Service Manual

ViewSonic VA703b-7

Model No. VS11280

17” Color TFT LCD Display

(VA703b-7_SM Rev. 1a Apr. 2009)

ViewSonic 381 Brea Canyon Road, Walnut, California 91789 USA - (800) 888-8583

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Product disposal at end of product life

The lamp in this product contains mercury. Please dispose of in accordance with local, state or federal laws.

Revision History

Revision	SM Editing Date	Description of Changes	Customer Model	TPV Model	Editor
1a	04/21/2009	Initial Release	VA703b-7	T79CMEDKFVV5NC	

TABLE OF CONTENTS

1. Precautions and Safety Notices 4

2. Specification 7

3. Front Panel Function Control Description 8

4. Circuit Description 13

5. Adjusting Procedure 25

6. Troubleshooting Flow Chart 34

7. Block Diagrams 35

8. Schematic Diagrams 37

9. PCB Layout Diagrams 44

10. Exploded Diagram and Spare Parts List 49

11. Recommended Spare Parts List 68

1. Precautions and Safety Notices

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.

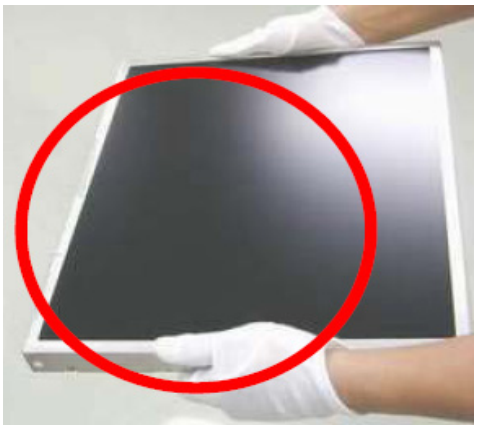
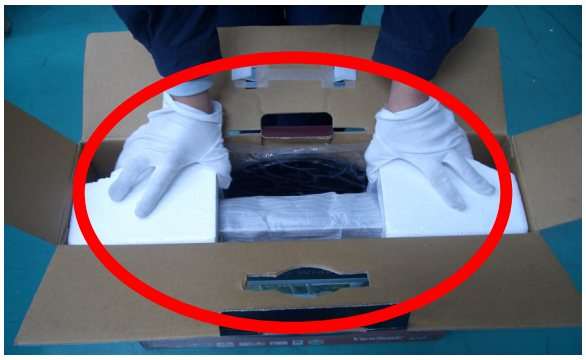
1.2 Product Safety Notice

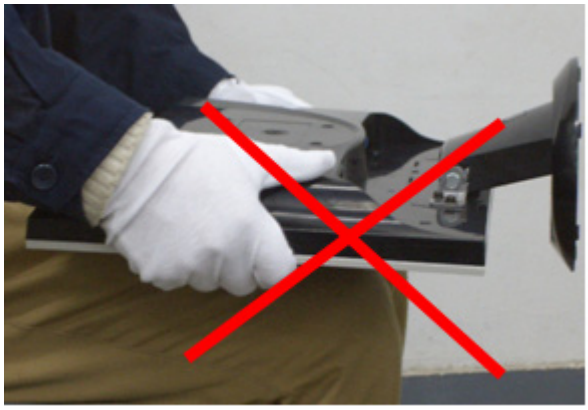
Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this 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:
Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.	Surface of the LCD panel is pressed by fingers and that may cause “Mura.”
	
	
Take out the monitor	Taking out the monitor by grasping the LCD panel. That may cause “Mura.”
	
Place the monitor on a clean and soft foam pad.	Placing the monitor on foreign objects. That could scratch the surface of the panel or cause “Mura.”

	
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

LCD	Type	17” (full 17" viewable diagonal area), TFT (Thin Film Transistor), Active Matrix SXGA LCD, 0.264 mm 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, f_h:24-82 kHz, f_v:50-75 Hz
Compatibility	PC	Up to 1280 x 1024 Non-interlaced
	Macintosh[1]	Power Macintosh up to 1280 x 1024
Resolution	Recommended and supported	1280 x 1024 @ 60, 75 Hz 1024 x 768 @ 60, 70, 72, 75 Hz 800 x 600 @ 56, 60, 72, 75 Hz 640 x 480 @ 60, 75 Hz 720 x 400 @ 70 Hz
Power	Voltage	100-240 VAC, 50/60 Hz (auto switch)
Display area	Full Scan	337.92 mm (H) x 270.336 mm (V) 13.3" (H) x 10.64" (V)
Operating conditions	Temperature Humidity Altitude	32° F to + 104° F (0° C to + 40° C) 20% to 90% (non-condensing) To 10,000 feet
Storage conditions	Temperature Humidity Altitude	-4° F to + 140° F (-20° C to + 60° C) 5% to 90% (non-condensing) To 40,000 feet
Dimensions	Physical	378.5 mm (W) x 400 mm (H) x 210 mm (D) 14.9" (W) x 15.72" (H) x 8.27" (D)
Weight	Physical	8.6 lb (3.9 kg)
Regulations		BSMI, CCC, PSB, C-Tick, CE, GS, Ergo Gost-R/Hygienic, SASO, TCO'03, UL/cUL, FCC-B, ICES-B, NOM, TUV-S/IRAM/UL-AR S Mark, ENERGY STAR®
Power saving modes	On	35 W (Typical) (green LED)
	Off	<1W

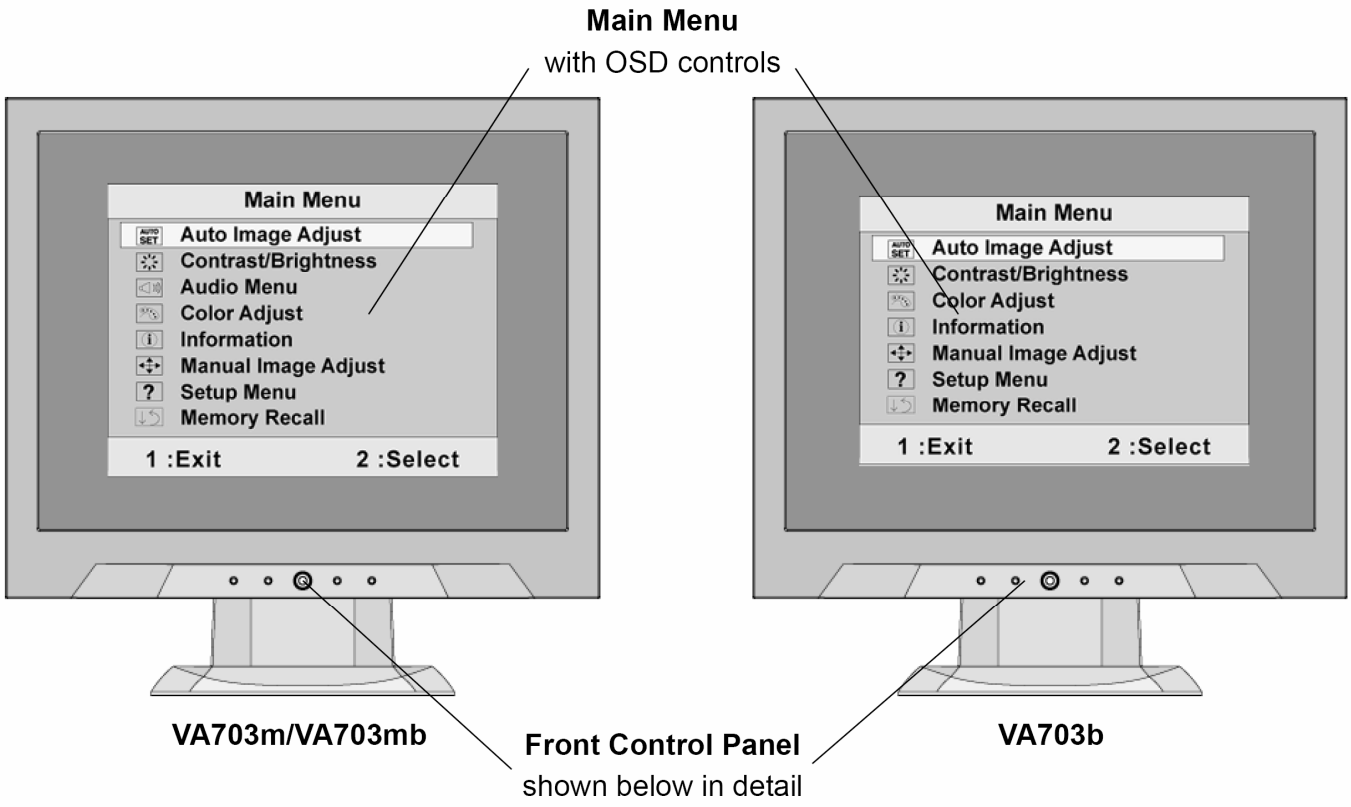
Preset Timing Mode (pre-adjusted to VESA® 1280 x 1024 @ 60 Hz)

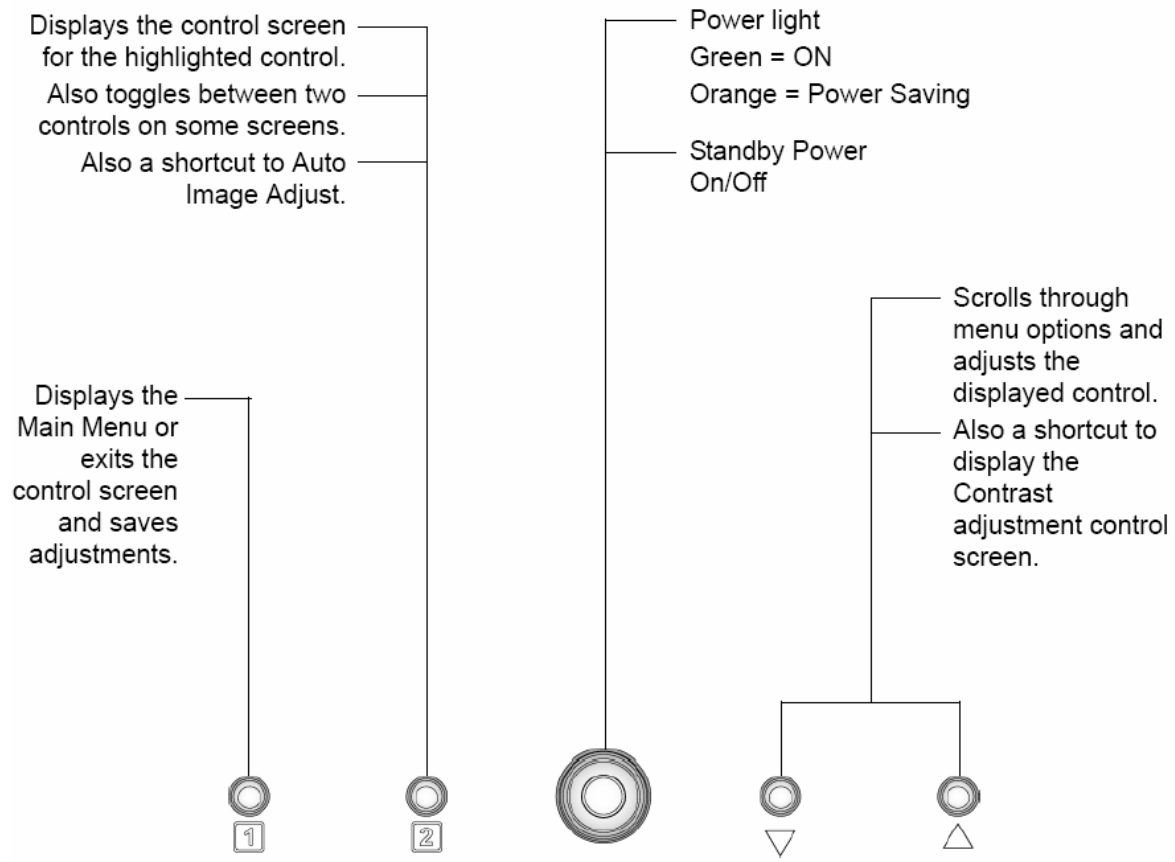
Warning: Do not set the graphics card in your computer to exceed these refresh rates; doing so may result in permanent damage to the LCD display.

[1] Macintosh computers older than G3 require a ViewSonic® Macintosh adapter. To order an adapter, contact ViewSonic.

3. Front Panel Function Control Description

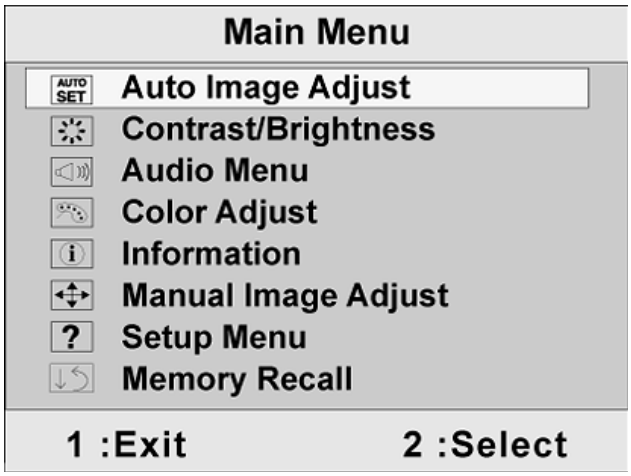
Use the buttons on the front control panel to display and adjust the OSD controls which display on the screen.





Do the following to adjust the display setting:

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



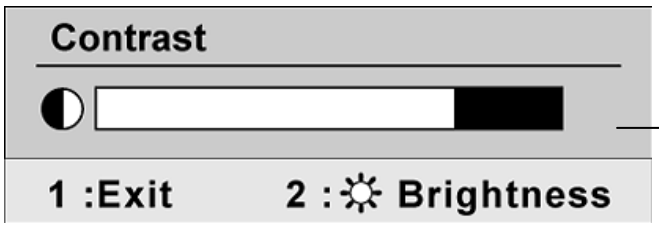
VA703m/VA703mb

VA703b

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.



The line at the bottom of the screen shows the current functions of buttons 1 and 2: Exit or select the Brightness control.

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:

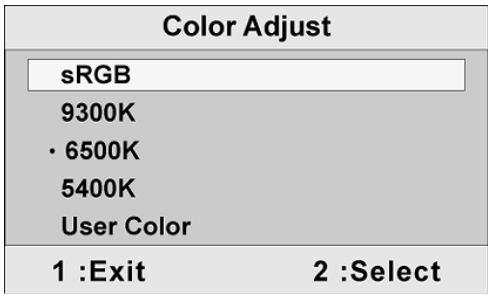
• Adjust the computer's graphics card so that it outputs a 1280 x 1024 @ 60Hz video signal to the LCD display. (Look for instructions on “changing the refresh rate” in the graphics card's user guide.)

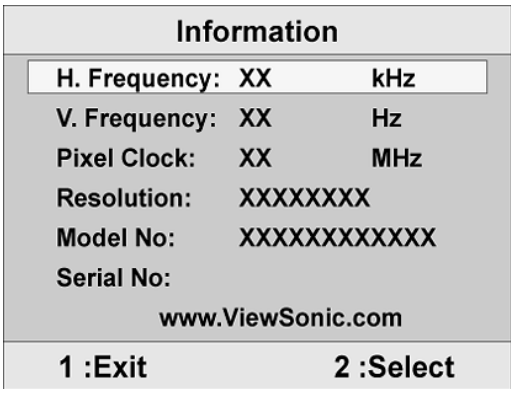
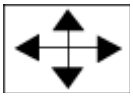
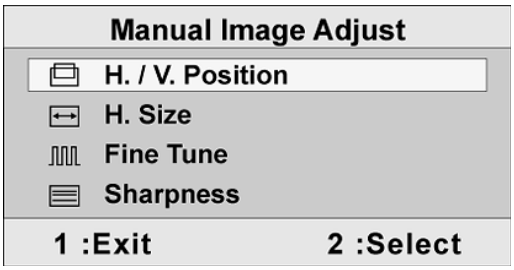
• If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated “active area” of the LCD display.)

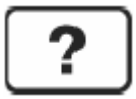
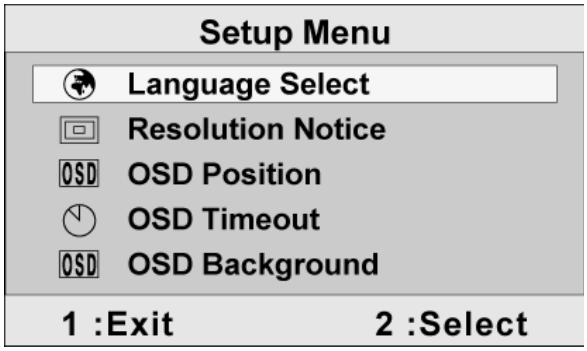
Main Menu Controls

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

Control Explanation

Control	Explanation
AUTO SET	**Auto Image Adjust** automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image. **NOTE:** 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.
	Contrast adjusts the difference between the image background (black level) and the foreground (white level).
	Brightness adjusts background black level of the screen image.
	Audio Adjust (For VA703m/VA703mb only) **Volume** increases the volume, decreases the volume, and mutes the audio. **Mute** temporarily silences audio output.
	Color Adjust 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).  **sRGB-**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. **9300K-**Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting). **6500K-**Adds red to the screen image for warmer white and richer red. **5400K-**Adds green to the screen image for darker color. **User Color** Individual adjustments for red (R), green (G), and blue (B).

	1. To select color (R, G or B) press button [2]. **2.** To adjust selected color, press ▲ and▼. **Important:** If you select **RECALL** from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.
	**Information** 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). **NOTE:** VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz. 
	**Manual Image Adjust** displays the Manual Image Adjust menu.  **H./V. Position (Horizontal/Vertical Position)** moves the screen image left or right and up or down. **H. Size (Horizontal Size)** adjusts the width of the screen image. **Fine Tune** sharpens the focus by aligning text and/or graphics with pixel boundaries. **NOTE:** Try Auto Image Adjust first. **Sharpness** adjusts the clarity and focus of the screen image.

	**Setup Menu** displays the menu shown below:  **Language Select** allows the user to choose the language used in the menus and control screens. **Resolution Notice** advises the optimal resolution to use. **OSD Position** allows the user to move the OSD menus and control screens. **OSD Timeout** 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. **OSD Background** allows the user to turn the OSD background On or Off.
	**Memory Recall** 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. **Exception:** This control does not affect changes made with the User Color control, Language Select or Power Lock setting.

4. Circuit Description

4.1 Main Board

Scalar TSUM16AWL-1(U401)

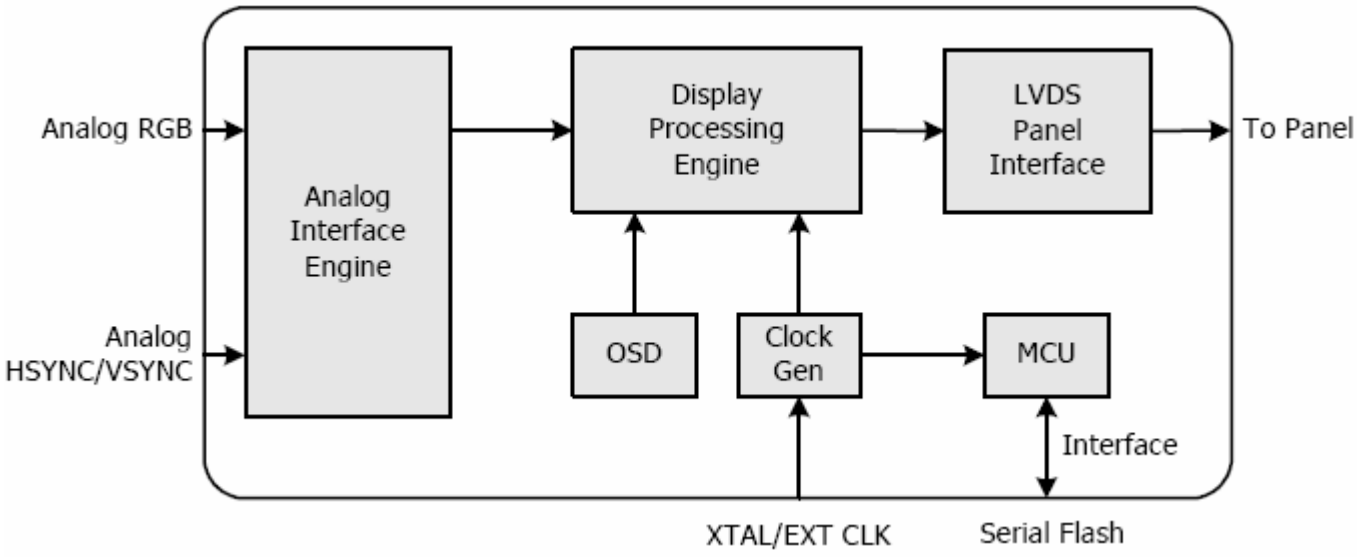
The TSUM16AWL-1(U401) is total solution graphics processing IC for LCD monitors with panel resolutions up to WXGA+/SXGA+. It is configured with a high-speed integrated triple-ADC/PLL, a high quality displayprocessing engine, and an integrated output display interface that can support LVDS panel interface format.

To further reduce system costs, the TSUM16AL-1 also integrates intelligent power management control capability for green-mode requirements and spread-spectrum support for EMI management.

