

# Service Manual

ViewSonic VA916  
Model No VS11962  
19" Color TFT LCD Display



**Manufacture Date: Nov-02-07**

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**Revision History**

Revision	Date	Description of changes	Approval
<b>A00</b>	<b>Nov-02-07</b>	<b>Initial Release</b> T97HMRDKMWVSN1J、T97HMRDBMWVSN1J T97HMRDTMWVSN1J、T97HMRDDMWVSN1J	<b>YG.WANG</b>

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## 1. Precautions And Safety Notices

### 1.1 SAFETY PRECAUTIONS

This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may cause damage to the monitor as well as the user. Carefully go over the following WARNINGS before installing and keep this guide handy.

#### WARNINGS

- . This monitor should be operated only at the correct power sources indicated on the label on the rear end of the monitor. If you're unsure of the power supply in your residence, consult you local dealer or power company.
- . Use only the special power adapter that comes with this monitor for power input.
- . Do not try to repair the monitor your self as it contains no user-serviceable parts. This monitor should only be repaired by a qualified technician.
- . Do not remove the monitor cabinet. There is high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is unplugged.
- . Stop using the monitor if the cabinet is damaged. Have it checked by a service technician.
- . Put your monitor only in a clean, dry environment. If it gets wet, unplug the power cable immediately and consult your service technician.
- . Always unplug the monitor before cleaning it .Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- . Keep the monitor away from magnetic objects, motors, TV sets, and transformer.
- . Do not place heavy objects on the monitor or power cord.







### 1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire ,or other hazards.

### 1.3 SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor(more than 1W of metal oxide film resistor) in circuit board, keep the resistor about 5mm away from circuit board.
3. Keep wires away from high voltage, high temperature components and sharp edges.
4. Keep wires in their original position so as to reduce interference.
5. Usage of this product please refer to also user's manual.

**1.4 HANDING AND PLACING METHODS**

Correct Methods:	Incorrect Methods:
<p>Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.</p>	<p>Surface of the LCD panel is pressed by fingers and that may cause "Mura."</p>
	
	
<p>Take out the monitor with cushions</p>	<p>Taking out the monitor by grasping the LCD panel. That may cause "Mura."</p>
	
<p>Place the monitor on a clean and soft foam pad.</p>	<p>Placing the monitor on foreign objects. That could scratch the surface of the panel or cause "Mura."</p>

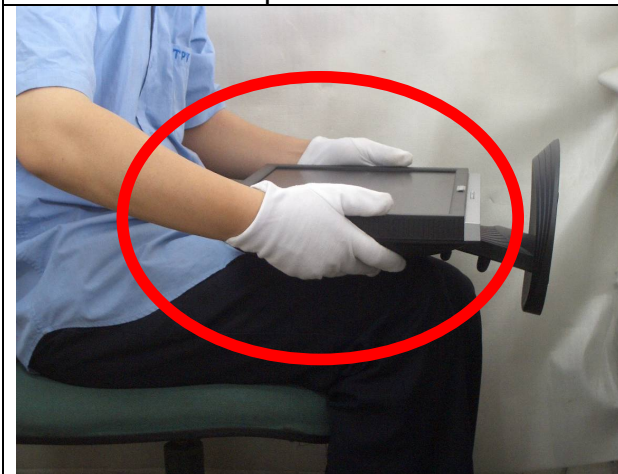




Place the monitor on the lap, the panel surface must be upwards.



The panel is placed facedown on the lap. That may cause "Mura."



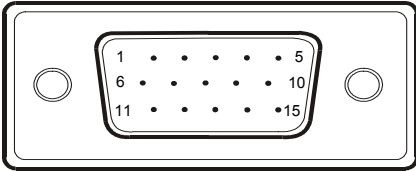
## 2. Specification

## 2.1 PRODUCT SPECIFICATIONS

LCD	Type	19.0" (full 19" viewable diagonal area), TFT(Thin Film Transistor), SXGA 0.294mm pixel pitch
	Color Filter	RGB vertical stripe
	Glass Surface	Anti-Glare
Input Signal	Video Sync	RGB analog(0.7/1.0 Vp-p, 75 ohms) Separate Sync, Fh:30-82 kHz, Fv:56-75 Hz
Compatibility	PC Macintosh	Up to 1280 x 1024 Non-interlaced Power Macintosh up to 1280 x 1024
Resolution	Recommended and supported	1280 x 1024 @ 60, 75 Hz 1024 x 768 @ 60, 70, 75 Hz 800 x 600 @ 56, 60, 72, 75 Hz 640 x 480 @ 60, 75 Hz 720 x 400 @ 70 Hz
Power	Voltage	100V~240 VAC, 50/60Hz (auto switch)
Display area	Full Scan	376.32mm(H) x 301.056mm(V) 14.81"(H) x 11.87"(V)
Operating conditions	Temperature Humidity Altitude	32°F to + 104°F ( 0°C to + 40°C) 10%C to + 90%(non-condensing) To 10,000 feet
Storage conditions	Temperature Humidity Altitude	-4°F to + 140°F ( -20°C to + 60°C) 10%C to + 90%(non-condensing) To 40,000 feet
Dimensions	Physical	412.2mm(W) x 434.9mm(H) x195mm(D) 16.2"(W) x 17.1"(H) x 7.7"(D)
Weight	Physical	9 lb(4.1 kg)
Regulations		BSMI, VCCI, CCC, PSB, C-Tick, MIC, CE, Ukraine, TUV-S/IRAM, Ergo, Gost-R/Hygienic, TCO'03, SASO, UL/cUL, FCC-B, ICES-B, GS, NOM, Energy Star <sup>®</sup>
Power saving modes	On Off	35W(Typical) (blue LED) <1W
<b>Preset Timing Mode</b> (pre-adjusted to VESA <sup>®</sup> 1280 x 1024 @ 60 Hz) <b>Warning:</b> Do not set the graphics card in your computer to exceed these refresh rates; doing so may result in permanent damage to the LCD display.		
<sup>1</sup> Macintosh computers older than G3 require a ViewSonic <sup>®</sup> Macintosh adapter. To order an adapter, contact ViewSonic.		

## 2.2 INTERFACE DESCRIPTION

### D-SUB 15 PIN CONNECTOR



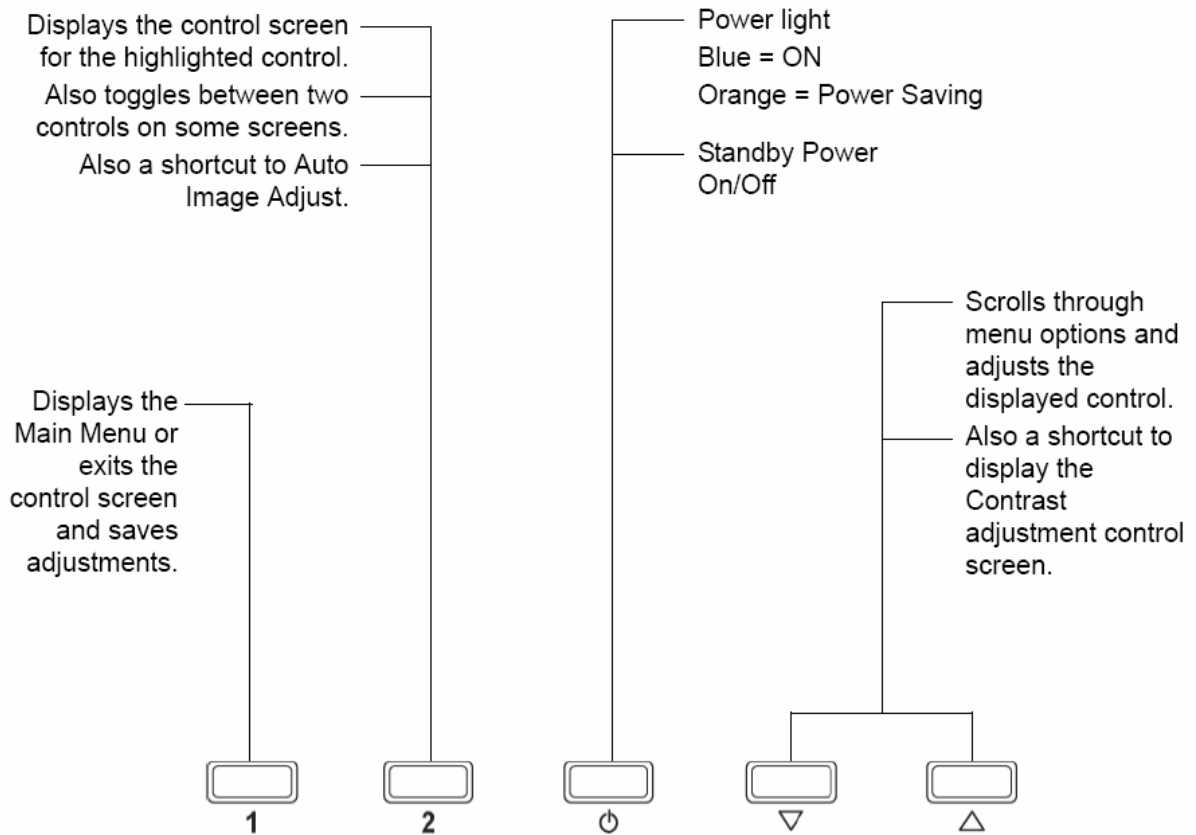
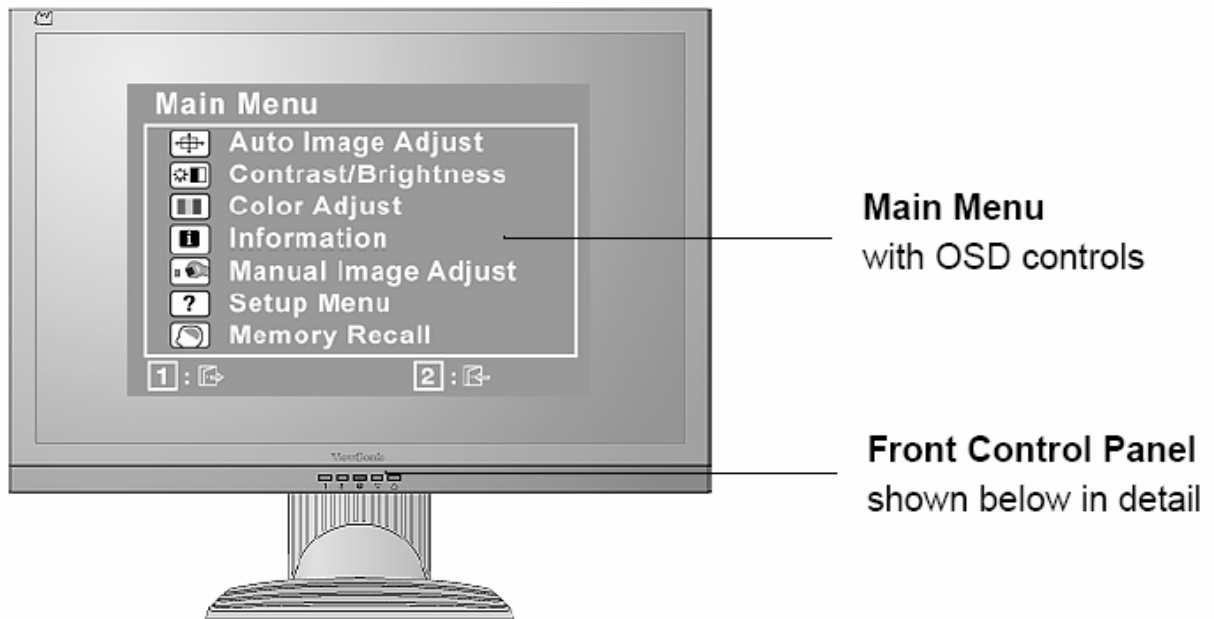
Pin Number	Pin Function
1	Red video input
2	Green video input
3	Blue video input
4	No Connection
5	Ground
6	Red video ground
7	Green video ground
8	Blue video ground
9	+5V
10	H/V sync ground
11	No connection
12	(SDA)
13	Horizontal sync (Composite sync)
14	Vertical sync
15	(SCL)

### SIGNAL LEVEL

CONNECTOR	SIGNAL	DESCRIPTION
R	Red	0.7vp-p (VIDEO)
G	Green	0.7vp-p (VIDEO)
B	Blue	0.7vp-p (VIDEO)
H	H/Sync	TTL positive or negative
V	V/Sync	TTL positive or negative
SDA	DDC1/2B	TTL
SCL	DDC1/2B	TTL

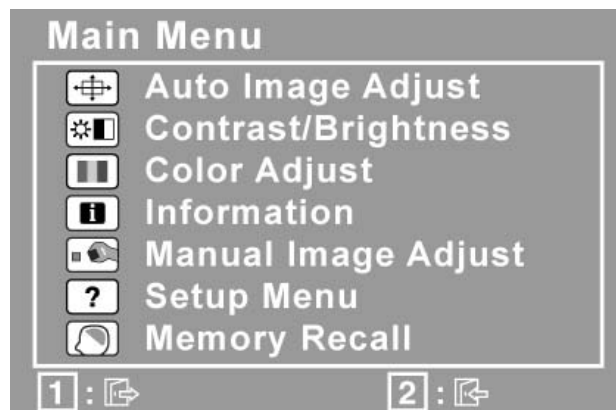


### 3. Front Panel Function Controls And Indicators



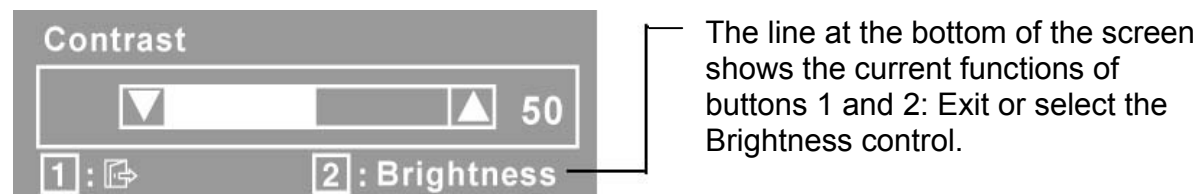
**Do the following to adjust the display setting:**

1. To display the Main Menu, press button [1].



**NOTE:** All OSD menus and adjustment screens disappear automatically after about 15 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2. To select a control to adjust, press ▲ or ▼ to scroll up or down in the Main Menu.
3. After the desired control is selected, press button [2]. A control screen like the one shown below appears.



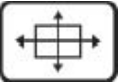



4. To adjust the control, press the up ▲ or ▼ down buttons.
5. To save the adjustments and exit the menu, press button [1] *twice*.


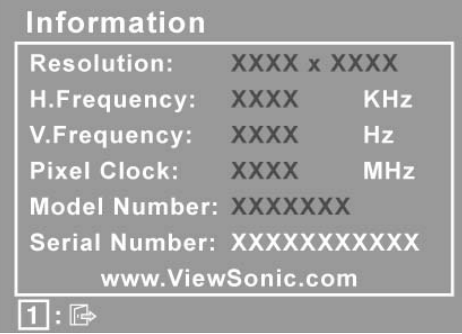



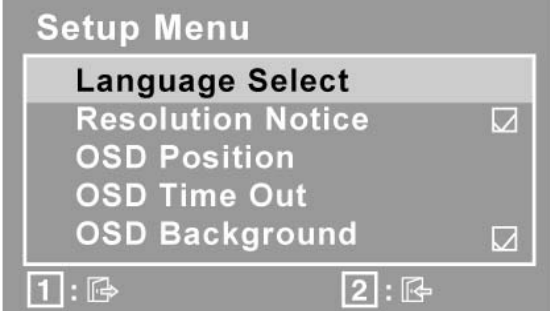
**The following tips may help you optimize your display:**


- Adjust the computer's graphics card so that it outputs a 1280 x 1024 @ 60Hz video signal to the LCD display. (Look for instructions on "changing the refresh rate" in the graphics card's user guide.)
- If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

### Main Menu Controls

Adjust the menu items shown below by using the up ▲ and down ▼ buttons.

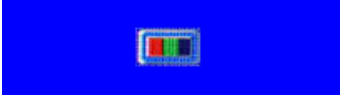




Control	Explanation
	<p><b>Auto Image Adjust</b> automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image.</p> <p><b>NOTE:</b> Auto Image Adjust works with most common video cards. If this function does not work on your LCD display, then lower the video refresh rate to 60 Hz and set the resolution to its pre-set value.</p>
	<p><b>Contrast</b> adjusts the difference between the image background (black level) and the foreground (white level).</p>
	<p><b>Brightness</b> adjusts background black level of the screen image.</p>
	<p><b>Color Adjust</b> provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).</p> <div data-bbox="363 1034 927 1350" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><b>Color Adjust</b></p> <ul style="list-style-type: none"> <li>sRGB</li> <li><b>9300K</b></li> <li>6500K</li> <li>5400K</li> <li>User Color</li> </ul> <p style="display: flex; justify-content: space-between;"> <span>[1] : ↵</span> <span>[2] : ↵</span> </p> </div> <p><b>sRGB</b>-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the intended. Enabling the sRGB setting will cause Contrast and Brightness adjustments to be disabled.</p> <p><b>9300K</b>-Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).</p> <p><b>6500K</b>-Adds red to the screen image for warmer white and richer red.</p> <p><b>5400K</b>-Adds green to the screen image for a darker color.</p> <p><b>User Color</b> Individual adjustments for red (R), green (G), and blue (B).</p> <ol style="list-style-type: none"> <li>1. To select color (R, G or B) press button [2].</li> <li>2. To adjust selected color, press ▼ and ▲.</li> </ol> <p><b>Important:</b> If you select <b>RECALL</b> from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.</p>

	<p><b>Information</b> displays the timing mode (video signal input) coming from the graphics card in the computer, the LCD model number, the serial number, and the ViewSonic® website URL. See your graphics card's user guide for instructions on changing the resolution and refresh rate (vertical frequency). <b>NOTE:</b> VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.</p> 
	<p><b>Manual Image Adjust</b> display the Manual Image Adjust menu</p>  <p><b>H./V. Position (Horizontal/Vertical Position)</b> moves the screen image left or right and up or down.</p> <p><b>H./Size (Horizontal Size)</b> adjusts the width of the screen image.</p> <p><b>Fine Tune</b> sharpens the focus by aligning text and/or graphics with pixel boundaries.</p> <p><b>NOTE:</b> Try Auto Image Adjust first.</p> <p><b>Sharpness</b> adjusts the clarity and focus of the screen image.</p>
	<p><b>Setup Menu</b> displays the menu shown below:</p> 

	<p><b>Language Select</b> allows the user to choose the language used in the menus and control screens.</p> <p><b>Resolution Notice</b> advises the optimal resolution to use.</p> <p><b>OSD Position</b> allows the user to move the OSD menus and control screens.</p> <p><b>OSD Timeout</b> sets the length of time the OSD screen is displayed. For example, with a “15 second” setting, if a control is not pushed within 15 seconds, the display screen disappears.</p> <p><b>OSD Background</b> allows the user to turn the OSD background On or Off.</p>
	<p><b>Memory Recall</b> returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.</p> <p><b>Exception</b> This control does not affect changes made with the User Color control, Language Select or Power Lock setting.</p>

### SHORT CUTS FUNCTION FROM THE BUTTONS

[1]	Main Menu
[2]	Input toggle for dual input mode(Analog or Digital) Auto Image Adjust for Analog only model
[▼]	To immediately activate Brightness and menu. It should be change to Contrast OSD by push button[2]
[▲]	To immediately activate Contrast menu. It should be change to Brightness OSD by push button[2]
[▲] (Keep pushing 3 sec.)	<ol style="list-style-type: none"> <li>1. Long Press [up] key 3 seconds to switch DCR On/Off,</li> <li>2. Loop: DCR On &lt;=&gt; DCR Off</li> <li>3. DCR Off in Factory mode.</li> <li>4. Reset to default when re-power on/off</li> <li>5. Message will appear only after Hot Key is pressed</li> </ol>
[▼] + [▲]	<ol style="list-style-type: none"> <li>1. On main menu, no work for this button.</li> <li>2. On contrast adjust screen, recall contrast only.</li> <li>3. On brightness adjust screen, recall brightness only.</li> </ol>
[1] + [2]	Toggle 720x400/70Hz and 640x400/70Hz mode when input 720x400/70Hz or 640x400/70Hz mode

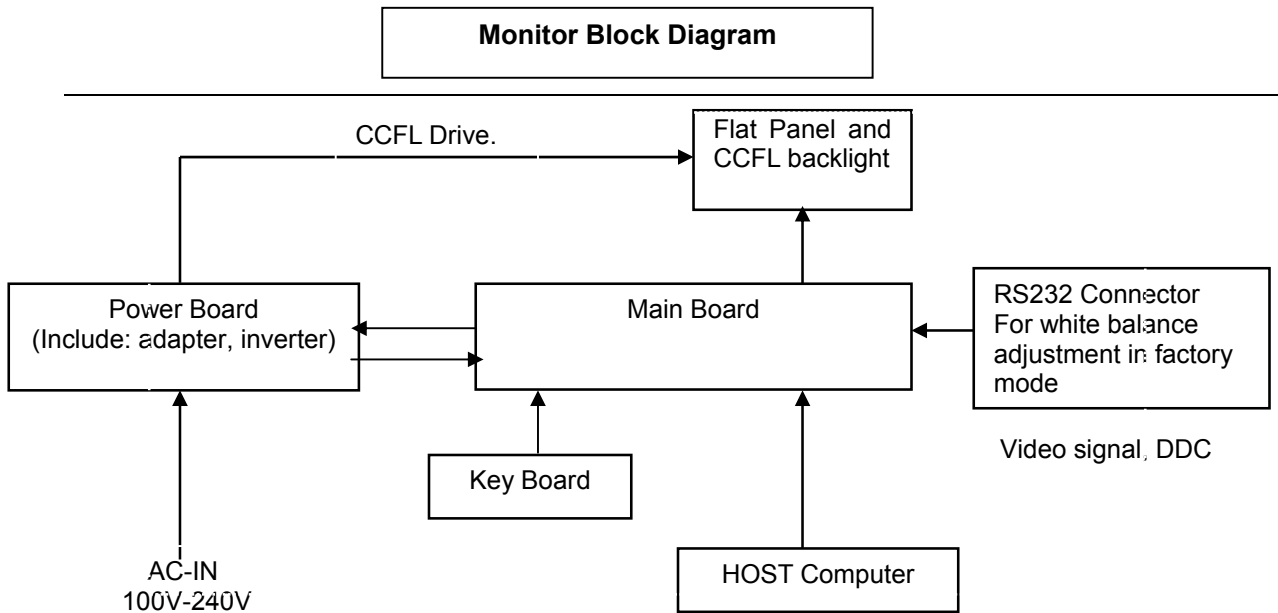
<p>[1] + [▼] + [▲] (Keep pushing 5 sec)</p>	<p>White Balance 1. It will not shown on user's guide 2. OSD message as below,  (Image = no blanking)</p>
<p>[2] + [▼]</p>	<p>Toggle DDC/CI and DDC/2B (DDC/CI enable/disable) and show following message for 3 seconds, (This function only in Dual input Model) When switch to DDC/CI  When switch to DDC/2B  Default = DDC/CI</p>
<p>[▲]</p>	<p>1. Long Press [up] key 3 seconds to switch DCR On/Off, 2. Loop: DCR On &lt;=&gt; DCR Off When switch to DCR ON  When switch to DCR OFF  3. DCR Off in Factory mode. 4. Reset to default when re-power on/off 5. Message will appear only after Hot Key is pressed</p>
<p>[1] + [▲]</p>	<p>OSD Lock</p>
<p>[1] + [▼]</p>	<p>Power Lock</p>
<p>[▲]+ [⏻] + Main Power On</p>	<p>All reset (Monitor will be powered on.)</p>
<p>No signal + [▲] + [⏻]</p>	<p>Burning mode</p>
<p>signal + [1]+ [⏻]</p>	<p>Factory Mode</p>
<p>Remark : All the short cuts function are only available while OSD off</p>	



#### 4. Circuit Description

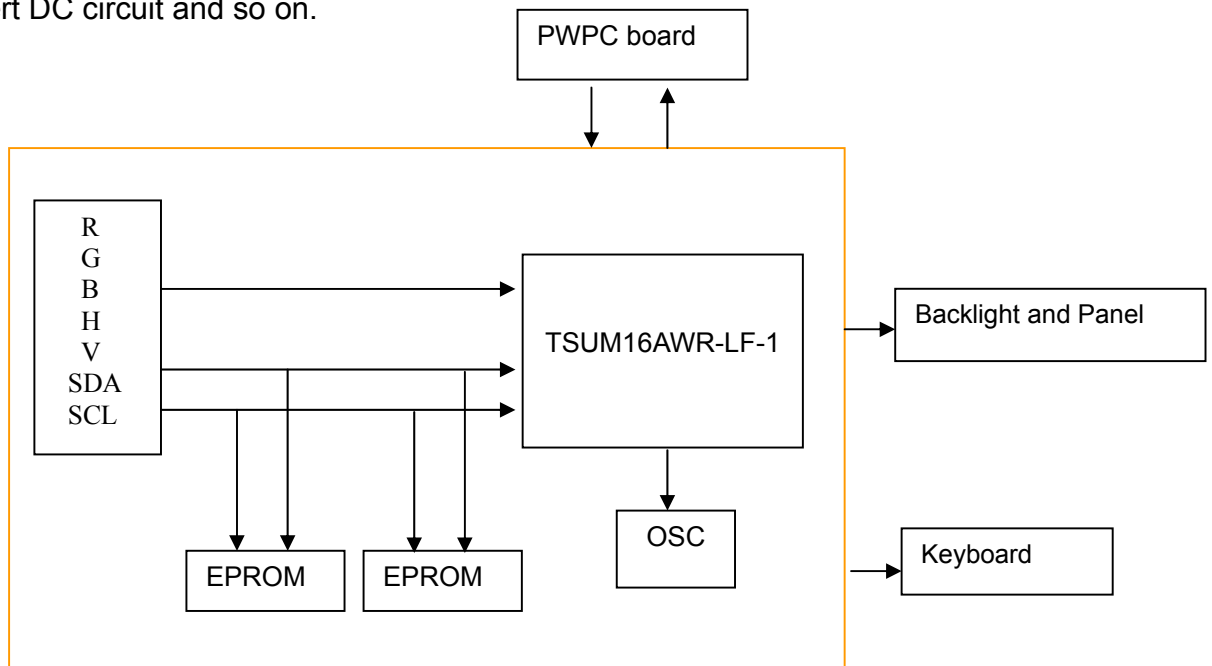
##### 4.1 LCD MONITOR DESCRIPTION

The LCD MONITOR will contain a Main Board, an Power Board, Key Board which house the flat panel control logic, brightness control logic and DDC.



