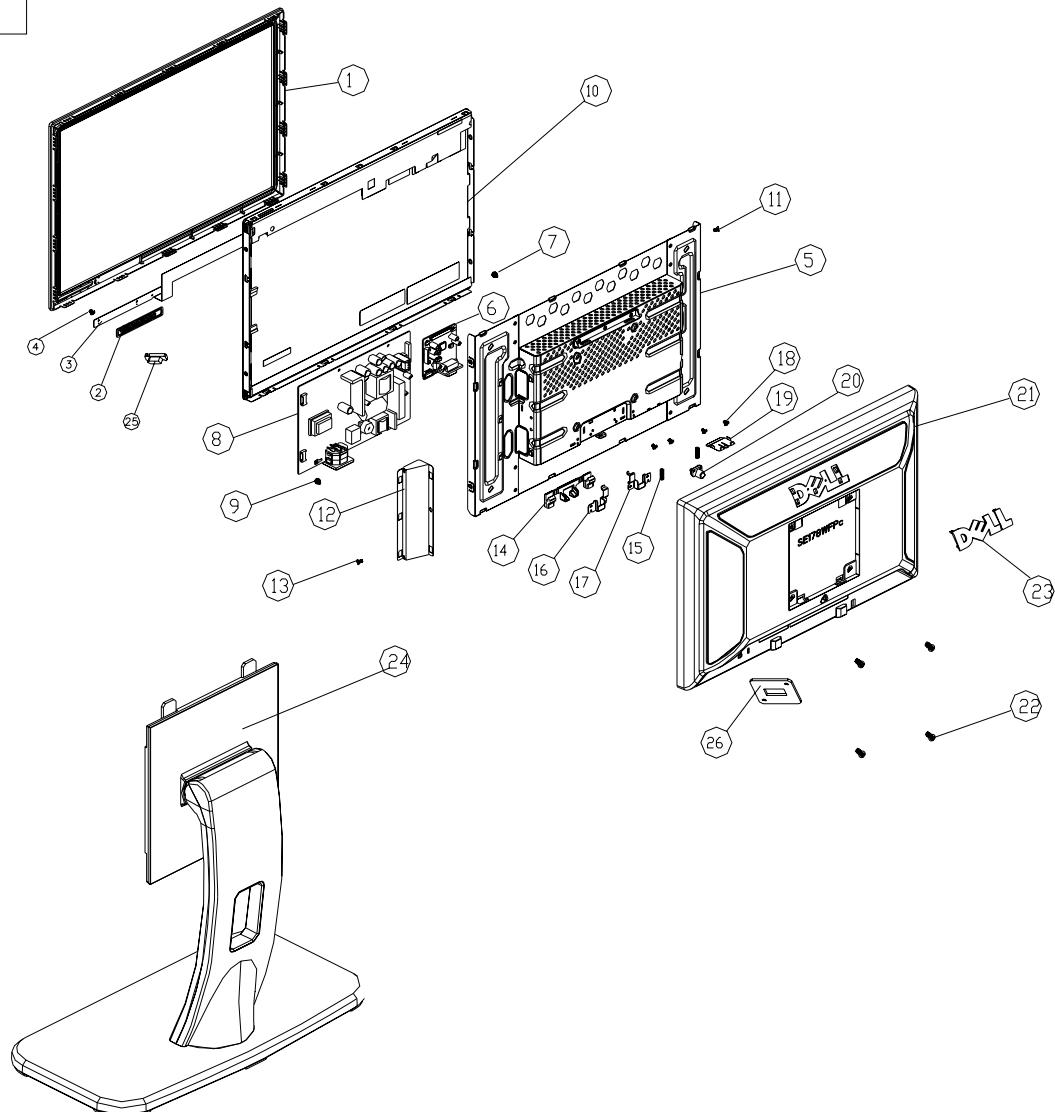


Fig.7

## 12. Exploded View

Dell SE178WFPC Explosion Flowchart

| Item. | Parts Name                                | Parts Number        | Qty |
|-------|---|---------------------|-----|
|       | dell logo                                 | Q23G3178-700-8A     | 1   |
|       | EPS                                       | Q44G7066-1/2/3/4    | 1   |
| 26.   | kensington bracket                        | 15G8146-1           | 1   |
| 25.   | lens_power                                | Q33G0138-*          | 1   |
| 24.   | Hinge                                     | Q37G0054-1          | 1   |
| 23.   | COVER_LOGO_B                              | Q33G0137-*          | 1   |
| 22.   | Screw M4.0X10mm(Back Cover to Mainframe)  | 0M1G2940-10-225-CR3 | 4   |
| 21.   | Rear Cover                                | Q34G0185-*          | 1   |
| 20.   | Button Release                            | A33G0025-*          | 1   |
| 19.   | Shield Wire                               | 85G702-1            | 1   |
| 18.   | Screw M3.0X6mm(Bracket R/L to Mainframe)  | 0M1G130-6-120       | 4   |
| 17.   | Holder Bracket R                          | 015G8185-1          | 1   |
| 16.   | Holder Bracket L                          | 015G8186-1          | 1   |
| 15.   | Spring Holder                             | 019G588-3           | 2   |
| 14.   | Stand Holder                              | A20G0007-1          | 1   |
| 13.   | Screw M3.0X6mm(Shield to mainframe)       | 0M1G330-4-120       | 1   |
| 12.   | Inverter Shield                           | Q85G0051-1          | 1   |
| 11.   | Screw M3.0X6mm(PANEL&MAINFRAME)           | 0M1G130-6-125       | 4   |
| 10.   | Panel(HSD &LPL )                          | NA                  | 1   |
| 9.    | Screw M3.0X6mm(Power Board to Mainframe)  | 0M1G1730-6-125      | 3   |
| 8.    | Power board 193x124mm                     | NA                  | 1   |
| 7.    | Screw M3.0X6mm(Scalar Board to Mainframe) | 0M1G1730-6-125      | 1   |
| 6.    | Scalar Board 57x56mm                      | NA                  | 1   |
| 5.    | Mainframe(for HSD Panel)                  | Q15G0212-1          | 1   |
| 4.    | Screw T2.0X2.2mm(Function Board to Bezel) | Q01G6019-2          | 3   |
| 3.    | Function PCB Board(SE178WFPC)             | NA                  | 1   |
| 2.    | Button Function                           | Q33G0136-*          | 1   |
| 1.    | Bezel                                     | Q34G0184-*          | 1   |