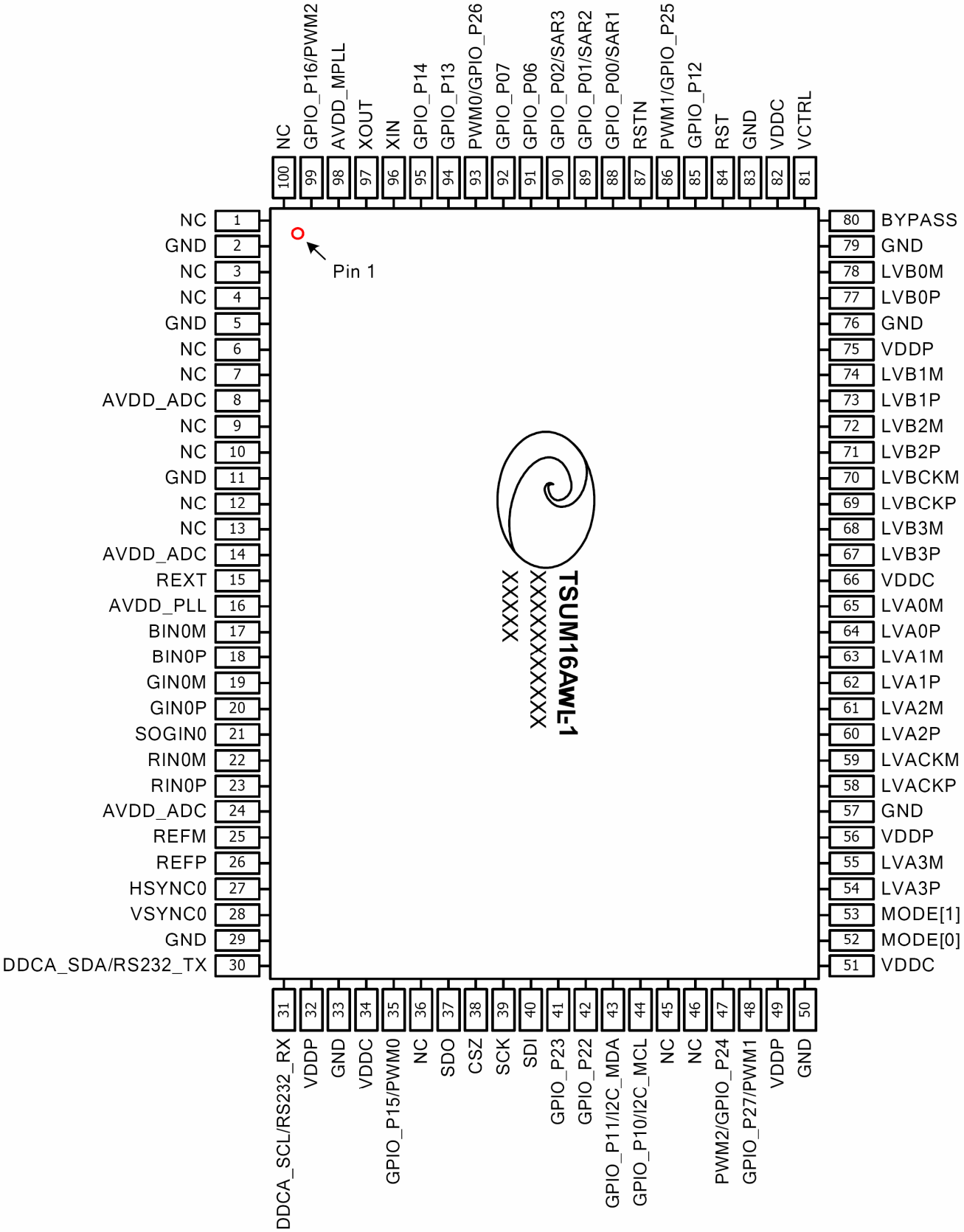
The TSUM16AL-1 incorporates the world's first coherent oversampled RGB graphics ADC in a monitor controller system1. The oversampling ADC samples the input RGB signals at a frequency that is much higher than the signal source pixel rate. This can preserve details in the video signal that ordinarily would be lost due to input signal jitter or bandwidth limitations in non-oversampled systems.

The TSUM16AL-1 also incorporates a new Dynamic Frame Rate (DFR) generator2 for the digital output video to the display panel that preserves the advantages of a fixed output clock rate, while eliminating the output end of frame short-line.

Block Diagram



PIN DIAGRAM (TSUM16AWL-1)



PIN Function:

Analog Interface

Pin Name	Pin Type	Function	Pin
HSYNC0	Schmitt Trigger Input w/ 5V-tolerant	Analog HSYNC input	27
VSYNC0	Schmitt Trigger Input w/ 5V-tolerant	Analog VSYNC input	28
REFP		InternalADC top de-coupling pin	26
REFM		Internal ADC bottom de-coupling pin	25
RIN0P	Analog Input	Analog red input	23
RIN0M	Analog Input	Reference ground for analog red input	22
SOGIN0	Analog Input	Sync-on-green input	21
GIN0P	Analog Input	Analog green input	20
GIN0M	Analog Input	Reference ground for analog green input	19
BIN0P	Analog Input	Analog blue input	18
BIN0M	Analog Input	Reference ground for analog blue input	17
REXT		External resistor 390 ohm to AVDD_ADC	15

Serial Flash Interface

Pin Name	Pin Type	Function	Pin
SDO	Input w/ 5V-Tolerant	SPI Flash Serial Data Output	37
CSZ	Output	SPI Flash Chip Select	38
SCK	Output	SPI Flash Serial Clock	39
SDI	Output	SPI Flash Serial Data Input	40

LVDS Interface

Pin Name	Pin Type	Function	Pin
LVA0M	Output	A-Link Negative LVDS Differential Data Output	65
LVA0P	Output	A-Link Positive LVDS Differential Data Output	64
LVA1M	Output	A-Link Negative LVDS Differential Data Output	63
LVA1P	Output	A-Link Positive LVDS Differential Data Output	62
LVA2M	Output	A-Link Negative LVDS Differential Data Output	61
LVA2P	Output	A-Link Positive LVDS Differential Data Output	60
LVA3M	Output	A-Link Negative LVDS Differential Data Output	55
LVA3P	Output	A-Link Positive LVDS Differential Data Output	54
LVACKM	Output	A-Link Negative LVDS Differential Clock Output	59

Pin Name	Pin Type	Function	Pin
LVACKP	Output	A-Link Positive LVDS Differential Clock Output	58
LVB0M	Output	B-Link Negative LVDS Differential Data Output	78
LVB0P	Output	B-Link Positive LVDS Differential Data Output	77
LVB1M	Output	B-Link Negative LVDS Differential Data Output	74
LVB1P	Output	B-Link Positive LVDS Differential Data Output	73
LVB2M	Output	B-Link Negative LVDS Differential Data Output	72
LVB2P	Output	B-Link Positive LVDS Differential Data Output	71
LVB3M	Output	B-Link Negative LVDS Differential Data Output	68
LVB3P	Output	B-Link Positive LVDS Differential Data Output	67
LVBCKM	Output	B-Link Negative LVDS Differential Clock Output	70
LVBCKP	Output	B-Link Positive LVDS Differential Clock Output	69

GPIO Interface

Pin Name	Pin Type	Function	Pin
GPIO_P06	I/O w/ 5V-tolerant	General Purpose Input/Output; 6/12mA programmable driving strength	91
GPIO_P07	I/O w/ 5V-tolerant	General Purpose Input/Output; 6/12mA programmable driving strength	92
PWM0/ GPIO_P26	I/O w/ 5V-tolerant	Pulse Width Modulation Output; 4mA driving strength/ General Purpose Input/Output; 4mA driving strength	93
GPIO_P13	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength	94
GPIO_P14	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength	95
GPIO_P16/ PWM2	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/Pulse Width Modulation Output; 4mA driving strength	99
GPIO_P15/ PWM0	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/ Pulse Width Modulation Output; 4mA driving strength	35
GPIO_P23	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength	41
GPIO_P22	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength	42
GPIO_P11/I2C_MDA	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/I2C Master Data	43
GPIO_P10/I2C_MCL	I/O w/ V-Tolerant	General Purpose Input/Output; 4mA driving strength/I2C Master Clock	44
PWM2/ GPIO_P24	I/O w/ 5V-tolerant	Pulse Width Modulation Output; 4mA driving strength/ General Purpose Input/Output; 4mA driving strength	47
GPIO_P27/ PWM1	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/ Pulse Width Modulation Output; 4mA driving strength	48
GPIO_P12	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength	85

Pin Name	Pin Type	Function	Pin
PWM1/GPIO_P25	I/O w/ 5V-tolerant	Pulse Width Modulation Output; 4mA driving strength/ General Purpose Input/Output; 4mA driving strength	86
GPIO_P00/SAR1	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/ SAR ADC Input	88
GPIO_P01/SAR2	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/ SAR ADC Input	89
GPIO_P02/SAR3	I/O w/ 5V-tolerant	General Purpose Input/Output; 4mA driving strength/ SAR ADC Input	90

Misc.Interface

Pin Name	Pin Type	Function		Pin
BYPASS		For External Bypass Capacitor		80
RST	Input w/ 5V-Tolerant	Chip Reset; High Reset		84
RSTN	Input w/ 5V-Tolerant	Chip Reset; Low Reset		87
VCTRL	Output	Regulator Control		81
MODE[1:0]	Input	Chip Configuration Input		53, 52
		MODE[1:0]	Chip Operation	
		00	Normal Operation	
DDCA_SDA/ RS232_TX	I/O w/ 5V-tolerant	DDC Data for Analog Interface; 4mA driving strength/ UART Transmitter/GPIO		30
DDCA_SCL/ RS232_RX	Input w/ 5V-Tolerant	DDC Clock for Analog Interface/ UART Receiver/GPIO		31
XIN	Crystal Oscillator Input	Xin		96
XOUT	Crystal Output Oscillator	Xout		97

Power Pins

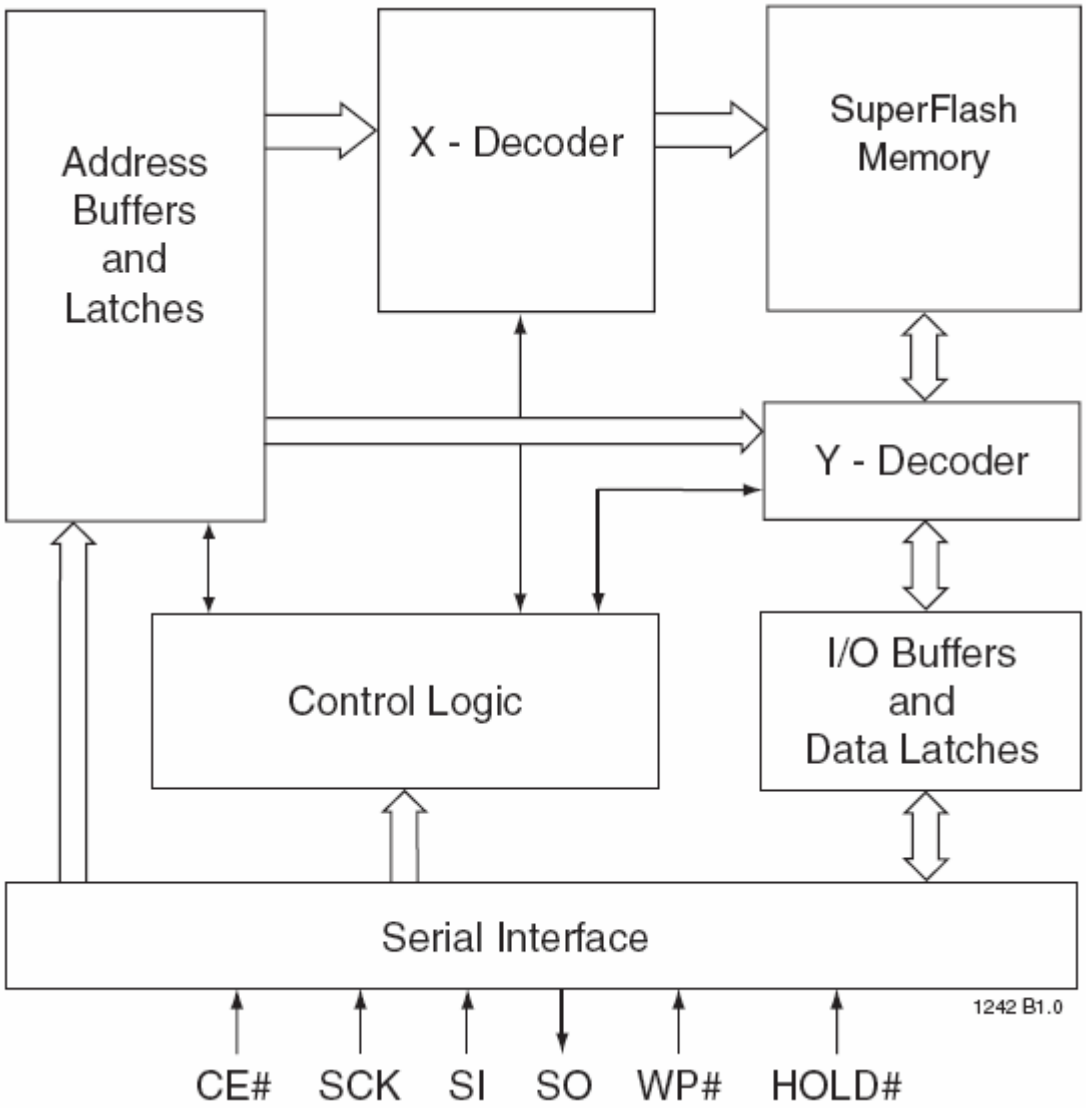
Pin Name	Pin Type	Function	Pin
AVDD_ADC	3.3V Power	ADC Power	8, 14, 24
AVDD_PLL	3.3V Power	PLL Power	16
AVDD_MPLL	3.3V Power	MPLL Power	98
VDDP	3.3V Power	Digital Output Power	32, 49, 56, 75
VDDC	1.8V Power	Digital Core Power	34, 51, 66, 82
GND	Ground	Ground	2, 5, 11, 29, 33, 50, 57, 76, 79, 83
NC		No Connect.Leave These Pins Floating	1,3,4,6,7,9,10,12,13,36,45,46,100

Flash Memory SST25LF020A/040A(U402)

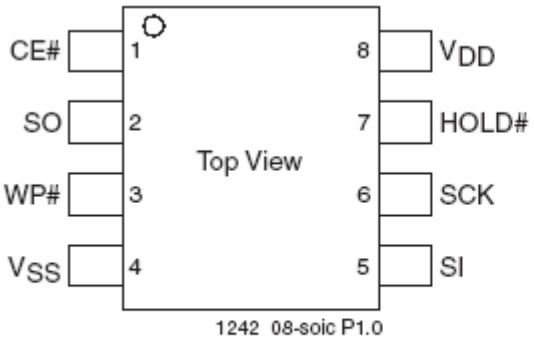
The SST25LF020A is accessed through the SPI (Serial Peripheral Interface) bus compatible protocol. The SPI bus consist of four control lines; Chip Enable (CE#) is used to select the device, and data is accessed through the Serial Data Input (SI), Serial Data Output (SO), and Serial Clock (SCK).

The SST25LF020A supports both Mode 0 (0,0) and Mode 3 (1,1) of SPI bus operations. The difference between the two modes, as shown in Figure 2, is the state of the SCK signal when the bus master is in Stand-by mode and no data is being transferred. The SCK signal is low for Mode 0 and SCK signal is high for Mode 3. For both modes, the Serial Data In (SI) is sampled at the rising edge of the SCK clock signal and the Serial Data Output (SO) is driven after the falling edge of the SCK clock signal.

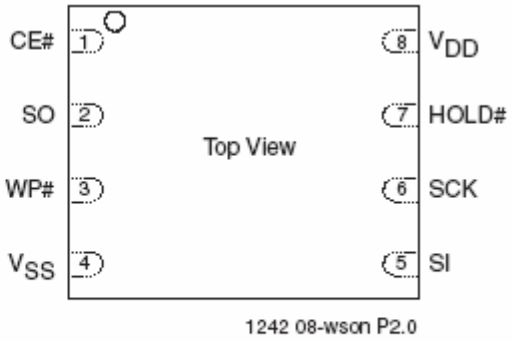
Block Diagram



Pin Description



8-LEAD SOIC



8-CONTACT WSON

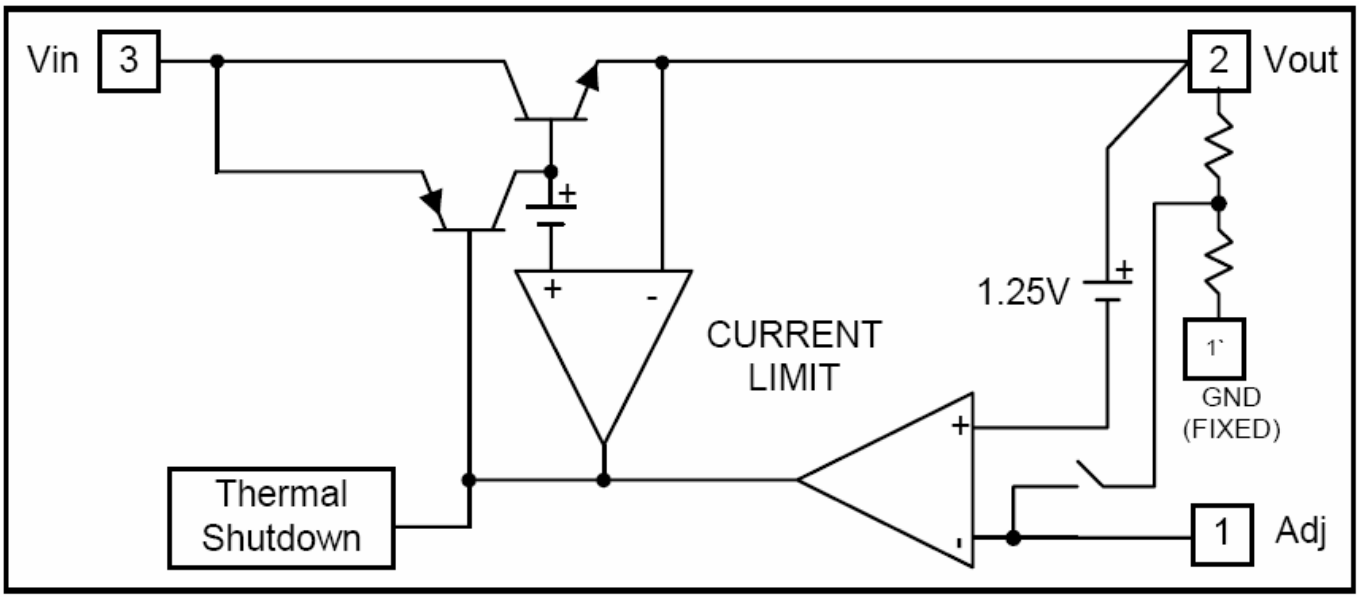
Symbol	Pin Name	Functions
SCK	Serial Clock	To provide the timing of the serial interface.
		Commands, addresses, or input data are latched on the rising edge of the clock input, while output data is shifted out on the falling edge of the clock input.
SI	Serial Data	To transfer commands, addresses, or data serially into the device.
	Input	Inputs are latched on the rising edge of the serial clock.
SO	Serial Data	To transfer data serially out of the device.
	Output	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	

DC-DC AP1117E33L(U701)

AP1117 is a low dropout positive adjustable or fixed-mode regulator with minimum of 1A output current capability. The product is specifically designed to provide well-regulated supply for low voltage IC applications such as high-speed bus termination and low current 3.3V logic supply.

AP1117 is also well suited for other applications such as VGA cards. AP1117 is guaranteed to have lower than 1.4V dropout at full load current making it ideal to provide well-regulated outputs of 1.25 to 5.0 with 6.4V to 12V input supply.

Block Diagrm



Pin Descriptions

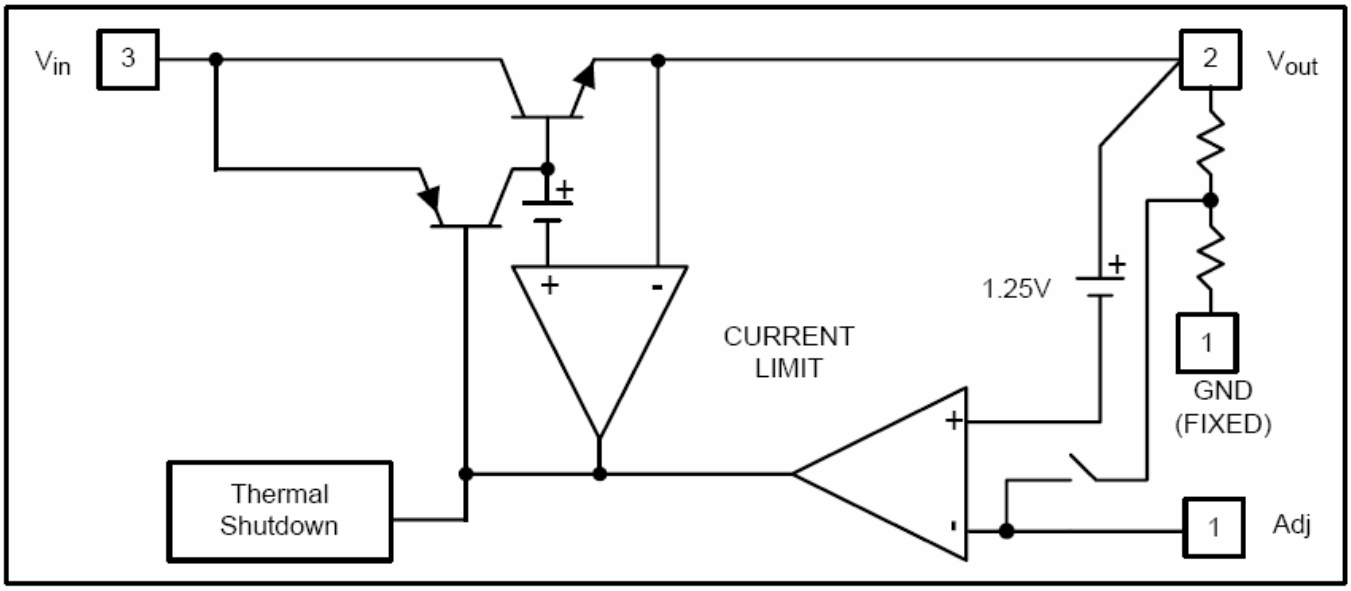
Name	I/O	Pin #	Function
Adj (GND)	I	1	A resistor divider from this pin to the Vout pin and ground sets the output voltage. (Ground only for Fixed-Mode)
Vout	O	2	The output of the regulator. A minimum of 10uF capacitor (0.15Ω ≤ESR ≤20Ω) must be connected from this pin to ground to insure stability.
Vin	I	3	The input pin of regulator. Typically a large storage capacitor (0.15Ω ≤ESR ≤20Ω) is connected from this pin to ground to insure that the input voltage does not sag below the minimum dropout voltage during the load transient response. This pin must always be 1.3V higher than Vout in order for the device to regulate properly.