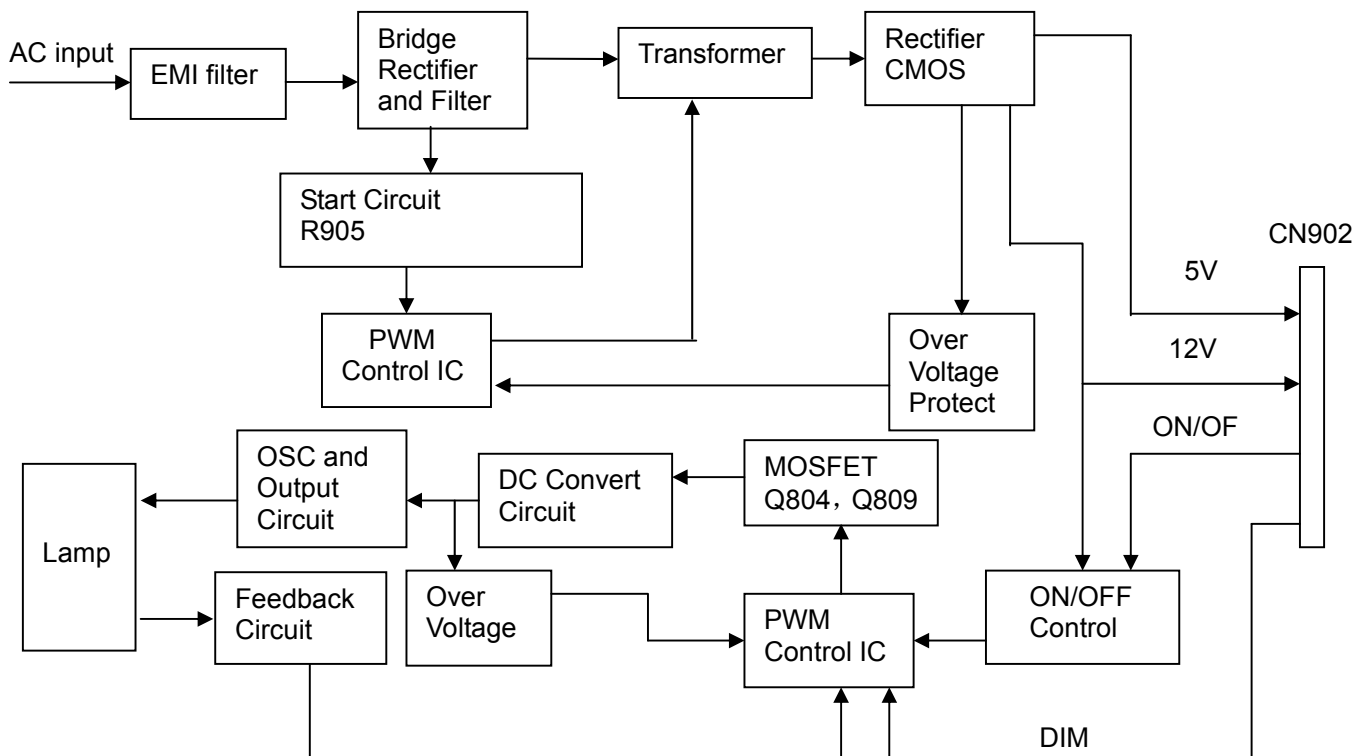
##### 4.2 MAIN BOARD BLOCK FUNCTION DESCRIPTION

The main board contains panel control logic, brightness control logic, DDC and DC convert DC circuit and so on.



### 4.3 PWPC BOARD BLOCK FUNCTION DESCRIPTION

PWPC board combines to adapter and inverter, Adapter which commonly consists of bridge rectifier and filter, start circuit, PWM control circuit, protection circuits and convert to 12V, 5V DC voltage by input 90V-240V AC voltage that provide power supply for each chips in the main board and inverter. Inverter is DC TO AC circuit. It changes the 12v DC of power supply to about 600-800v AC that drives the backlight. It mostly consists of starting circuit, PWM controller, DC changing circuit, LC surging circuit, output circuit and protection circuit etc.



#### 4.4 INTRODUCTION OF IC

**TSUM16AWR-LF-1(U401):** integrate ADC, OSD, SCALER, MCU, LVDS, convert analog RGB into digital and room and shrink scaling output to LCD panel.

##### PIN Function:

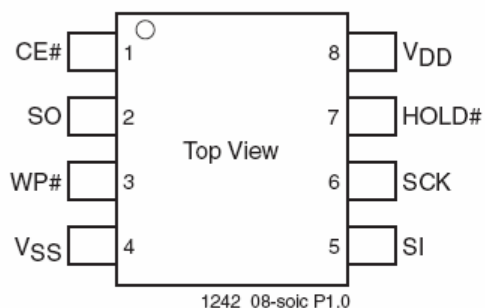
Pin	Symbol	Description		
21	SDO	SPI flash serial data output; Input w/5V-tolerant		
22	CSZ	SPI flash chip select; output		
23	SCK	SPI flash serial select; output		
24	SDI	SPI flash serial data input; output		
18	DDCA_SDA/RS232_TX	DDC data for analog interface; 4mA driving strength/UART transmitter/GPIO; I/O w/5V-tolrant		
19	DDCA_SCL/RS232_RX	DDC data for analog interface/UART transmitter/GPIO; Input w/5V-tolrant		
54	RST	Chip reset; High reset; Input w/5V-tolerant		
57	RSTN	Chip reset; Low reset; Input w/5W-toerant		
52	VCTRL	Regulator control; Output		
16	HSYNCO	Analog HSYNC input		
17	VSYNCO	Analog VSYNC input		
15	REFP	Internal ADC top de-coupling pin		
14	REFM	Internal ADC bottom de-coupling pin		
4	REXT	External resistor 390 ohm to AVDD		
32、31	MODE[1: 0]	Input	Chip Configuration Input	
			MODE[1:0]	Chip Operation
			00	Normal Opertaion
1	XIN	Xin; Crystal Oscillator Input		
2	XOUT	Xout; Crystal Oscillator Output		
6	AVDD_ADC	ADC Power 3.3V		
51	VDDP	Digital Output Power 3.3V		
30、53	VDDC	Digital Core Power 1.8V		
3、5、29	GND	Ground		

**AP1117E33LA(U701):** DC power convert, convert to 3.3v.

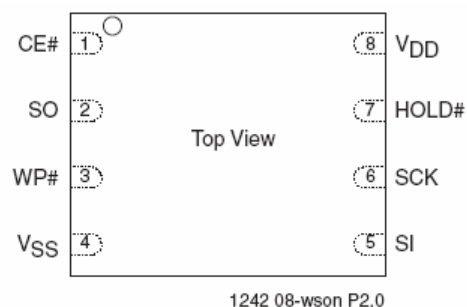
**AIC1117A-18PY(U702):** DC power convert, convert to 1.8v.

**SST25LF020A-33-4C-SAE(U403):** SST's serial flash family features a four-wire, SPI-com-patible interface that allows for a low pin-count package occupying less board space and ultimately lowering total system costs. The SST25LF020A/040A devices significantly improve performance, while lowering power consumption. The total energy consumed is a function of the applied voltage, current, and time of application. The SST25LF020A/040A devices operate with a single 3.0-3.6V power supply. The SST25LF020A devices are offered in an 8-lead SOIC 150 mil body width (SA) package.

**Pin Diagram:**



**8-LEAD SOIC**

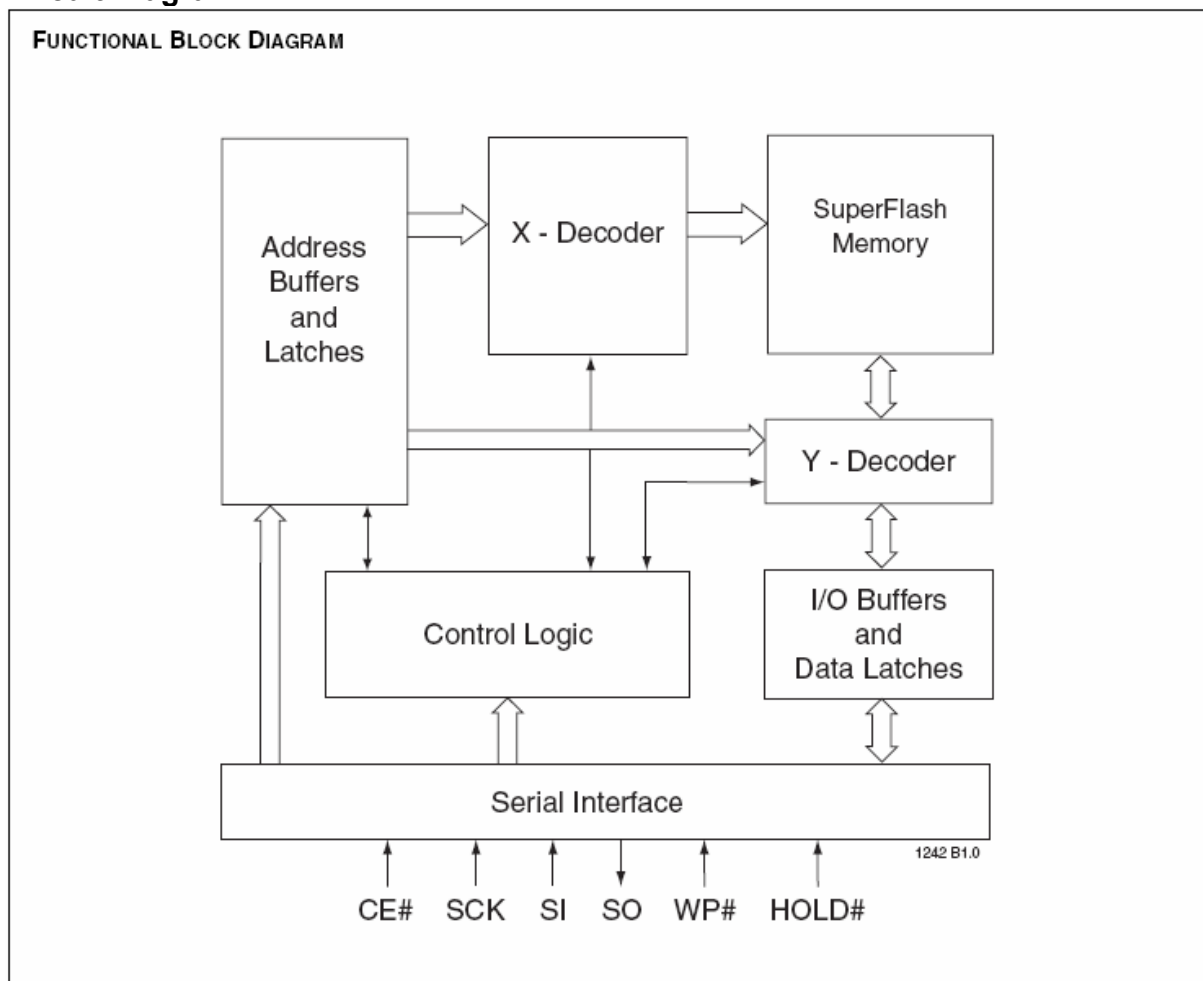


**8-CONTACT WSON**

**PIN Descriptions:**

Symbol	Pin Name	Functions
SCK	Serial Clock	To provide the timing of the serial interface. Commands, addresses, or input data are latched on the rising edge of the clock input, while output data is shifted out on the falling edge of the clock input.
SI	Serial Data Input	To transfer commands, addresses, or data serially into the device. Inputs are latched on the rising edge of the serial clock.
SO	Serial Data Output	To transfer data serially out of the device. Data is shifted out on the falling edge of the serial clock.
CE#	Chip Enable	The device is enabled by a high to low transition on CE#. CE# must remain low for the duration of any command sequence.
WP#	Write Protect	The Write Protect (WP#) pin is used to enable/disable BPL bit in the status register.
HOLD#	Hold	To temporarily stop serial communication with SPI flash memory without resetting the device.
VDD	Power Supply	To provide power supply(3.0-3.6V)
VSS	Ground	

**Circuit Diagram**



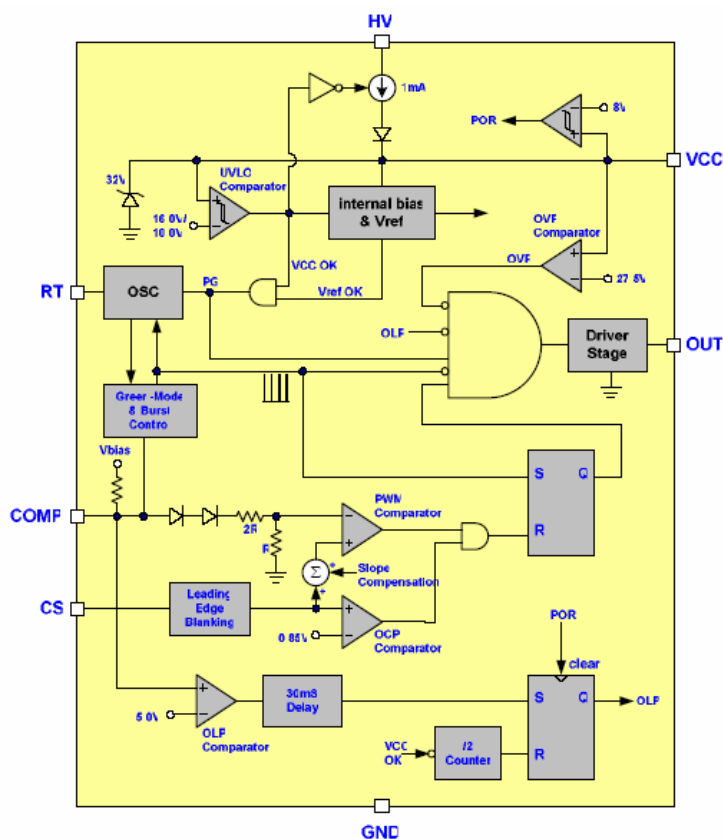
**LD7575 PS (IC901):** The LD7575 is a current-mode PWM controller with excellent power-saving operation. The embedded over voltage protection, over load protection and the special green-mode control provide the solution for users to design a high performance power circuit easily and etc. The function of each pin and the inside circuit diagram are as follows:

**PIN Descriptions:**

Pin	Name	Function
1	RT	This pin is to program the switching frequency. By connection a resistor to ground to set the switching frequency.
2	COMP	Voltage feedback pin(same as the COMP pin in UC384X), By connecting a photo-coupler to close the control loop and achieve the regulation.
3	CS	Current sense pin, connect to sense the MOSFET current
4	GND	Ground
5	OUT	Gate drive output to drive the external MOSFET
6	VCC	Supply voltage pin

7	NC	Unconnected Pin
8	HV	Connect this pin to positive of bulk capacitor to provide the startup current for the controller, when Vcc voltage trips the UVLO(on), this HV loop will be off to save the power loss on the startup circuit.

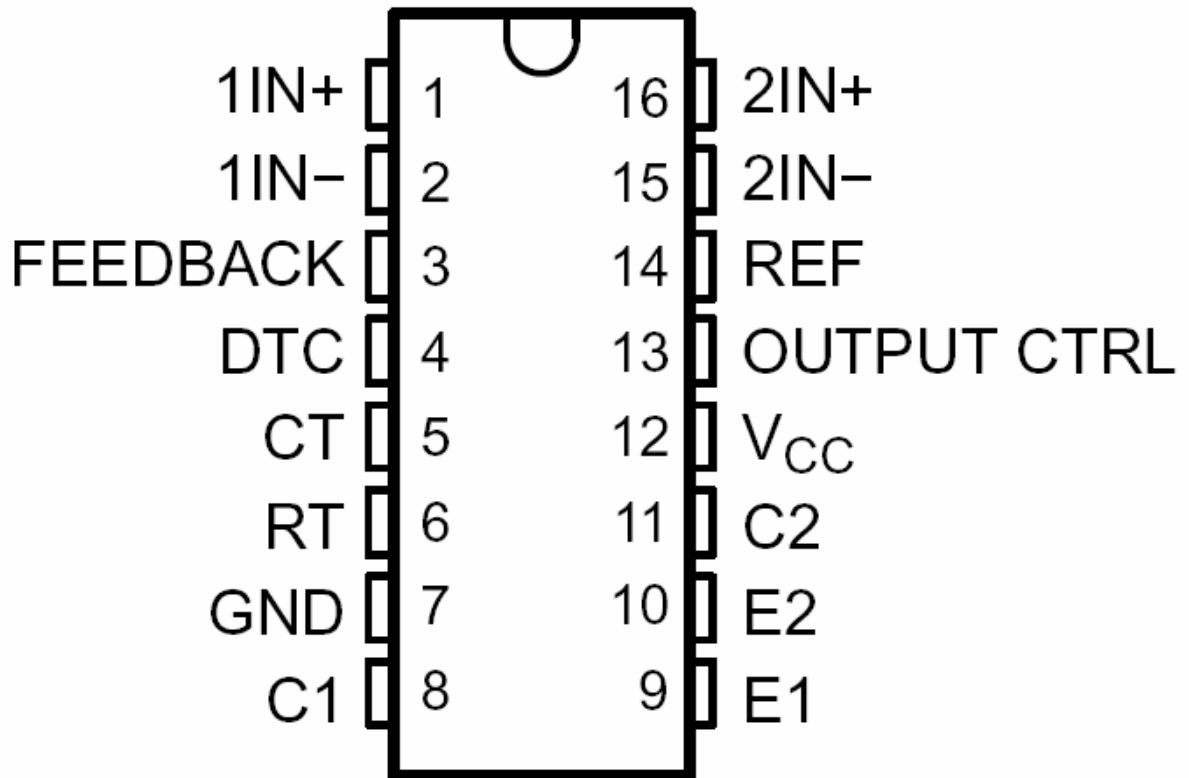
**Block Diagram**



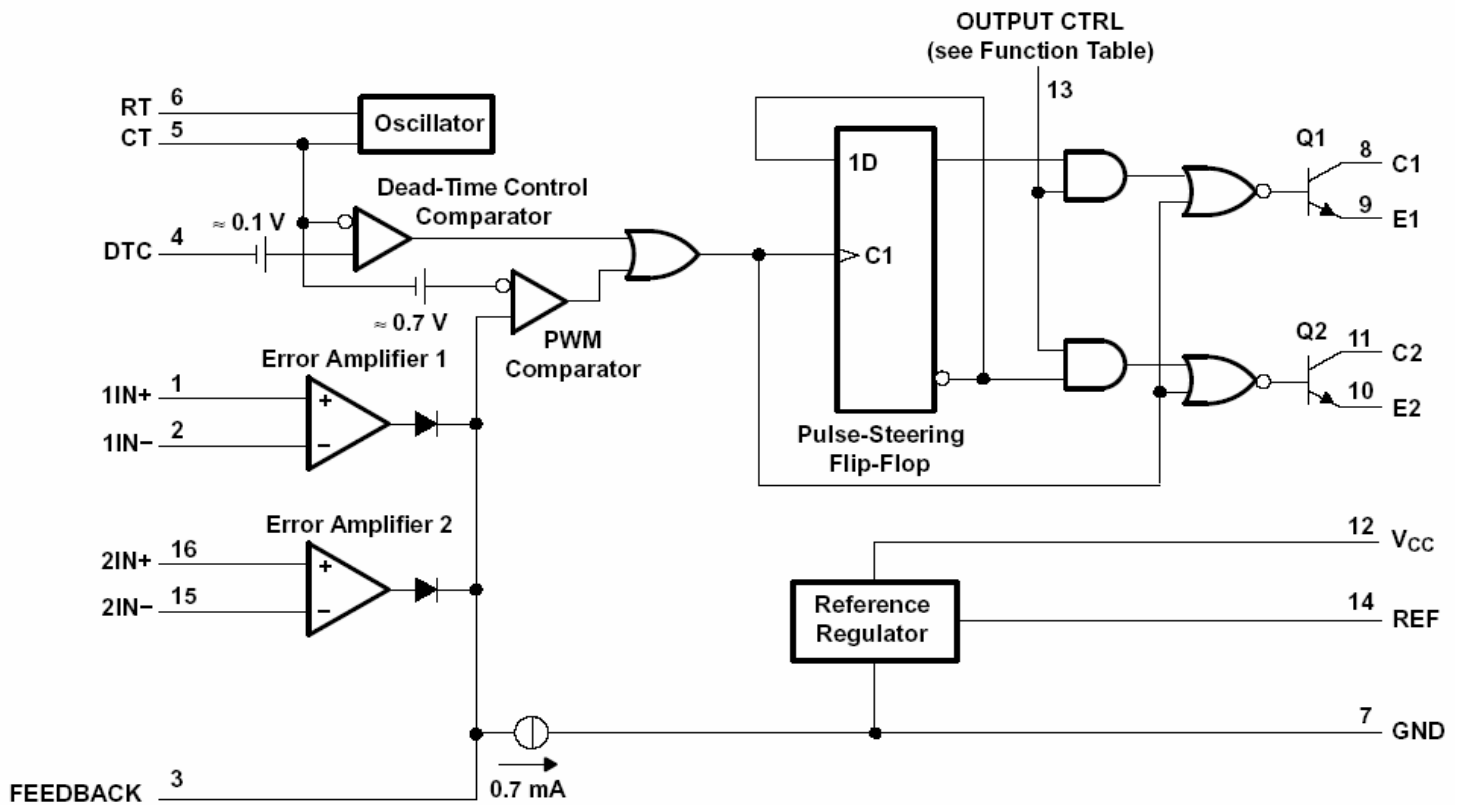
**TL484(IC801):** The TL494 incorporates all the functions required in the construction of a pulse-width-modulation (PWM) control circuit on a single chip. Designed primarily for power-supply control, this device offers the flexibility to tailor the power-supply control circuitry to a specific application.

**PIN Descriptions:**





FUNCTIONAL BLOCK DIAGRAM



## 5. Adjustment Procedure

### 5.1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.
3. ESD protection is needed before adjustment.

### 5.2 MAIN ADJUSTMENTS

NO.	FUNCTIONS	DESIGNATION
1.	White Balance	Function Key
2.	Geometry	Function Key

### 5.3 ALIGNMENT PROCEDURES

**Approximately 30 minutes should be allowed for warm up before proceeding White-Balance adjustment.**

#### 1. Adjust of White Balance

##### 1.) How to do the CA-210 MEM .Channel setting

A、Reference to CA-210 user guide

B、Use “**MODE**” key to modify **x**、**y**、**Lv** value and use “**MEMORY CH**” key to modify the TEXT description Following is the procedure to do white-balance adjust

##### 2.) Setting the color temp. You want

A、MEM.CHANNEL1 ( 9300 color):

9300 color temp. parameter is  $x = 0.283 \pm 0.003$ ;  $y = 0.298 \pm 0.003$ ;  
 $L_v \geq 175 \text{ cd/m}^2$ .

B、MEM.CHANNEL1 ( 6500 color):

6500 color temp. parameter is  $x = 0.313 \pm 0.003$ ;  $y = 0.329 \pm 0.003$ ;  
 $L_v \geq 213 \text{ cd/m}^2$ .

C、MEM.CHANNEL 1 ( 5400 color):

5400 color temp. parameter is  $x = 0.335 \pm 0.003$ ;  $y = 0.350 \pm 0.003$ ;  
 $L_v \geq 200 \text{ cd/m}^2$ .

D、MEM.CHANNEL1 ( SRGB color):

SRGB color temp. parameter is  $x=0.313 \pm 0.003$ ;  $y=0.329 \pm 0.003$ ;  $L_v \geq 213 \text{ cd/m}^2$ .