### 13. Recommended Parts & BOM List

#### Recommended Parts List (T77GMRHFYWDRNN)

| Location     | Part No.           | Description                    |
|--------------|--------------------|--------------------------------|
| PANEL        | 750GLG71W3B11Z000D | PANEL LM171WX3-TLB1 KR ZBD LPL |
| Mainboard    | CBPC7GMRDRQ1       | MAIN BOARD                     |
| POWER BOARD  | PWPC721GD1         | POWER BOARD                    |
| KEY BOARD    | KEPC7QD1           | KEY BOARD                      |
| LAYOUT       | 715G2659 1         | MAIN BOARD PCB                 |
| LAYOUT       | 715G2718 1         | KEY BOARD                      |
| LAYOUT       | 715G2545 1 2       | POWER BOARD                    |
| U203         | WDLMRT7GKQ2        | SST25LF020A-33-4C-SAE          |
| BACK COVER   | Q34G0185 VH 1B 30  | REAR COVER(17)                 |
| BEZEL        | Q34G0184 SNA1B 30  | BEZEL L17W-7DELL2              |
| CARTON       | Q44G7066700 1A     | CARTON                         |
| EPS          | Q44G7066 1         | EPS                            |
| EPS          | Q44G7066 2         | EPS                            |
| EPS          | Q44G7066 3         | EPS                            |
| EPS          | Q44G7066 4         | EPS                            |
| HINGE        | Q37G0054 1         | HINGE                          |
| ID LABEL     | Q40G 17N70016A     | RATING LABEL                   |
| KEY PAD      | A33G0025 VH 1L     | Release button                 |
| KEY PAD      | Q33G0136 SN 1L     | BUTTON FUNC                    |
| LVDS         | S89G179T30N501     | LVDS ASS'Y                     |
| MANUAL       | Q41G7800700B05     | SE178WFP QSG                   |
| PROTECT FILM | Q52G6020 46        | PROTECT FILM                   |
| SIGNAL       | 89G 728LAA 2D      | SIGNAL CABLE                   |
| U401         | 056G 562548        | IC TSUM16AWR-LF-1 MSTAR        |
| IC801        | 056G 379 22        | IC TL494IDR SOIC-16            |
| IC901        | 056G 379 76        | IC LD7552BPS SOP-8             |

**BOM List (T77GMRHFYWDRNN)**

| <b>Location</b> | <b>Part Number</b> | <b>Description</b>              |
|-----------------|--------------------|---------------------------------|
|                 | 026G 800700 6A     | S/N LABEL                       |
|                 | 040G 581700 3A6813 | CARTON LABEL                    |
|                 | 044G9000 7A        | PAPER BOARD                     |
|                 | 044G9003100        | CORNER PAPER                    |
|                 | 044G9003119        | CORNER PAPER                    |
|                 | 052G 1186          | SMALL TAPE                      |
|                 | 052G6022 1500      | SMALL TAPE                      |
|                 | 085G 702 1         | SHIELD WIRE                     |
| E089B           | 089G 728LAA 2D     | SIGNAL CABLE                    |
|                 | 0M1G 130 6125      | SCREW                           |
|                 | 0M1G 330 4120      | SCREW 42A9930008                |
|                 | 0M1G1730 6125      | SCREW                           |
|                 | 0M1G1730 6125      | SCREW                           |
|                 | 0M1G1730 6125      | SCREW                           |
|                 | 0M1G2940 10225 CR3 | SCREW                           |
|                 | 705GQ715013        | SE178WFPC DELL MAIN FRAME ASS'Y |
|                 | 015G8185 1         | HOLDER BRACKET R                |
|                 | 015G8186 1         | HOLDER BRACKET L                |
|                 | 019G 588 3         | SPRING -HOLDER                  |
|                 | 0M1G 130 6120      | SCREW M3X6                      |
|                 | A20G0007 1         | STAND HOLDER                    |
|                 | Q15G0212 2         | MAINFRAME                       |
|                 | 750GLG71W3B11Z000D | PANEL LM171WX3-TLB1 KR ZBD LPL  |
|                 | A33G0025 VH 1L     | RELEASE BUTTON                  |
|                 | CBPC7GMRDRQ1       | MAIN BOARD                      |
| CN401           | 033G3802 6B Y      | CONN 6PIN 2.0                   |
| CN201           | 033G8019 8T JH     | WIRE HARNESS                    |
| CN301           | 033G801930F CH JS  | CONNECTOR                       |
|                 | 040G 457624 1B     | LABEL-CPU                       |
|                 | 040G 45762412B     | CBPC LABEL                      |
| R402            | 061G152M339 64     | CHIPR 3.3 OHM +-5% 2W           |
| C303            | 067G305V101 3      | 105°C 100UF M 16V               |
| C403            | 067G305V101 3      | 105°C 100UF M 16V               |
| C402            | 067G305V101 3P     | 100UF +-20% 16V 105°C           |
| C407            | 067G305V101 3P     | 100UF +-20% 16V 105°C           |
| C408            | 067G305V101 3P     | 100UF +-20% 16V 105°C           |
| C202            | 067G305V479 3P     | 4.7UF 16V 105°C                 |
| C209            | 067G305V479 3P     | 4.7UF 16V 105°C                 |
| C220            | 067G305V479 3P     | 4.7UF 16V 105°C                 |

|       |               |                              |
|-------|---------------|------------------------------|
| CN101 | 088G 35315F H | D-SUB 15PIN                  |
| X201  | 093G 22 53    | CRYSTAL 14.318MHZHC-49US     |
| U401  | 056G 562548   | IC TSUM16AWR-LF-1 MSTAR      |
| U702  | 056G 563 27   | IC AIC1117A-18PYTR-R SOT223  |
| U701  | 056G 585 4A   | AP1117E33LA                  |
| U703  | 056G1133 34   | M24C02-WMN6TP                |
| U203  | 056G1133 81   | SST25LF020A-33-4C-SAE        |
| Q403  | 057G 417 4    | PMBS3904/PHILIPS-SMT(04)     |
| Q202  | 057G 417 6    | PMBS3906/PHILIPS-SMT(06)     |
| Q203  | 057G 417 6    | PMBS3906/PHILIPS-SMT(06)     |
| Q301  | 057G 417 6    | PMBS3906/PHILIPS-SMT(06)     |
| Q406  | 057G 417 12 T | KEC 2N3904S-RTK/PS           |
| Q302  | 057G 763 1    | A03401 SOT23 BY AOS(A1)      |
| R101  | 061G0402000   | RST CHIPR 0 OHM +-5% 1/16W   |
| R201  | 061G0402000   | RST CHIPR 0 OHM +-5% 1/16W   |
| R207  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R117  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R115  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R114  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R113  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R111  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R110  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R108  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R104  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R103  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R102  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R213  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R214  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R215  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R222  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R230  | 061G0402101   | RST CHIPR 100 OHM +-5% 1/16W |
| R406  | 061G0402102   | RST CHIPR 1 KOHM +-5% 1/16W  |
| R235  | 061G0402102   | RST CHIPR 1 KOHM +-5% 1/16W  |
| R233  | 061G0402102   | RST CHIPR 1 KOHM +-5% 1/16W  |
| R414  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |
| R413  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |
| R403  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |
| R401  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |
| R301  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |
| R232  | 061G0402103   | RST CHIPR 10 KOHM +-5% 1/16W |