DC-DC AP1117E18LA (U702)

AP1117 is a low dropout positive adjustable or fixed-mode regulator with 1A output current capability. The product is voltage specifically designed to provide well-regulated supply for low IC applications such as high-speed bus termination and low current 3.3V logic supply.

AP1117 is also well suited for other applications such as VGA cards. AP1117 is guaranteed to have lower than 1.4V dropout at full load current making it ideal to provide well-regulated outputs of 1.25 to 5.0 with 6.4V to 18V input supply. AP1117 is available in both commercial and industrial temperature grade.

Block Diagrm



Pin Descriptions

Name	I/O	Pin #	Function
Adj (GND)	I	1	A resistor divider from this pin to the Voutpin and ground sets the output voltage (Ground only for Fixed-Mode).
Vout	O	2	The output of the regulator. A minimum of 10uF capacitor (0.15Ω ≤ESR ≤20Ω) must be connected from this pin to ground to insure stability.
Vin	I	3	The input pin of regulator. Typically a large storage capacitor (0.15Ω ≤ESR ≤20Ω) is connected from this pin to ground to insure that the input voltage does not sag below the minimum dropout voltage during the load transient response. This pin must always be 1.3V higher than Voutin order for the device to regulate properly.

4.2 Power Board

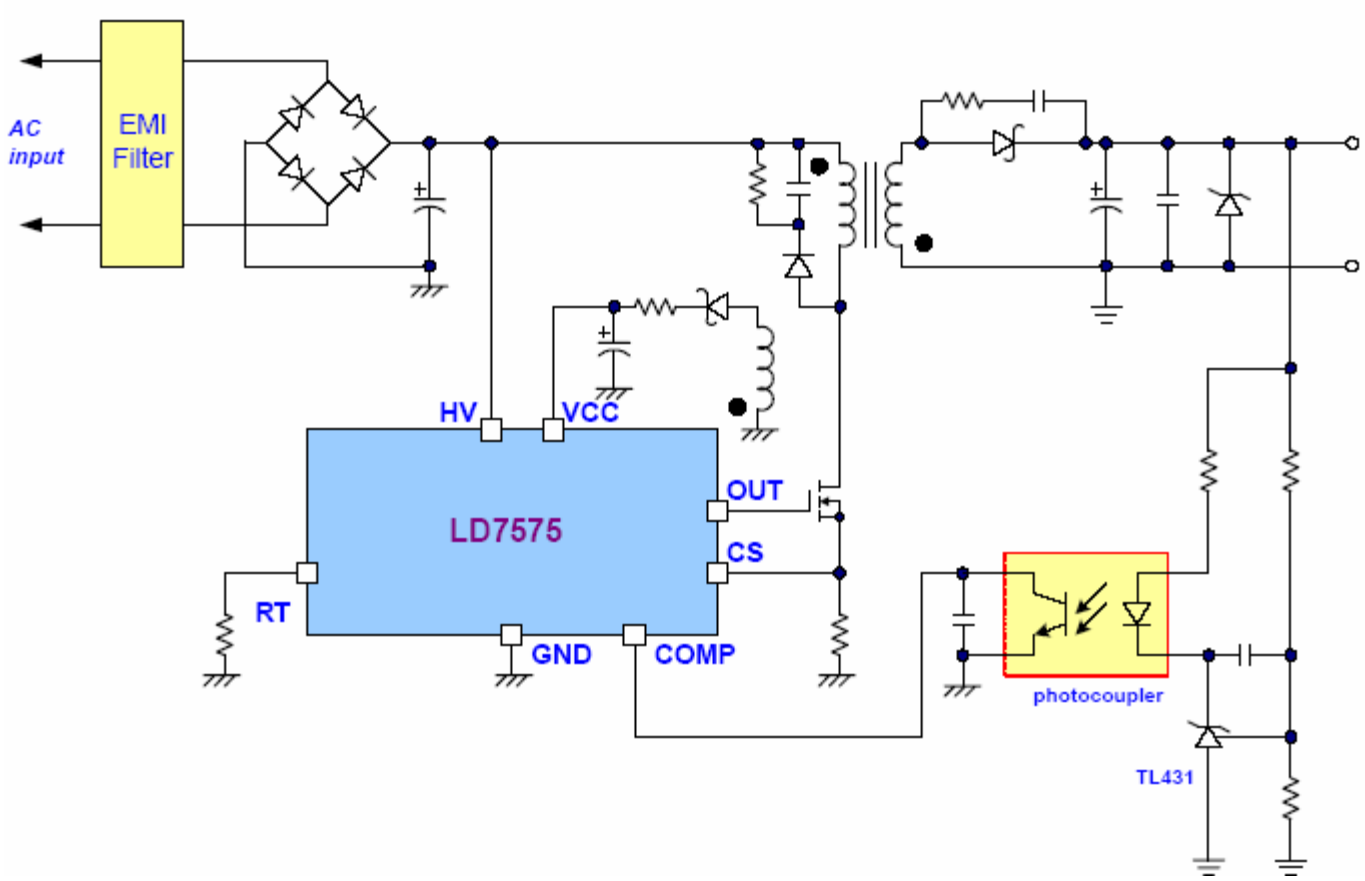
Adapter PWM Controller LD7575PS (IC901)

The LD7575 is a current-mode PWM controller with excellent power-saving operation. It features a high-voltage current source to directly supply the startup current from bulk capacitor and further to provide a lossless startup circuit.

The intergrated functions such as the leading-edge blanking of the current sensing,internal slope compensation,and the small package provide the users a high efficiency minimum external componeng counts,and low cost solution for AC/DC power applicaions.

Furthermore,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 circuir easily. The LD7575 is offered in SOP-8 package.

Typical Applicaion



Pin Configuration

SOP-8 (TOP VIEW)

YY: Year code
WW: Week code
PP: Production code

Pin Descripptions

PIN	NAME	FUNCTION
1	RT	This pin is to program the switching frequency. By connecting 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 terminal 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.

Inverter PWM Controller TL494IDR (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.

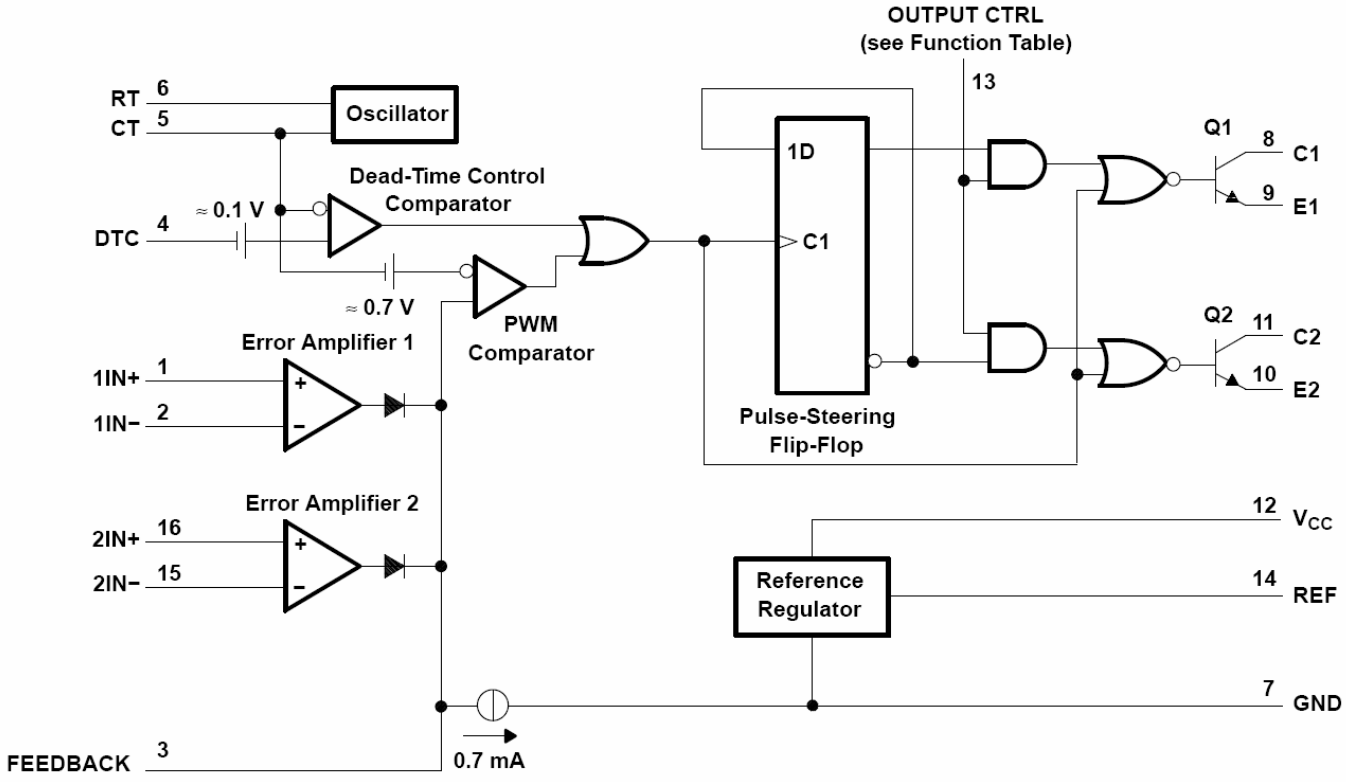
The TL494 contains two error amplifiers, an on-chip adjustable oscillator, a dead-time control (DTC) comparator, a pulse-steering control flip-flop, a 5-V, 5%-precision regulator, and output-control circuits.

The error amplifiers exhibit a common-mode voltage range from –0.3 V to V_{CC} – 2 V. The dead-time control comparator has a fixed offset that provides approximately 5% dead time. The on-chip oscillator can be bypassed by terminating RT to the reference output and providing a sawtooth input to CT, or it can drive the common circuits in synchronous multiple-rail power supplies.

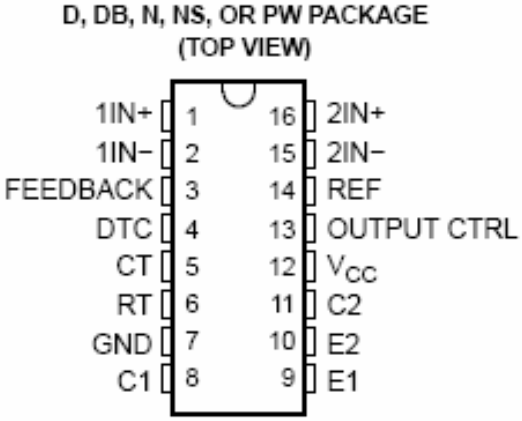
The uncommitted output transistors provide either common-emitter or emitter-follower output capability. The TL494 provides for push-pull or single-ended output operation, which can be selected through the output-control function. The architecture of this device prohibits the possibility of either output being pulsed twice during push-pull operation.

The TL494C is characterized for operation from 0°C to 70°C. The TL494I is characterized for operation from –40°C to 85°C.

Block Diagram



Pin Configuration



5. Adjustment Procedure

Setting the Timing Mode

Setting the timing mode is important for maximizing the quality of the screen image and minimizing eye strain. The **timing mode** consists of the **resolution** (example 1280 x 1024) and **refresh rate** (or vertical frequency; example 60 Hz). After setting the timing mode, use the OSD (On-screen Display) controls to adjust the screen image.

For the best picture quality set your LCD display timing mode to:

VESA 1280 x 1024 @ 60Hz.

To set the Timing Mode:

1. Set the resolution: Right-click on the Windows desktop > Properties > Settings > set the resolution.

2. Set the refresh rate: See your graphic card's user guide for instructions.

WARNING: Do not set the graphics card in your computer to exceed the maximum refresh rate of 75Hz; doing so may result in permanent damage to your LCD display.

OSD and Power Lock Settings

•**OSD Lock:** Press and hold [1] and the up arrow ▲ for 10 seconds. If any buttons are pressed the message *OSD Locked* will display for 5 seconds.

• **OSD Unlock:** Press and hold [1] and the up arrow ▲ again for 10 seconds.

• **Power Button Lock:** Press and hold [1] and the down arrow ▼ for 10 seconds. If the power button is pressed the message *Power Button Locked* will display for 5 seconds. With or without this setting, after a power failure, your LCD display's power will automatically turn ON when power is restored.

• **Power Button Unlock:** Press and hold [1] and the down arrow ▼ again for 10 seconds.

5.1 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-C7120 **MEM. Channel 3 to 9300K**;

MEM.Channel 4 to 6500K; MEM.Channel 9 to 5400K; MEM.Channel 10 to SRGB.

9300K parameter is x=283±30, y=297±30;Y>=180 cd/m^2.

6500K parameter is x =313±30, y=329±30;Y>=230 cd/m^2.

5400K parameter is x = 335 ±30, y =350±30;Y>=230cd/m^2.

SRGB parameter is x=313±30, y=329±30;Y>=230 cd/m^2.

How to setting MEM channel you can reference to Minolta-CA210 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 Burn in mode:

AC ON the monitor with no signal ,and press "power" button to DC OFF the monitor, then press"1" and "power" button at the same time to enter to **Burn/in mode**;

Enter into the factory mode:

AC ON the monitor **with signal connected,** and press “power” button to DC OFF the monitor, then press”1” and “power” button at the same time to enter **factory mode**;

Gain adjustment:

Move cursor to “Factory” and press “2” key.

Move cursor to “ Auto Level” and press “2” key to adjust Gain and Offset automatically;

(notice：this monitor do auto level must in T144(1280X1024@60Hz) P48(32 Grays))

a. Adjust 9300K color-temperature:

1. Switch the Chroma-C7120 to **RGB-mode** (with press “MODE” button)

2. Switch the MEM.channel to Channel 3 (with up or down arrow on Chroma-C7120)

3.The LCD-indicator on Minolta-CA210 will show x = 283 ±30, y = 297±30,Y>=180 cd/m^2.

b. Adjust 6500K color-temperature:

1. Switch the Chroma-C7120 to **RGB-mode** (with press “MODE” button)

2. Switch the MEM.channel to Channel 4 (with up or down arrow on Chroma-C7120)

3. The LCD-indicator on Minolta-CA210 will show x = 313 ±30, y = 329 ±30,Y>=230 cd/m^2.

c. Adjust 5400K color-temperature:

1. Switch the Chroma-C71200 to **RGB-mode** (with press “MODE” button)

2. Switch the MEM.channel to Channel 9 (with up or down arrow on Chroma-C7120)

3.The LCD-indicator on Minolta-CA210 will show x = 335 ±30, y =350±30, Y>=230cd/m^2.

d. Adjust SRGB color-temperature:

1. Switch the Chroma-C7120 to **RGB-mode** (with press “MODE” button)

2. Switch the MEM.channel to Channel 10 (with up or down arrow on Chroma-C7120)

3.The LCD-indicator on Minolta-CA210 will show x = 313 ±30, y = 329 ±30;Y>=230 cd/m^2.

Press “1” key to save adjust value and exit .

Turn the POWER-button off to on to quit from factory mode,and reset the monitor.

5.2 Firmware Upgrade Procedure

5.2.1 Equipment and Kit Requirment

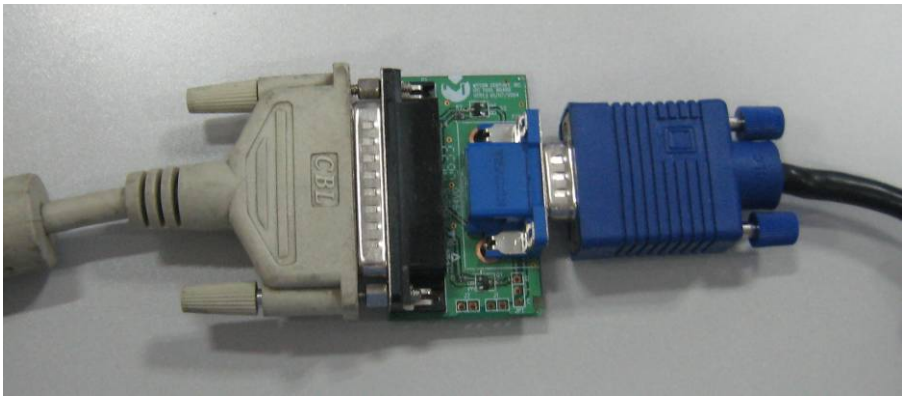
1) An i486 (or above) personal computer or compatible.
2) Microsoft operation system Windows 95/98/2000/XP.
3) “ISP_Tool V4.4.2.7” program(or other version)
4) Software ISP SN Alignment kits

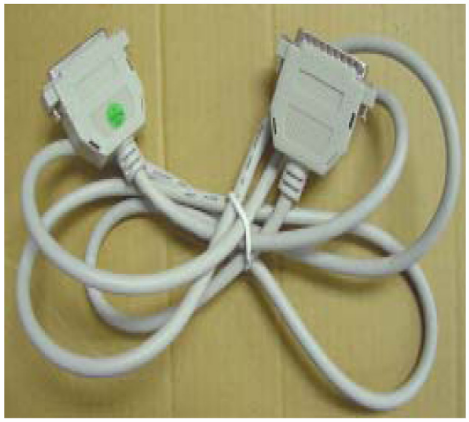
The kit contents:

a) ISP BOARD x1
b) LPT cablex1
c) VGA CABLE X1

VA703 series

ISP Board





LPT Cable

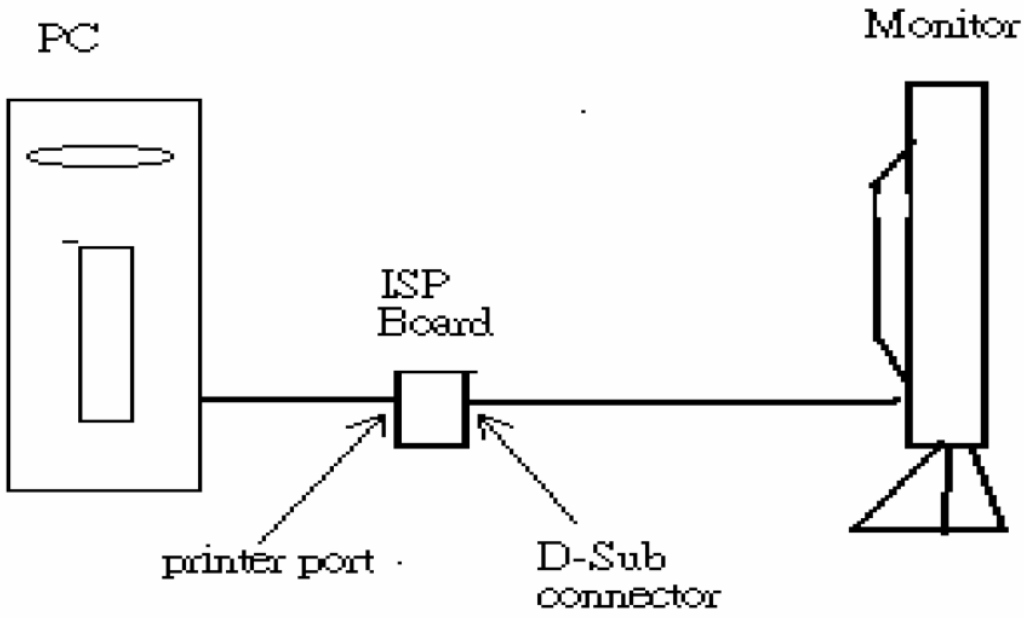
VGA Cable

Hardware Connect status

a Connect ISP_Tool with PC by LPT Cable.

b Connect Power Cord to Monitor.

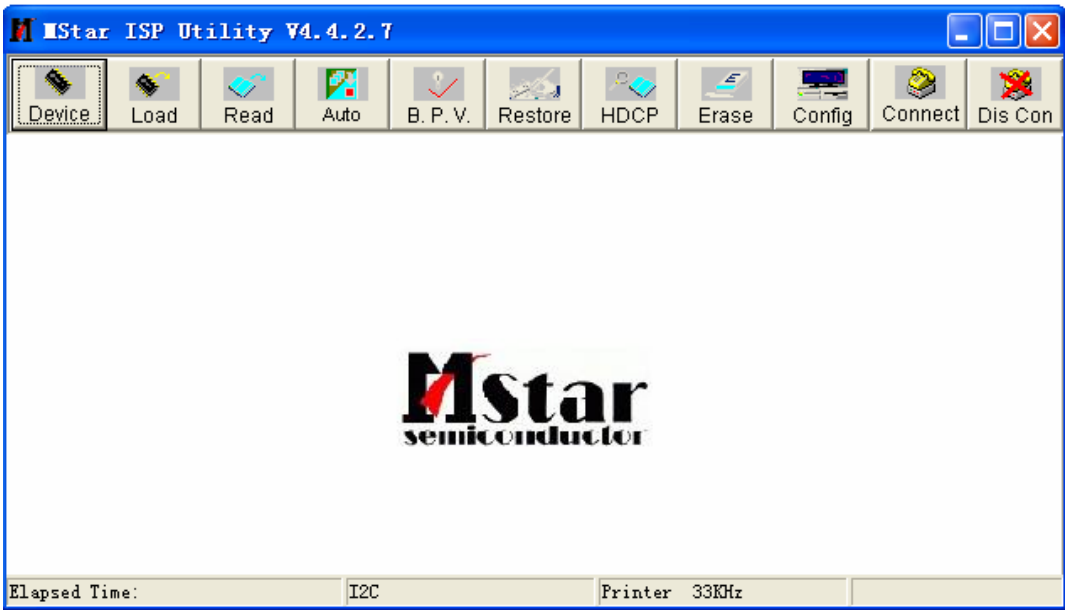
c Connect monitor to the ISP_Tool by VGA cable.