##### 3.) Into factory mode of VA916 & VA926:

First Power off, then press Switch 1 button along with press Power button will activate the factory mode, then MCU will do AUTO LEVEL automatically. Meanwhile press MENU the OSD screen will located at **LEFT TOP OF PANEL**.

##### 4.) Bias adjustment :

Set the **Contrast**  to 70, Adjust the **Brightness**  to 100.

5.) Gain adjustment :

Move cursor to “-F-” and press MENU key

A、 Adjust 9300 color-temperature

- (1) 、 Switch the CA-210 to **x、 y、 Lv -Mode** (with press “MODE” button )
- (2) 、 Switch the MEM. channel to Channel 1 ( with up or down arrow on CA-210 )
- (3) 、 The LCD-indicator on CA-210 will show  $x=0.283\pm 0.003$ ,  $y=0.298\pm 0.003$ ,  
 $Lv\geq 175\text{cd/m}^2$
- (4) Adjust the R G B of color3 on factory window until CA210 indicator reached  $x=0.283\pm 0.003$ ,  $y=0.298\pm 0.003$ ,  $Lv\geq 175\text{cd/m}^2$

B、 Adjust 6500 color-temperature

- (1)、 Switch the CA-210 to **x、 y、 Lv -Mode** (with press “MODE” button )
- (2)、 Switch the MEM .channel to Channel 1 ( with up or down arrow on CA-210 )
- (3) 、 The LCD-indicator on CA-210 will show  $x=0.313\pm 0.003$ ,  $y=0.329\pm 0.003$ ,  
 $Lv\geq 213\text{ cd/m}^2$
- (4) Adjust the R G B of color3 on factory window until CA210 indicator reached  $x=0.313\pm 0.003$ ,  $y=0.329\pm 0.003$ ,  $Lv\geq 213\text{ cd/m}^2$

C、 Adjust 5400 color-temperature

- (1)、 Switch the CA-210 to **x、 y、 Lv -Mode** (with press “MODE” button )
- (2)、 Switch the MEM .channel to Channel 1( with up or down arrow on CA-210 )
- (3) 、 The LCD-indicator on CA-210 will show  $x=0.335\pm 0.003$ ,  $y=0.350\pm 0.003$ ,  
 $Lv\geq 200\text{ cd/m}^2$
- (4)、 Adjust the R G B of color3 on factory window until CA210 indicator reached  $x = 0.335\pm 0.003$ ;  $y = 0.350 \pm 0.003$ ;  $Lv\geq 200\text{ cd/m}^2$

D、 Adjust SRGB color-temperature

- (1)、 Switch the CA-210 to **x、 y、 Lv -Mode** (with press “MODE” button )
- (2)、 Switch the MEM .channel to Channel 1 ( with up or down arrow on CA-210 )
- (3) 、 The LCD-indicator on CA-210 will show  $x=0.313\pm 0.003$ ,  $y=0.329\pm 0.003$ ,  
 $Lv\geq 213\text{ cd/m}^2$
- (4)、 Adjust the R G B of color3 on factory window until CA210 indicator reached  $x=0.313\pm 0.003$ ,  $y=0.329\pm 0.003$ ,  $Lv\geq 213\text{ cd/m}^2$

E、 Press reset key and Turn the Power-button “off to on” to quit from factory mode。

2. Geometry

- 1).Set cross-hatch pattern and preset timing as timing table listed.
- 2).Change to each mode in turn and wait for the monitor finish auto-alignment and save press before change to next mode.
- 3).Until all of modes are adjusted, exit OSD menu and press POWER OFF to exit factory mode.

## 5.4 Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	Input Priority	N/A
Brightness	100%	Resolution Notice	On
Color Temperature	6500K	Volume	N/A
Sharpness	100%	Balance	N/A
OSD H. Position	50%	Treble	N/A
OSD V. Position	50%	Bass	N/A
OSD Time Out	15	720x400 / 640x400	720x400
OSD Background	On	DCR	ON

## 5.5 Function Test

- 1 Product: 19" LCD Monitor
- 2 Test Equipment: Color Video Signal & Pattern (or PC with SXGA resolution and a sound card)
- 3 Test Condition: Before function test and alignment, each LCD Monitor should be warmed up for at least 30 minutes with the following conditions:
  - (a) In room temperature,
  - (b) With full-white screen, RGB, and Black
  - (c) With cycled display modes,
    - 640\*480 (H=43.27kHz, V=75Hz)
    - 800\*600 (H=53.7kHz, V=75Hz)
    - 1024\*768 (H=68.67kHz, V=75Hz)
    - 1280\*1024 (H=79.97kHz, V=75Hz)

### 4 Test Display Modes & Pattern

#### Compatible Modes

Item	Timing	Analog
1	640 x 480 @ 60Hz, 31.5kHz	Yes
2	640 x 480 @ 75Hz, 31.5kHz	Yes
3	720 x 400 @ 70Hz, 31.5kHz	Yes
4	800 x 600 @ 56Hz, 35.1kHz	Yes
5	800 x 600 @ 60Hz, 37.9kHz	Yes
6	800 x 600 @ 72Hz, 48.1kHz	Yes
7	800 x 600 @ 75Hz, 46.9kHz	Yes
8	1024 x 768 @ 60Hz, 48.4kHz	Yes
9	1024 x 768 @ 70Hz, 56.5kHz	Yes
10	1024 x 768 @ 72Hz, 58.1kHz	Yes
11	1024 x 768 @ 75Hz, 60.0kHz	Yes
12	1280 x 1024 @ 60Hz, 48.4kHz	Yes
13	1280 x 1024 @ 75Hz, 60.0kHz	Yes

**Function Test Display Pattern**

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels sh should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horizontal and Vertical position of video should be adjustable to be within the screen frame.	Figure 3
4	RGB Color Performance	RGB Color Intensities	Contrast of each R, G, B, color should be normal.	Figure 4,5,6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Figure 7
6	Dead Pixel/Line	White Screen & Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7,8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9



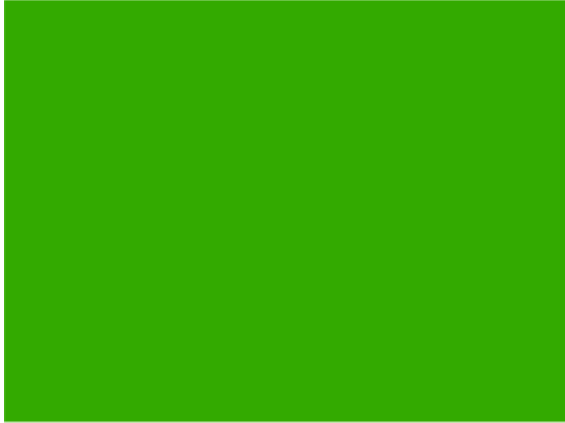
Fine Line Morie Pattern (Figure1)



Gray Scale Pattern (Figure2)



Horizontal & Vertical Thickness Pattern  
(Figure 3)



G. Color Pattern (Figure 5)

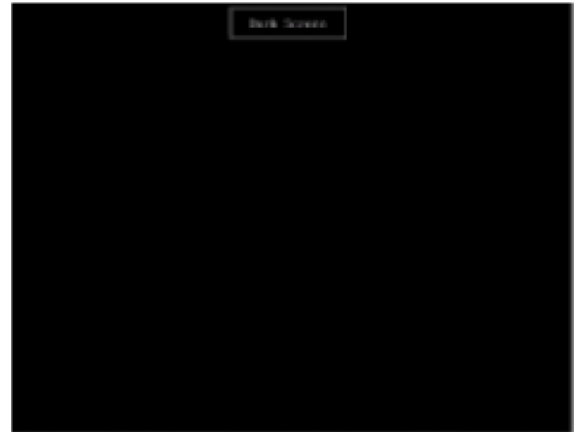
R. Color Pattern (Figure 4)



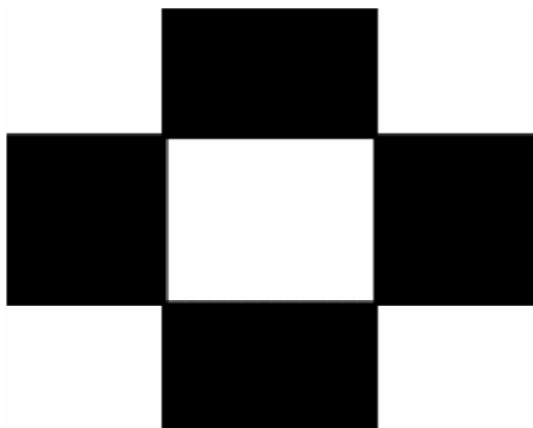
B. Color Pattern (Figure 6)



Full White Pattern (Figure 7)



Dark Screen Pattern (Figure 8)



Black-White Pattern (Figure 9)



### 4.3 Function Test and Alignment Procedure

#### All Modes Reset

You should do “All Mode Reset” (Refer to Chapter III-3. Hot Keys for Function Controls) first. This action will allow you to erase all end-user’s settings and restore the factory defaults.

#### Auto Image Adjust

Please select and enter “Auto Image Adjust” function on Main Menu to see if it is workable. The “Auto Image Adjust” function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

#### Firmware

Test Pattern: Burn In Mode (Refer to Chapter III-3. Hot Keys for Function Controls)

- Make sure the F/W is the latest version.

#### DDC

Test Pattern: EDID program

Make sure it can pass test program.

#### Fine Tune and Sharpness

Test Signal: 1280\*1024@60Hz

Test Pattern: Line Moire Pattern

Check and see if the image has noise and focus performs well. Eliminate visual line bar.

If not, readjust by the following steps:

(a) Select and enter “Fine Tune” function on “Manual Image Adjust” to adjust the image to eliminate visual wavy noise.

(b) Then, select and enter “Sharpness” function to adjust the clarity and focus of the screen image.

#### Boundary

Test Signal: 1280\*1024@60Hz

Test Pattern: Horizontal & Vertical Line Thickness Pattern

Check and see if the image boundary is within the screen frame.

If not, readjust by the following steps:

(a) Select and enter “Manual Image Adjust” function on OSD Main Menu.

(b) Then, select and enter “Horizontal Size” or “Horizontal/Vertical Position” function to adjust the video boundary to be full scanned and within screen frame.

#### White Balance

Test Signal: 1280\*1024@60Hz

Test Pattern: White and Black Pattern

1.5.8 R, G, B, Colors Contrast

Test Signal: 1280\*1024@60Hz

Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern

- Check and see if each color is normal and distinguishable.

- If not, please return the unit to repair area.

#### Screen Uniformity and Flicker

Test Signal: 1280\*1024@60Hz

Test Pattern: Full White Pattern

- Check and see if it is in normal condition.

1.5.10 Dead Pixel and Line

Test Signal: 1280\*1024@60Hz

Test Pattern: Dark and White Screen Pattern

- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
- The total numbers and distance of dead pixels should be compliant with the spec.

#### **Mura**

Test Pattern: White, RGB, Black, & Grey

Test Tool: 10% ND Filter

- Check if the Mura can pass 10% ND Filter.

#### **Check for Secondary Display Modes**

Test Signal:

Analog: 640\*480@60/75Hz;

720\*400@70Hz; 800\*600@56/60/72/75Hz;

1024\*768@60/70/72/75Hz; 1280\*1024@60/75Hz

- Normally when the primary mode 1280\*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will also be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

#### **All Modes Reset**

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" again.

#### **Power Off Monitor**

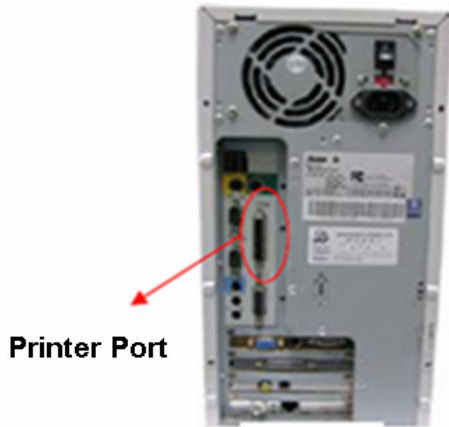
Turn off the monitor by pressing "Power" button.

## **5.6 Firmware Upgrade Procedure**

When you receive the returned monitor, please check whether the firmware version is the latest. If not, please do the following procedures to upgrade it to the latest version.

### **1 Equipment Needed**

- Monitor( TSUM Series )
- Fixture for Firmware Upgrade
- Power Adapter (P/N: 47.58201.001) \*1 for Fixture
- VGA Cable (P/N: 42.59901.003) \*1(Pin 4, 11 should be connected to GND)
- PC (Personal Computer)
- LPT Cable (P/N: 42.59906.001) \*1
- Firmware Upgrade Program
- One additional monitor for checking the program execution



Printer Port

PC



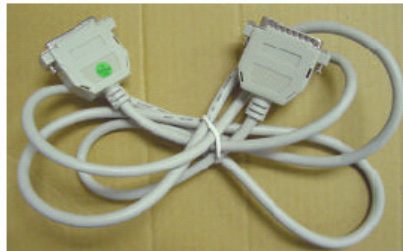
Fixture



VA916/VA926



Power Adapter for Fixture  
(P/N: 47.58201.001)



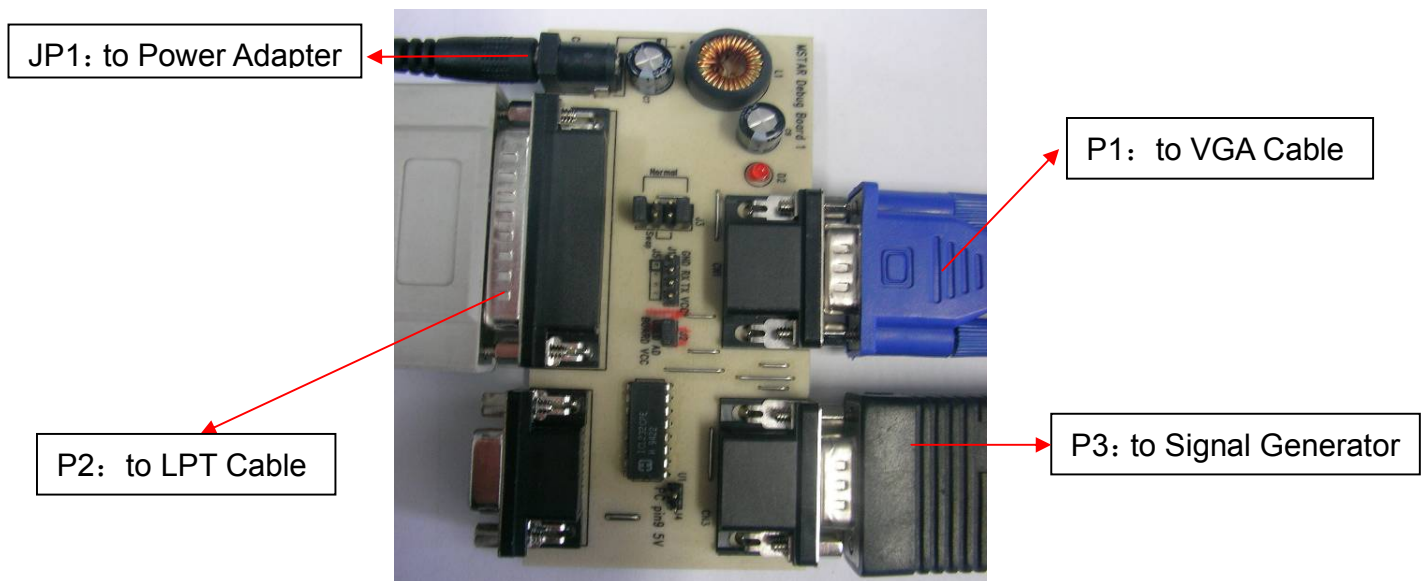
LPT Cable  
(P/N: 42.59906.001)



VGA Cable  
(P/N: 42.59901.003)

## 2 Setup Procedure

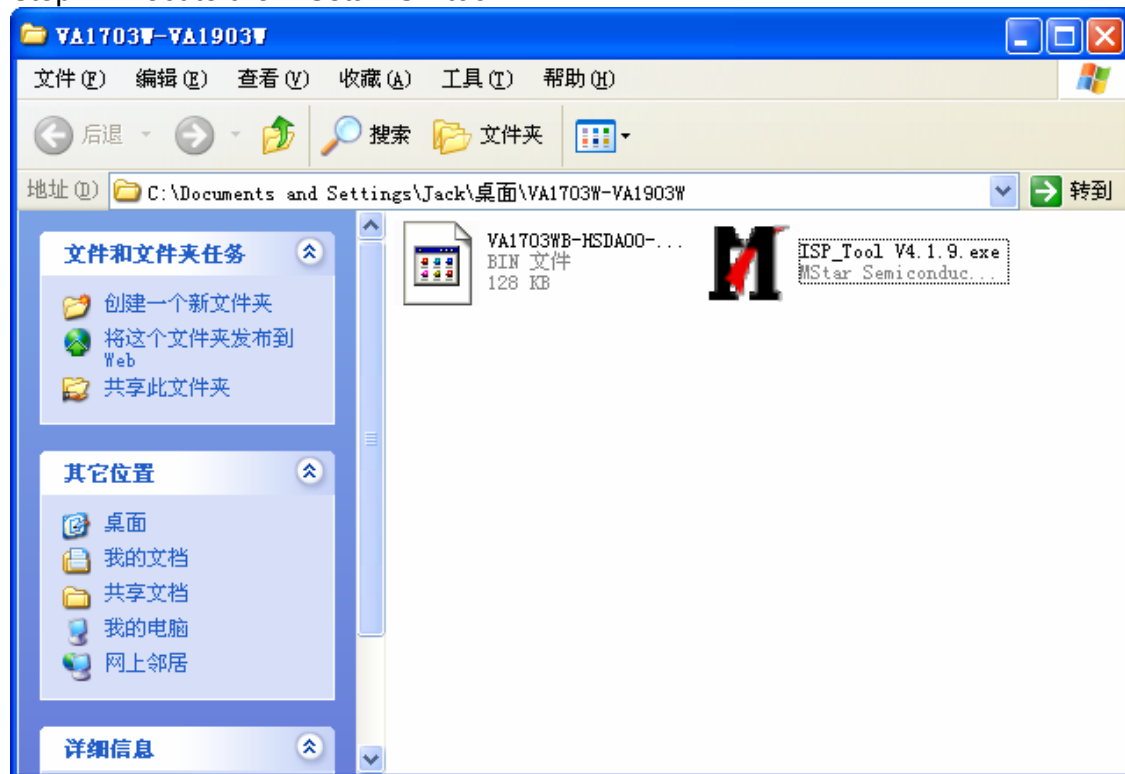
- 2.1 Connect P2 of Fixture with printer port of PC by LPT Cable.
- 2.2 Connect P1 of Fixture with Monitor(TSUM series) by VGA Cable.
- 2.3 Plug Power Adapter to Fixture.
- 2.4 Connect Power Cord to Monitor(TSUM series).
- 2.5 Connect P3 to the Signal Generator (eg.Chroma2326) for verifying it after the operation being completed.
- 2.6 Connect PC to the additional monitor.



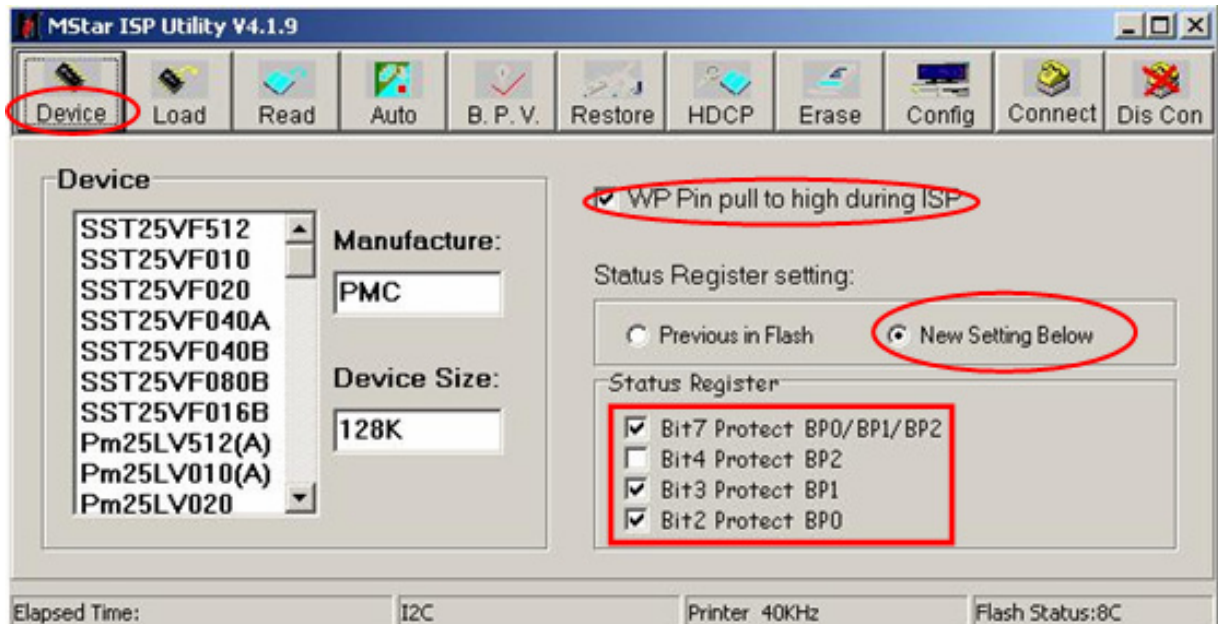
### 3 Firmware Upgrade Procedure

Step 1. Let Monitor(TSUM series) set to be connected with AC cable and VGA cable.

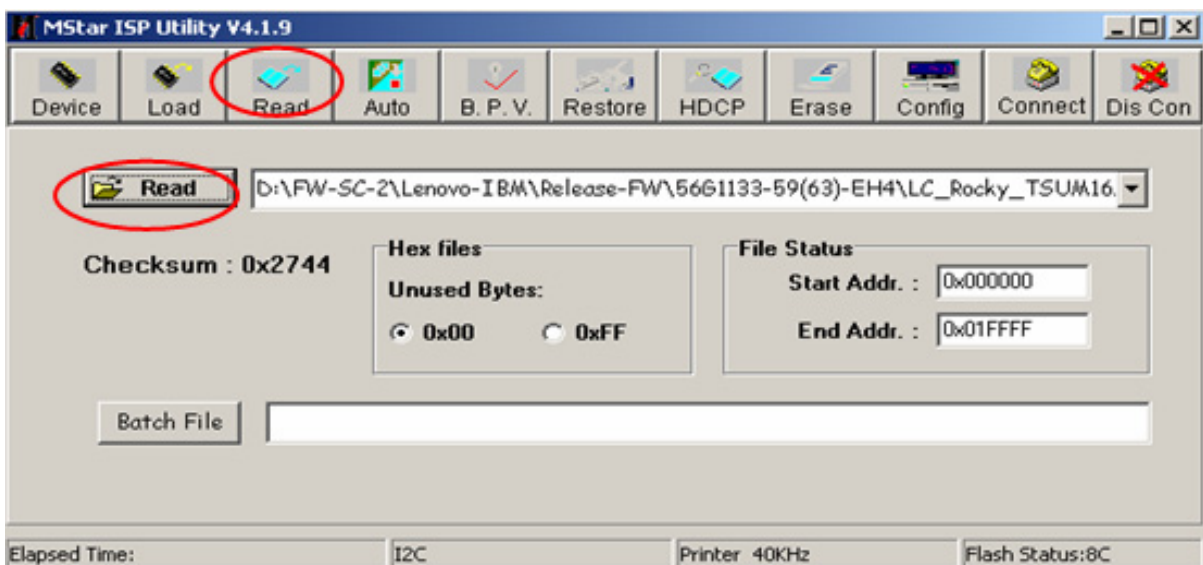
Step 2. Execute the MSstar ISP tool.



Step 3. Click "Device" button . Make sure that parameters relative to WP# is followed below.

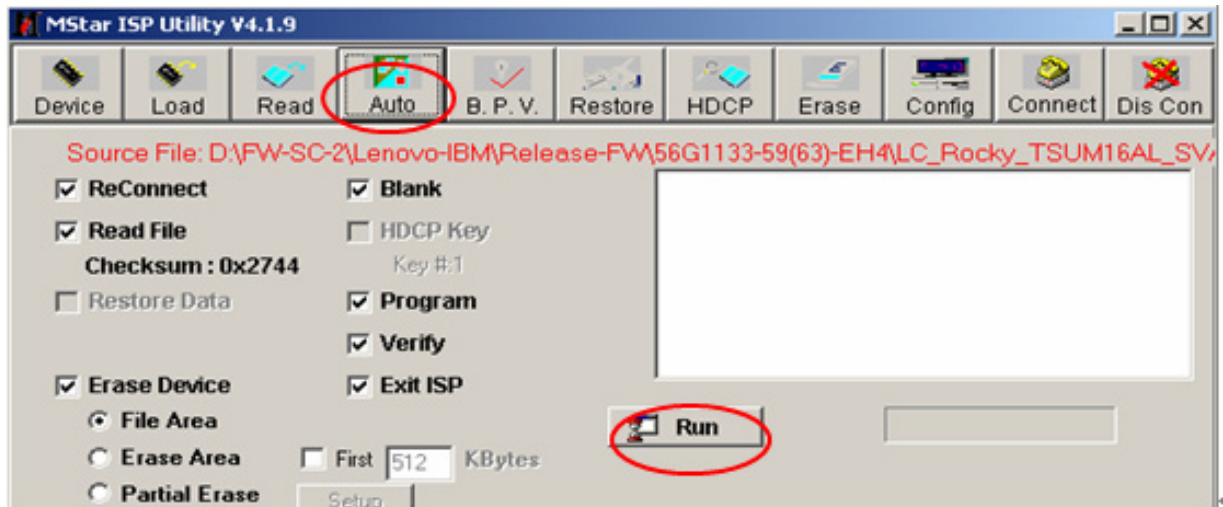


Step 4. Click “Read” button. Select the object bincode on your corresponding directory.