|      |                |                               |
|------|----------------|-------------------------------|
| R227 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R226 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R223 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R211 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R210 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R209 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R205 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R137 | 061G0402103    | RST CHIPR 10 KOHM +-5% 1/16W  |
| R219 | 061G0402104    | RST CHIPR 100 KOHM +-5% 1/16W |
| R304 | 061G0402104    | RST CHIPR 100 KOHM +-5% 1/16W |
| R405 | 061G0402123    | RST CHIPR 12KOHM +-5% 1/16W   |
| R234 | 061G0402202    | RST CHIP 2K 1/16W 5%          |
| R106 | 061G0402222    | RST CHIPR 2.2 KOHM +-5% 1/16W |
| R105 | 061G0402222    | RST CHIPR 2.2 KOHM +-5% 1/16W |
| R204 | 061G0402390 0F | RST CHIP 390R 1/16W 1%        |
| R109 | 061G0402390 0F | RST CHIP 390R 1/16W 1%        |
| R229 | 061G0402392    | RST CHIP 3.9K 1/16W 5%        |
| R228 | 061G0402392    | RST CHIP 3.9K 1/16W 5%        |
| R404 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R303 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R218 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R217 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R121 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R120 | 061G0402472    | RST CHIPR 4.7 KOHM +-5% 1/16W |
| R212 | 061G0402621    | RST CHIP 620R 1/16W 5%        |
| R208 | 061G0402682    | RST CHIP 6K8 1/16W 5%         |
| R107 | 061G0402750    | RST CHIPR 75 OHM +-5% 1/16W   |
| R112 | 061G0402750    | RST CHIPR 75 OHM +-5% 1/16W   |
| R116 | 061G0402750    | RST CHIPR 75 OHM +-5% 1/16W   |
| R216 | 061G0402750    | RST CHIPR 75 OHM +-5% 1/16W   |
| R302 | 061G0805331    | RST CHIPR 330 OHM +-5% 1/8W   |
| C415 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C413 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C412 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C409 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C401 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C302 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C301 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C229 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |
| C228 | 065G0402104 12 | CHIP 0.1UF 50V X7R            |

|       |                |                          |
|-------|----------------|--------------------------|
| C219  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C218  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C212  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C211  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C207  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C203  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C201  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C112  | 065G0402104 12 | CHIP 0.1UF 50V X7R       |
| C103  | 065G0402220 31 | CHIP 22PF 50V NPO        |
| C102  | 065G0402220 31 | CHIP 22PF 50V NPO        |
| C414  | 065G0402224 17 | CAP CER 0.22UF -20%-80%  |
| C222  | 065G0402330 31 | 33PF +-50% 50V NPO       |
| C221  | 065G0402330 31 | 33PF +-50% 50V NPO       |
| C113  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C110  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C109  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C107  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C106  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C105  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C101  | 065G0402473 12 | CHIP 0.047UF 16V X7R     |
| C111  | 065G0402509 31 | CHIP 5PF 50V NPO         |
| C108  | 065G0402509 31 | CHIP 5PF 50V NPO         |
| C104  | 065G0402509 31 | CHIP 5PF 50V NPO         |
| FB301 | 071G 56K121 M  | CHIP BEAD                |
| FB203 | 071G 56Z601    | CHIP BEAD 600 OHM 0805   |
| FB103 | 071G 59K190 B  | 19 OHM BEAD              |
| FB102 | 071G 59K190 B  | 19 OHM BEAD              |
| FB101 | 071G 59K190 B  | 19 OHM BEAD              |
| D106  | 093G 60505     | DIO SIG SM BAT54C(PHSE)R |
| D102  | 093G 64 33     | DIO SIG SM BAV99 (PHSE)R |
| D103  | 093G 64 33     | DIO SIG SM BAV99 (PHSE)R |
| D104  | 093G 64 33     | DIO SIG SM BAV99 (PHSE)R |
| D105  | 093G 64 42 PP  | BAV70 SOT-23             |
| C227  | 093G 64 59 SU  | ESD MLVS0603M04 0603     |
| C226  | 093G 64 59 SU  | ESD MLVS0603M04 0603     |
| C225  | 093G 64 59 SU  | ESD MLVS0603M04 0603     |
| C224  | 093G 64 59 SU  | ESD MLVS0603M04 0603     |
| C223  | 093G 64 59 SU  | ESD MLVS0603M04 0603     |
| ZD106 | 093G 39S 34 T  | UDZS5.6B                 |
| ZD105 | 093G 39S 34 T  | UDZS5.6B                 |

|       |                  |                                     |
|-------|------------------|-------------------------------------|
| ZD104 | 093G 39S 34 T    | UDZS5.6B                            |
| ZD103 | 093G 39S 34 T    | UDZS5.6B                            |
| ZD102 | 093G 39S 34 T    | UDZS5.6B                            |
| ZD101 | 093G 39S 34 T    | UDZS5.6B                            |
|       | 715G2659 1       | MAIN BOARD PCB                      |
|       | KEPC7QD1         | KEY BOARD                           |
| CN1   | 089G176J 8522    | FFC CABLE                           |
|       | Q52G6022 28      | TAPE                                |
| C02   | 065G0603104 12   | CER2 0603 X7R 16V 100N P            |
| C01   | 065G0603104 12   | CER2 0603 X7R 16V 100N P            |
| SW03  | 077G 605 1 AL GP | SMD SWITCH                          |
| SW02  | 077G 605 1 AL GP | SMD SWITCH                          |
| SW01  | 077G 605 1 AL GP | SMD SWITCH                          |
| SW05  | 077G 605 1 AL GP | SMD SWITCH                          |
| SW04  | 077G 605 1 AL GP | SMD SWITCH                          |
| LED01 | 081G 14 12 KT    | CHIP LED                            |
| D01   | 093G 64 59 SU    | ESD MLVS0603M04 0603                |
|       | 715G2718 1       | KEY BOARD PCB                       |
|       | PWPC721GD1       | POWER BOARD                         |
| CN802 | 033G8020 2E F    | CONNECTOR                           |
| CN801 | 033G8020 2E F    | CONNECTOR                           |
|       | 040G 45762412B   | CBPC LABEL                          |
|       | 044G3231 15571   | EVA WASHER                          |
| IC903 | 056G 139 3A      | IC PC123Y22FZ0F                     |
| R908  | 061G152M10458G   | 100K OHM 5% 2W                      |
| R914  | 061G152M478 64   | 0.47 OHM 5% 2W                      |
| C903  | 063G 10747410V   | 0.47UF 275VAC ARCO                  |
| C801  | 065G 3J1506ET    | 15PF 5% CC45SL 3KV TDK              |
| C902  | 065G305M1022BP   | Y2 1000PF M 250VAC Y5P              |
| C901  | 065G305M1022BP   | Y2 1000PF M 250VAC Y5P              |
| C921  | 065G305M3322BP   | 3300PF 250VAC/400VAC                |
| C907  | 067G 40Z10115K   | CAP 105°C 100UF M 450V              |
| C922  | 067G215D4714KV   | E.C 105°C CAP 470UF M 25V ED SERIES |
| C802  | 067G215D4714KV   | E.C 105°C CAP 470UF M 25V ED SERIES |
| C918  | 067G215D6814KV   | CAP 105°C 680UF M 25V               |
| C917  | 067G215D6814KV   | CAP 105°C 680UF M 25V               |
| C940  | 067G215S1023KV   | 105°C 1000UF M 16V                  |
| C939  | 067G215S1023KV   | 105°C 1000UF M 16V                  |
| C915  | 067G215S4713KV   | EC 105°C CAP 470UF M 16V            |
| L902  | 073G 174 65 H    | LINE FILTER                         |