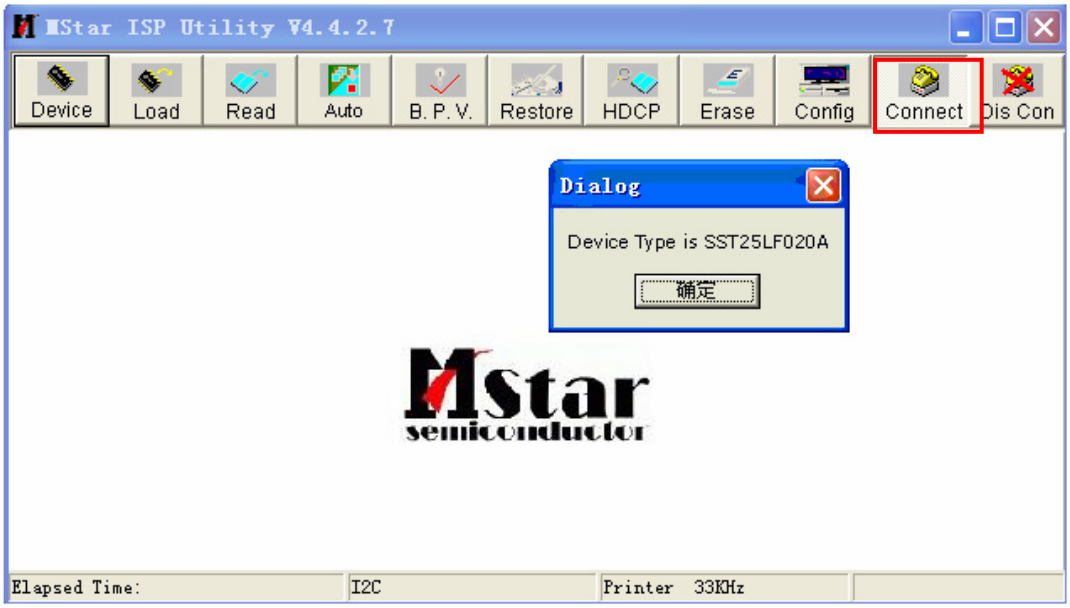
5.2.2 The process of ISP write is as follows

a. Double-click 

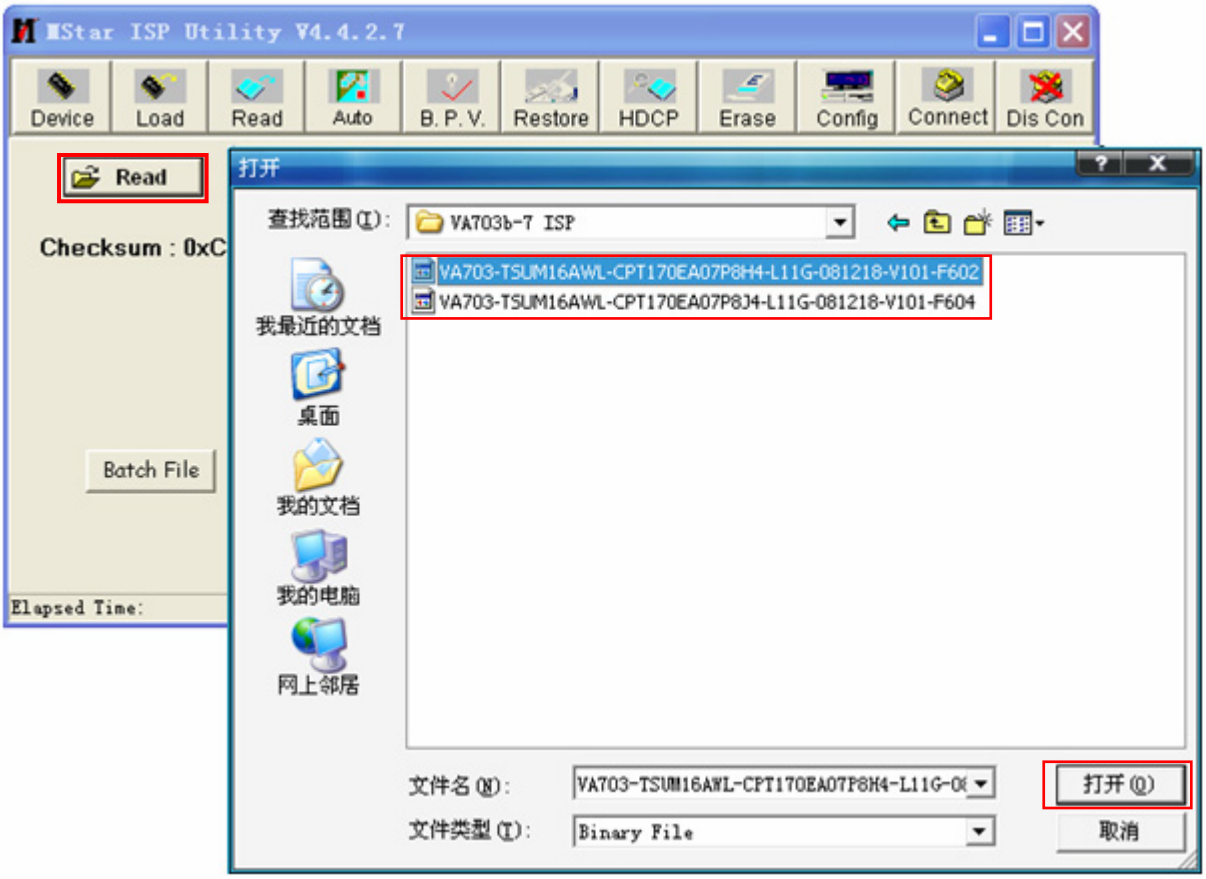
,running the program as follows:



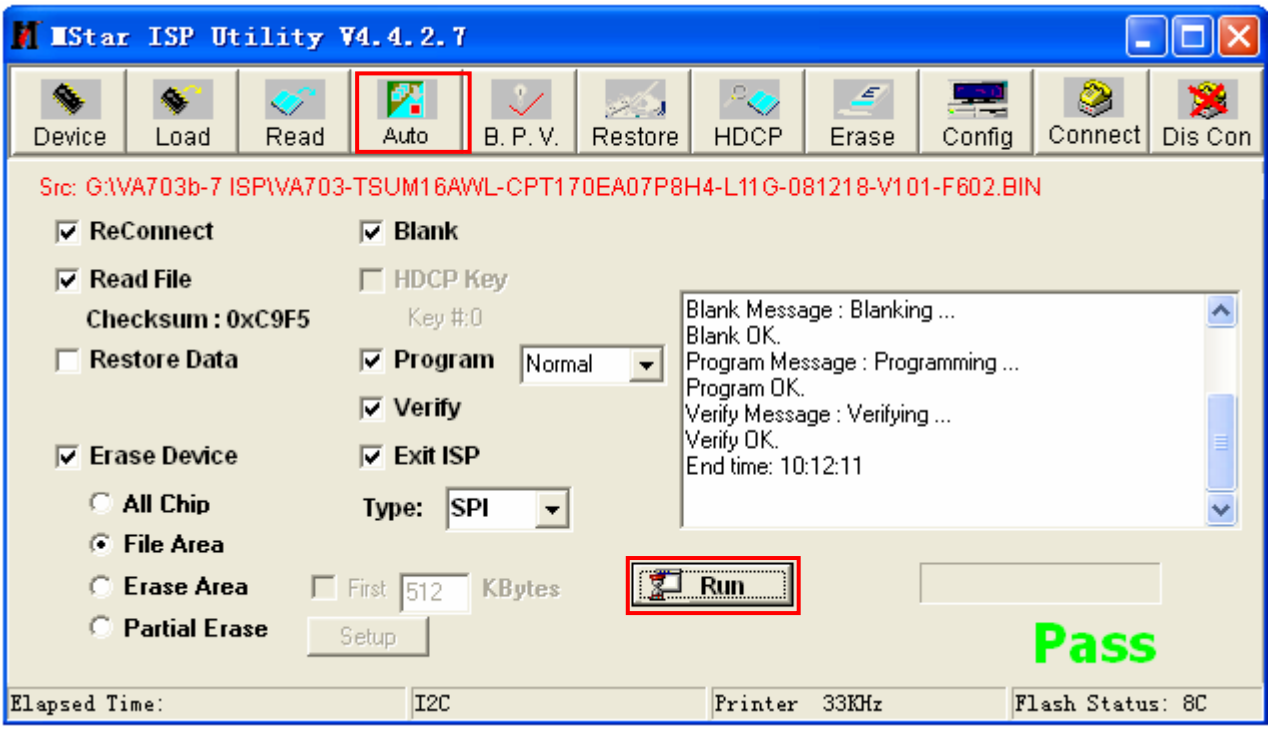
b. Press the “Connect” button to connect ISP Mode, if connects success, it will show as the follow picture:



c. Click the “Read” item, and then load the correct firmware, it will show as follow picture:



d. Click “Auto” item, and then click”Run”, it will auto run. If it burn in success, it will show as the follow picture:



5.3 DDC Key in Procedure

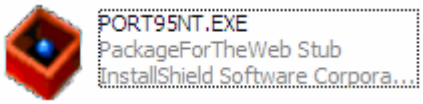
Note:

1. Every time after replacing the main board, you have to do the DDC key in.
2. If you find the DDC does not conform to the LCD monitor, you have to do the DDC key in.

5.3.1 Equipment and Kit Requirment

- VA703 series
- PC (Personal computer)
- DDC board
- Firmware upgrade program
- 12V DC
- VGA Cable
- LPT cable

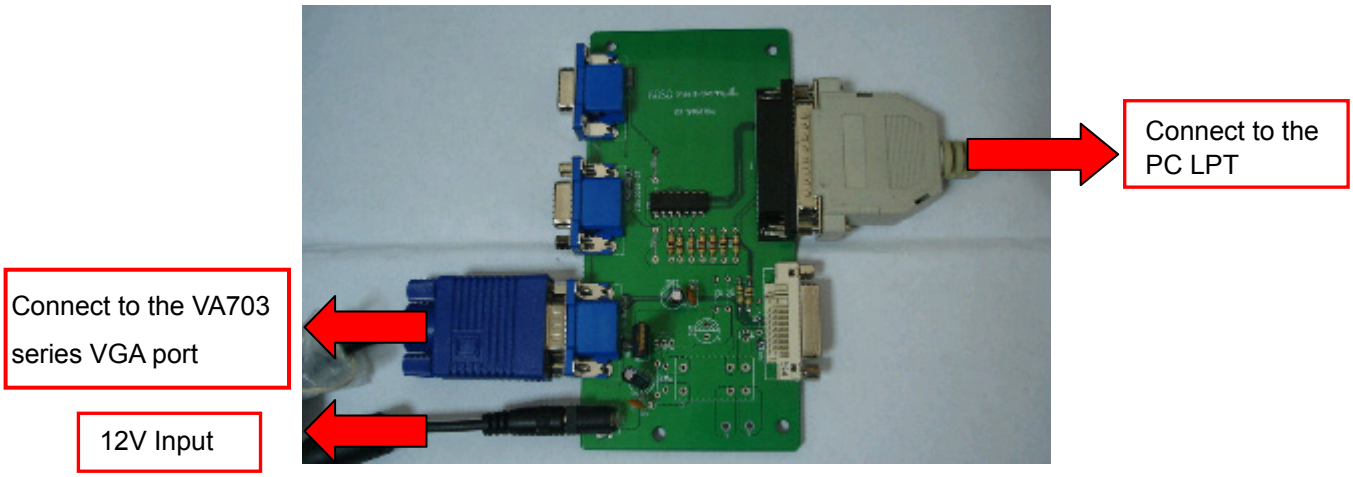
5.3.2 Software Installation

You must install the 

firstly.

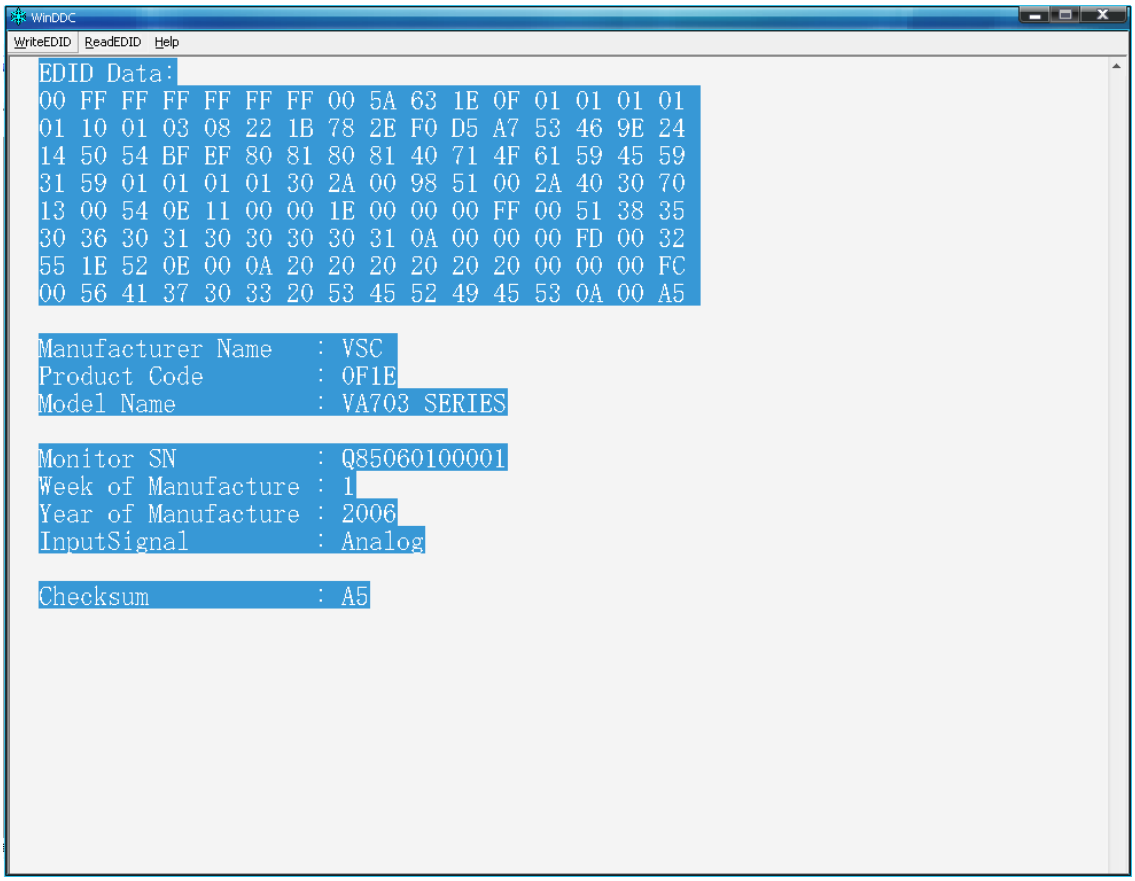
Note: After installation, you must restart the PC to take the setup to effect.

5.3.3 Connect the DDC board



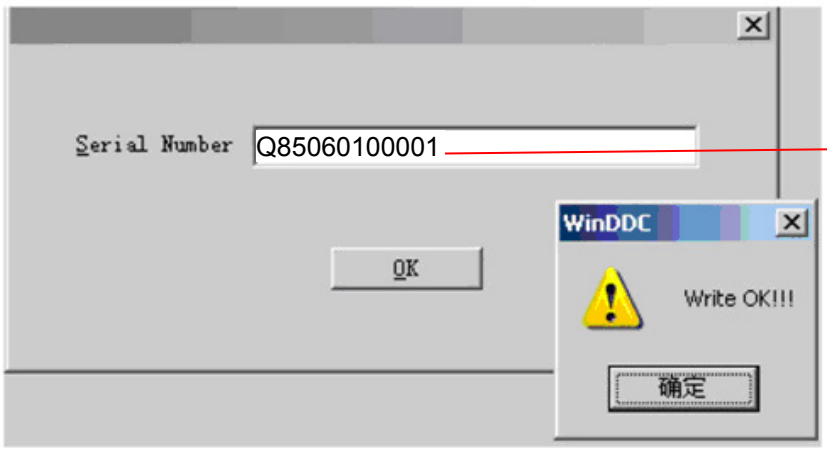
For analog:

a. Double-click WinDDC.exe, appear as follow Figs:



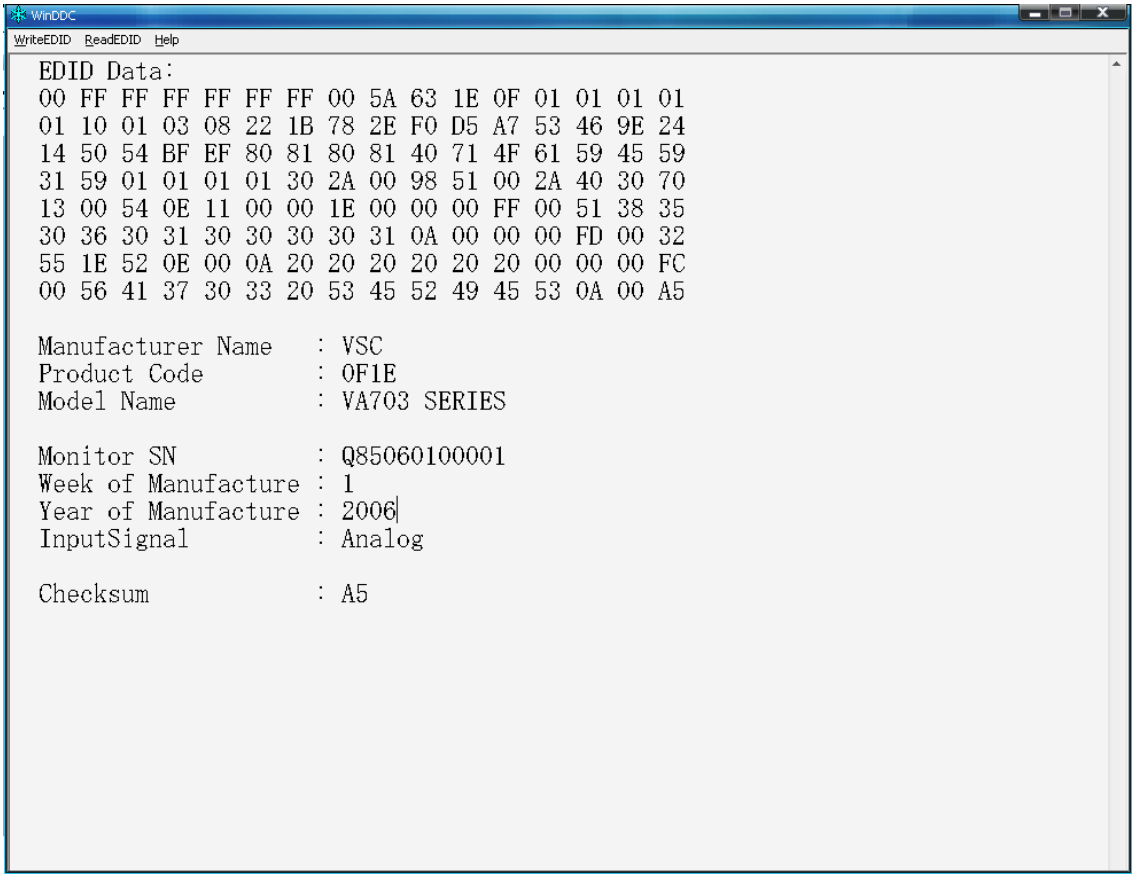
b. Click WriteEDID on the top left conner of the WinDDC.

c. Key in the Serial Number printed on the barcode label, then click “OK”

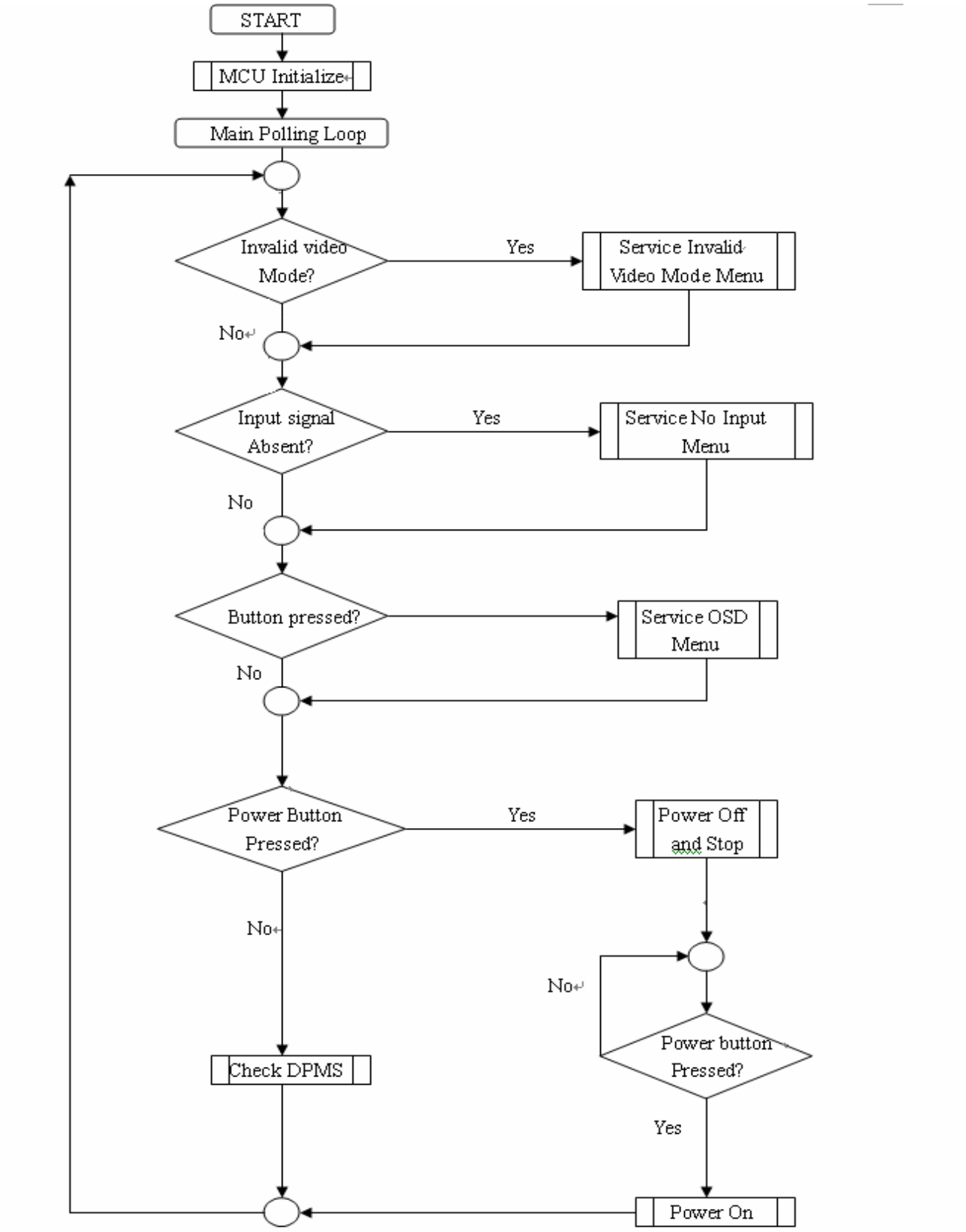


12 codes, for example.

d. Unit appears the following Fig, writer completed.