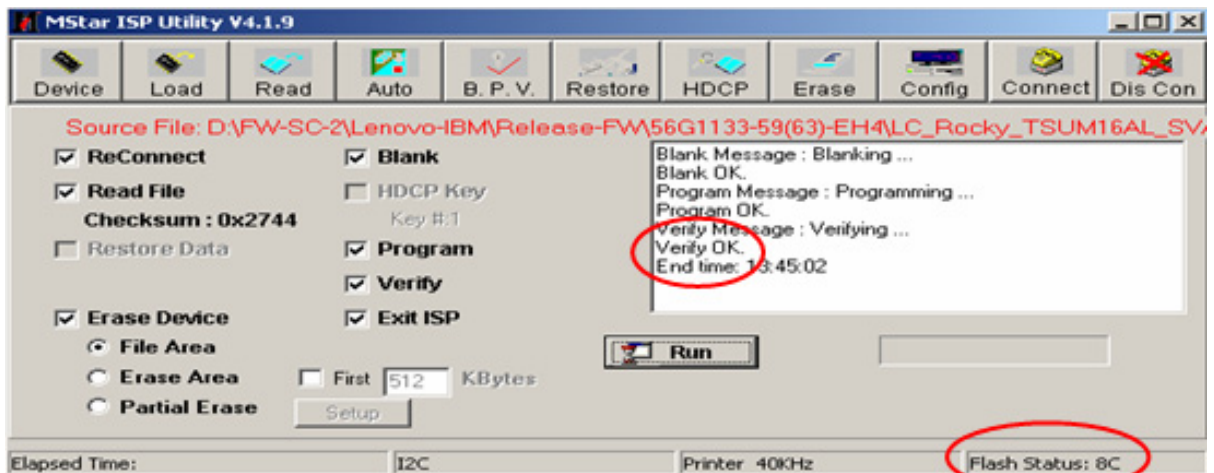


Step 5. Click “Auto” button. Be sure that function of Erase Device (File Area), Blank, Program and Verify is selected, then execute the flashing action by clicking the “Run” button.





Step 6. If the flashing F/W has been completed, “Verify Ok” message will be shown on the right TextBox and Flash Status will be “8C” in the right-bottom of window.



写保护已加入

Step 7. Unplug and replug power cord of Monitor(TSUM series) set and then check the OSD operation and image on screen.

Step 8. At last, do “Memory Recall.”



### 3.2 Setup Procedure

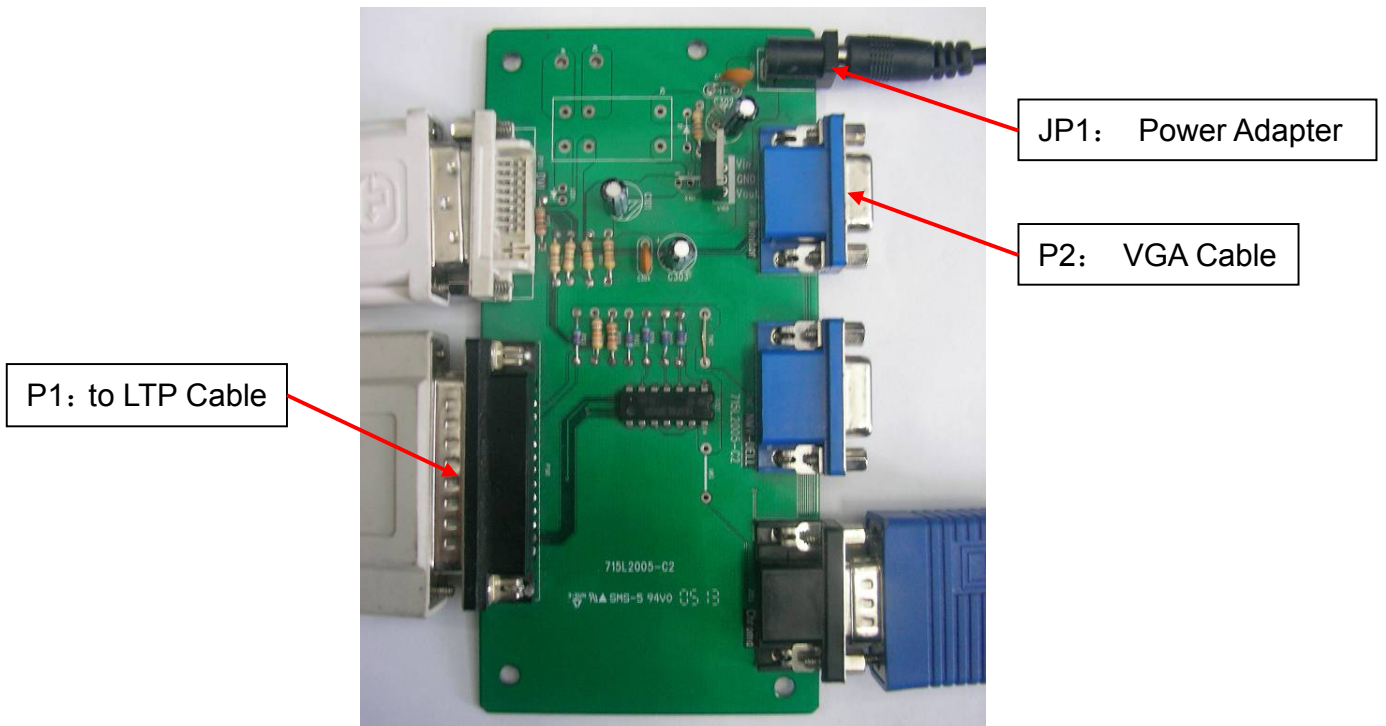
3.2.1 Connect P2 and monitor of Fixture with VGA ports of Monitor (TSUM Series) by VGA Cable.

3.2.2 Connect P1 of Fixture with Printer port of PC by LPT Cable.

3.2.3 Plug Power Adapter to Fixture.

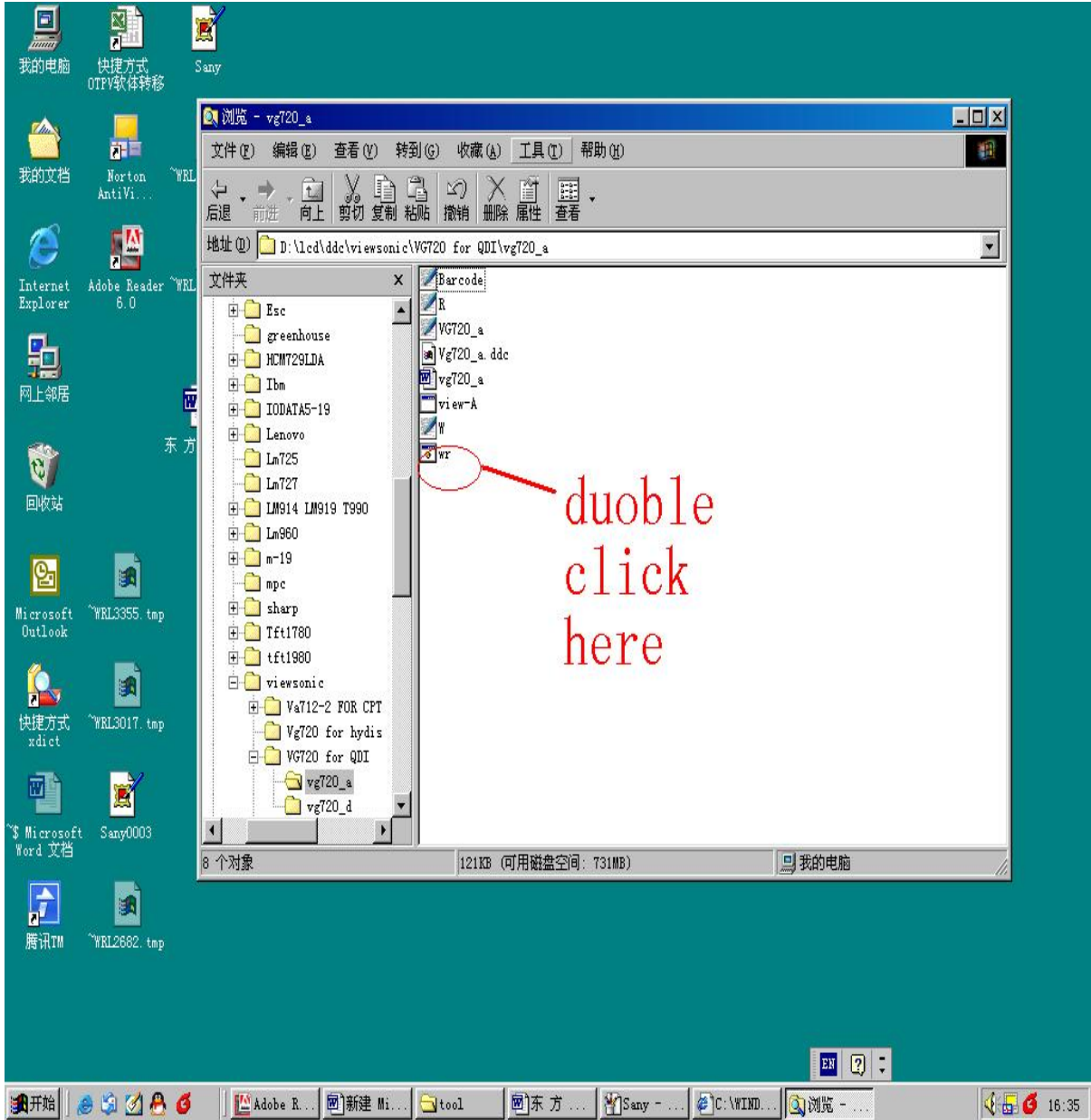
3.2.4 Connect Power Cord to Monitor (TSUM Series).

3.2.5 Connect PC to the additional monitor.

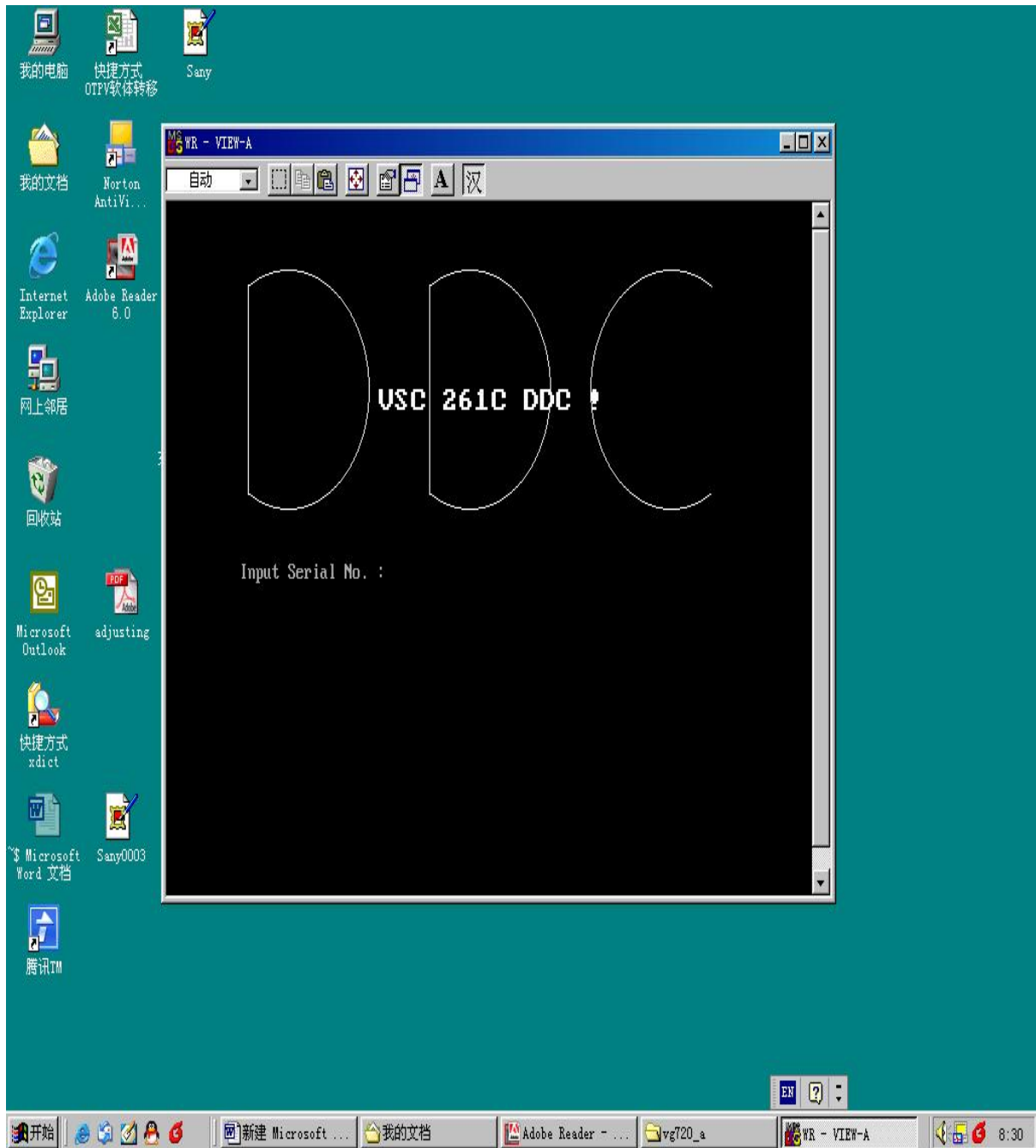


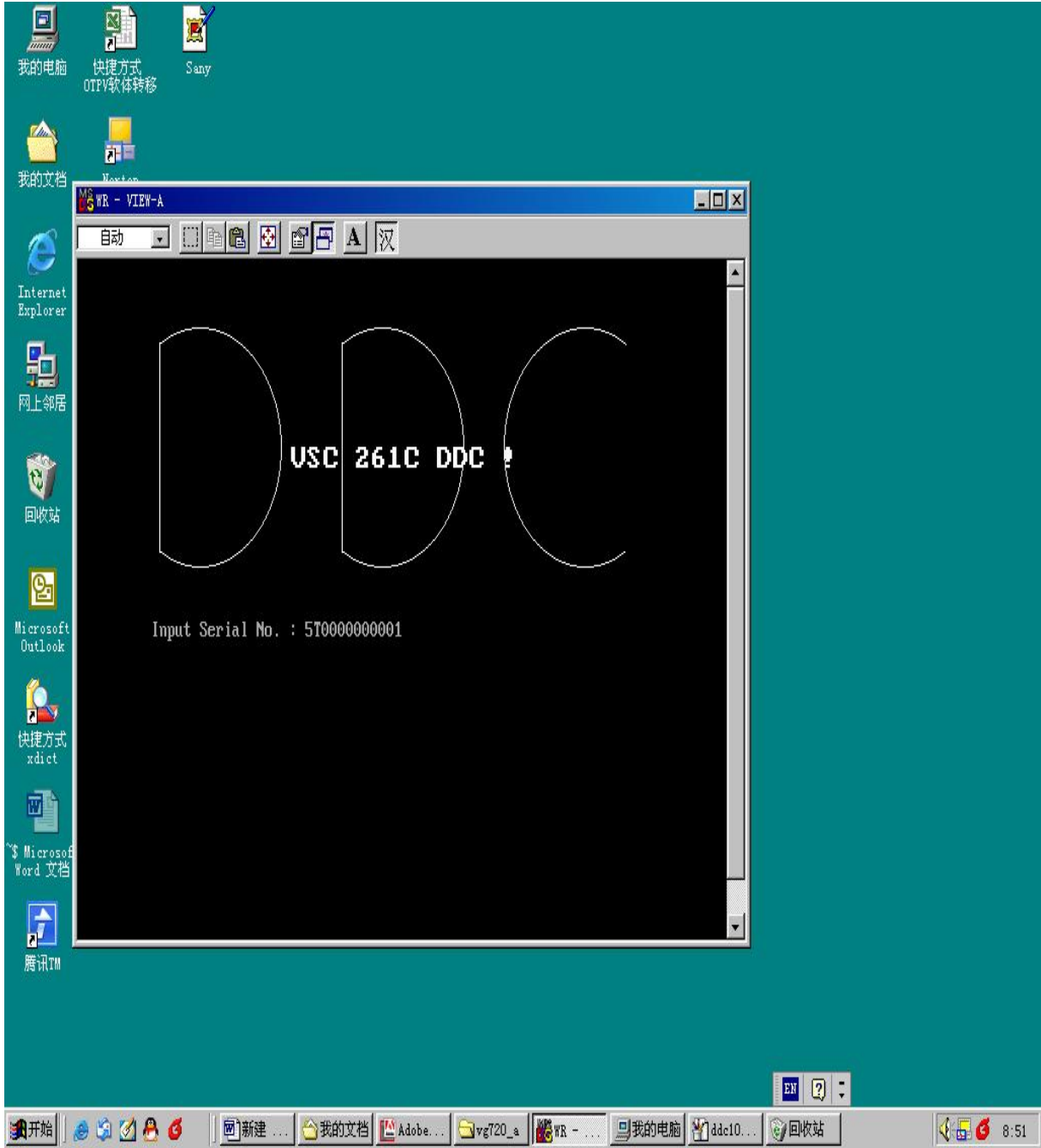
### 3.3 DDC Key In Procedure

Sep1. Select and execute DDC Key In program

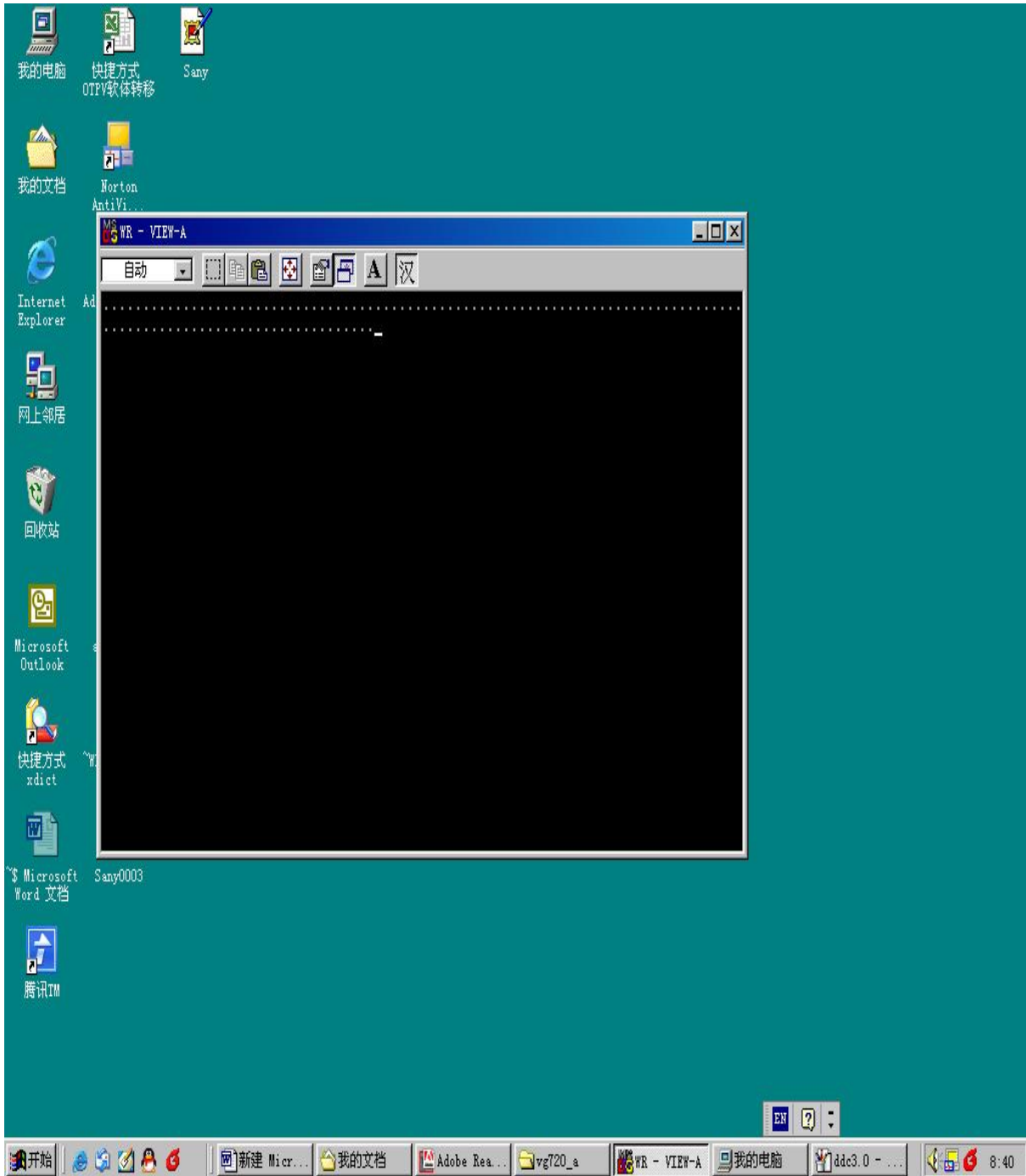


Sep2:Inpute the S/N and execute “Enter”

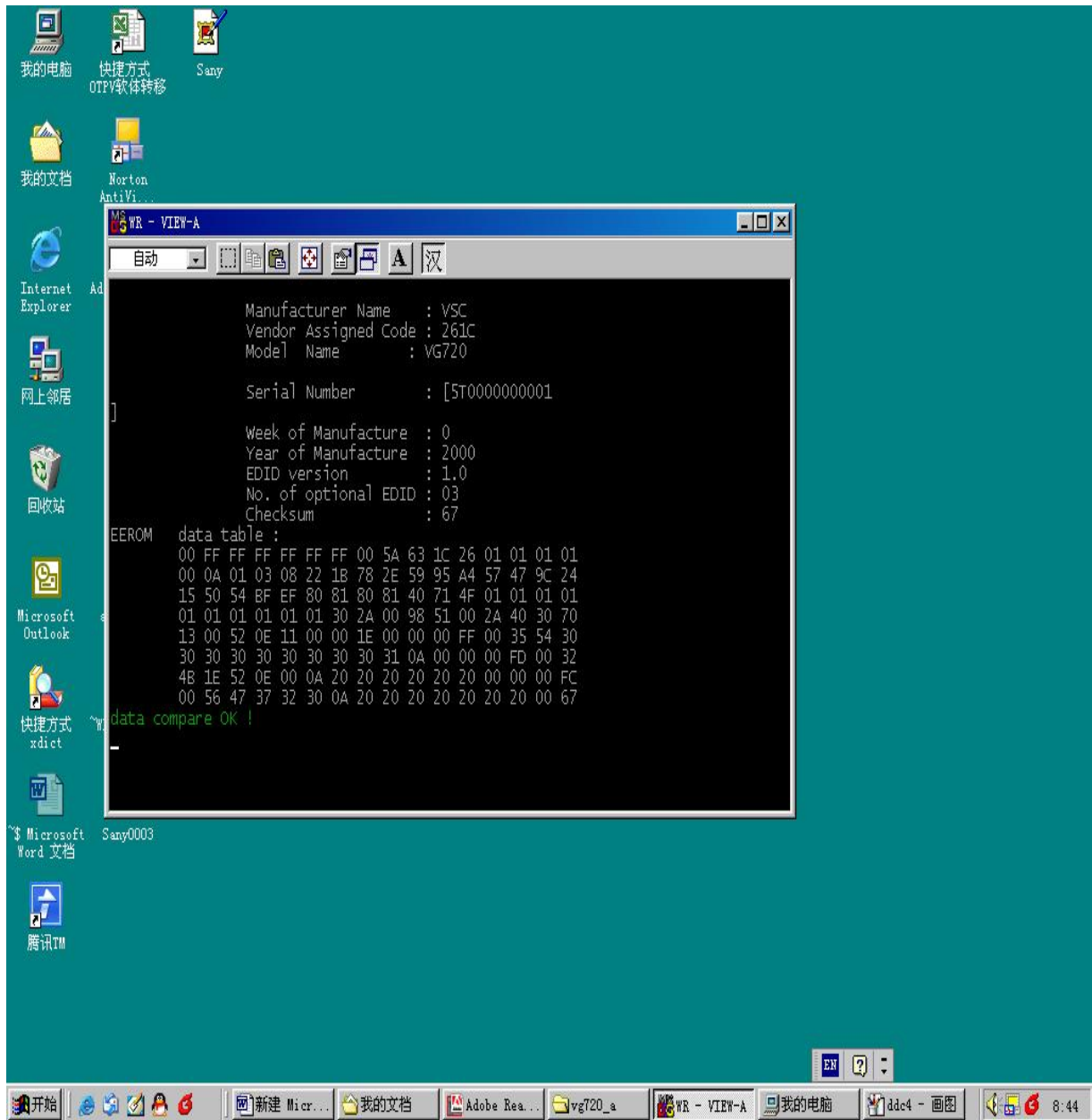




Sep3:Key the “Enter” and write the data



Sep4:If ddc program OK and show "data compare ok"