|       |                |                                    |
|-------|----------------|------------------------------------|
| T901  | 080GL17T 33 N  | POWER X'FMR                        |
| T801  | 080GL17T 40 DN | X'FMR TK.2001U.101                 |
| CN901 | 087G 501 32 S  | AC SOCKET                          |
| BD901 | 093G 50460 28  | BRIDGE DIODE KBP208G LITEON        |
| D905  | 093G3006 1 1   | 31DQ06FC3 NIHON INTER              |
| CN902 | 095G8014 6D655 | WIRE HARNESS                       |
|       | 705GQ757006    | Q901 ASS'Y                         |
| Q901  | 057G 724 11    | STP9NK65ZFP                        |
|       | 0M1G1730 8120  | SCREW                              |
| HS3   | Q90G6263 3     | HEAT SINK                          |
|       | 705GQ761005    | NR901 ASS'Y                        |
| NR901 | 061G 58080 WT  | 8 OHM NCT                          |
|       | 096G 29 10     | H.S. TUBE                          |
|       | 705GQ793027    | D906 ASS'Y                         |
| D906  | 093G 60294     | DIODE MBRF10150CT 10A/150V ITO-220 |
|       | 0M1G1730 8120  | SCREW                              |
| HS2   | Q90G6263 2     | HEAT SINK                          |
| IC801 | 056G 368 14    | IC SMPS KA7500CDTF SOIC-16         |
| IC901 | 056G 379 76    | IC LD7552BPS SOP-8                 |
| Q903  | 057G 417 4     | PMBS3904/PHILIPS-SMT(04)           |
| Q811  | 057G 417 4     | PMBS3904/PHILIPS-SMT(04)           |
| Q806  | 057G 417 4     | PMBS3904/PHILIPS-SMT(04)           |
| Q801  | 057G 417 4     | PMBS3904/PHILIPS-SMT(04)           |
| Q812  | 057G 417 6     | PMBS3906/PHILIPS-SMT(06)           |
| Q804  | 057G 417 6     | PMBS3906/PHILIPS-SMT(06)           |
| Q809  | 057G 759 2     | RK7002                             |
| Q810  | 057G 759 2     | RK7002                             |
| Q808  | 057G 760 4B    | PDTA144WK SOT346                   |
| Q805  | 057G 760 5B    | PDTA144WK SOT346                   |
| Q802  | 057G 763 14    | AM9945N                            |
| R823  | 061G0603000    | RST CHIPR 0 OHM +-5% 1/10W         |
| R801  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R808  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R814  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R818  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R821  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R822  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R824  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R827  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |
| R926  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W        |

|       |                |                                |
|-------|----------------|--------------------------------|
| R942  | 061G0603100 1F | RST CHIPR 1 KOHM +-1% 1/10W    |
| R863  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R832  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R828  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R820  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R817  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R807  | 061G0603100 2F | RST CHIPR 10 KOHM +-1% 1/10W   |
| R813  | 061G0603102    | RST CHIP 1K 1/10W 5%           |
| R835  | 061G0603105    | RST CHIPR 1 MOHM +-5% 1/10W    |
| R862  | 061G0603105    | RST CHIPR 1 MOHM +-5% 1/10W    |
| R803  | 061G0603106    | RST CHIPR 10 MOHM +-5% 1/10W   |
| R930  | 061G0603243 1F | RST CHIPR 2.43 KOHM +-1% 1/10W |
| R940  | 061G0603330 2F | RST CHIPR 33 KOHM +-1% 1/10W   |
| R927  | 061G0603360 1F | RST CHIPR 3.6 KOHM +-1% 1/10W  |
| R811  | 061G0603472    | RST CHIPR 4.7KOHM +-5% 1/10W   |
| R851  | 061G0603510 1F | RST CHIPR 5.1 KOHM +-1% 1/10W  |
| R841  | 061G0603620 2F | RST CHIPR 62 KOHM +-1% 1/10W   |
| R853  | 061G0603683    | RST CHIPR 68 KOHM +-5% 1/10W   |
| R802  | 061G0603910 2F | RST CHIP 91K 1/10W 1%          |
| R831  | 061G0805100 1F | RST CHIPR 1KOHM +-1% 1/8W      |
| R915  | 061G0805100 3F | RST CHIPR 100KOHM +-1% 1/8W    |
| R804  | 061G0805101    | RST CHIPR 100 OHM +-5% 1/8W    |
| R943  | 061G0805102    | RST CHIPR 1KOHM +-5% 1/8W      |
| R925  | 061G0805102    | RST CHIPR 1KOHM +-5% 1/8W      |
| R826  | 061G0805102    | RST CHIPR 1KOHM +-5% 1/8W      |
| R938  | 061G0805103    | 10 KOHM 1/10W                  |
| R924  | 061G0805151    | RST CHIPR 150 OHM +-5% 1/8W    |
| R825  | 061G0805220    | 22&8 1/10W                     |
| R829  | 061G0805220    | 22&8 1/10W                     |
| R839  | 061G0805220    | 22&8 1/10W                     |
| R850  | 061G0805220    | 22&8 1/10W                     |
| R837  | 061G0805473    | RST CHIPR 47 KOHM +-5% 1/8W    |
| R810  | 061G0805510 2F | RST CHIPR 51 KOHM +-1% 1/8W    |
| F801  | 061G1206000    | RST CHIPR 0 OHM +-5% 1/4W      |
| JR801 | 061G1206000    | RST CHIPR 0 OHM +-5% 1/4W      |
| JR901 | 061G1206000    | RST CHIPR 0 OHM +-5% 1/4W      |
| JR902 | 061G1206000    | RST CHIPR 0 OHM +-5% 1/4W      |
| R910  | 061G1206100    | RST CHIP 10R 1/4W 5%           |
| R918  | 061G1206101    | 100 1206                       |
| R919  | 061G1206101    | 100 1206                       |