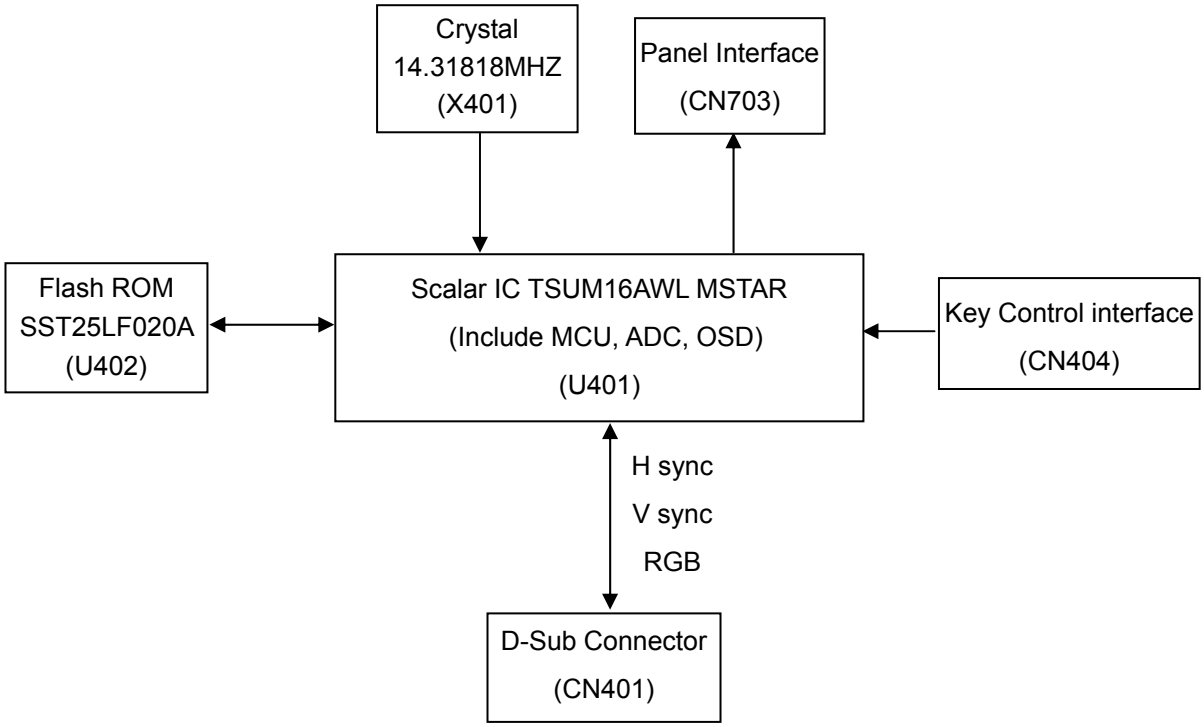


6. Troubleshooting Flow Chart

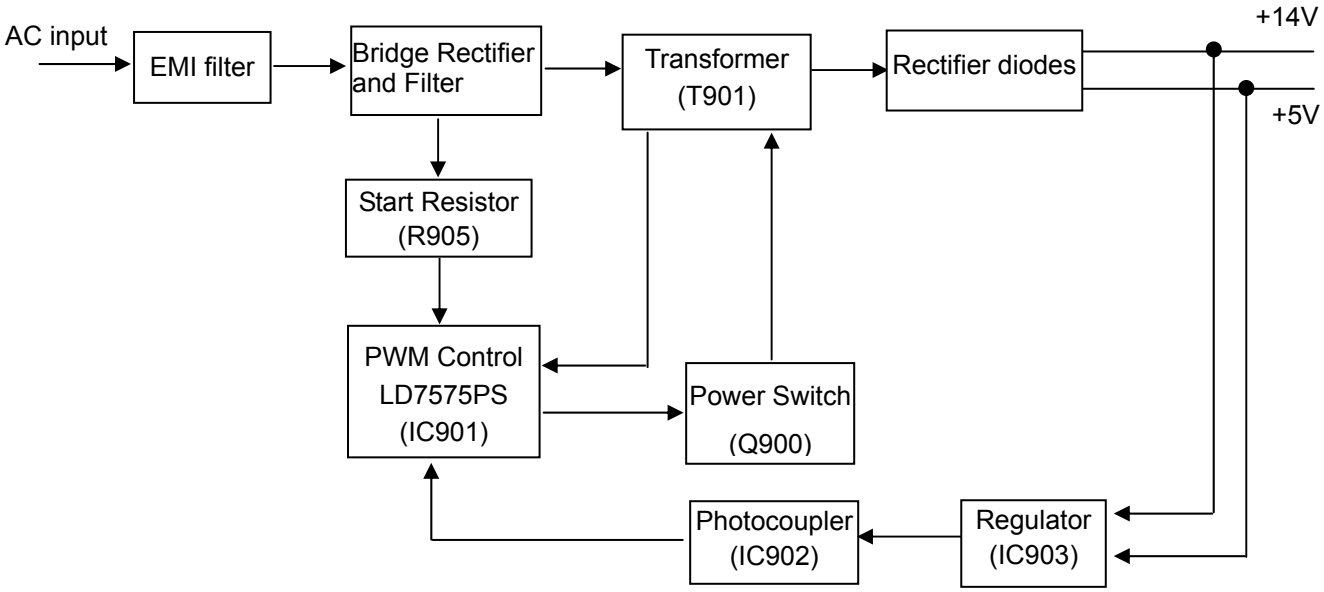


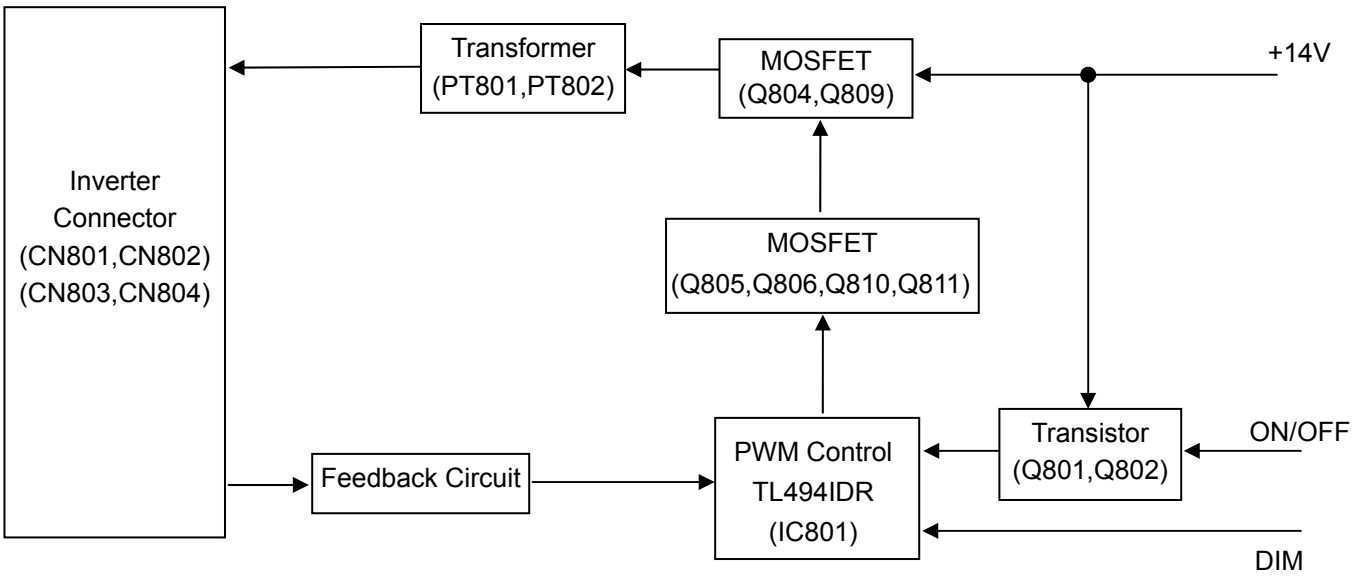
7. Block Diagrams

7.1 Main Board



7.2 Power Board

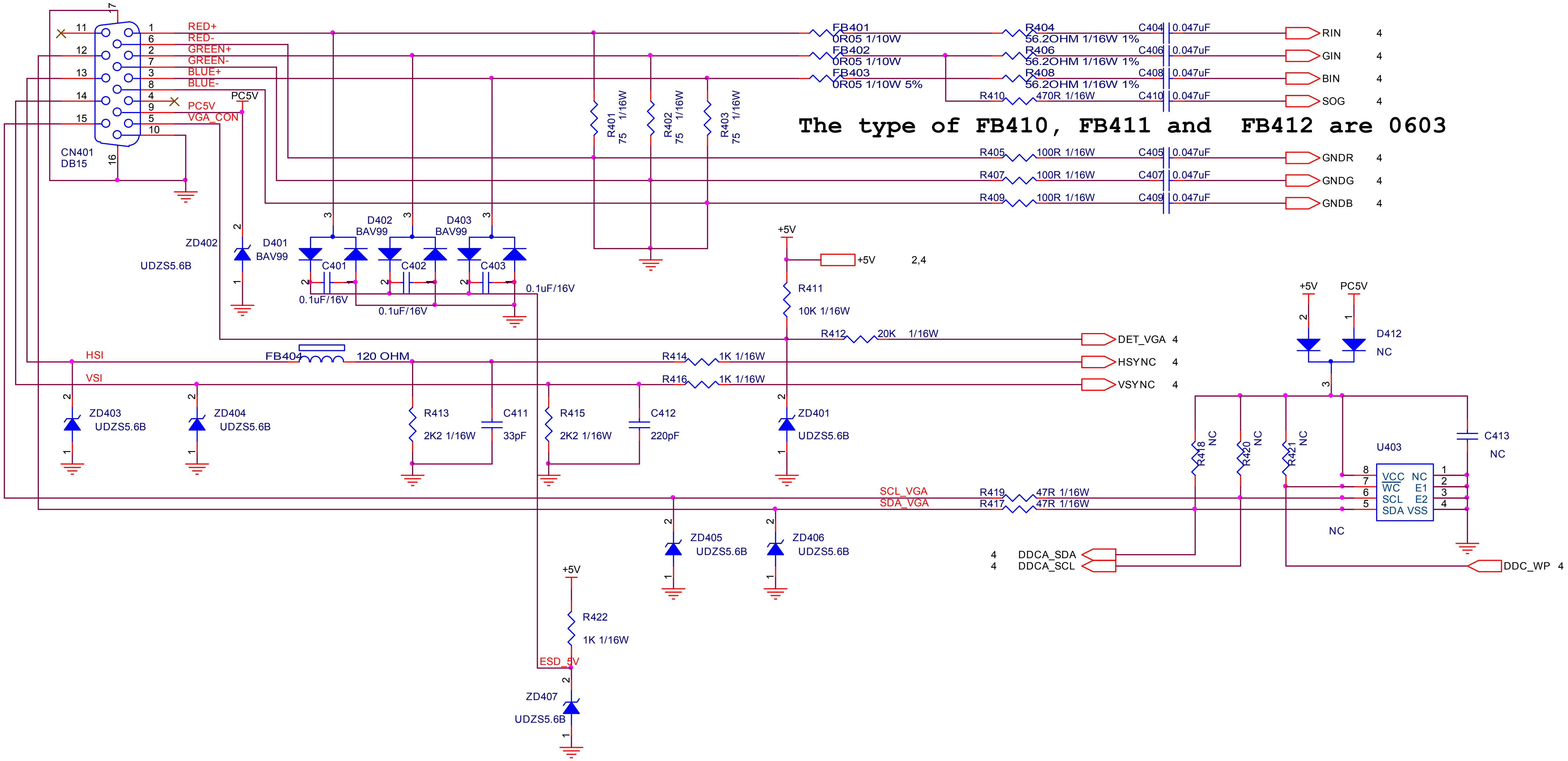




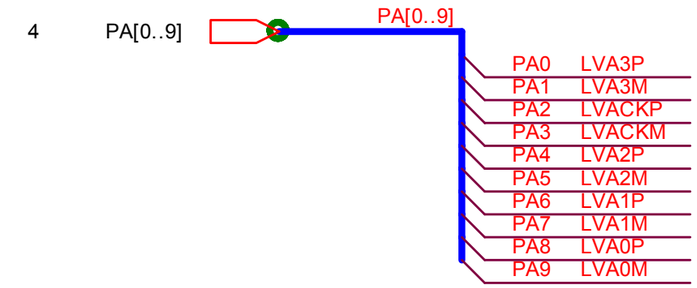
8. Schematic Diagrams

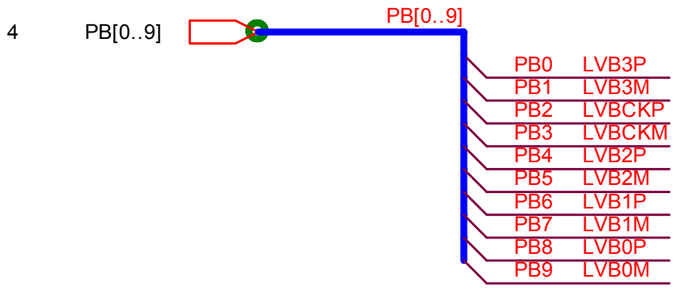
8.1 Main Board

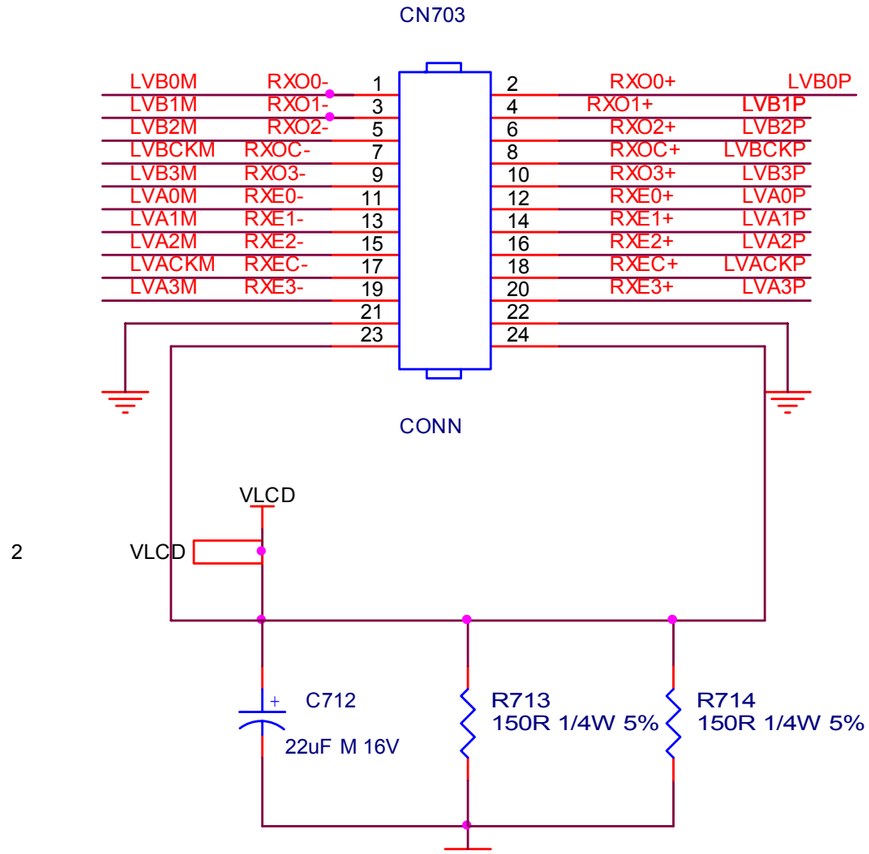
715G2467 1



TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	VSC VA703b	Size	B
結 構 瓜 細 腹	G2467-1-X-X-1-090409	TPV MODEL	CBPCRMEVWQ1	Rev	D
Key Component	2.INPUT	PCB NAME	715G2467 -1	称爹	
Date	Thursday, April 09, 2009	Sheet	2 of 5		

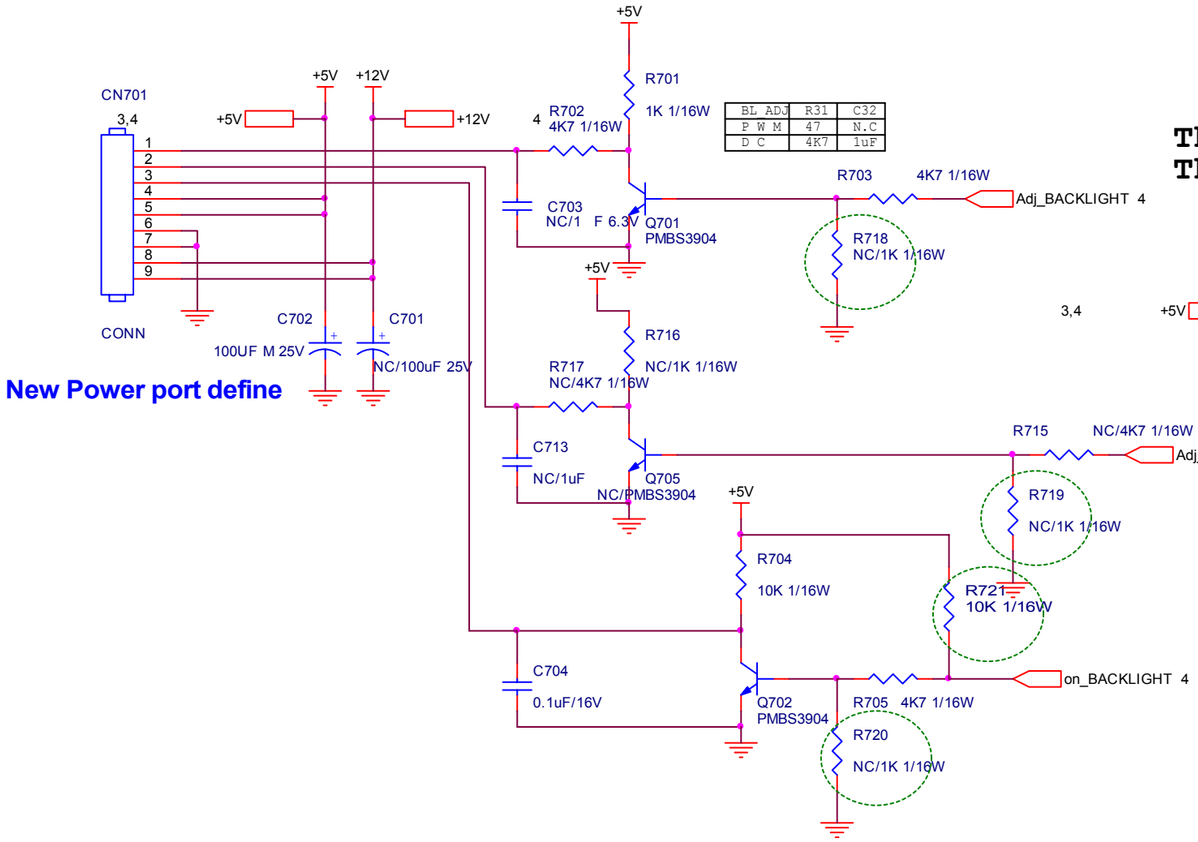




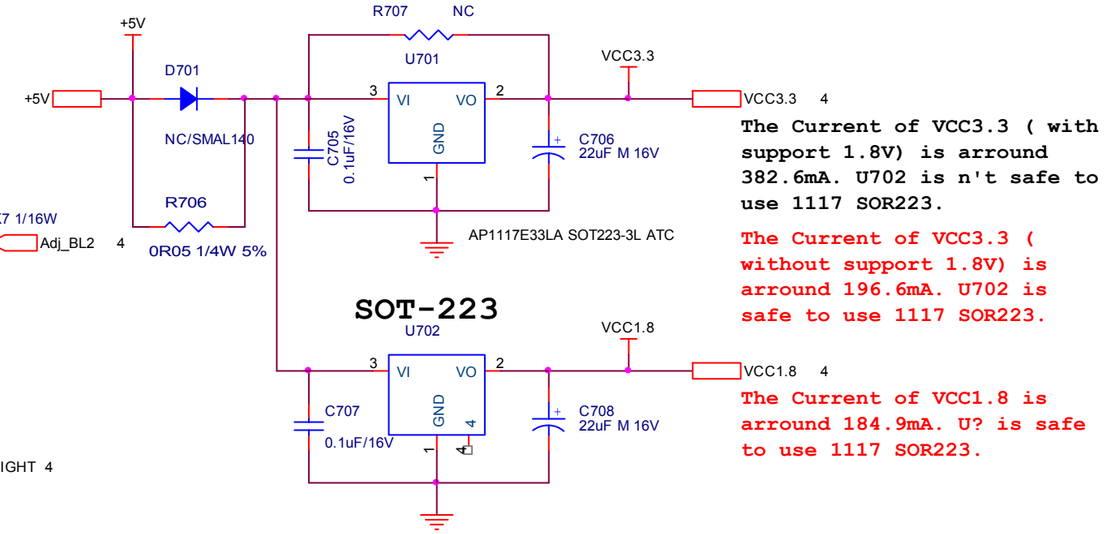


The type of R713 & R714 is 1206

T P V （Top Victory Electronics Co . , Ltd. ）		OEM MODEL	VSC VA703b	Size	A
結 隔 瓜 綑 腹	G2467-1-X-X-1-090409	TPV MODEL	CBPCRMEVWQ1	Rev	D
Key Component	3.PANEL INTREFACE	PCB NAME	715G2467 -1	称爹	
Date	Thursday , April 09, 2009	Sheet	3 of 5		