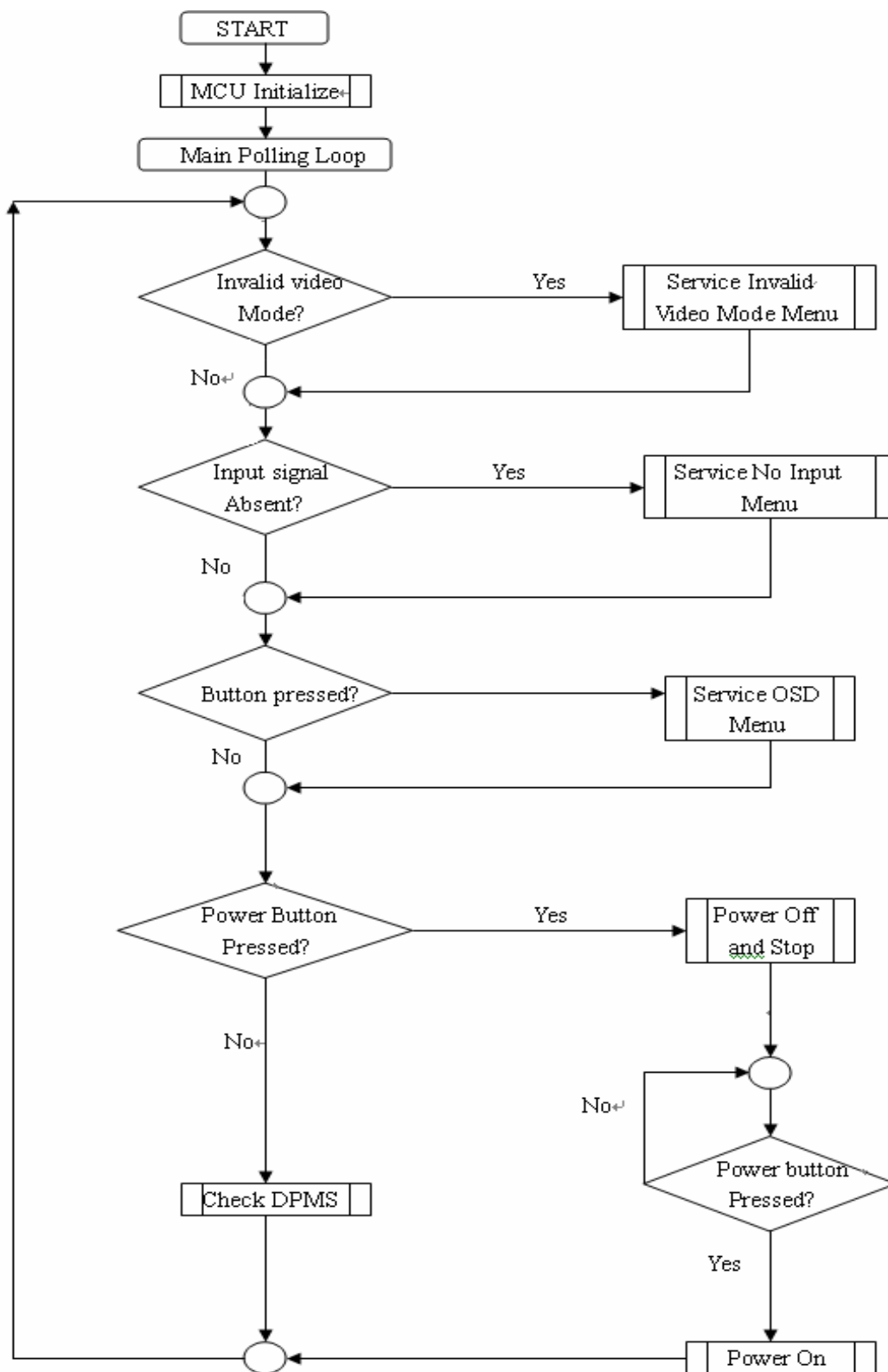




### 5.7 Packing Procedure



### 6. Troubleshooting Flow Chart





## 7. Recommended Spare Part List

## VA916 BOM list—T97HMRDKMWVSN1J

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1		019G6014 2	PLASTIC CLIP			0.2
2		023G3178709 3A	LOGO			1
3		023G3178709 4A	VSC17-LCD FRONT LOGO			1
4		040G 45760819A	DATE/MODEL LABEL			1
5		040G 459709 1B	CARTON LABEL			1
6		040G 459709 4A	H/V WARNING LABEL			1
7		040G 459709 5A	HI-POT LABEL FOR 17-LCD			1
8		040G 581 26704	SHIPPING LABEL			1
9		040G 58162435A	P/N LABEL			1.0 5
10		044G9003210	CORNER PAPER			0.0 56
11		045G 77 3	PE PACKING			1.7 3
12		050G 600 1 W	WHITE STRAP			74
13		052G 1150 C	BLACK Acetate cloth			8
14		052G 1185 24	VSC TAPE			65
15		052G 2191 D	TAPE			75
16		052G6019 1	YELLOW TAPE-INSULATION			10
17		052G6020 5	PROTECT FILM			1
18		089G 728CAA 1	SIGNAL CABLE D-SUB COMLINK	E08901		1
19		089G 728GAA 1	D-SUB CABLE 1800MM YW0308	E08901		1
20		089G 728HAA902	SIGNAL CABLE	E08901		1
21		089G176E 6500	FFC CABLE	E08905		1
22		089G176J 6500	FFC CABLE	E08905		1
23		089G179E30H 9	FFC CABLE 30P 210mm P1.0	E08903		1
24		089G179J30H 9	FFC CABLE 30P 210mm P1.0	E08903		1
25		089G402A18N IS	POWER CORD/32E1818019	E08902		1
26		089G402A18N LS	POWER CORD	E08902		1
27		089G402A18N YH	POWER CABLE	E08902		1
28		0M1G 330 5120	SCREW			4
29		0M1G 940 8120	SCREW			2
30		0M1G1140 8120	SCREW	XN01A		1
31		0M1G1730 6120	SCREW			4
32		0M1G1730 6120	SCREW			1

33		0M1G1740 10120	SCREW 42A9940008			4
34		0Q1G 330 8120	SCREW 3X8mm 42-D002093			3
35		0Q1G1040 8120	SCREW			3
36		750GLH90N3A22N	PANEL HSD190MEN3-A01 NJ HSD	E750		1
37		750GLH90N3A22N000V	PANEL HSD190MEN3-A01 HSD	E750		1
38		A33G0218 KR 1L	hg-cover_val720w			1
39		701G 150 C1 S	ABS 94HB KR			10. 15
40		701G 150 N S	ABS 94HB			1.0 05
41		A33G0246 KR 1L	cable-clip_val720w			2
42		701G 150 C1 S	ABS 94HB KR			5.0 75
43		701G 150 N S	ABS 94HB			1.0 05
44		A34G0367 KR 1B	base			1
45		701G 150 C1 S	ABS 94HB KR			147 .17 5
46		701G 150 N S	ABS 94HB			1.0 05
47		A34G0368 KR 1B	stand			1
48		701G 150 C1 S	ABS 94HB KR			72. 065
49		701G 150 N S	ABS 94HB			1.0 05
50		CBPC7HMRVSQ2J1	CONVERSION BOARD			1
51		033G3802 9	WAFER 9P RIGHT ANELE PITCH	CN701		1
52		033G8019 6C	CONN. 6P 1.0 DIP	CN403		1
53		033G801930F BH U	CONNECTOR 30PIN	CN401		1
54		040G 45762412B	CBPC LABEL			1.0 5
55		061G152M339 64	CHIPR 3.3 OHM +-5% 2W	R711		1
56		067G215D1013KV	EC CAP 100uF 16V 6.3*11mm	C402		1
57		067G215D1013KV	EC CAP 100uF 16V 6.3*11mm	C707		1
58		067G215D1013KV	EC CAP 100uF 16V 6.3*11mm	C704		1
59		067G215D1013KV	EC CAP 100uF 16V 6.3*11mm	C709		1
60		067G215D1013KV	EC CAP 100uF 16V 6.3*11mm	C711		1
61		067G305V100 3P	10UF +-20% 16V 105°C	C423		1
62		067G305V100 3P	10UF +-20% 16V 105°C	C428		1

63		067G305V100 3P	10UF +-20% 16V 105°C	C431		1
64		088G 35315F H	D-SUB 15PIN	CN402		1
65		093G 2253B J1	XTL NXS14.31818AE32F-KAB5 20PPM 49/U-S	X401		1
66		056G 562548	IC TSUM16AWR-LF-1 MSTAR	U401		1
67		056G 563 27	IC AIC1117A-18PYTR-R SOT223	U702		1
68		056G 585 4A	AP1117E33LA	U701		1
69		056G1133 34	M24C02-WMN6TP	U402		1
70		056G1133 81	SST25LF020A-33-4C-SAE	U403		1
71		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q701		1
72		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q403		1
73		057G 417 6	PMBS3906/PHILIPS-SMT (06)	Q405		1
74		057G 417 6	PMBS3906/PHILIPS-SMT (06)	Q404		1
75		057G 417 6	PMBS3906/PHILIPS-SMT (06)	Q402		1
76		057G 763 1	A03401 SOT23 BY AOS (A1)	Q401		1
77		061G0402000	RST CHIPR 0 OHM +-5% 1/16W	R407		1
78		061G0402100	RST CHIPR 10 OHM +-5% 1/16W	R453		1
79		061G0402100	RST CHIPR 10 OHM +-5% 1/16W	R430		1
80		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R405		1
81		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R406		1
82		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R410		1
83		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R411		1
84		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R420		1
85		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R423		1
86		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R425		1
87		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R428		1
88		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R435		1
89		061G0402101	RST CHIPR 100 OHM +-5%	R445		1

			1/16W			
90		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R446		1
91		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R447		1
92		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R450		1
93		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R451		1
94		061G0402101	RST CHIPR 100 OHM +-5% 1/16W	R703		1
95		061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	R415		1
96		061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	R702		1
97		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R442		1
98		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R443		1
99		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R704		1
100		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R705		1
101		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R706		1
102		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R707		1
103		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R413		1
104		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R444		1
105		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R441		1
106		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R439		1
107		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R437		1
108		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R432		1
109		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R431		1

110		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R427		1
111		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R414		1
112		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R412		1
113		061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	R403		1
114		061G0402104	RST CHIPR 100 KOHM +-5% 1/16W	R402		1
115		061G0402104	RST CHIPR 100 KOHM +-5% 1/16W	R429		1
116		061G0402203	RST CHIP 20K 1/16W 5%	R440		1
117		061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W	R408		1
118		061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W	R409		1
119		061G0402390 0F	RST CHIP 390R 1/16W 1%	R426		1
120		061G0402390 1F	RST CHIPR 3.9KOHM +-1% 1/16W	R433		1
121		061G0402390 1F	RST CHIPR 3.9KOHM +-1% 1/16W	R434		1
122		061G0402471	RST CHIPR 470 OHM +-5% 1/16W	R421		1
123		061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	R404		1
124		061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	R448		1
125		061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	R449		1
126		061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	R712		1
127		061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	R713		1
128		061G0402560	RST CHIP 56R 1/16W 5%	R419		1
129		061G0402560	RST CHIP 56R 1/16W 5%	R422		1
130		061G0402560	RST CHIP 56R 1/16W 5%	R424		1
131		061G0402750	RST CHIPR 75 OHM +-5% 1/16W	R438		1
132		061G0402750	RST CHIPR 75 OHM +-5% 1/16W	R436		1

133		061G0402750	RST CHIPR 75 OHM +-5% 1/16W	R418		1
134		061G0402750	RST CHIPR 75 OHM +-5% 1/16W	R417		1
135		061G0402750	RST CHIPR 75 OHM +-5% 1/16W	R416		1
136		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	FB402		1
137		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	FB403		1
138		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	FB404		1
139		061G0805331	RST CHIPR 330 OHM +-5% 1/8W	R401		1
140		065G040210312K E	CAP CHIP 0402 0.01uF 16V X7R	C416		1
141		065G040210312K T	CAP CHIP 0402 0.01uF 16V X7R	C416		1
142		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C429		1
143		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C427		1
144		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C426		1
145		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C421		1
146		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C409		1
147		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C408		1
148		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C407		1
149		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C406		1
150		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C401		1
151		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C710		1
152		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C708		1
153		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C706		1
154		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C705		1
155		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C438		1
156		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C437		1
157		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C436		1
158		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C435		1
159		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C434		1
160		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C433		1
161		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C432		1
162		065G0402104 15	MLCC 0402 0.1UF K 16V X5R	C430		1
163		065G0402220 31	CHIP 22PF 50V NPO	C405		1
164		065G0402220 31	CHIP 22PF 50V NPO	C404		1
165		065G0402224 17	CAP CER 0.22UF -20%-80%	C422		1
166		065G0402224 17	CAP CER 0.22UF -20%-80%	C410		1

167		065G0402224 17	CAP CER 0.22UF -20%-80%	C403		1
168		065G0402470 31	MLCC 0402 CAP 47PF J 50V NPO	C425		1
169		065G0402470 31	MLCC 0402 CAP 47PF J 50V NPO	C424		1
170		065G0402473 12	CHIP 0.047uF 16V X7R	C414		1
171		065G0402473 12	CHIP 0.047uF 16V X7R	C415		1
172		065G0402473 12	CHIP 0.047uF 16V X7R	C417		1
173		065G0402473 12	CHIP 0.047uF 16V X7R	C418		1
174		065G0402473 12	CHIP 0.047uF 16V X7R	C419		1
175		065G0402473 12	CHIP 0.047uF 16V X7R	C420		1
176		065G0402509 31	CHIP 5pF 50V NPO	C413		1
177		065G0402509 31	CHIP 5pF 50V NPO	C412		1
178		065G0402509 31	CHIP 5pF 50V NPO	C411		1
179		071G 56K121 M	CHIP BEAD	FB405		1
180		071G 56K121 M	CHIP BEAD	FB401		1
181		071G 56K121 M GP	120 OHM 6A	FB401		1
182		071G 56K121 M GP	120 OHM 6A	FB405		1
183		093G 60505	DIO SIG SM BAT54C(PHSE)R	D702		1
184		093G 64 42 P	BAV70 SOT23 BY PAN JIT	D410		1
185		093G 6433S	DIODE BAV99 SEMTECH	D409		1
186		093G 6433S	DIODE BAV99 SEMTECH	D408		1
187		093G 6433S	DIODE BAV99 SEMTECH	D407		1
188		093G 39S 34 T	UDZSNP5.6B ROHM	D406		1
189		093G 39S 34 T	UDZSNP5.6B ROHM	D405		1
190		093G 39S 34 T	UDZSNP5.6B ROHM	D404		1
191		093G 39S 34 T	UDZSNP5.6B ROHM	D403		1
192		093G 39S 34 T	UDZSNP5.6B ROHM	D402		1
193		093G 39S 34 T	UDZSNP5.6B ROHM	D401		1
194		715G2805 C	MAIN PCB			1
195		J07G 1 S114	WOODEN PALLET			0.0 14
196		J12G 808 1	RUBBER VESA			4
197		J12G8B01 1	RUBBER FOOT			6
198		J15G8B12 1	MAINFRAME L19-7VSC3 (VA916)			1
199		J33G8B10 KR 1L	KEY BUTTON L19-7VSC3			1
200		701G 150 C1 S	ABS 94HB KR			1.2 18
201		701G 150 N S	ABS 94HB			1.0

						05
202		J33G8B11 1 1C	LENS L19-VSC3			1
203		J34G8B16 KRA1B	BEZEL L19-7VSC3	M03401		1
204		J34G8B16 KRA1B9090	BEZEL L19-7VSC3	M03401		1
205		J34G8B17 KR 1B	REARCOVER L19-7VSC3	M03402		1
206		J34G8B17 KR 1B9090	REARCOVER L19-7VSC3	M03402		1
207		J34G8B18EB7 1B	BEZEL-CHIN	M03403		1
208		J34G8B18EB7 1B9090	BEZEL-CHIN	M03403		1
209		J37G0070 2	HINGE L19-7VSC3 (VA916&VA926)			1
210		J40G 19T7091TA	ID LABEL VA916			1
211		J40G 581709 1A	LALLET LABEL			0.0 2
212		J40G581B709 6A	S/N LABEL VA1716			2
213		J40GSTAR709 1A	EPA LABEL			1
214		J41G780170923B	service insert card			1
215		J41G780170925A	INSERT CARD			1
216		J41G780270910A	QSG			1
217		J41G780270911A	VISTA CARD			1
218		J44G6002 S115	PAPER BOARD			0.0 28
219		J44G6002 S116	PAPER BOARD			0.0 14
220		J44G9016 1	EPS L19-7VSC3 (916_926)			1
221		J44G9016 2	EPS L19-7VSC3 (916_926)			1
222		J44G9016709 1A	CARTON			1
223		J45G 76 28V3A	PE BAG FOR MANUAL-CARD			1
224		J45G 88606 R	PE BAG FOR BASE			1
225		J45G 88609800 R	EPE COVER for monitor			1
226		J45G 88626 1 R	PE BAG FOR MONITOR			1
227		J50G 600 5	HANDLE 1			1
228		J50G 600 6	HANDLE 2			1
229		J70G1903709 1A	CD MANUAL			1
230		KEPC7QV3	KEY BOARD			1
231		033G8019 6K H U	6P 1.0mm Pitch SMT Type FPC CONN	CN001		1
232		061G0603200 1F	RST CHIPR 2 KOHM +-1% 1/10W	R003		1
233		061G0603200 1F	RST CHIPR 2 KOHM +-1% 1/10W	R004		1



234		061G0603300 1F	RST CHIPR 3 KOHM +-1% 1/10W	R001		1
235		061G0603300 1F	RST CHIPR 3 KOHM +-1% 1/10W	R002		1
236		077G 604 2 TO	TACT 5W BY TOUKE TS-9-TMG-553	SW005		1
237		077G 604 2 TO	TACT 5W BY TOUKE TS-9-TMG-553	SW004		1
238		077G 604 2 TO	TACT 5W BY TOUKE TS-9-TMG-553	SW003		1
239		077G 604 2 TO	TACT 5W BY TOUKE TS-9-TMG-553	SW002		1
240		077G 604 2 TO	TACT 5W BY TOUKE TS-9-TMG-553	SW001		1
241		081G 14 12 GP	LED	LED01		1
242		093G 39S 34 T	UDZSNP5.6B ROHM	D101		1
243		093G 39S 34 T	UDZSNP5.6B ROHM	D102		1
244		715G2807 B	KEPC PCB			1
245		PWPC942HV3P	POWER BAORD			1
246		009G6005 1	GND PIN	GND1		1
247		009G6005 1	GND PIN	GND2		1
248		033G8021 2E F	WAFER	CN804		1
249		033G8021 2E F	WAFER	CN803		1
250		033G8021 2E F	WAFER	CN802		1
251		033G8021 2E F	WAFER	CN801		1
252		033G8021 2E U	WAFER	CN801		1
253		033G8021 2E U	WAFER	CN802		1
254		033G8021 2E U	WAFER	CN803		1
255		033G8021 2E U	WAFER	CN804		1
256		040G 45762412B	CBPC LABEL			1.0 5
257		051G 6 4503	RTV GLUE			2
258		056G 139 3A	IC PC123Y22FZ0F	IC902		1
259		061G 208151 64	RST MOFR 150 OHM +-5% 1W	R907		1
260		061G152M104 64	100KOHM 5% 2W	R909		1
261		061G152M43852T	RST MOF 0R43 5% 2W	R916		1
262		063G107K474 TS	CAP X2 0.47UF K 275VAC	C909		1
263		063G107K474 US	0.47UF +-10%	C909		1
264		065G 6J1006ET	10PF 5% SL 6KV	C812		1
265		065G 6J1006ET	10PF 5% SL 6KV	C801		1

266		065G305M1022EM	Y2 1000PF +-20% 250VAC	C901		1
267		065G305M1022EM	Y2 1000PF +-20% 250VAC	C902		1
268		065G306M1022BP	1000PF Y1. CAP	C903		1
269		065G306M2222BP	2200PF +-20% 400VAC	C900		1
270		067G 40Z10115K	CAP 105°C 100UF M 450V	C907		1
271		067G215D4714KV	E. C 105°C CAP 470UF M 25V ED SERIES	C925		1
272		067G215D4714KV	E. C 105°C CAP 470UF M 25V ED SERIES	C811		1
273		067G215D4714KV	E. C 105°C CAP 470UF M 25V ED SERIES	C805		1
274		067G215D6814KV	CAP 105°C 680uF M 25V	C922		1
275		067G215D6814KV	CAP 105°C 680uF M 25V	C923		1
276		067G215S1023KV	105°C 1000UF M 16V	C926		1
277		067G215S4713KV	EC 105°C CAP 470UF M 16V	C927		1
278		073G 174 65 H	LINE FILTER	L902		1
279		073G 174 65 T	LINE FILTER 7mH MIN TDK	L902		1
280		073G 174 76 L	CHOKE COIL LI TAI LF-002923	L901		1
281		073G 253 91 H	CHOKE COIL	L921		1
282		073G 253 91 H	CHOKE COIL	L922		1
283		080GL17T 33 N2	XFMR POWER 550uH YUVA	T901		1
284		080GL17T 33 T2	X' FMR 550uH SRW28EC-T147H015	T901		1
285		080GL17T 40 DN	X' FMR TK. 2001U. 101	PT802		1
286		080GL17T 40 DN	X' FMR TK. 2001U. 101	PT801		1
287		087G 501 32 S	AC SOCKET	CN901		1
288		093G 50460 28	BRIDGE DIODE KBP208G LITEON	BD901		1
289		093G3006 1 1	31DQ06FC3 NIHON INTER	D922		1
290		095G 82510Q514	WIRE HARNESS 10P (SCN) -9P (PH) 150MM	CN902		1
291		095G 82510W514	wire harness	CN902		1
292		095G 82510X514	wire harness	CN902		1
293		705GQ761016	NR901 ASS'Y			1
294		061G 58100 W	RST NTCR 10 OHM +-20% 5A THINKING	NR901		1
295		096G 29 10	H. S. TUBE			10
296		705GQ9KP 57001	Q900 ASS'Y			1
297		051G 200 1	HEAT OIL			0.2

298		057G 667 21	STP10NK70ZFP	Q900		1
299		090G6264 1	HEAT SINK	HS1		1
300		0M1G1730 8120	SCREW			1
301		705GQ9KP 93001	D920 ASS"Y			1
302		090G6241 1 GP	HEAT SINK	HS5		1
303		093G 60276	DIODE SBT150-10LST SANYO	D920		1
304		0M1G1730 8120	SCREW			1
305		PW942HV2SMTP	G2594-1D-X-X-2-070913			1
306		056G 379 22	IC TL494IDR SOIC-16	IC801		1
307		056G 379 61	LD7575PS SOP-8	IC901		1
308		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q902		1
309		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q811		1
310		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q810		1
311		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q807		1
312		057G 417 4	PMBS3904/PHILIPS-SMT (04)	Q803		1
313		057G 417 6	PMBS3906/PHILIPS-SMT (06)	Q805		1
314		057G 417 6	PMBS3906/PHILIPS-SMT (06)	Q806		1
315		057G 759 2	RK7002	Q808		1
316		057G 760 4B	PDTA144WK SOT346	Q801		1
317		057G 760 5B	PDTC144WK SOT346	Q802		1
318		057G 763 14	AM9945N	Q804		1
319		057G 763 14	AM9945N	Q809		1
320		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	R801		1
321		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	R804		1
322		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	R830		1
323		061G0603000	RST CHIPR 0 OHM +-5% 1/10W	R832		1
324		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R849		1
325		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R848		1
326		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R835		1
327		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R834		1
328		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R827		1
329		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R807		1
330		061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	R806		1

331		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R853		1
332		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R852		1
333		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R840		1
334		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R838		1
335		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R833		1
336		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R831		1
337		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R824		1
338		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R819		1
339		061G0603100 2F	RST CHIPR 10 KOHM +-1% 1/10W	R808		1
340		061G0603101	RST CHIPR 100 OHM +-5% 1/10W	R813		1
341		061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	R823		1
342		061G0603105	RST CHIPR 1 MOHM +-5% 1/10W	R836		1
343		061G0603105	RST CHIPR 1 MOHM +-5% 1/10W	R821		1
344		061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	R811		1
345		061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	R812		1
346		061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	R839		1
347		061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	R841		1
348		061G0603220	RST CHIPR 22 OHM +-5% 1/10W	R844		1
349		061G0603220	RST CHIPR 22 OHM +-5% 1/10W	R845		1
350		061G0603220	RST CHIPR 22 OHM +-5% 1/10W	R846		1
351		061G0603220	RST CHIPR 22 OHM +-5%	R847		1