|      |                |                              |
|------|----------------|------------------------------|
| R920 | 061G1206101    | 100 1206                     |
| R935 | 061G1206101    | 100 1206                     |
| R961 | 061G1206101    | 100 1206                     |
| R962 | 061G1206101    | 100 1206                     |
| R946 | 061G1206102    | RST CHIPR 1 KOHM +-5% 1/4W   |
| R945 | 061G1206102    | RST CHIPR 1 KOHM +-5% 1/4W   |
| R944 | 061G1206102    | RST CHIPR 1 KOHM +-5% 1/4W   |
| R941 | 061G1206102    | RST CHIPR 1 KOHM +-5% 1/4W   |
| R912 | 061G1206221    | RST CHIPR 220 OHM +-5% 1/4W  |
| R932 | 061G1206304    | 300 KOHM 1/8W                |
| R933 | 061G1206304    | 300 KOHM 1/8W                |
| R904 | 061G1206304    | 300 KOHM 1/8W                |
| R856 | 061G1206330    | RST CHIPR 33 OHM +-5% 1/4W   |
| R855 | 061G1206330    | RST CHIPR 33 OHM +-5% 1/4W   |
| R909 | 061G1206519    | RST CHIPR 5.1 OHM +-5% 1/4W  |
| R902 | 061G1206684    | RST CHIPR 680 KOHM +-5% 1/4W |
| R901 | 061G1206684    | RST CHIPR 680 KOHM +-5% 1/4W |
| R900 | 061G1206684    | RST CHIPR 680 KOHM +-5% 1/4W |
| C842 | 065G0603103 32 | 0.01UF +-10% 50V X7R         |
| C834 | 065G0603104 22 | CHIP 0.1UF 25V X7R           |
| C825 | 065G0603104 22 | CHIP 0.1UF 25V X7R           |
| C821 | 065G0603104 22 | CHIP 0.1UF 25V X7R           |
| C807 | 065G0603104 22 | CHIP 0.1UF 25V X7R           |
| C823 | 065G0603222 22 | CHIP 2200PF 25V X7R          |
| C819 | 065G0603222 22 | CHIP 2200PF 25V X7R          |
| C932 | 065G0805102 31 | 1000PF 50V NPO               |
| C839 | 065G0805102 31 | 1000PF 50V NPO               |
| C838 | 065G0805102 31 | 1000PF 50V NPO               |
| C928 | 065G0805102 32 | CHIP 1000P 50VX7R 0805       |
| C930 | 065G0805104 32 | CHIP 0.1U 50V X7R            |
| C924 | 065G0805104 32 | CHIP 0.1U 50V X7R            |
| C916 | 065G0805104 32 | CHIP 0.1U 50V X7R            |
| C905 | 065G0805104 32 | CHIP 0.1U 50V X7R            |
| C824 | 065G0805104 32 | CHIP 0.1U 50V X7R            |
| C822 | 065G0805105 22 | CHIP 1UF 25V X7R 0805        |
| C820 | 065G080522131G | 220PF 50V NPO 2%             |
| C845 | 065G0805225 12 | CHIP 2.2UF 16V X7R 0805      |
| C909 | 065G0805471 21 | CHIP 470PF 25V NPO           |
| C929 | 065G1206102 72 | CHIP 1000PF 500V X7R         |
| C912 | 065G1206102 72 | CHIP 1000PF 500V X7R         |

|       |                   |                               |
|-------|-------------------|-------------------------------|
| D801  | 093G 64 33        | DIO SIG SM BAV99 (PHSE)R      |
| D802  | 093G 64 33        | DIO SIG SM BAV99 (PHSE)R      |
| D817  | 093G 64 44 S      | LL4148WP                      |
| D903  | 093G 64 44 S      | LL4148WP                      |
| D813  | 093G 64 44 S      | LL4148WP                      |
| D805  | 093G 64 44 S      | LL4148WP                      |
| D806  | 093G 64 44 S      | LL4148WP                      |
| D807  | 093G 64 44 S      | LL4148WP                      |
| D812  | 093G 64 44 S      | LL4148WP                      |
| D814  | 093G 64 44 S      | LL4148WP                      |
| D916  | 093G 64 44 S      | LL4148WP                      |
| D915  | 093G 64 44 S      | LL4148WP                      |
| ZD801 | 093G 39S 10 T     | RLZ6.8B BY ROHM               |
| ZD906 | 093G 39S 20 T     | RLZ22B LLDS                   |
| ZD922 | 093G 39S 25 T     | RLZ5.1B LLDS                  |
| ZD921 | 093G 39S 40 T     | RLZ 13B LLDS                  |
| ZD902 | 093G 39S 40 T     | RLZ 13B LLDS                  |
| ZD905 | 093G 39S 44 T     | RLZ18B LLDS                   |
| CN901 | 006G 31500        | EYELET                        |
| T801  | 006G 31502        | 1.5MM RIVET                   |
| Q901  | 006G 31502        | 1.5MM RIVET                   |
| T901  | 006G 31502        | 1.5MM RIVET                   |
| IC904 | 056G 158 10 T     | IC AZ431AZ-AE1 TO-92 BY AAC   |
| C938  | 065G 1K152 1T     | 1.5NF/1KV Z5F+-10%            |
| C906  | 065G 2K152 1T6052 | 1.5NF/2KV Y5P +-10%           |
| C908  | 067G215Y2207KT    | CAP 105°C 22UF M 50V KINGNICH |
| FB801 | 071G 55 9 T       | FERRITE BEAD                  |
| FB901 | 071G 55 29        | FERRITE BEAD                  |
| F901  | 084G 55 7W        | FUSE 3.15A 250V WICKMANN      |
| D900  | 093G 6026T52T     | RECTIFIER DIODE FR107         |
| D901  | 093G 6038P52T     | PS102R                        |
|       | 715G2545 1 2      | POWER BOARD PCB               |
|       | Q52G6025 13114    | INSULATE SHEET                |
| HS5   | Q85G0002 1        | SHIELD_MAIN                   |
| L901  | S73G17476V        | LINE FILTER                   |
|       | Q01G6019 2        | SCREW                         |
|       | Q23G3178700 8A    | LOGO                          |
|       | Q33G0136 SN 1L    | BUTTON FUNC                   |
|       | Q33G0137 SNA1L    | REAR LOGO                     |
|       | Q33G0138 1 1L     | LENS POWER                    |