The type of R707 and R706 are 1206
The type of R713 and R714 are 1206



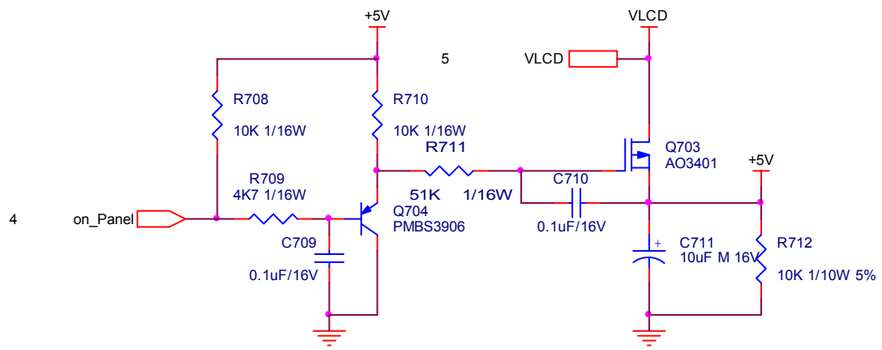
The Current of VCC3.3 (with support 1.8V) is arround 382.6mA. U702 is n't safe to use 1117 SOR223.

The Current of VCC3.3 (without support 1.8V) is arround 196.6mA. U702 is safe to use 1117 SOR223.

The Current of VCC1.8 is arround 184.9mA. U? is safe to use 1117 SOR223.

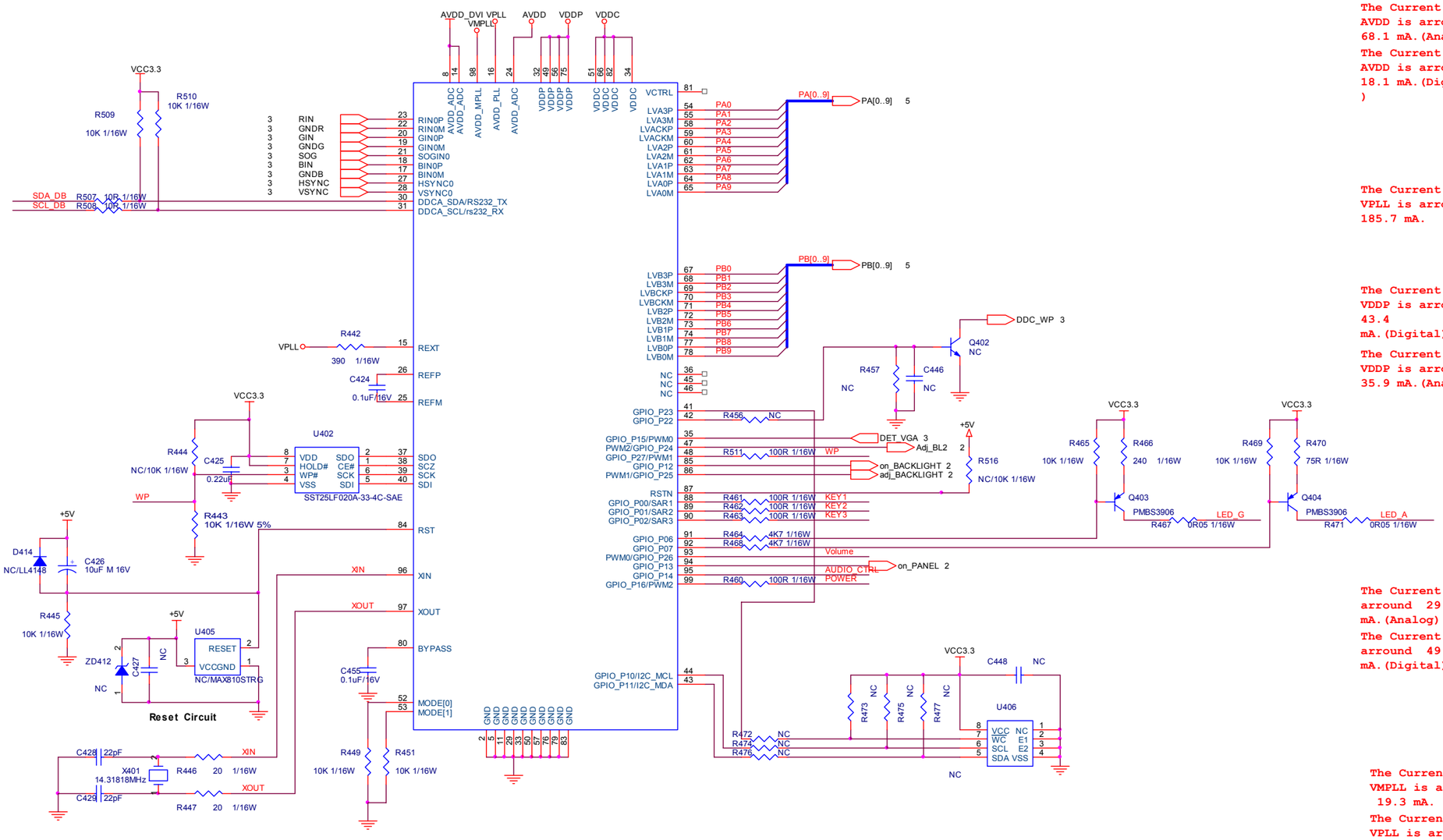
For 15", Power Board will support +3.3V.
And D701, C707, U701, C705, C709 should replace to R713 and R714.

	D701	C707	U701	C705	R713	R714
For 15"	SMAL140	0.1uF	LD1117S33 SOT-223	100uF/25V	X	X
Over 15"	X	X	X	X	0	0

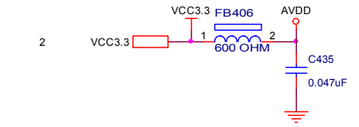


The type of R709 ,R712 ARE 0603

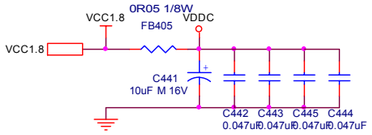
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	VSC VA703b	Size B
結隔瓜絹腹 G2467-1-X-X-1-090409	TPV MODEL	CBPCRMEVWQ1	Rev D
Key Component 4.POWER	PCB NAME	715G2467 -1	称爹
Date Thursday, April 09, 2009	Sheet	4 of 5	



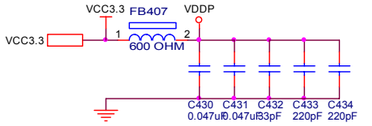
The Current of AVDD is arround 68.1 mA.(Analog)
The Current of AVDD is arround 18.1 mA.(Digital)



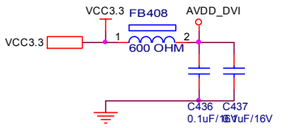
The Current of VPLL is arround 185.7 mA.



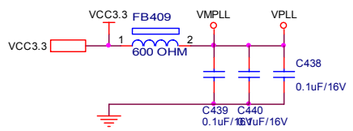
The Current of VDDP is arround 43.4 mA.(Digital)
The Current of VDDP is arround 35.9 mA.(Analog)



The Current of VDVI is arround 29.8 mA.(Analog)
The Current of VDVI is arround 49.0 mA.(Digital)



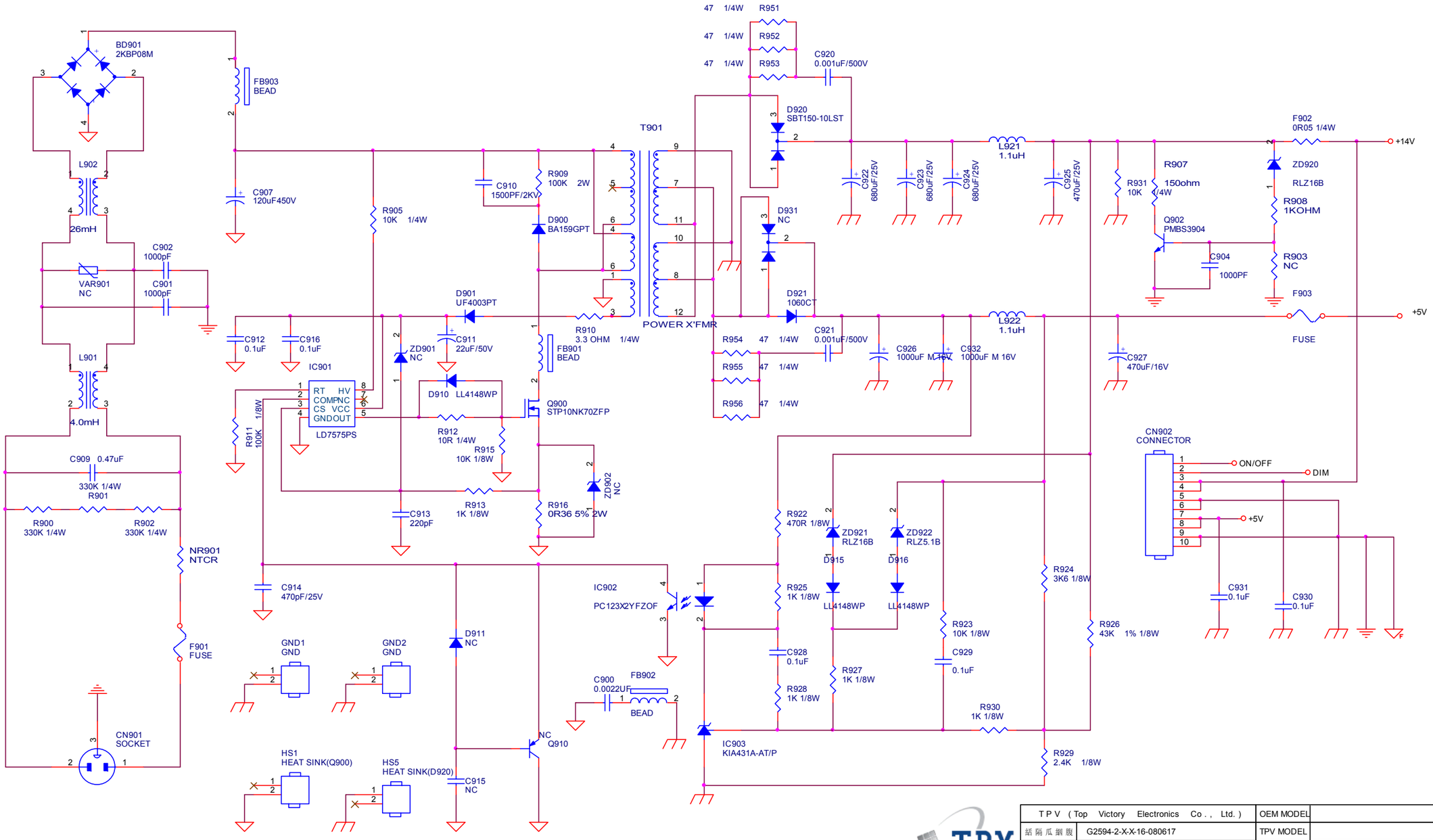
The Current of VMPLL is arround 19.3 mA.
The Current of VPLL is arround 28.3 mA.



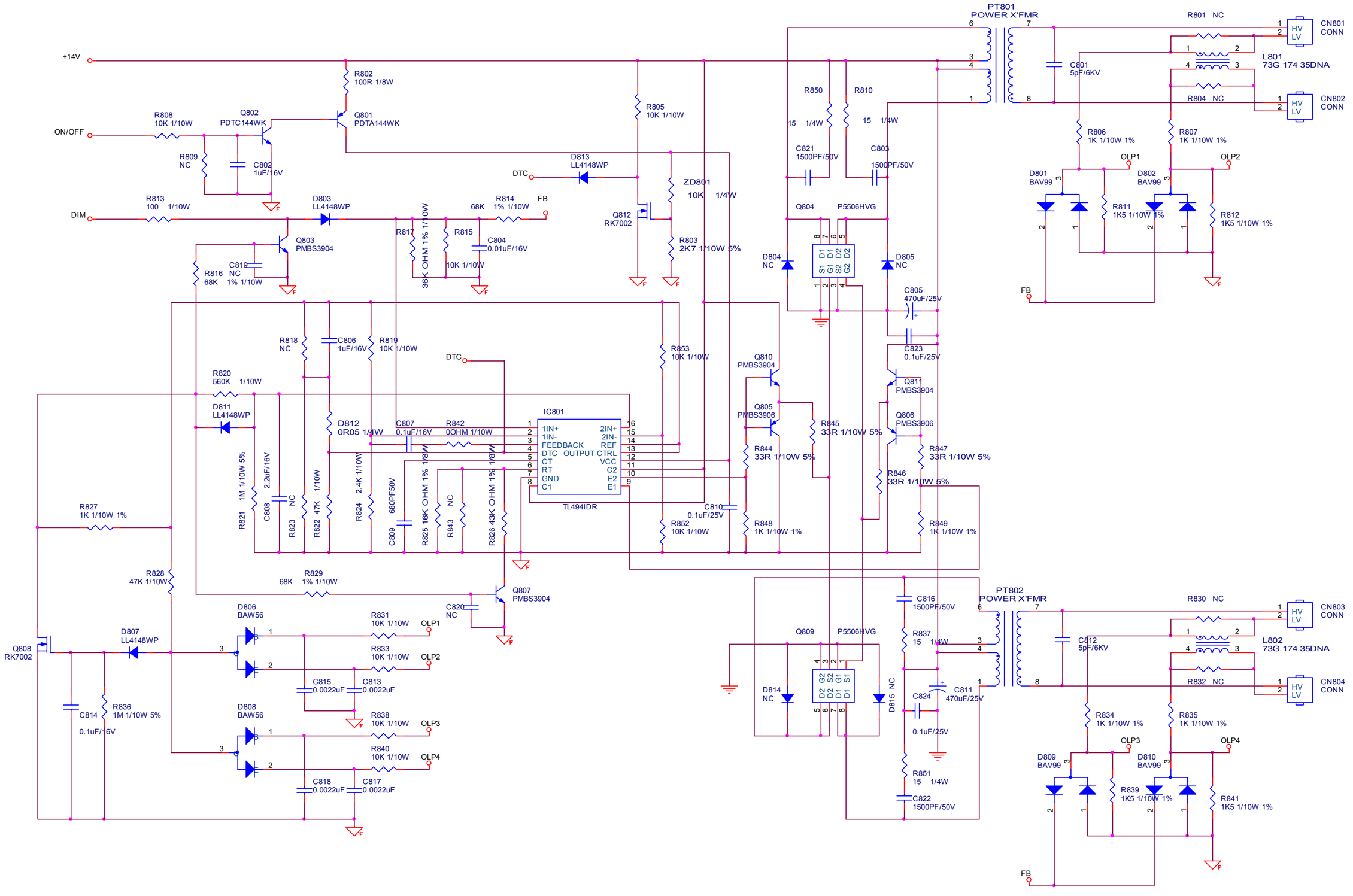
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	VSC VA703b	Size	C
結爾瓜細胞	G2467-1-X-X-1-090409	TPV MODEL	CBPCRMEVWQ1	Rev	D
Key Component	5.SCALER	PCB NAME	715G2467 -1	称爹	
Date	Thursday, April 09, 2009	Sheet	5 of 5		

8.2 Power Board

715G2594 2



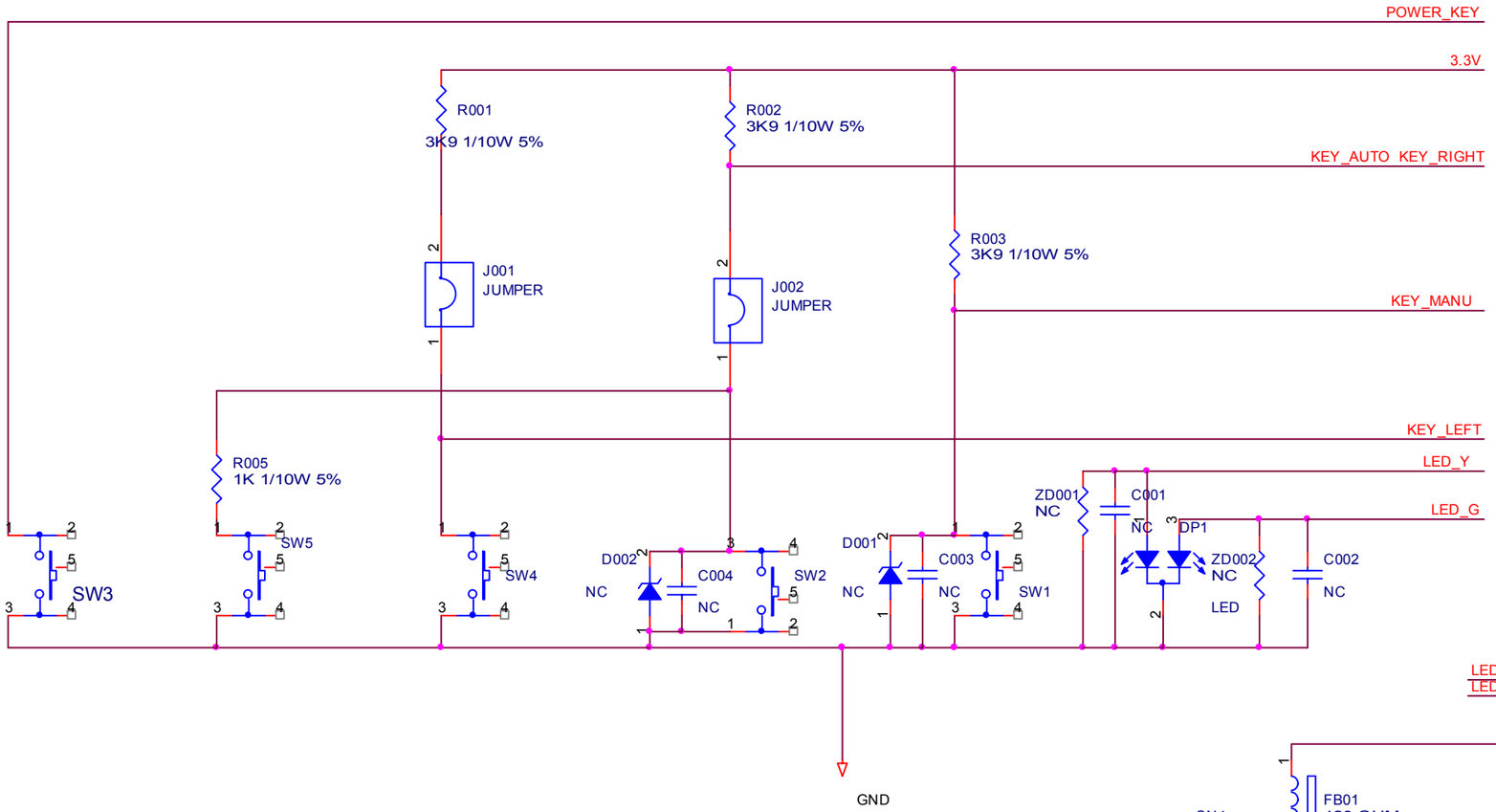
T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	Custom
結 隔 瓜 網 腹	G2594-2-X-X-16-080617	TPV MODEL		Rev	2
Key Component	02.POWER	PCB NAME	715G2594 2	称 爹	
Date	Wednesday, July 16, 2008	Sheet	1 of 3		