			1/10W			
352		061G0603270 2F	RST CHIPR 27 KOHM +-1% 1/10W	R815		1
353		061G0603470 2F	RST CHIPR 47 KOHM +-1% 1/10W	R828		1
354		061G0603470 2F	RST CHIPR 47 KOHM +-1% 1/10W	R842		1
355		061G0603473	RST CHIPR 47 KOHM +-5% 1/10W	R822		1
356		061G0603564	RST CHIPR 560 KOHM +-5% 1/10W	R820		1
357		061G0603680 2F	RST CHIPR 68 KOHM +-1% 1/10W	R816		1
358		061G0603680 2F	RST CHIPR 68 KOHM +-1% 1/10W	R829		1
359		061G0603750 2F	RST CHIPR 75KOHM +-1% 1/10W	R814		1
360		061G0805100 1F	RST CHIPR 1KOHM +-1% 1/8W	R930		1
361		061G0805100 1F	RST CHIPR 1KOHM +-1% 1/8W	R928		1
362		061G0805100 1F	RST CHIPR 1KOHM +-1% 1/8W	R927		1
363		061G0805100 1F	RST CHIPR 1KOHM +-1% 1/8W	R925		1
364		061G0805100 1F	RST CHIPR 1KOHM +-1% 1/8W	R913		1
365		061G0805100 2F	RST CHIPR 10KOHM +-1% 1/8W	R923		1
366		061G0805100 2F	RST CHIPR 10KOHM +-1% 1/8W	R915		1
367		061G0805100 3F	RST CHIPR 100KOHM +-1% 1/8W	R911		1
368		061G0805101	RST CHIPR 100 OHM +-5% 1/8W	R802		1
369		061G0805102	RST CHIPR 1KOHM +-5% 1/8W	R903		1
370		061G0805180 3F	RST CHIPR 180 KOHM +-1% 1/8W	R826		1
371		061G0805240 1F	RST CHIPR 2.4KOHM +-1% 1/8W	R929		1
372		061G0805330 2F	RST CHIPR 33 KOHM +-1% 1/8W	R926		1
373		061G0805331	RST CHIPR 330 OHM +-5% 1/8W	R922		1
374		061G0805360 1F	RST CHIPR 3.6KOHM +-1% 1/8W	R924		1
375		061G0805471	RST CHIPR 470 OHM +-5% 1/8W	R908		1

376		061G0805510 2F	RST CHIPR 51 KOHM +-1% 1/8W	R825		1
377		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J908		1
378		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J907		1
379		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J816		1
380		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J815		1
381		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J814		1
382		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J813		1
383		061G1206000	RST CHIPR 0 OHM +-5% 1/4W	J807		1
384		061G1206000 4	RST CHIPR 0 OHM +-5% 1/4W	F902		1
385		061G1206100	RST CHIP 10R 1/4W 5%	R912		1
386		061G1206103	RST CHIPR 10 KOHM +-5% 1/4W	R905		1
387		061G1206103	RST CHIPR 10 KOHM +-5% 1/4W	R931		1
388		061G1206150	RST CHIPR 15 OHM +-5% 1/4W	R850		1
389		061G1206150	RST CHIPR 15 OHM +-5% 1/4W	R851		1
390		061G1206150	RST CHIPR 15 OHM +-5% 1/4W	R837		1
391		061G1206150	RST CHIPR 15 OHM +-5% 1/4W	R810		1
392		061G1206229	RST CHIPR 2.2 OHM +-5% 1/4W	R910		1
393		061G1206334	RST CHIPR 330KOHM +-5% 1/4W	R900		1
394		061G1206334	RST CHIPR 330KOHM +-5% 1/4W	R901		1
395		061G1206334	RST CHIPR 330KOHM +-5% 1/4W	R902		1
396		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R956		1
397		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R955		1
398		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R954		1
399		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R953		1
400		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R952		1
401		061G1206470	RST CHIPR 47 OHM +-5% 1/4W	R951		1
402		065G0603102 32	1000PF +-10% 50V X7R	C904		1
403		065G0603104 12	CER2 0603 X7R 16V 100N P	C814		1
404		065G0603104 12	CER2 0603 X7R 16V 100N P	C807		1
405		065G0603104 12	CER2 0603 X7R 16V 100N P	C804		1
406		065G0603104 22	CHIP 0.1UF 25V X7R	C810		1
407		065G0603105 12	CHIP 1UF 16VX7R 0603	C802		1
408		065G0603105 12	CHIP 1UF 16VX7R 0603	C806		1

409		065G0603222 22	CHIP 2200PF 25V X7R	C817		1
410		065G0603222 22	CHIP 2200PF 25V X7R	C818		1
411		065G0603222 22	CHIP 2200PF 25V X7R	C815		1
412		065G0603222 22	CHIP 2200PF 25V X7R	C813		1
413		065G0805104 22	0.1UF +-10% 25V X7R 080	C823		1
414		065G0805104 22	0.1UF +-10% 25V X7R 080	C824		1
415		065G0805104 32	CHIP 0.1U 50V X7R	C931		1
416		065G0805104 32	CHIP 0.1U 50V X7R	C930		1
417		065G0805104 32	CHIP 0.1U 50V X7R	C929		1
418		065G0805104 32	CHIP 0.1U 50V X7R	C928		1
419		065G0805104 32	CHIP 0.1U 50V X7R	C916		1
420		065G0805104 32	CHIP 0.1U 50V X7R	C912		1
421		065G0805152 32	CHIP 1500PF 50V X7R 0805	C803		1
422		065G0805152 32	CHIP 1500PF 50V X7R 0805	C816		1
423		065G0805152 32	CHIP 1500PF 50V X7R 0805	C821		1
424		065G0805152 32	CHIP 1500PF 50V X7R 0805	C822		1
425		065G0805221 31	220PF 50V NPO	C913		1
426		065G080522131G	220PF 50V NPO 2%	C809		1
427		065G0805225 12	CHIP 2.2UF 16V X7R 0805	C808		1
428		065G0805471 21	CHIP 470PF 25V NPO	C914		1
429		093G 64 33	DIO SIG SM BAV99 (PHSE)R	D801		1
430		093G 64 33	DIO SIG SM BAV99 (PHSE)R	D802		1
431		093G 64 33	DIO SIG SM BAV99 (PHSE)R	D809		1
432		093G 64 33	DIO SIG SM BAV99 (PHSE)R	D810		1
433		093G 64 38 D	DIODE BAW56 DIODES	D806		1
434		093G 64 38 D	DIODE BAW56 DIODES	D808		1
435		093G 64 38 P	BAW56	D808		1
436		093G 64 38 P	BAW56	D806		1
437		093G 39S 25 T	RLZ5.1B LLDS	ZD922		1
438		093G 39S 40 T	RLZ 13B LLDS	ZD920		1
439		093G 39S 40 T	RLZ 13B LLDS	ZD921		1
440		093G 64S511SEM	IN4148W	D916		1
441		093G 64S511SEM	IN4148W	D915		1
442		093G 64S511SEM	IN4148W	D910		1
443		093G 64S511SEM	IN4148W	D812		1
444		093G 64S511SEM	IN4148W	D811		1
445		093G 64S511SEM	IN4148W	D807		1
446		093G 64S511SEM	IN4148W	D803		1
447		PW942HV2AIP	G2594-1D-X-X-2-070913			1
448		006G 31 4	1.7MM RIVET	NR901		2

449		006G 31500	EYELET	CN901		2
450		006G 31502	1.5MM RIVET	T901		4
451		056G 158 10 T	IC AZ431AZ-AE1 T0-92 BY AAC	IC903		1
452		056G 158 12	KIA431A-AT/P T0-92	IC903		1
453		065G 2K152 1T6921	1.5NF/2KV Y5P +-10%	C910		1
454		065G517K102 5T	1000PF 10% Y5P 500V	C920		1
455		065G517K102 5T	1000PF 10% Y5P 500V	C921		1
456		067G 2152207NT	KY50VB22M-TP5 5*11	C911		1
457		071G 55 29	FERRITE BEAD	FB903		1
458		071G 55 29	FERRITE BEAD	FB901		1
459		084G 56 4W	FUSE 4.0A 250V	F901		1
460		084G 56 4W	FUSE 4.0A 250V	F903		1
461		093G 6038T52T	FR103	D901		1
462		093G1100 1152T	DIODE PR1007R 1A/1000V DO-41	D900		1
463		095G 90 23	TINCOATEDCOPPER	J811		1
464		095G 90 23	TINCOATEDCOPPER	J812		1
465		095G 90 23	TINCOATEDCOPPER	J817		1
466		095G 90 23	TINCOATEDCOPPER	J819		1
467		095G 90 23	TINCOATEDCOPPER	J901		1
468		095G 90 23	TINCOATEDCOPPER	J903		1
469		095G 90 23	TINCOATEDCOPPER	J904		1
470		095G 90 23	TINCOATEDCOPPER	J905		1
471		095G 90 23	TINCOATEDCOPPER	J906		1
472		095G 90 23	TINCOATEDCOPPER	J910		1
473		095G 90 23	TINCOATEDCOPPER	J909		1
474		095G 90 23	TINCOATEDCOPPER	J810		1
475		095G 90 23	TINCOATEDCOPPER	FB902		1
476		095G 90 23	TINCOATEDCOPPER	J801		1
477		095G 90 23	TINCOATEDCOPPER	J802		1
478		095G 90 23	TINCOATEDCOPPER	J803		1
479		095G 90 23	TINCOATEDCOPPER	J804		1
480		095G 90 23	TINCOATEDCOPPER	J805		1
481		095G 90 23	TINCOATEDCOPPER	J806		1
482		095G 90 23	TINCOATEDCOPPER	J808		1
483		095G 90 23	TINCOATEDCOPPER	J809		1
484		715G2594 2	POWER BOARD			1
485		Q85G0053 1 S	shield	HS4		1
486		S73G17476V	LINE FILTER ASS'Y	L901		1



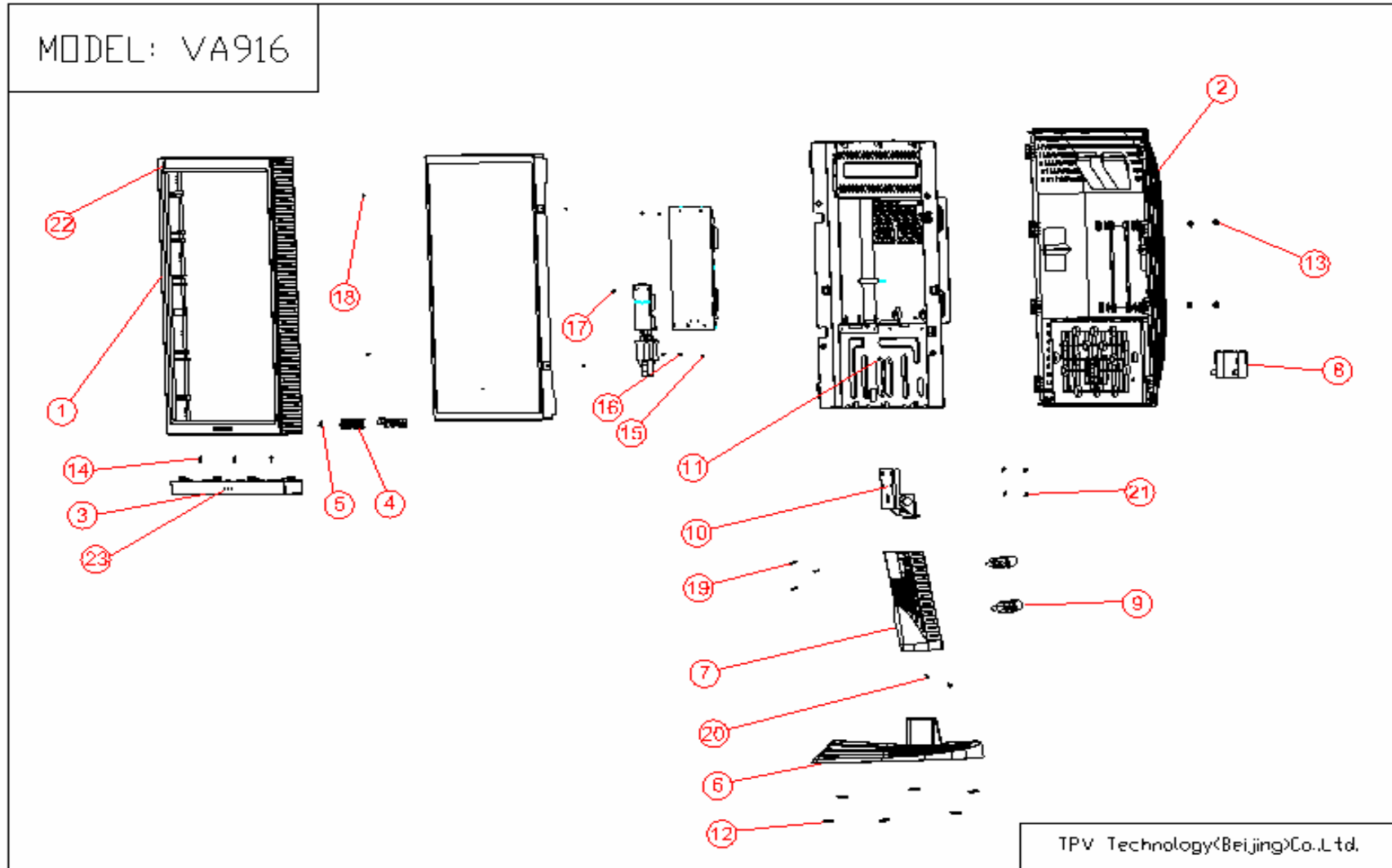
## Different Part List

Diversity of T97HMRDBMWVS1J compared with T97HMRDKMWVS1J						
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1		040G 58170918D	PALLET LABEL			1
2		089G404A18N IS	POWER CORD/32E1818018			1
3		089G404A18N LS	POWER CORD			1
4		089G404A18N YH	POWER CABLE			1
5		J40G 58170919A	DCR STICKER			2

Diversity of T97HMRDTMWVS1J compared with T97HMRDKMWVS1J						
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1		040G 58170918D	PALLET LABEL			1
2		089G420A18N IS	POWER CORD 32-D001922			1
3		089G420A18N LS	POWER CORD			1
4		J40G 58170919A	DCR STICKER			2

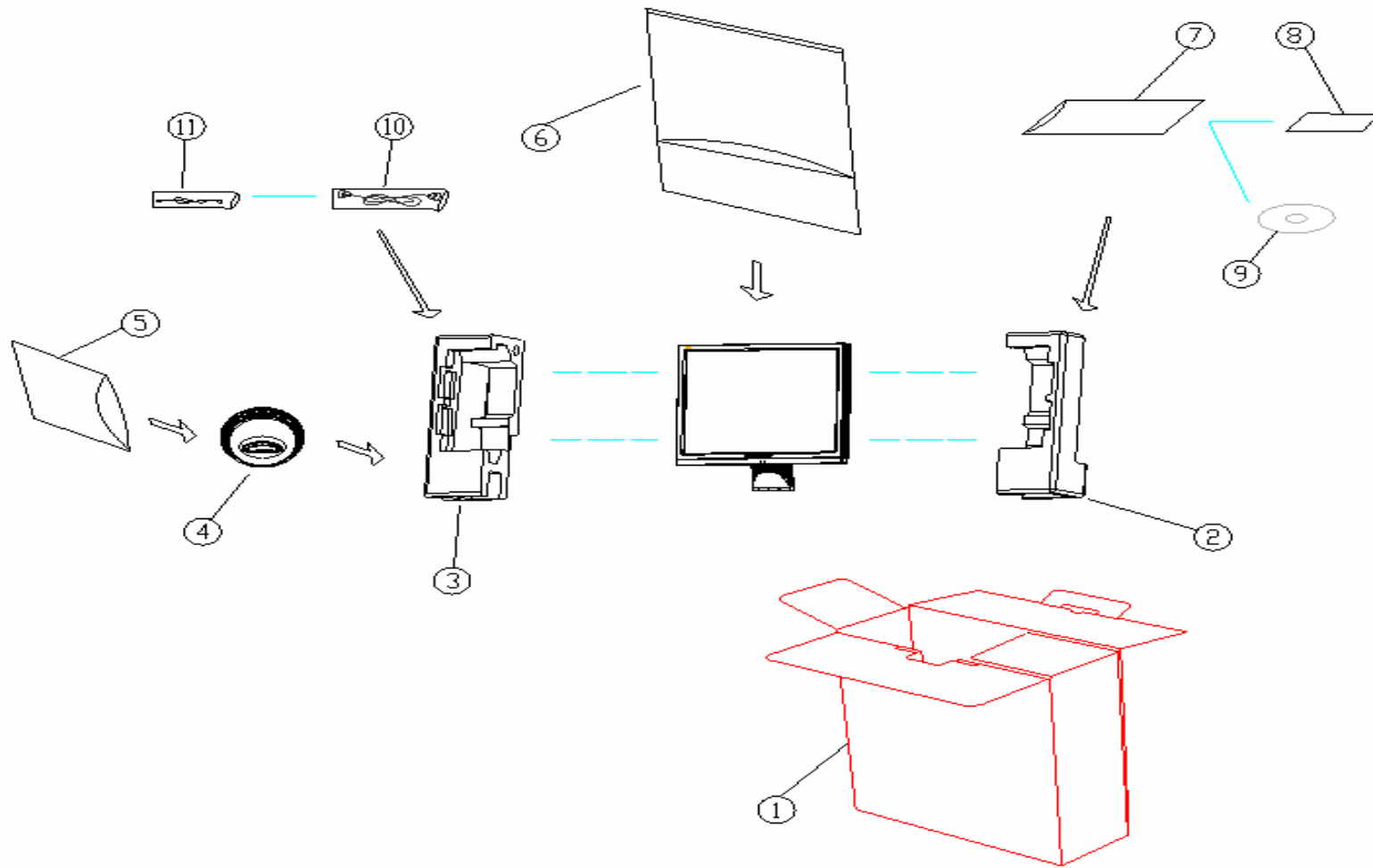
Diversity of T97HMRDDMWVS1J compared with T97HMRDKMWVS1J						
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1		040G 459709 3A	QC PASS			1
2		040G 58170912A	S/N LABEL			2
3		040G 58170918D	PALLET LABEL			1
4		041G 78624 1B	中性合格证			1
5		052G 1185	MIDDLE TAPE			10
6		089G414A18N IS	POWER CORD 32E1818021			1
7		089G414A18N LS	POWER CORD			1
8		089G414A18N YH	POWER CABLE			1
9		J07G 6 S 73	COMPOUND PALLET			0.014
10		J40G 581709 7C	售后服务 LABEL			1
11		J40G 58170919A	DCR STICKER			2
12		J40G 88G709 1A	内销大地址 LABEL			1
13		J41G7801709 5C	warranty card			1
14		J45G 8861814A	OUT PE BAG			1

8. Exploded Diagram And Spare Parts List



ITEM	part no.	part name	Qt'y
1	J34G8B16 KRA1B	bezel	1
2	J34G8B17 KR 1B	rear cover	1
3	J34G8B18EB7 1B	bezel-chin	1
4	J33G8B10 KR 1L	button	1
5	J33G8B11 1 1L	led-lens	1
6	A34G0367 KR 1B	base	1
7	A34G0368 KR 1B	stand	1
8	A33G0218 KR 1L	hinge-cover	1
9	A33G0246 KR 1B	cable-clip	1
10	J37G0070-2	hinge	1
11	J15G8B12 1	main frame	1
12	J12G8B01-1	rubber foot	6
13	J12G-808-1	VESA RUBBER	4
14	Q1G330-8-120	screw (bezel & BEZEL CHIN)	3
15	M1G1730-6-120	screw (power board & main frame)	4
16	M1G1140-8-120	screw (power board & main frame)	1
17	M1G1730-6-120	screw (scalar board & main frame)	1
18	M1G330-5-120	screw (frame & panel)	4
19	Q1G1040-8-120	screw (hinge & stand)	3
20	M1G940-8-120	screw (stand & hinge)	2
21	M1G1740-10-120	screw (hinge & main frame)	4
22	23G3178709-3A	Bird logo	1
23	23G3178709-4A	Viewsonic logo	1

### Packing For Shipping



item	P/N	Description	Qt'y
1	J44G9016709 1A	CARTON	1 PCS
2	J44G9016 1	EPS	1 PCS
3	J44G9016 2	EPS	1 PCS
4	A34G0367 KR 1B	BASE	1 PCS
5	J45G 88606 R	PE BAG FOR BASE	1 PCS
6	J45G 88609800 R	EPE COVER for monitor	1 PCS
7	J45G 76 28V3A	PE BAG FOR MANUAL-CARD	1 PCS
8	J41G7802 709 10A	QSG	1 PCS
9	J70G1903709 1A	CD MANUAL	1 PCS
10	089G 728HAA902	SIGNAL CABLE	1 PCS
11	089G***A18N LS	POWER CABLE	1 PCS

## 9. Disassemble Process

### 9.1 Units Disassemble Process

#### 9.1.1 Tools



- ◇ Glove
- ◇ Big cross screwdriver
- ◇ Small cross screwdriver
- ◇ Prize equipment or abandoned IC card
- ◇ Screw box
- ◇ Cushion
- ◇ Six angle sleeve spanner

#### 9.1.2 Disassemble process

- 1、Tide up the worktable, spread straight cushion, put the monitor on it, the front side adown.(**Picture 1**)
- 2、Disassemble the base of the monitor. (**Picture 2, 3**)
- 3、Remove the decorate slice of the back cover.(**Picture 4**)
- 4、Disassemble the 4 screws that fix the stand, remove the stand.(**Picture 5, 6**)
- 5、Use equipment or abandoned IC card to prize up the bezel through the bottom flute, and rip up the back cover downwards.( as showed in the following the **picture 7,8,9,10**)
- 6、Remove the bezel, refer to the following **picture 11,12**.
- 7、Disassemble the 4 pins of the backlight, as showed in the following the **picture 13**.
- 8、Disassemble the 4 fixed screws of the panel, as showed in the following the **picture14,15**.
- 9、Lift up the main frame and lift down the FFC connectors according to the direction of the arrowhead, refer to the following **picture 16,17**.
- 10、That's all. The disassemble process of the unit is over.