|  |                   |                          |
|--|-------------------|--------------------------|
|  | Q34G0184 SNA1B 30 | BEZEL L17W-7DELL2        |
|  | Q34G0185 VH 1B 30 | REAR COVER(17)           |
|  | Q37G0054 1        | HINGE                    |
|  | Q40G 17N70016A    | RATING LABEL             |
|  | Q41G780070090A    | TECH SHEET               |
|  | Q41G780070099A    | APCC_CCC_JP PIG          |
|  | Q41G7800700A05    | SE178WFP QSG             |
|  | Q44G7066 1        | EPS                      |
|  | Q44G7066 2        | EPS                      |
|  | Q44G7066 3        | EPS                      |
|  | Q44G7066 4        | EPS                      |
|  | Q44G7066700 1A    | CARTON                   |
|  | Q44GSLIP10046A    | PLASTIC SLIPSHEET        |
|  | Q45G 88606 8 R    | PE BAG FOR BASE          |
|  | Q45G 88609 60 R   | EPE BAG FOR MONITOR      |
|  | Q52G 1185 86      | BIG TAPE FOR DELL CARTON |
|  | Q52G6020 46       | PROTECT FILM             |
|  | Q70G1700700 9B    | CD MANUAL                |
|  | Q85G0051 1        | INVERTER SHIELD          |
|  | S89G179T30N501    | LVDS ASS'Y               |
|  | 089F80002153AG    | 1.0*30*3-215-3-0.65*0.05 |
|  | 033F303FH10BK3    | F1010HA-30P-BK           |
|  | 033F303FJSHK30    | 1.0S-19-30A              |

## 14. Different Parts List

| Diversity of T77GMRHJYWDRNN compared with T77GMRHFYWDRNN |                |               |
|--|----------------|---------------|
| Location   | Part No.       | Description   |
| E089A  | 089G401A18NHRA | Power cord    |
|  | Q07G 1 5D36    | Wooden pallet |
|  | Q40G 17N70017A | Rating label  |
|  | Q44G9003210    | Corner paper  |

| Diversity of T77GMRHKYWDRNN compared with T77GMRHFYWDRNN |                |                   |
|--|----------------|-------------------|
| Location   | Part No.       | Description       |
| E089A  | 089G402A18NISD | POWER CORD        |
|  | Q40G0001700 4A | DELL CARTON LABEL |
|  | Q41G780070098A | PIG FOR DAO       |

| Diversity of T77GMRHLYWDRNN compared with T77GMRHFYWDRNN |                |                                   |
|--|----------------|-----------------------------------|
| Location   | Part No.       | Description                       |
|  | 089G412A18NIS3 | POWER CORD WALL-OUT FOR AUSTRALIA |

| Diversity of T77GMRHMYWDRNN compared with T77GMRHFYWDRNN |                |                |
|--|----------------|----------------|
| Location   | Part No.       | Description    |
|  | Q07G 1 5D36    | WOODEN PALLET  |
|  | Q41G780070081A | DELL ROHS CARD |
|  | Q44G7066 1 B   | EPS            |
|  | Q44G7066 2 B   | EPS            |
|  | Q44G7066700 2A | CARTON         |
|  | Q44G9003210    | CORNER PAPER   |

| Diversity of T77GMRHBYWDRNC compared with T77GMRHFYWDRNN |                    |                            |
|--|--------------------|----------------------------|
| Location   | Part No.           | Description                |
|  | 044G9003135        | CORNER PAPER               |
|  | 750GLG71W3B11D000D | PANEL LM171WX3-TLB1 KR LPL |
|  | Q40G0001700 4A     | DELL CARTON LABEL          |
|  | Q41G7800700A01     | EMEA PIG                   |

| <b>Diversity of T77GMRHBYWDRNN compared with T77GMRHFYWDRNN</b> |                 |                    |
|---|-----------------|--------------------|
| <b>Location</b>   | <b>Part No.</b> | <b>Description</b> |
|   | 044G9003135     | CORNER PAPER       |
|   | Q40G0001700 4A  | DELL CARTON LABEL  |
|   | Q41G7800700A01  | EMEA PIG           |

| <b>Diversity of T77GMRHFYWDRNC compared with T77GMRHFYWDRNN</b> |                    |                            |
|---|--------------------|----------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>         |
|   | 750GLG71W3B11D000D | PANEL LM171WX3-TLB1 KR LPL |

| <b>Diversity of T77GMRHJYWDRNC compared with T77GMRHFYWDRNN</b> |                    |                            |
|---|--------------------|----------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>         |
| E089A   | 089G401A18NHRA     | POWER CORD                 |
|   | 750GLG71W3B11D000D | PANEL LM171WX3-TLB1 KR LPL |
|   | Q40G 17N70017A     | RATING LABEL               |
|   | Q44G9003210        | CORNER PAPER               |

| <b>Diversity of T77GMRHKYWDLNC compared with T77GMRHFYWDRNN</b> |                    |                            |
|---|--------------------|----------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>         |
| E089A   | 089G402A18NISD     | POWER CORD                 |
|   | 750GLG71W3B11D000D | PANEL LM171WX3-TLB1 KR LPL |
|   | Q40G0001700 4A     | DELL CARTON LABEL          |
|   | Q41G780070098A     | PIG FOR DAO                |

| <b>Diversity of T77GMRHMYWDLNC compared with T77GMRHFYWDRNN</b> |                    |                            |
|---|--------------------|----------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>         |
|   | 750GLG71W3B11D000D | PANEL LM171WX3-TLB1 KR LPL |

| <b>Diversity of T77HMRHKYWDRNC compared with T77GMRHFYWDRNN</b> |                    |                                 |
|---|--------------------|---------------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>              |
| E089A   | 089G402A18NISD     | POWER CORD                      |
|   | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|   | Q15G0212 1S        | MAINFRAME                       |
|   | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|   | CBPC7HMRDRQ1       | MAIN BOARD                      |
|   | PWPC721HD1         | POWER BOARD                     |
| CN802   | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801   | 033G8020 2F U      | CONN.2P DIP R/A                 |
|   | Q40G0001700 4A     | DELL CARTON LABEL               |

|  |                |             |
|--|----------------|-------------|
|  | Q41G780070098A | PIG FOR DAO |
|--|----------------|-------------|

**Diversity of T77HMRHKYWDRNN compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                     |
|----------|--------------------|---------------------------------|
| E089A    | 089G402A18NISD     | POWER CORD                      |
|          | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|          | Q15G0212 1S        | MAINFRAME                       |
|          | 750GLH70GWC12Z000D | PANEL HSD170MGW1-C00 ZBD NJ HSD |
|          | CBPC7HMRDRQ1       | MAIN BOARD                      |
|          | PWPC721HD1         | POWER BOARD                     |
| CN802    | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801    | 033G8020 2F U      | CONN.2P DIP R/A                 |
|          | Q40G0001700 4A     | DELL CARTON LABEL               |
|          | Q41G780070098A     | PIG FOR DAO                     |