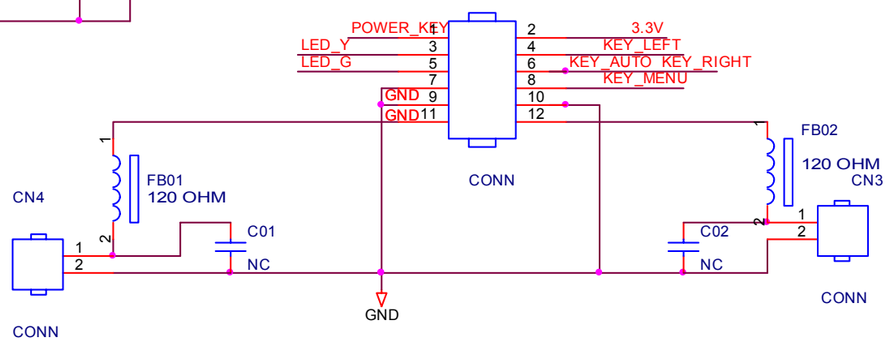


T P V （Top Victory Electronics Co., Ltd.）		OEM MODEL		Size	A3
紙隔瓜網腹	G2594-2-X-X-16-080617	TPV MODEL		Rev	2
Key Component	02.INVERTER	PCB NAME	715G2594_2	称爹	
Date	Wednesday, July 16, 2008	Sheet	2 of 2		

8.3 Key Board

715G1898 1 2



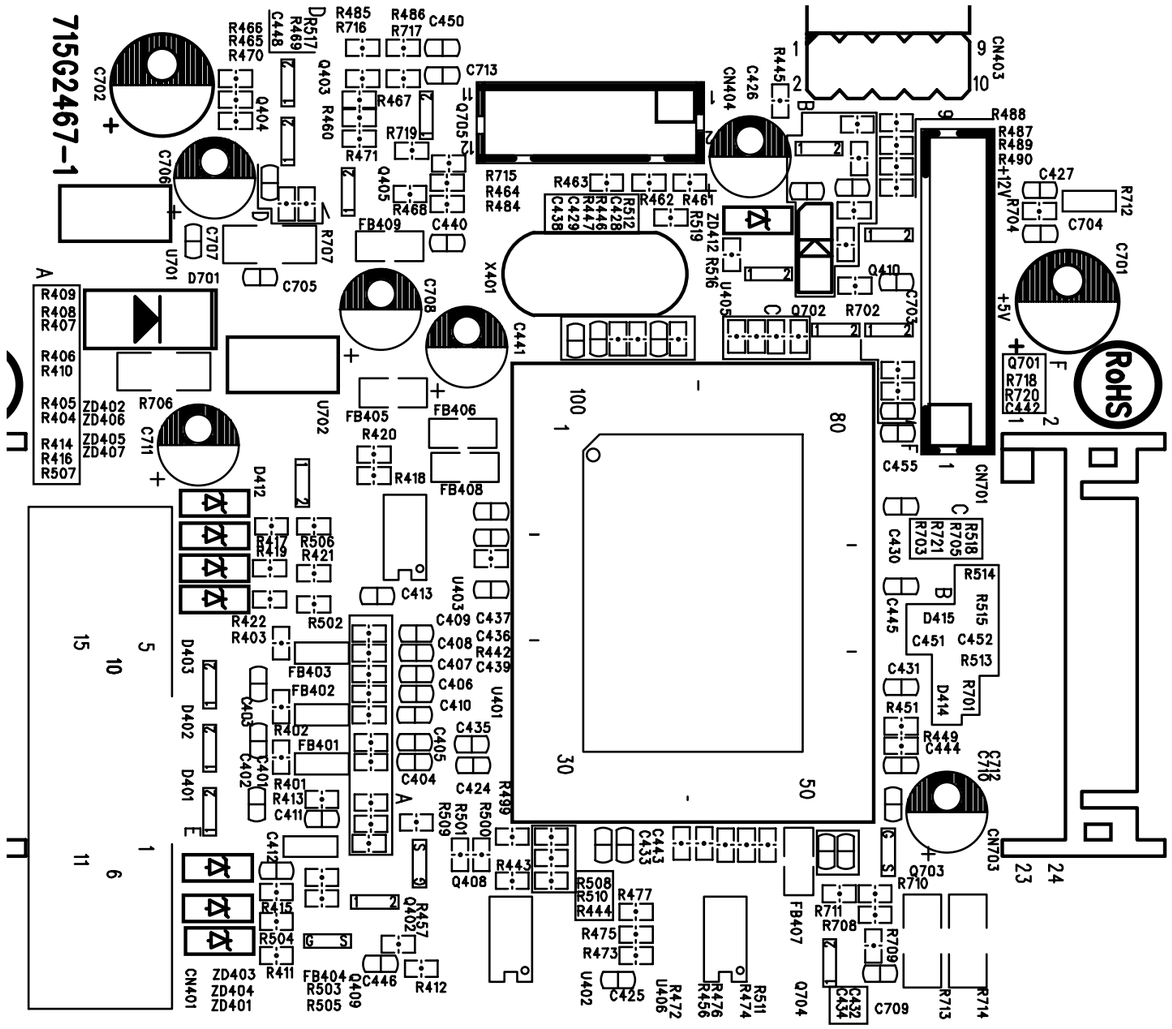


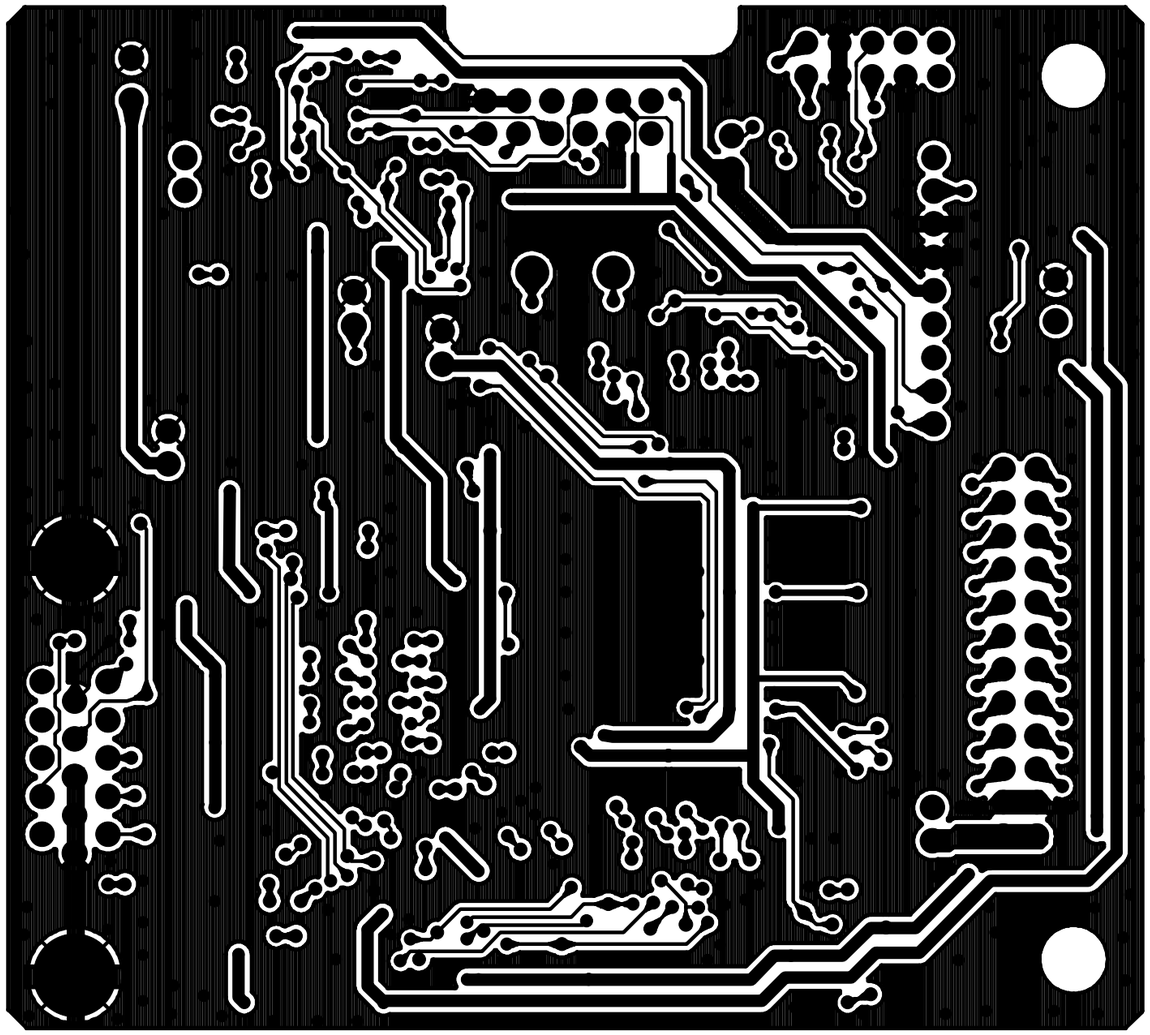
T P V （Top Victory Electronics Co . , Ltd. ）		OEM MODEL	VA703mb	Size	B
結 隔 瓜 綑 腹	G1898-1-2-X-2-081205	TPV MODEL		Rev	1.0
Key Component	key board	PCB NAME	715G1898-1-2	称 爹	<称爹>
Date	Thursday, November 20, 2008	Sheet	1 of 2		