#### 9.1.3 Show pictures:

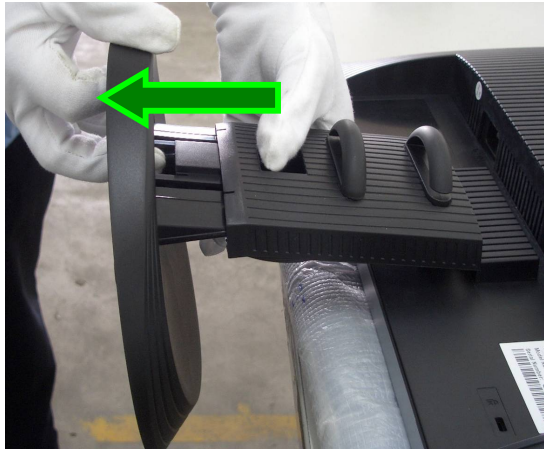


(Picture 1)

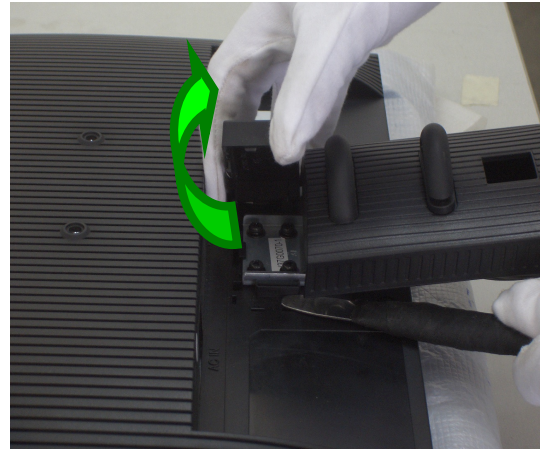


(Picture 2)





(Picture 3)



(Picture 4)



(Picture 5)



(Picture 6)

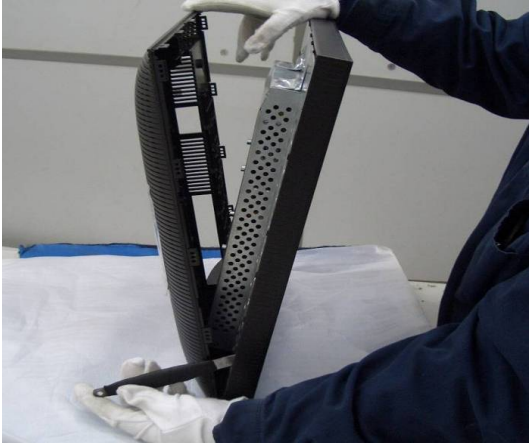


(Picture 7)

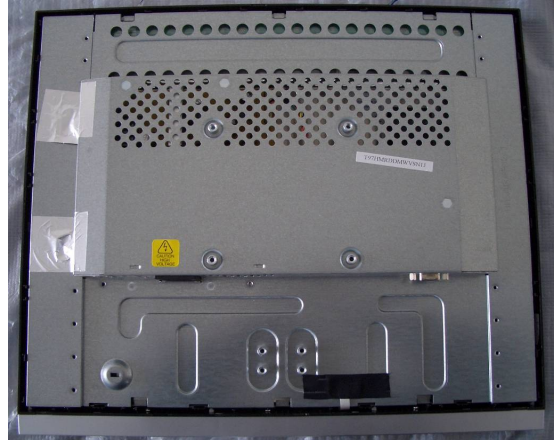


(Picture 8)

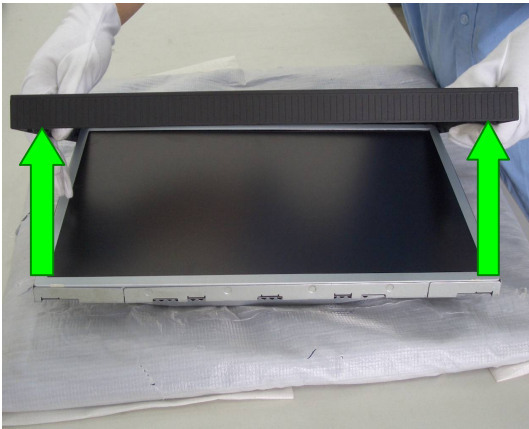




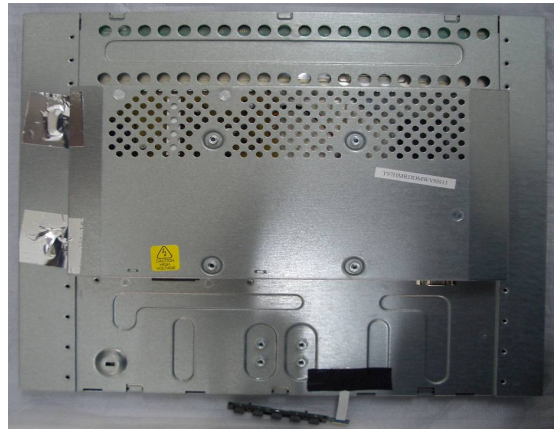
(Picture 9)



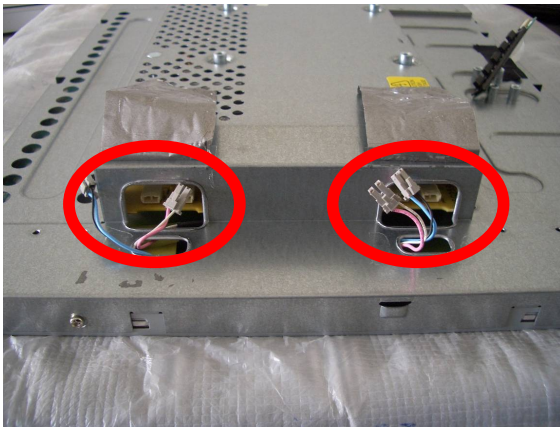
(Picture 10)



(Picture 11)



(Picture 12)



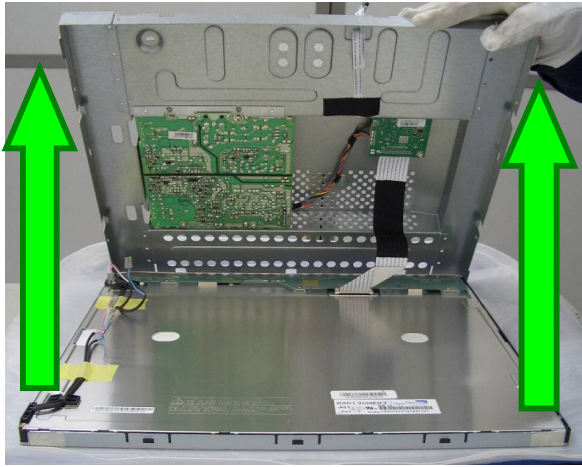
(Picture 13)



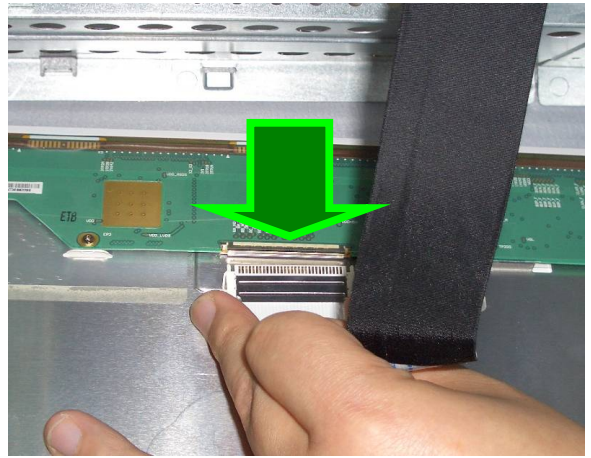
(Picture 14)



(Picture 15)



(Picture 16)

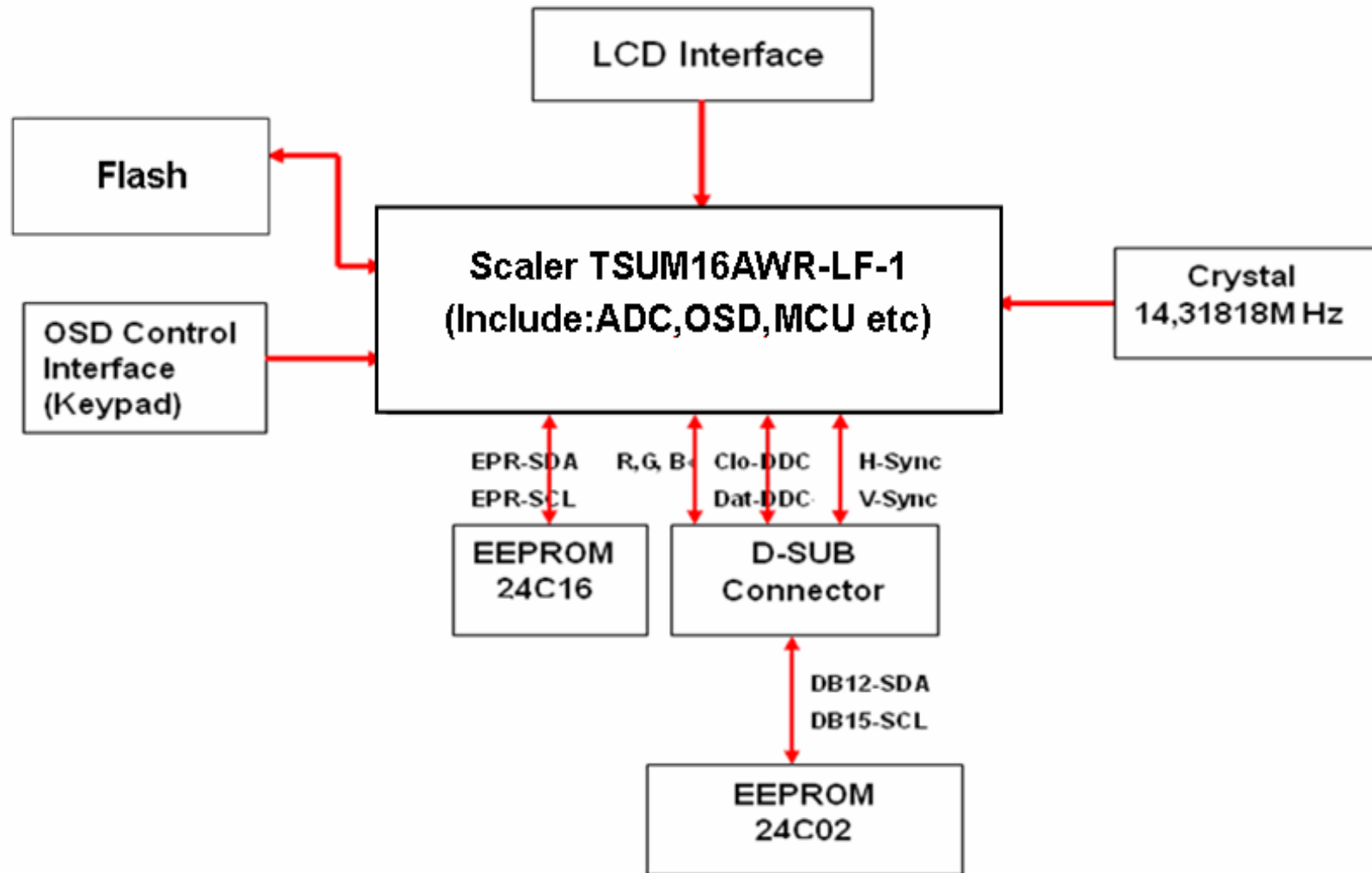


(Picture 17)



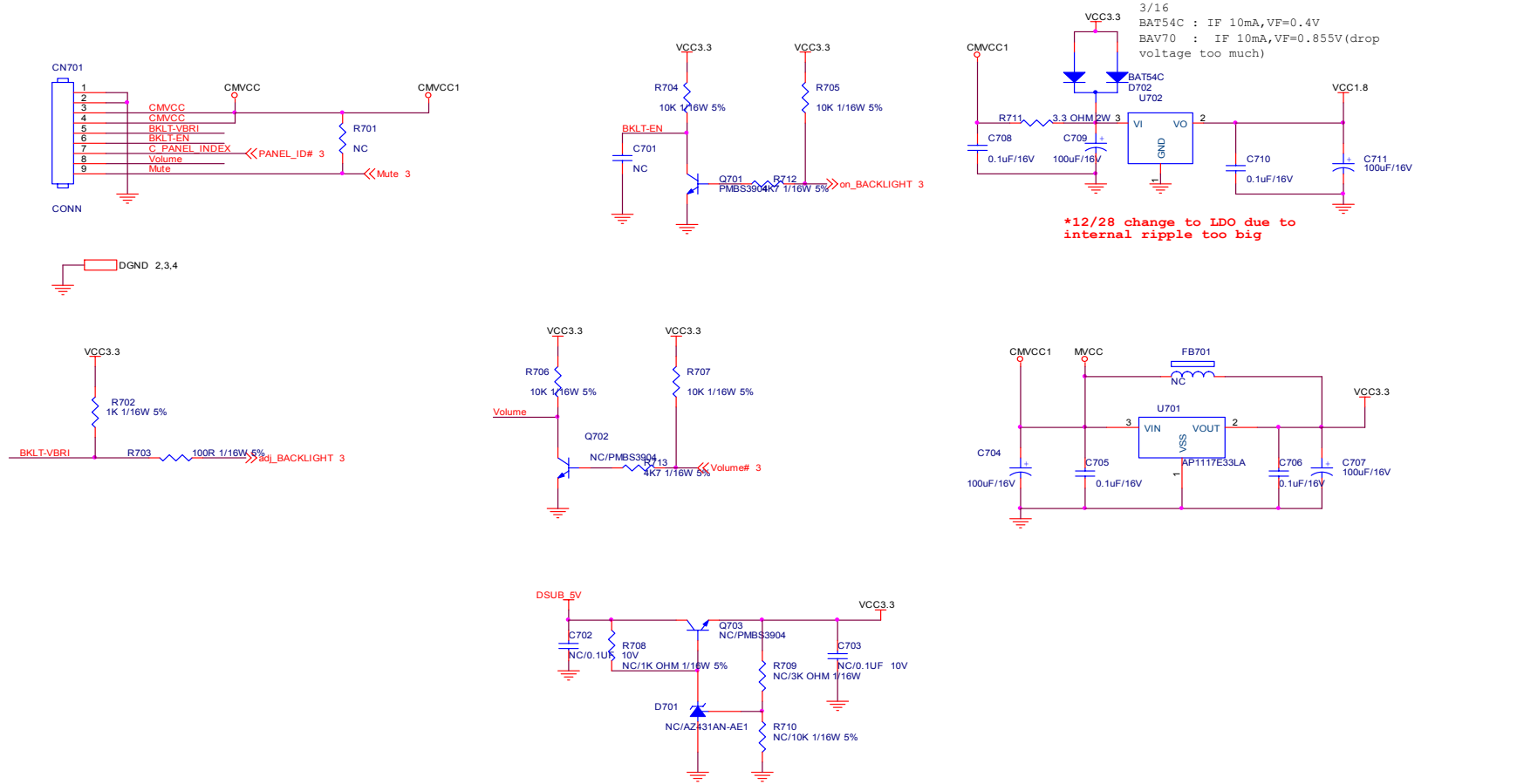
(Picture 18)

10. Block Diagram



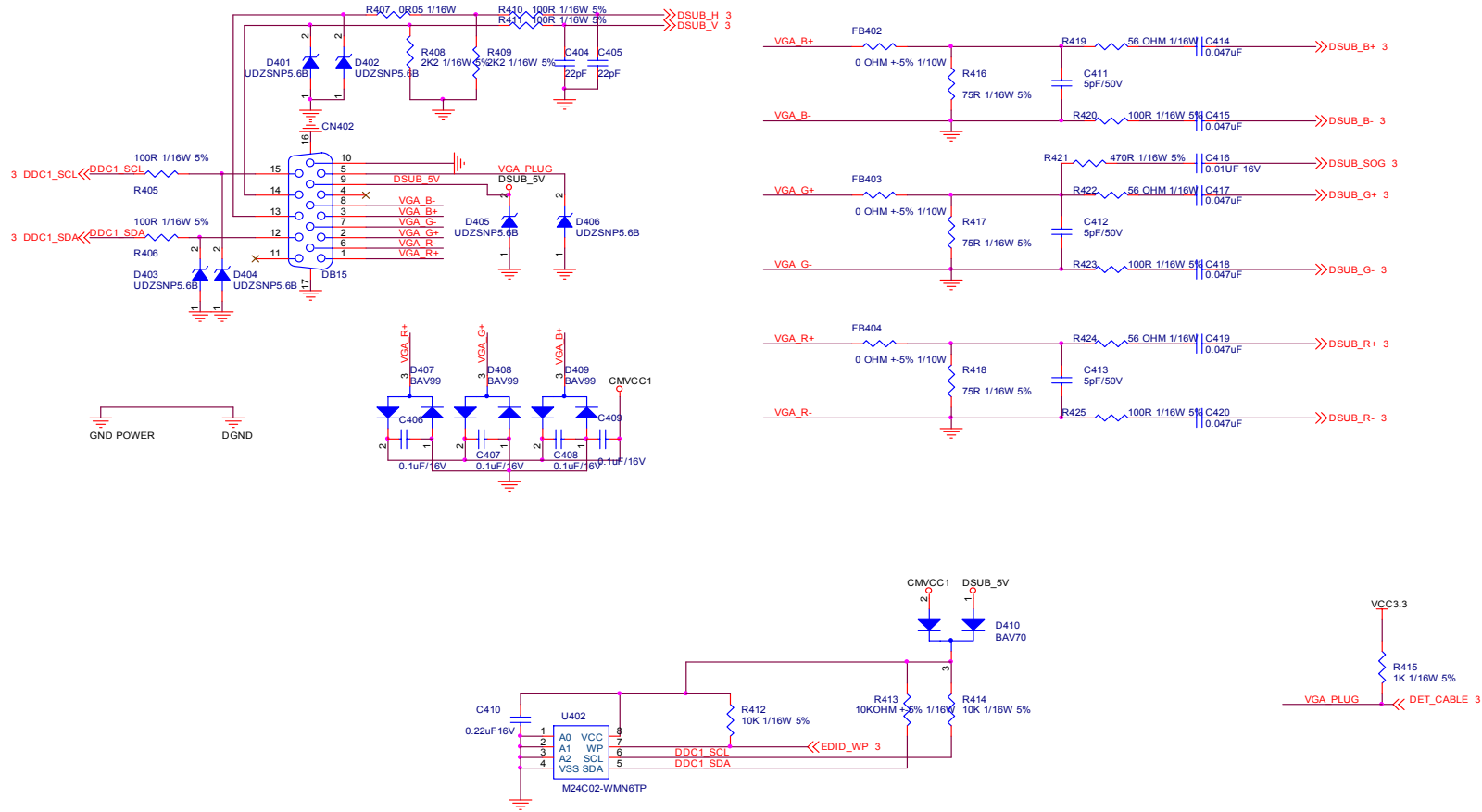
# 11. Schematic Diagram

## 11.1 Power



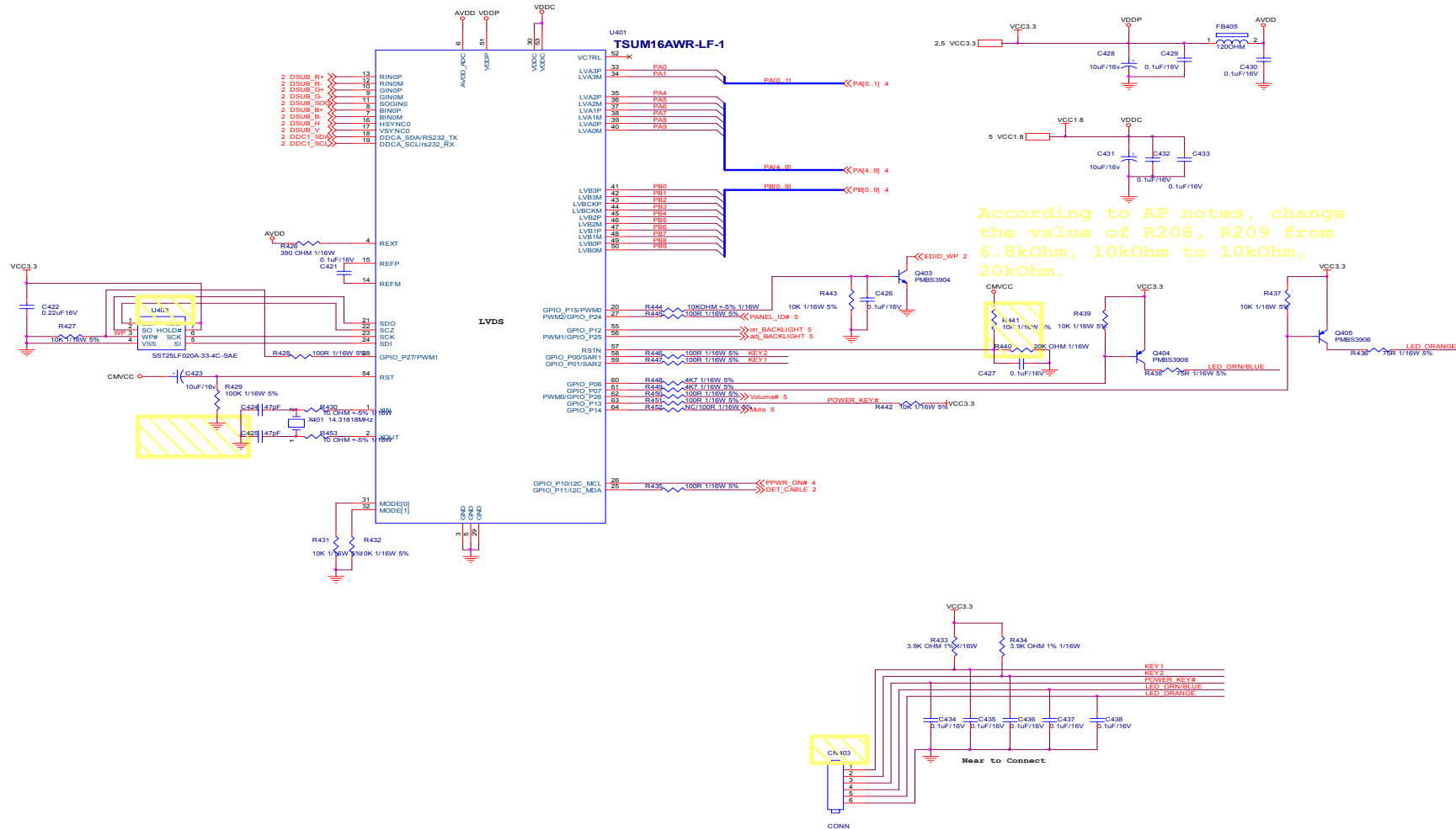
T P V ( Top Victory Electronics Co., Ltd. )	OEM MODEL	VSC VA916	Size	B
深圳瓜瓞膜	G2805-1-X-X-1-071101	TPV MODEL	Rev	1
Key Component	5.POWER	PCB NAME	715G2805-1	称#
Date	Thursday, Nov-01-2007	Sheet	5 of 5	

### 11.2 Input



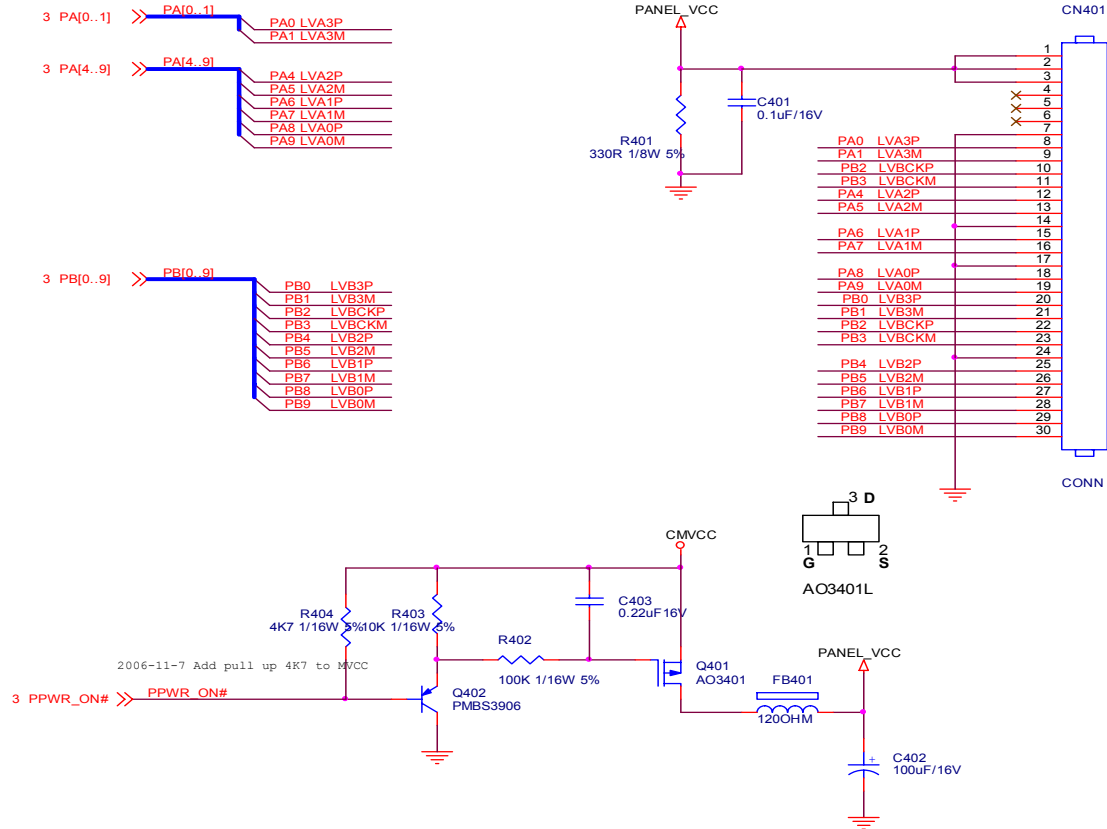
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	VSC VA916	Size	B
纸隔瓜膜版	G2805-1-XX-1-071101	TPV MODEL	Rev	1
Key Component	2.INPUT	PCB NAME	715G2805-1	称差
Date	Thursday, Nov-01-2007	Sheet	2 of 5	

### 11.3 Scaler



T.P.V (Top Victory Electronics Co., Ltd.)	OEM MODEL	VSC VA916	Size	□
版图项目编号 G2805-1-X-X1-071101	TPV MODEL		Rev	1
Key Component 3.SCALER	PCB NAME	715G2805-1	页数	6/6
Date Thursday, 2009-01-22 07	Sheet	3 of 6		