**Diversity of T77HMRHFYWDRNC compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                     |
|----------|--------------------|---------------------------------|
|          | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|          | Q15G0212 1S        | MAINFRAME                       |
|          | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|          | CBPC7HMRDRQ1       | MAIN BOARD                      |
|          | PWPC721HD1         | POWER BOARD                     |
| CN802    | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801    | 033G8020 2F U      | CONN.2P DIP R/A                 |

**Diversity of T77HMRHJYWDRNC compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                     |
|----------|--------------------|---------------------------------|
| E089A    | 089G401A18NHRA     | POWER CORD                      |
|          | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|          | Q15G0212 1S        | MAINFRAME                       |
|          | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|          | CBPC7HMRDRQ1       | MAIN BOARD                      |
|          | PWPC721HD1         | POWER BOARD                     |
| CN802    | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801    | 033G8020 2F U      | CONN.2P DIP R/A                 |
|          | Q40G 17N70017A     | RATING LABEL                    |
|          | Q44G9003210        | CORNER PAPER                    |

| <b>Diversity of T77HMRHLYWDRNC compared with T77GMRHFYWDRNN</b> |                    |  |
|---|--------------------|--|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>                             |
| E089A   | 089G412A18NIS3     | POWER CORD WALL-OUT FOR AUSTRALIA<br>32E181805 |
|   | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y                |
|   | Q15G0212 1S        | MAINFRAME                                      |
|   | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD                    |
|   | CBPC7HMRDRQ1       | MAIN BOARD                                     |
|   | PWPC721HD1         | POWER BOARD                                    |
| CN802   | 033G8020 2F U      | CONN.2P DIP R/A                                |
| CN801   | 033G8020 2F U      | CONN.2P DIP R/A                                |

| <b>Diversity of T77HMRHMYWDLNC compared with T77GMRHFYWDRNN</b> |                    |                                 |
|---|--------------------|---------------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>              |
|   | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|   | Q15G0212 1S        | MAINFRAME                       |
|   | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|   | CBPC7HMRDRQ1       | MAIN BOARD                      |
|   | PWPC721HD1         | POWER BOARD                     |
| CN802   | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801   | 033G8020 2F U      | CONN.2P DIP R/A                 |

| <b>Diversity of T77HMRHMYWDRNC compared with T77GMRHFYWDRNN</b> |                    |                                 |
|---|--------------------|---------------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>              |
|   | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|   | Q15G0212 1S        | MAINFRAME                       |
|   | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|   | CBPC7HMRDRQ1       | MAIN BOARD                      |
|   | PWPC721HD1         | POWER BOARD                     |
| CN802   | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801   | 033G8020 2F U      | CONN.2P DIP R/A                 |
|   | Q07G 1 5D36        | WOODEN PALLET                   |
|   | Q44G7066 1 B       | EPS                             |
|   | Q44G7066 2 B       | EPS                             |
|   | Q44G7066700 2A     | CARTON                          |
|   | Q44G9003210        | CORNER PAPER                    |

| <b>Diversity of T77HMRHBYWDRNC compared with T77GMRHFYWDRNN</b> |                    |                                 |
|---|--------------------|---------------------------------|
| <b>Location</b>   | <b>Part No.</b>    | <b>Description</b>              |
|   | 044G9003135        | CORNER PAPER                    |
|   | 705GQ715012        | SE178WFPC DELL MAIN FRAME ASS'Y |
|   | Q15G0212 1S        | MAINFRAME                       |
|   | 750GLH70GWC12D000D | PANEL HSD170MGW1-C00 NJ HSD     |
|   | CBPC7HMRDRQ1       | MAIN BOARD                      |
| CN201   | 033G8019 8C JH     | WAFER                           |
|   | PWPC721HD1         | POWER BOARD                     |
| CN802   | 033G8020 2F U      | CONN.2P DIP R/A                 |
| CN801   | 033G8020 2F U      | CONN.2P DIP R/A                 |
| C801  | 065G 6J1506ET      | 15PF 5% SL 6KV                  |
| CN902   | 095G8014 6X655     | WIRE HARNESS                    |
|   | Q52G6025 13143     | INSULATE SHEET                  |
|   | Q41G7800700A01     | EMEA PIG                        |
|   | Q52G 1185 91       | BIG TAPE FOR DELL CARTON        |
|   | Q70G1700700 9C     | CD MANUAL                       |
|   | Q40G0001700 4A     | DELL CARTON LABEL               |

| <b>Diversity of T77GMRHFYWDMMNC compared with T77GMRHFYWDRNN</b> |                    |                                  |
|--|--------------------|----------------------------------|
| <b>Location</b>  | <b>Part No.</b>    | <b>Description</b>               |
|  | 015G8146 1         | KEVSINGTON BRACKET               |
|  | 045G 77501         | BARCODE RIBBON                   |
| E750L  | 750GLG71W3B21D000D | PANEL LM171WX3-TLB2 KR LPL       |
| D104   | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R         |
| D103   | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R         |
| D102   | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R         |
|  | PWPC721HD1         | POWER BOARD G2545-2-2-X-1-071226 |
| CN802  | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |
| CN801  | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |
| IC903  | 056G 139 3A        | IC PC123Y22FZ0F                  |
| C922   | 067G 515471 4C     | EC 470uF 25V GL 10x13mm          |
| L903   | 073G 253191 L      | CHOKE COIL 1.1uH CC-007802       |
| L904   | 073G 253191 L      | CHOKE COIL 1.1uH CC-007802       |
| T801   | 080GL17T 40 H      | XFMR INVERTER DADON              |
| T801   | 080GL17T 40 DN     | X'FMR TK.2001U.101               |
| BD901  | 093G 50460502      | KBP206G                          |
| CN902  | 095G8014 6X655     | WIRE HARNESS                     |
|  | 051G 200 1         | OIL FOR DISAPPEAR                |