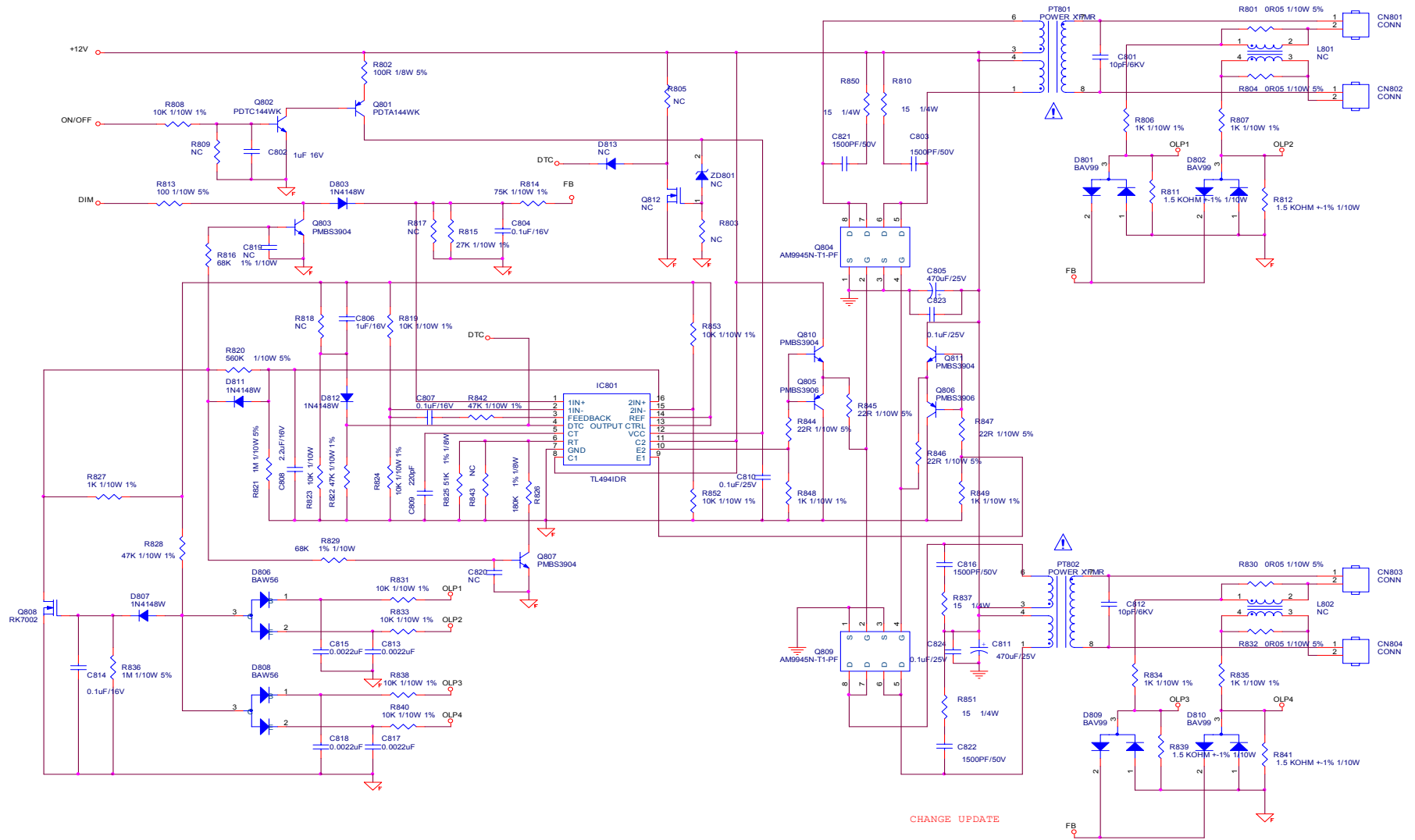
### 11.4 Panel Interface



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	VSC VA916	Size	B
经 隔 瓜 網 膜	G2805-1-X-X-1-071101	TPV MODEL	Rev	1
Key Component	4.OUPUT	PCB NAME	715G2805-1	称 多
Date	Thursday, Nov-01-2007	Sheet	4 of 5	

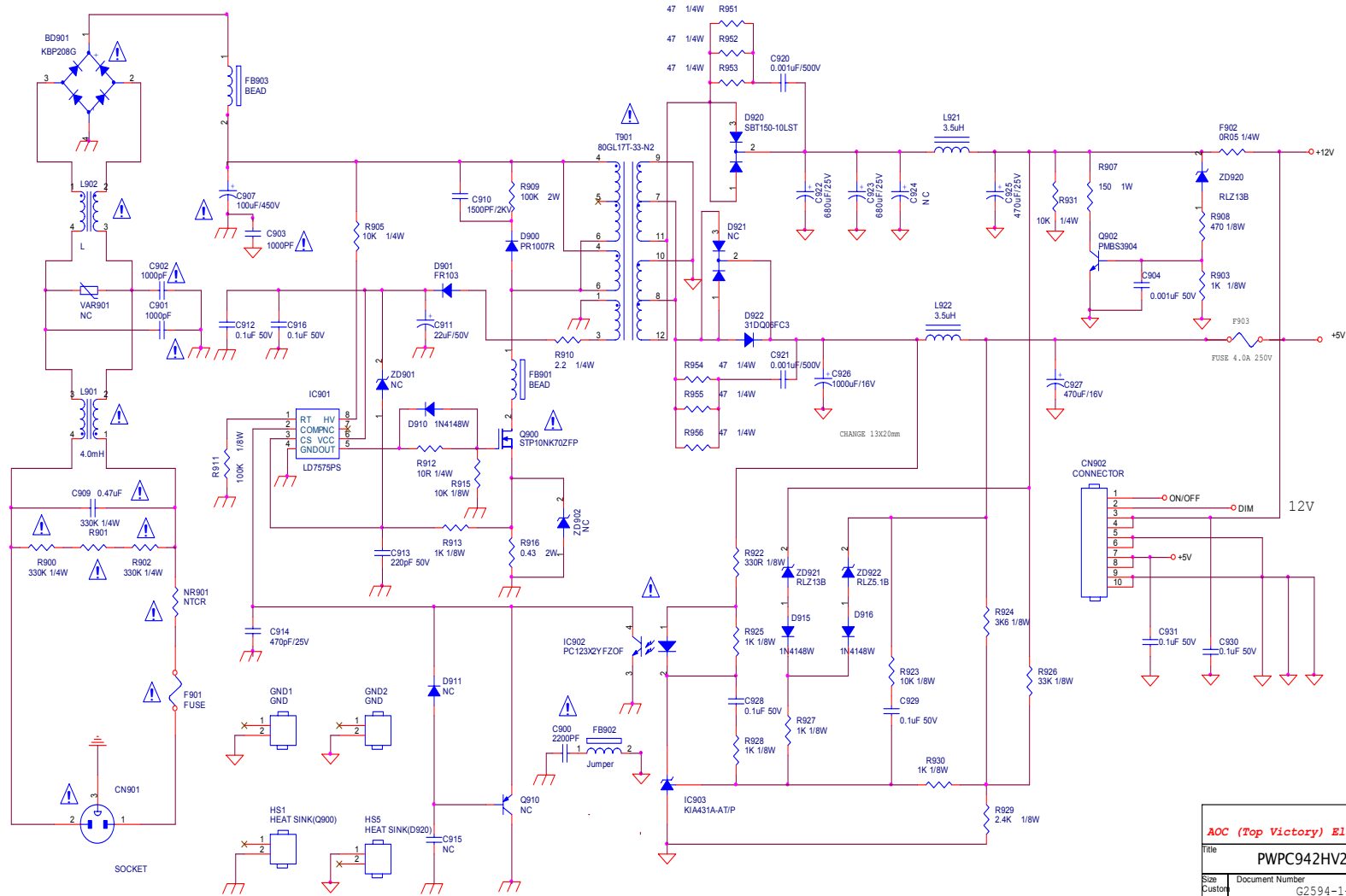


### 11.5 Inverter



CHANGE UPDATE

### 11.6 A-D Power

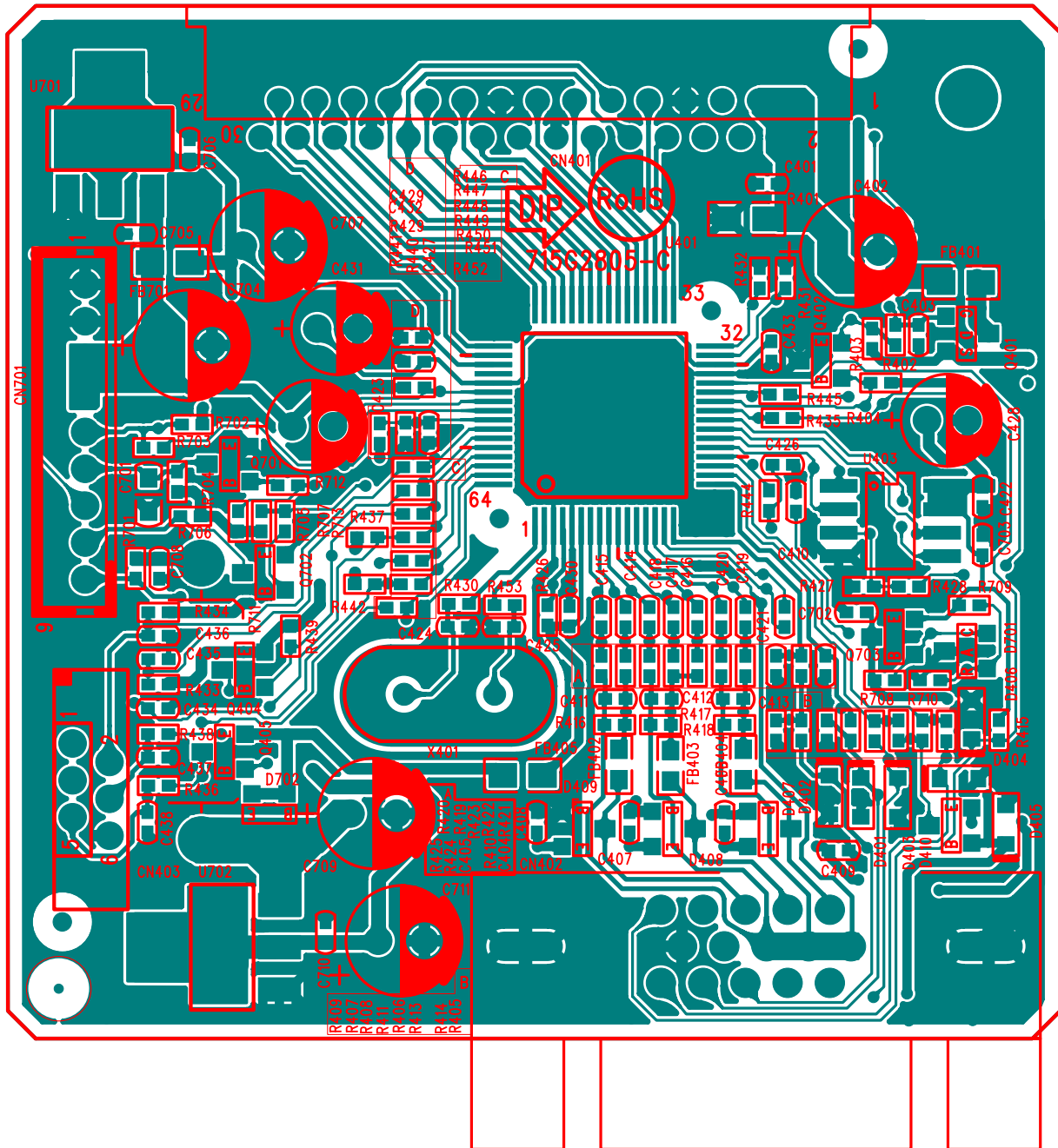


AOC (Top Victory) Electronics Co., Ltd.		
Title PWPC942HV2		
Size Custom	Document Number G2594-1-X-X-10-070926	Rev 1
Date Friday, September 28, 2007	Sheet 1	of 2

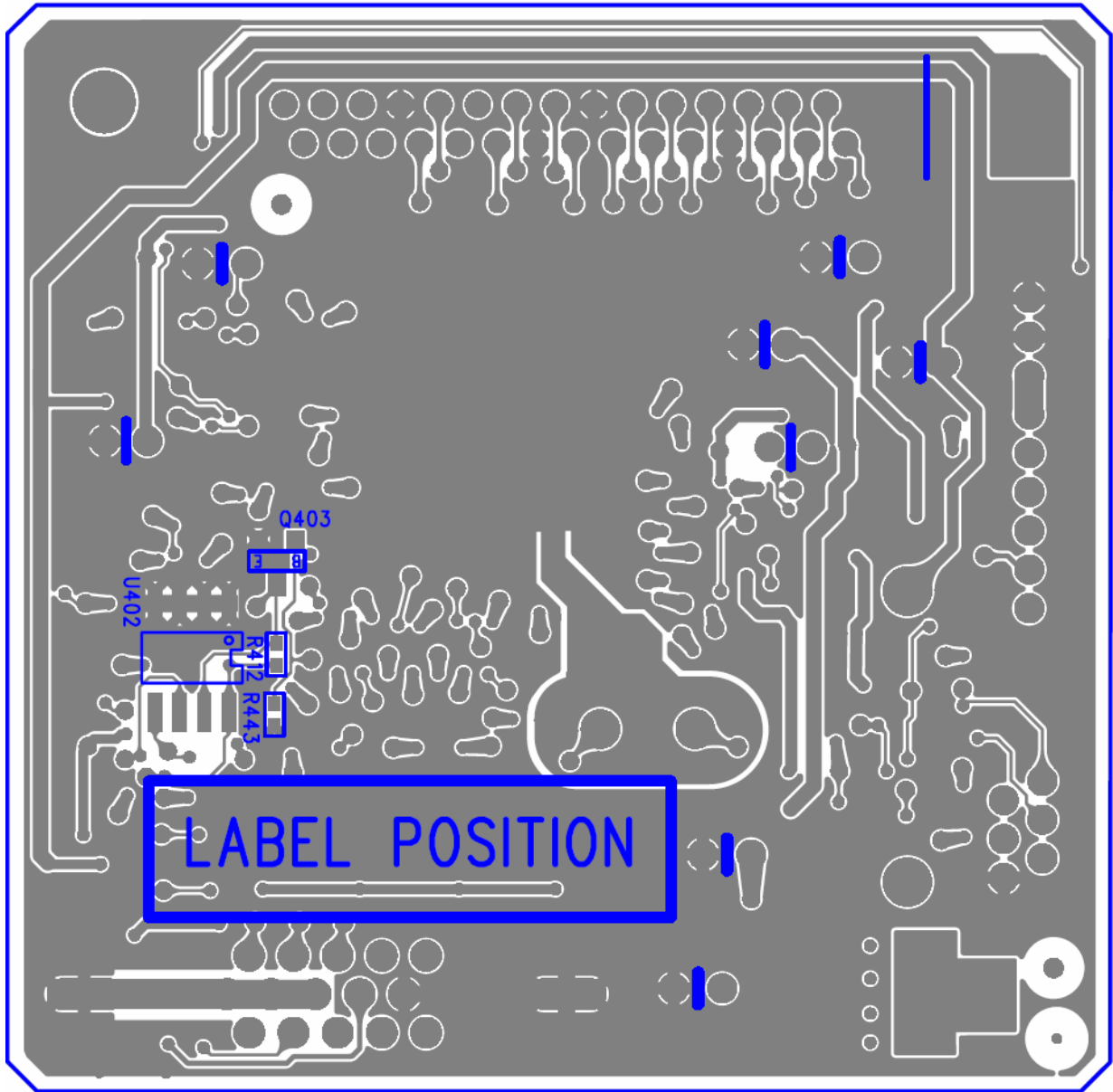


## 12. PCB Layout Diagram

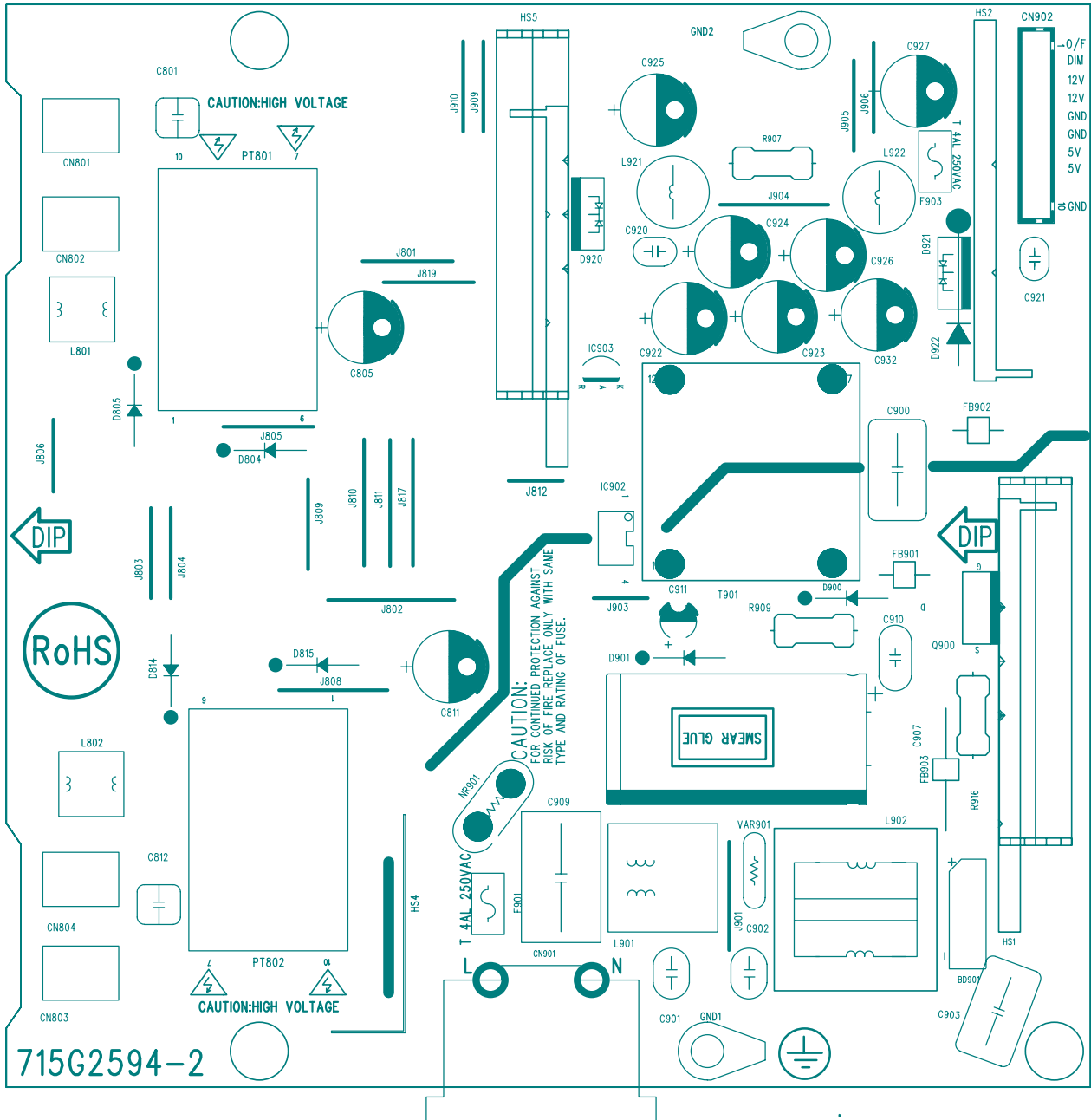
### 12.1 MAIN BOARD PCB TOP VIEW



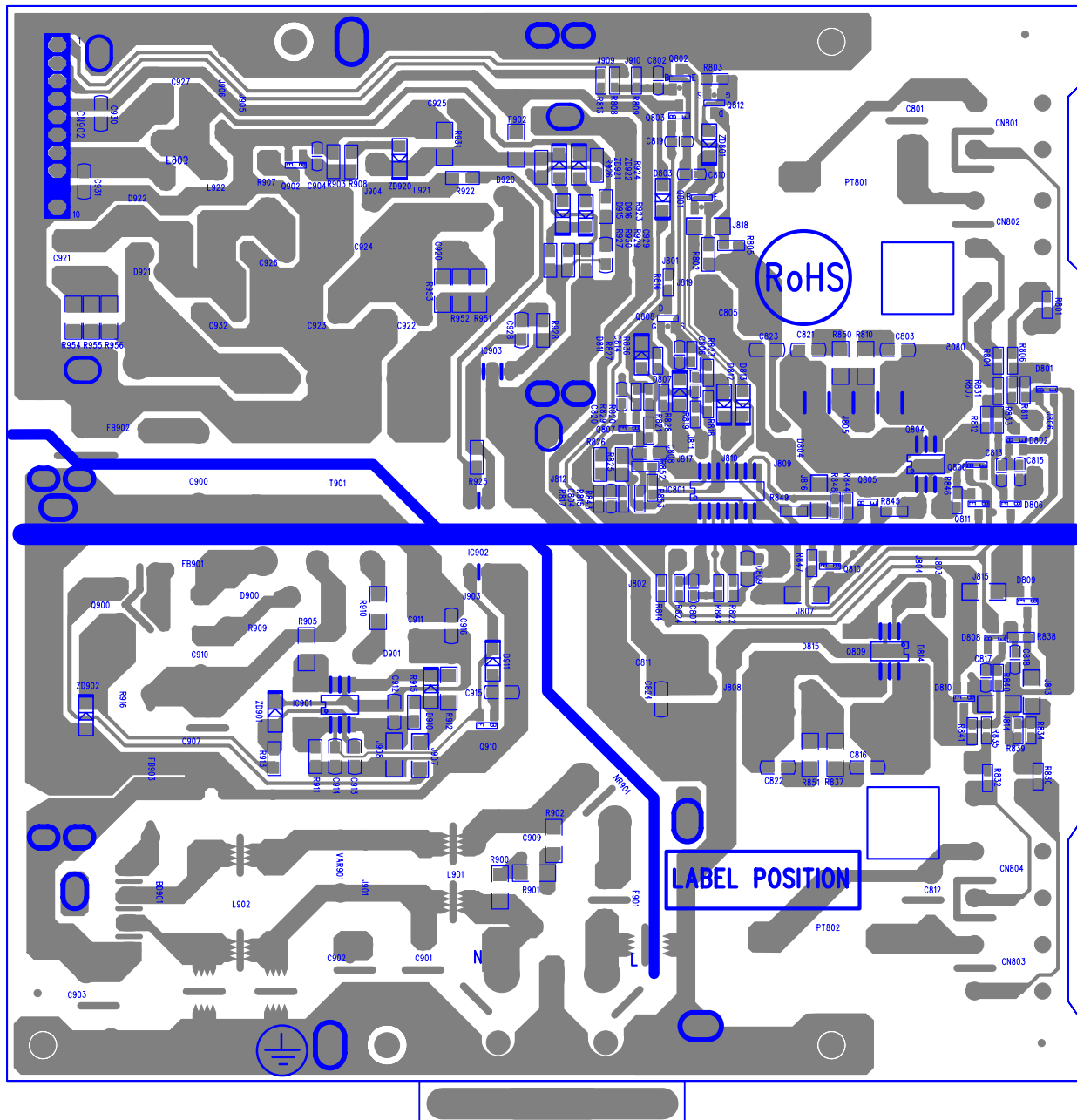
### 12.2 MAIN BOARD PCB BUTTON VIEW



12.3 POWER PCB TOP VIEW

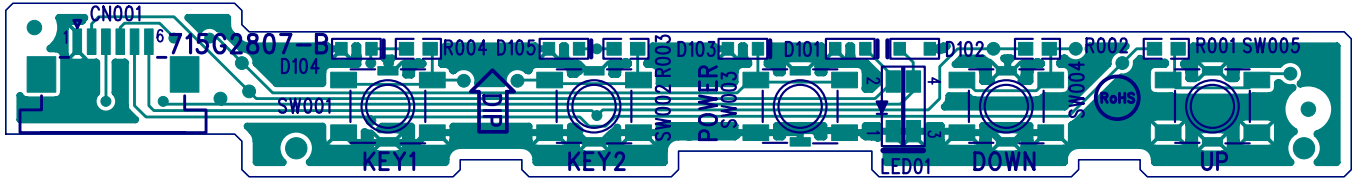


### 12.4 POWER PCB BUTTON VIEW

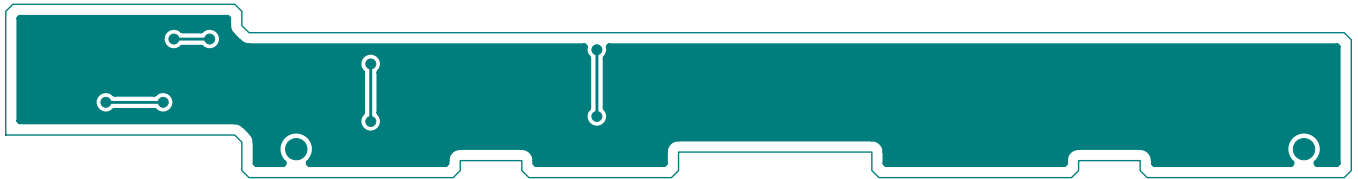




### 12.5 KEY BOARD TOP VIEW



### 12.6 KEY BOARD BUTTON VIEW



**\* Reader's Response \***

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

**Assessment**

A. What do you think about the content after reading **VA916** Service Manual?

<b>Unit</b>	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Bad</b>
1. Precautions And Safety Notice				
2. Specification				
3. Front Panel Control and Indicators				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram And Spare Parts List				
9. Block Diagram				
10. Schematic Diagram				
11. PCB Layout Diagram				

B. Are you satisfied with the **VA916** Service Manual?

<b>Item</b>	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Bad</b>
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any opinion and suggestion about this Service Manual?

**Reader's Basic Data:**

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After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestion to the Director, Quality System & Process (marc.maupin@viewsonic.com)