|            |                   |                              |
|------------|-------------------|------------------------------|
| Q901       | 057G 667 30       | 2SK2645                      |
|            | 051G 200 1        | OIL FOR DISAPPEAR            |
| Q801       | 057G 417 12 T     | KEC 2N3904S-RTK/PS           |
| Q806       | 057G 417 12 T     | KEC 2N3904S-RTK/PS           |
| Q811       | 057G 417 12 T     | KEC 2N3904S-RTK/PS           |
| Q903       | 057G 417 12 T     | KEC 2N3904S-RTK/PS           |
| Q812       | 057G 417 13 T     | KEC 2N3906S-RTK/PS           |
| Q804       | 057G 417 13 T     | KEC 2N3906S-RTK/PS           |
| Q802       | 057G 763 6        | AO4828L                      |
| D802       | 093G 6433P        | BAV99                        |
| D801       | 093G 6433P        | BAV99                        |
| D916/ D915 | 093G 64S901 T     | DIODE LS4148                 |
| D903/ D817 | 093G 64S901 T     | DIODE LS4148                 |
| D814/ D806 | 093G 64S901 T     | DIODE LS4148                 |
| D805/ D813 | 093G 64S901 T     | DIODE LS4148                 |
| D807/ D812 | 093G 64S901 T     | DIODE LS4148                 |
| IC904      | 056G 158 12       | KIA431A-AT/P TO-92           |
| L902       | S73G17465V        | LINE FILTER ASS'Y            |
|            | 034FPF20P01       | BOBBIN                       |
| L902       | S73G17465VW       | LINE FILTER ASS'Y            |
| T901       | S80GL17T33V       | TRANSFORMER ASS'Y            |
| M023       | Q23G3178700 8A GM | LOGO                         |
|            | Q52G 1185 76      | REWORK TAPE FOR DELL CARTON  |
|            | 044F3231 167C1    | SEKISUI5760#W=30             |
|            | 044F3231 167C2    | SEKISUI5760#W=25             |
| M03701     | SQ37G00541        | HINGE ASS'Y                  |
|            | 002F0604100 00    | NUTS                         |
|            | 004F061515P 00    | WASHER                       |
|            | 004F0612051 00    | WASHER                       |
|            | 004F0612052 00    | METAL WASHER                 |
|            | 004F061210M 00    | METAL WASHERS12.0*6.03*4.70H |
|            | 004F061210T 00    | METAL WASHERS12.0*8.00*1.6H  |
|            | 0Q1F 130 6120     | SCREW                        |
|            | 0M1F 140 6125     | SCREW                        |
|            | 0M1F2535 5128     | HEAD SCREW                   |
|            | 027F0605 00       | RING                         |
|            | 0Q1F 130 5120     | SCREW                        |
|            | 015F0054110       | ACTIVE BRACKET               |
|            | 015F0054120       | VESA PLATE                   |
|            | 015F0054130       | BASE PLATE                   |

|  |                |                     |
|--|----------------|---------------------|
|  | 012F1215 00    | MAT                 |
|  | 019F20173L4    | SPRING              |
|  | 019F20173R4    | SPRING              |
|  | 028F0625080    | SHAFT               |
|  | 020F0054120    | DIECASTING          |
|  | 034F0186 VH 1B | VESA PLASTIC        |
|  | 034F0187 VH 1B | RISER FRONT PLASTIC |
|  | 034F0188 VH 1B | RISER BACK PLASTIC  |
|  | 034F0189 VH 1B | BASE PLASTIC        |
|  | 051F 100510 00 | GLEUS               |
|  | 0M1F 140 8125  | SCREW               |
|  | 012F0408040 00 | WASHER              |

**Diversity of T77GMRHMPWDMNC compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                       |
|----------|--------------------|-----------------------------------|
|          | 023G3178700 3A     | LOGO                              |
|          | 041G 68623 1A      | CERTIFICATED CARD                 |
| E08902   | 089G 728CAA 2D     | SIGNAL CABLE                      |
|          | 0M1G1730 6120      | SCREW,42-D020523                  |
|          | 705GQ734168        | MAIN FRAME ASS'Y(17")             |
|          | Q15G0212 2         | MAINFRAME                         |
| E750L    | 750GLG71W3A31D000D | PANEL LM171WX3-TLA3 KR LPL        |
|          | CBPC7GMRDLQ1       | MAIN BOARD G2659-1-DEL-X-1-070821 |
| R216     | 061G0402621        | RST CHIP 620R 1/16W 5%            |
| C227     | 065G0603102 32     | 1000PF +-10% 50V X7R              |
| C226     | 065G0603102 32     | 1000PF +-10% 50V X7R              |
| C225     | 065G0603102 32     | 1000PF +-10% 50V X7R              |
| C224     | 065G0603102 32     | 1000PF +-10% 50V X7R              |
| C223     | 065G0603102 32     | 1000PF +-10% 50V X7R              |
| D102     | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R          |
| D103     | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R          |
| D104     | 093G 64 33         | DIO SIG SM BAV99 (PHSE)R          |
|          | KEPC7QD2           | KEY BOARD                         |
|          | 052G6022 20        | SMALL TAPE                        |
|          | 055G 23524         | WELDING FLUX WITHOUT PB           |
| SW1      | 077G 500 4 CJ      | DOME SWITCH 4PCS ARRAY            |
| CN1      | 089G176J 8521      | FFC CABLE                         |
| LED01    | 081G 14501 GP      | LED GPTD1210YGC3-HB GUANGPU       |
|          | 715G1564 1 4       | KEY BOARD PCB                     |
|          | PWPC721HD1         | POWER BOARD G2545-2-2-X-1-071226  |

|        |                   |                      |
|--------|-------------------|----------------------|
| CN802  | 033G8020 2F U     | CONNECTOR 2P DIP R/A |
| CN801  | 033G8020 2F U     | CONNECTOR 2P DIP R/A |
|        | Q33G0122 SNA1L    | BUTTON FUNC          |
|        | Q34G0171 VH 1B    | BEZEL L17W-7DELL     |
|        | Q34G0172 VH 1B 30 | REAR COVER(17)       |
| M03701 | Q37G0053 1        | HINGE ASS'Y          |
|        | Q40G 17N70013B    | RATING LABEL         |
|        | Q41G7800700B04    | QSG                  |
|        | Q44G7063 1        | EPS                  |
|        | Q44G7063 2        | EPS                  |
|        | Q44G7063 3EPE     | EPE                  |
|        | Q44G7063700 2B    | 17"LCD CARTON        |
|        | Q44G9003210       | CORNER PAPER         |
|        | Q45G 88607DE8 R   | PE BAG FOR MONITOR   |
|        | Q50G 505 17       | BAND                 |
|        | Q70G1700700 8E    | CD MANUAL            |

**Diversity of T77GMRHMYWDMNC compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                      |
|----------|--------------------|----------------------------------|
|          | 041G 68623 1A      | CERTIFICATE CARD                 |
| E08902   | 089G 728CAA 2D     | SIGNAL CABLE                     |
| E750L    | 750GLG71W3B21D000D | PANEL LM171WX3-TLB2 KR LPL       |
|          | PWPC721HD1         | POWER BOARD G2545-2-2-X-1-071226 |
| CN802    | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |
| CN801    | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |
|          | Q07G 1 5D36        | WOODEN PALLET                    |
|          | Q44G7066700 2B     | 17"LCD CARTON                    |
|          | Q44G9003210        | CORNER PAPER                     |

**Diversity of T77GMRHMYWDNNC compared with T77GMRHFYWDRNN**

| Location | Part No.           | Description                      |
|----------|--------------------|----------------------------------|
| E750L    | 750GLG71W3B21D000D | PANEL LM171WX3-TLB2 KR LPL       |
|          | PWPC721HD1         | POWER BOARD G2545-2-2-X-1-071226 |
| CN802    | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |
| CN801    | 033G8020 2F U      | CONNECTOR 2P DIP R/A             |