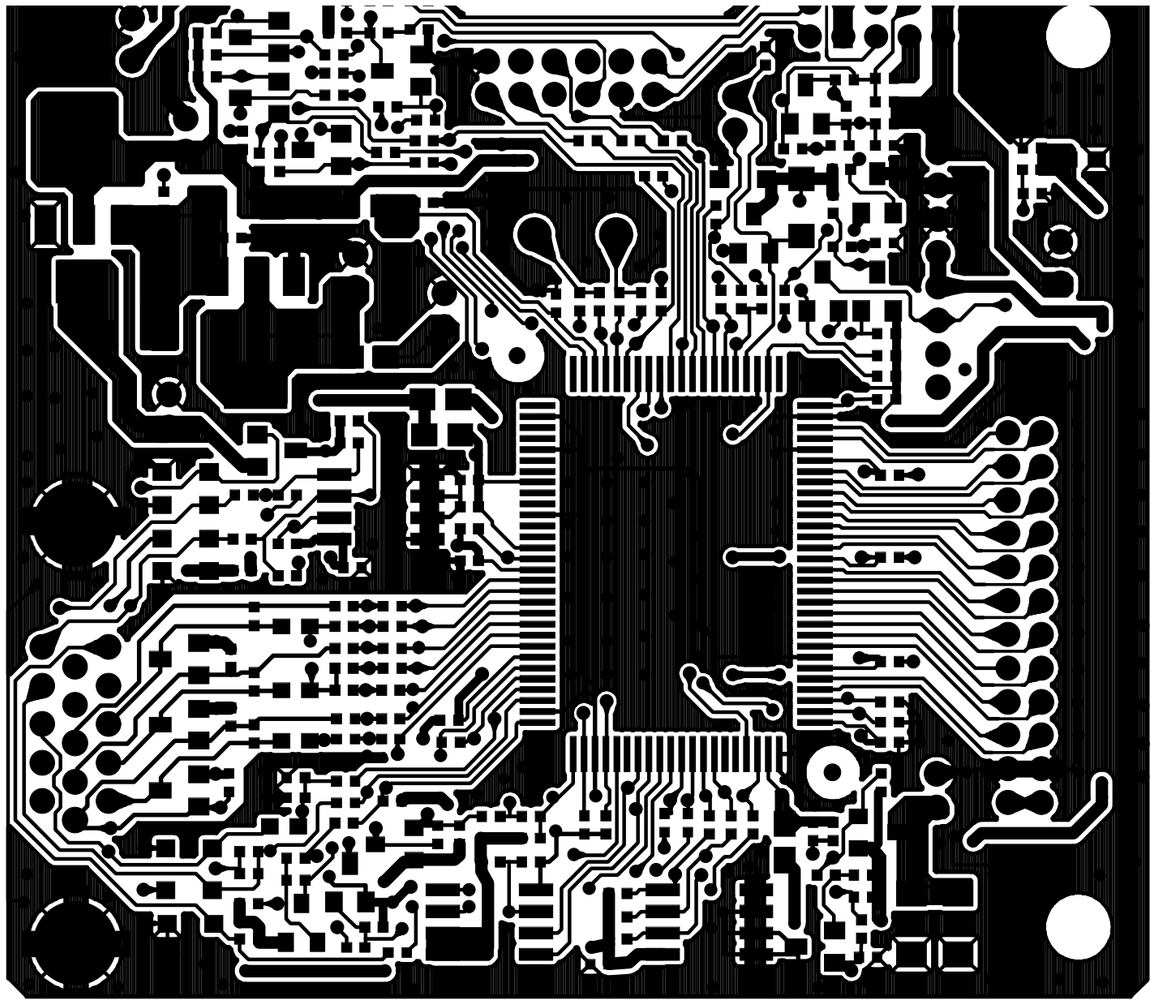
9. PCB Layout Diagrams

9.1 Main Board

715G2467 1

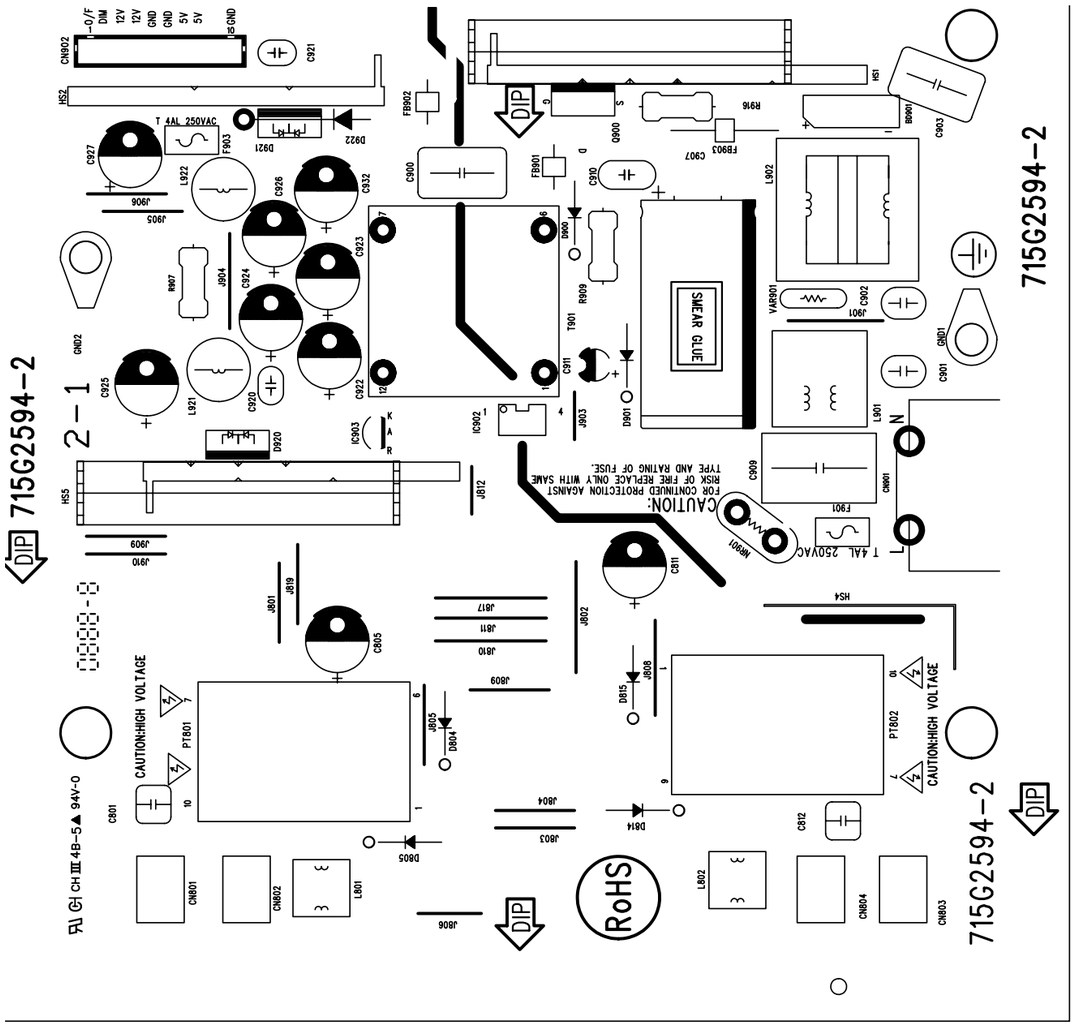


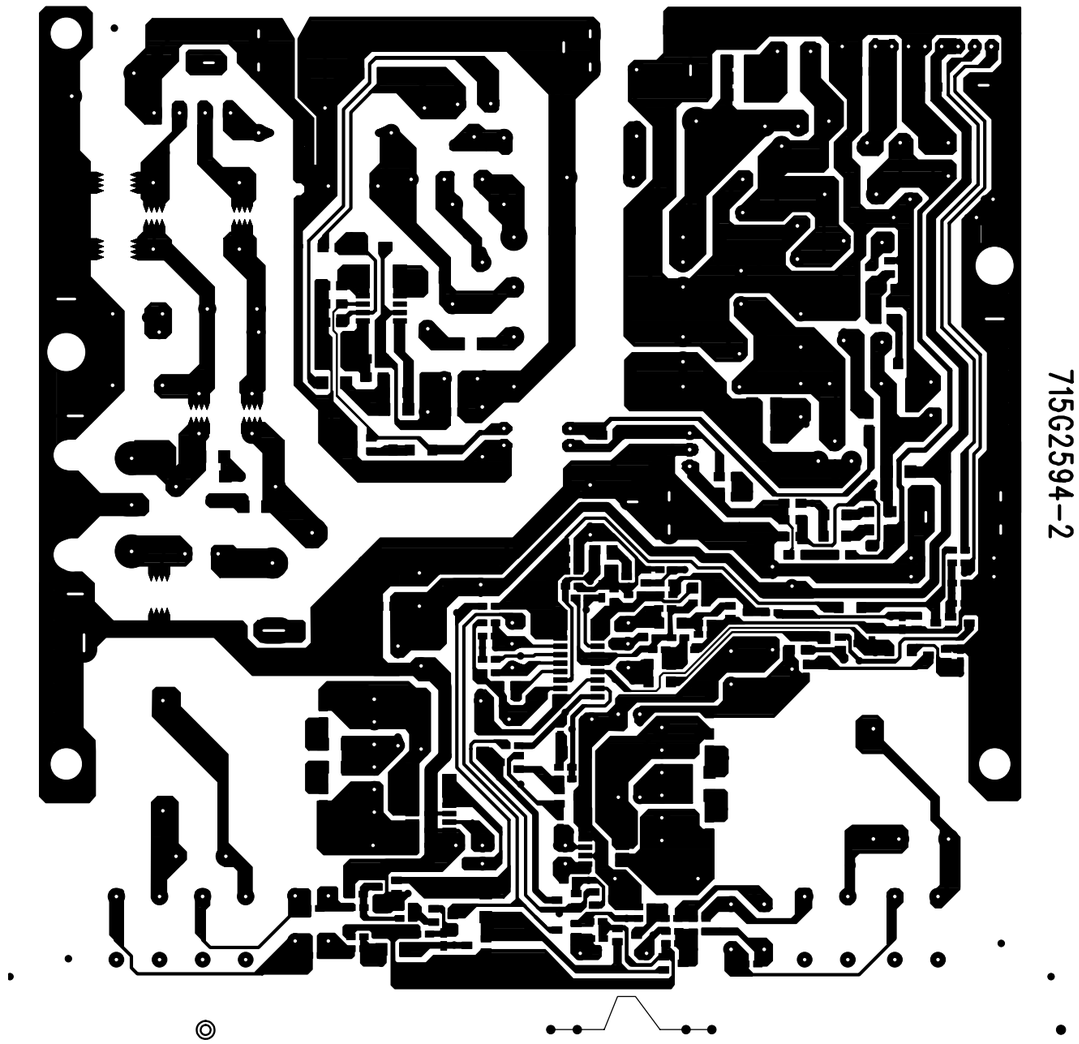




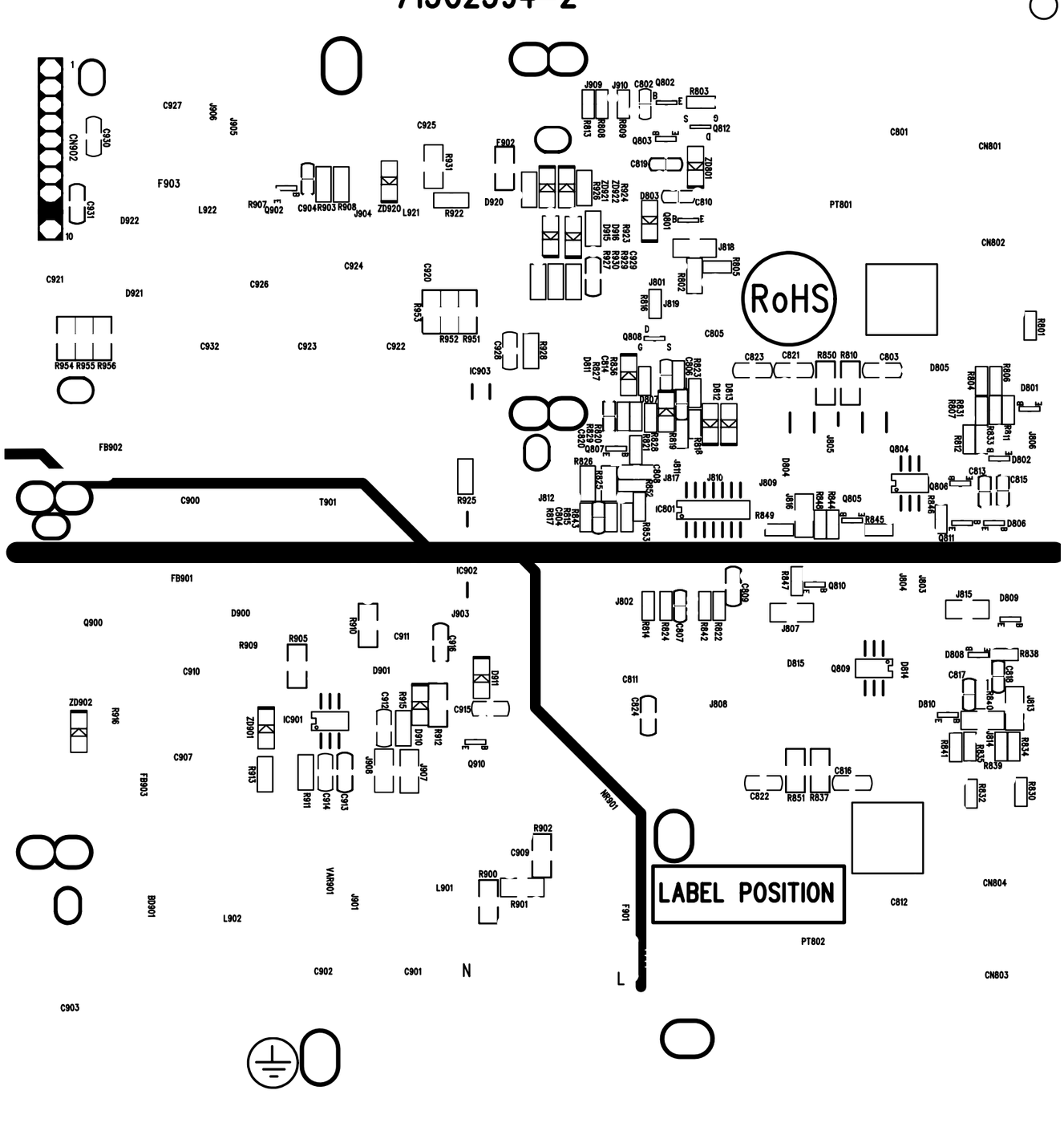
9.2 Power Board

715G2594 2



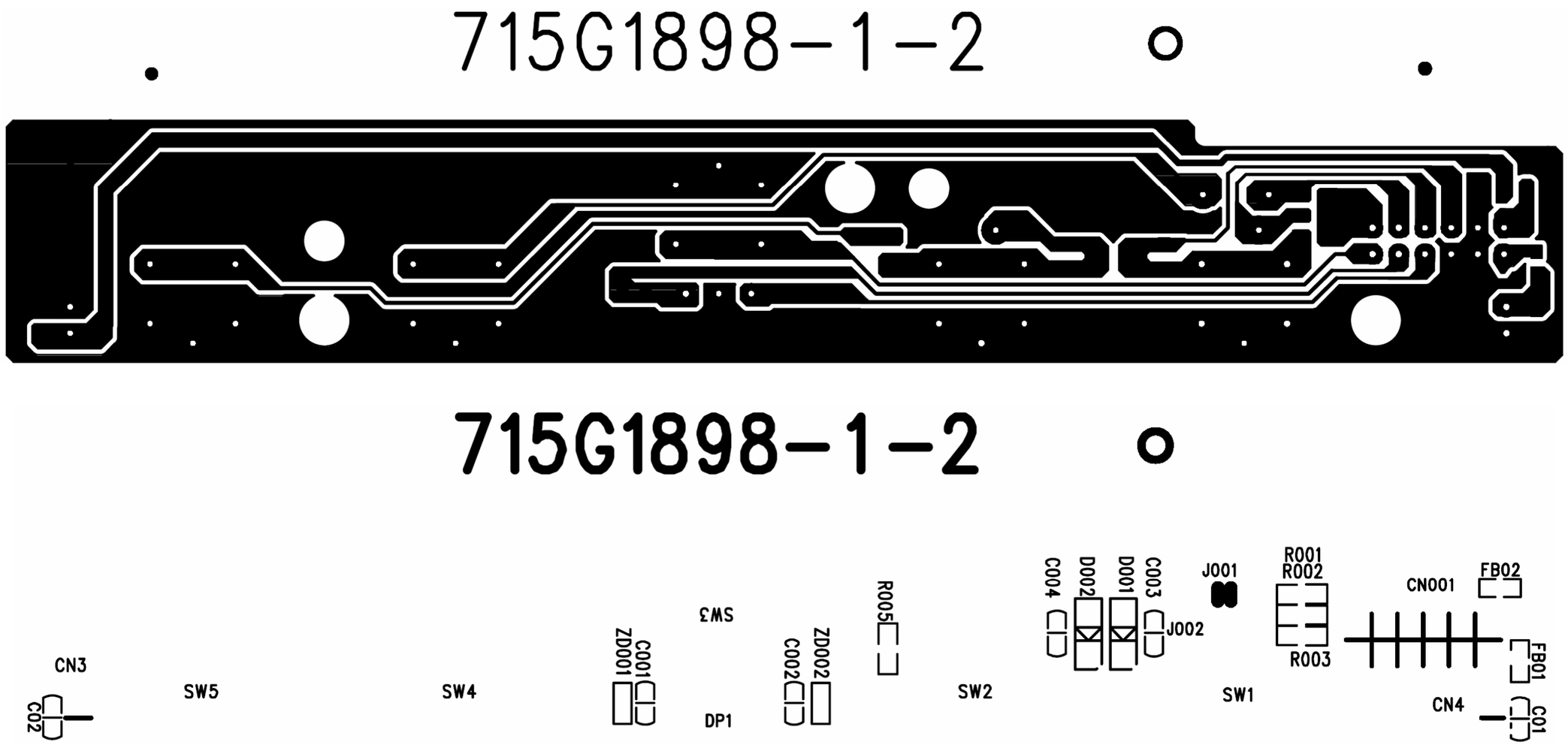


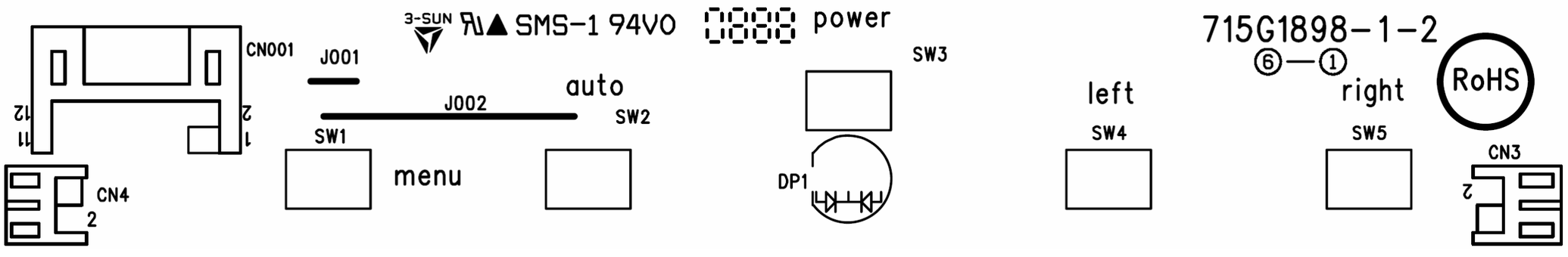
715G2594-2


RoHS
LABEL POSITION
C927
J906
J905
C930
CN902
F903
C931
L922
R907
Q902
C904
R903
R908
J904
ZD920
L921
R922
C925
R931
F902
D920
R924
ZD921
ZD922
R926
D803
C810
Q801
D916
D915
R923
R930
R929
R927
C929
J818
R805
R807
J801
R816
J819
C801
CN801
PT801
CN802
C924
C920
C921
C926
D921
D922
R953
R952
R951
C928
R928
C932
C923
C922
R954
R955
R956
IC903
Q808
C805
C823
C821
R850
R810
C803
D805
R804
R806
D801
R831
R837
R811
R812
R833
J806
D802
C814
R827
D811
R836
R823
C806
D812
D813
D807
R829
C820
R828
R821
R819
R818
Q807
J805
Q804
R826
R825
C805
C852
J811
J817
J810
D804
J809
J816
R844
Q805
C813
C815
Q806
R846
C804
R817
R843
R853
IC801
R849
R845
D806
Q811
J812
R925
C900
T901
FB902
FB901
IC902
C909
R847
Q810
J804
J803
J815
D809
J802
R814
R824
C907
R842
R822
J807
D900
Q900
J903
R910
C911
C918
R909
R905
D901
D911
D815
Q809
D814
R838
C898
C817
R840
J813
C910
C811
C824
J808
D810
ZD902
R896
ZD901
IC901
C912
R915
C915
R912
D910
R841
J814
R835
R834
C907
R913
R911
C914
C913
J908
J907
Q910
R839
C816
C822
R851
R837
R832
R830
FB903
NR901
R902
C909
R900
R901
L901
VAR901
J901
BD901
L902
F901
LABEL POSITION
CN804
C812
PT802
C902
C901
N
L
CN803
C903

9.3 Key Board

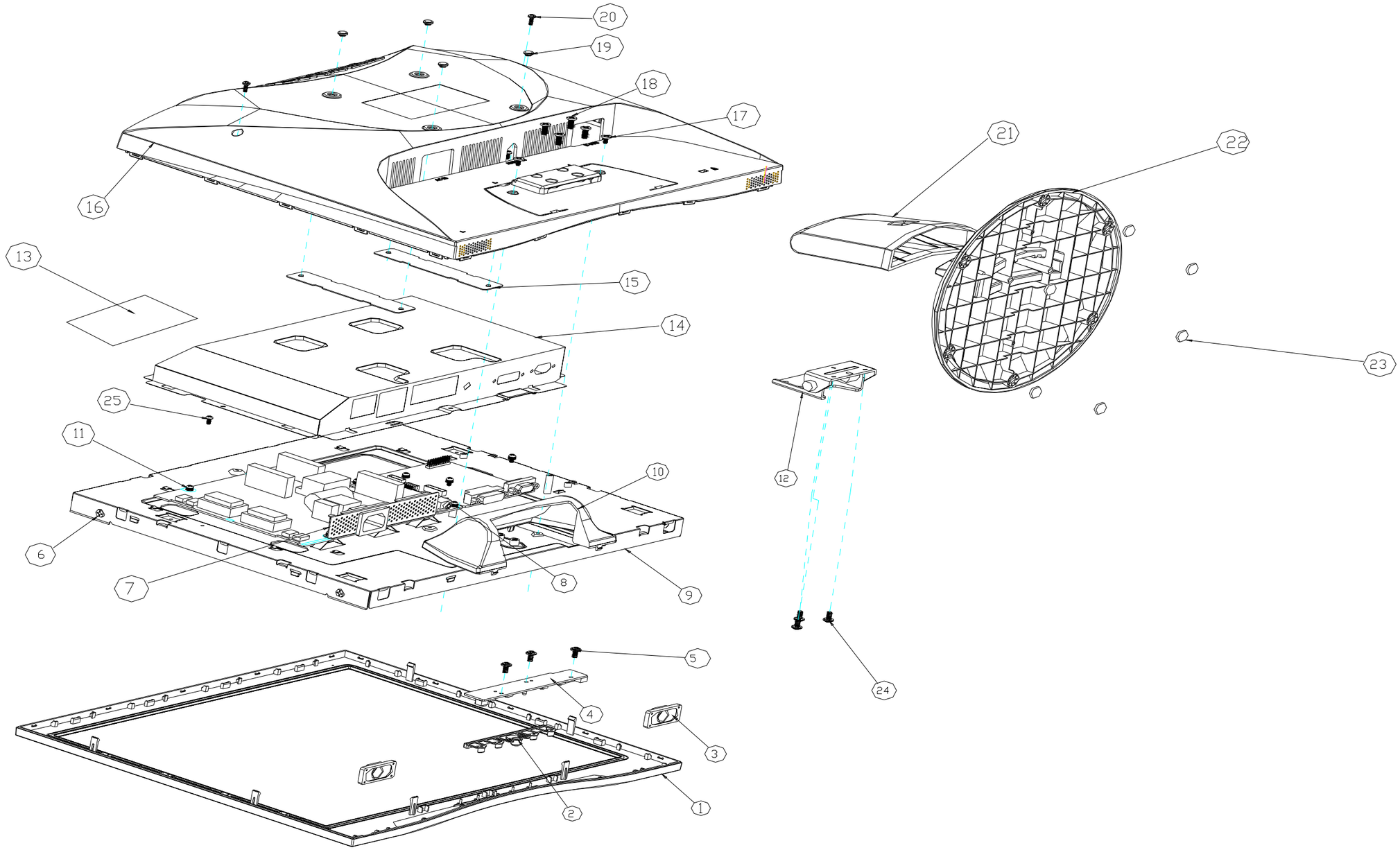
715G1898 1 2





10. Exploded Diagram and Spare Parts List

10.1 EPL

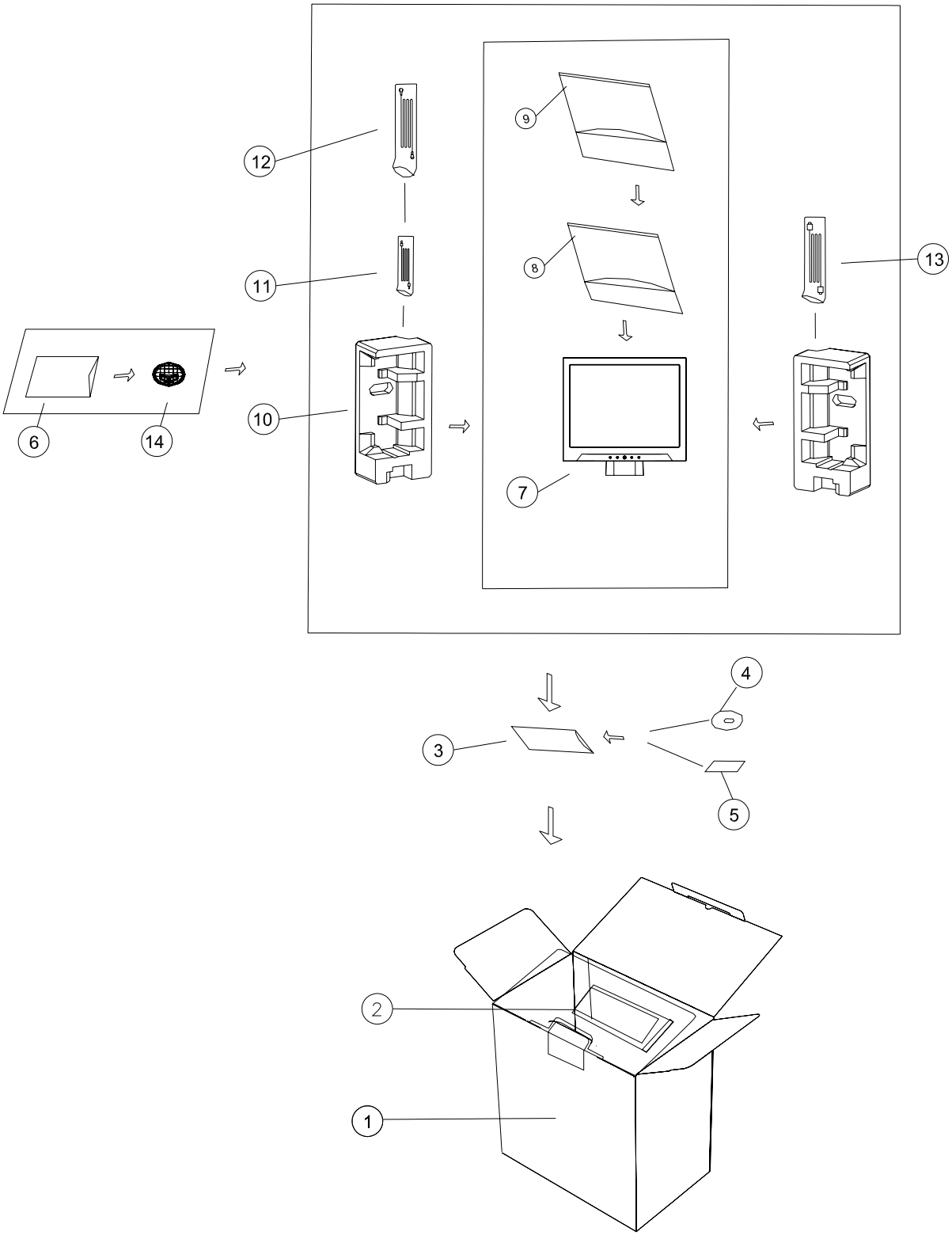


Exploded Parts List

Item	Description	P/N	Q'ty
1	BEZEL	NA	1
2	FUNC.BUTTON	NA	1
3	SPEAKER (Only for VA703m/VA703mb)	NA	2
4	KEY BOARD	NA	1
5	SCREW	0Q1G 330 6120	3
6	SCREW	0M1G 330 5120	4
7	AC SOCKET BRKT	NA	1
8	SCREW	0M1G1730 6120	5
9	MAIN FRAME HYDIS	NA	1
10	HINGE COVER	NA	1
11	SCREW	0M1G1730 6120	4
12	HINGE	NA	1
13	MYLAR	NA	1
14	SHIELD	NA	1
15	VESA BKT	NA	2
16	REAR COVER	NA	1
17	SCREW	0M1G 330 6 47 CR3	2
18	SCREW	0M1G2640 10 47 CR3	4
19	VESA RUBBER	NA	4
20	SCREW	0M1G 330 6 47 CR3	2
21	STAND	NA	1
22	BASE	NA	1
23	FOOT	NA	6
24	SCREW	0Q1G1140 8120	3
25	SCREW	0M1G 330 4120	4

Remark: For the detailed P/N,please refer to the “10.2 Spare Parts List”.

PPL



Packing Part List

Item	Descripiton	P/N	Q'ty
1	CARTON	NA	1
2	HANDLE1	NA	1
	HANDLE2	NA	1
3	PE BAG MANUAL	NA	1
4	CD MANUAL	NA	1
5	QSG	NA	1
6	PE BAG FOR BASE	NA	1
7	MONITOR	VA703 series	1
8/9	PE BAG FOR MONITOR	NA	1
10	EPS	NA	2
11	AUDIO CABLE (Only for VA703m/VA703mb)	NA	1
12	POWER CORD	NA	1
13	SIGNAL CABLE	NA	1
14	BASE	NA	1

Remark: For the detailed P/N,please refer to the "10.2 Spare Parts List"

10.2 Spare Parts List

VA703b-7 T79CMEDKFVV5NC

Location	Part No.	Description	Remark
	019G6014 1	TIE FOR STRAP	
	023G3178709 4A	VSC17-LCD FRONT LOGO	
	023G3178709 6A	BIRD LOGO	
	033G5019 KD C	FUNC.BUTTON	
	040G 581 26704	SHIPPING LABEL	
	041G 68508 A	CONTROL CARD	
	044G9003202	CORNER PAPER	
	045G 77501	BARCODE RIBBON	
	049G 51 1A	ERADICATOR	
	050G 600 1 W	WHITE STRAP	
	050G 600 2	HANDLE1	
	050G 600 3	HANDLE2	
	052G 1185	MIDDLE TAPE	
	052G 1185 24	VSC TAPE	
	052G 1186	SMALL TAPE	
	052G 1211503	ALUMINUM FOIL TAPE	
	052G 2191 A	PAPER TAPE	
	052G6019 1	INSULATING TAPE	
	052G6020 1	PROTECT FILM	
E08902	089G 728CAA902	SIGNAL CABLE 1.8M	
E08902	089G 728GAA902	SIGNAL CABLE	2nd source
E08902	089G 728HAA902	SIGNAL CABLE	2nd source
E08901	089G402A18N CX	POWER CORD	2nd source
E08901	089G402A18N IS	POWER CORD	2nd source
E08901	089G402A18N LS	POWER CORD	2nd source
E08901	089G402A18N YH	POWER CORD	
E09502	095G801412D715	WIRE HARNESS 12P(DF11)-12P(DF11) 180MM	2nd source
E09502	095G801412W715	WIRE HARNESS 12P(DF11)-12P(DF11) 180MM	2nd source
E09502	095G801412X715	WIRE HARNESS 12P(DF11)-12P(DF11) 180MM	
E09501	095G801830Q114	HARNESS 30P-24P 150MM	2nd source
E09501	095G801830X114	HARNESS 30P-24P 150MM	
	0M1G 330 4120	SCREW 42A9930008	
	0M1G 330 5120	SCREW	
	0M1G 330 6 47 CR3	SCREW 42-D005390	
	0M1G1140 6120	SCREW	
	0M1G1730 6120	SCREW,42-D020523	

	0M1G1730 6120	SCREW,42-D020523	
	0M1G2640 10 47 CR3	SCREW	
	0Q1G 330 6120	SCREW 42A9930001	
	705GQ934007	17" LCD STAND/BASE ASS'Y	
	0M1G 340 6 47 CR3	SCREW	
	0Q1G1140 8120	SCREW	
	0Q1G1140 10120	SCREW	
	A34G0027AFW 2B0100	STAND	
	A34G0028AFW 1B0130	BASE	
	J37G 561 4	HINGE	
	750GLC170A7P23N0VS	PANEL CLAA170EA07P 8J4 FZ CPT	
	756GQ9CB VV006	MAIN BOARD-CBPCRMEVWQ1	
U402	056G1133 81	SST25LF020A-33-4C-SAE	
SMTCR-U402	100GVMC7001N11	MCU ASS'Y-056G1133 81	
	A34G0025AFW 4B0130	REAR COVER	
	A34G0026BDRA1B0130	BEZEL L1706A-VSC	
	A34G0029AFW 1B0100	HINGE COVER	
	040G 45762412B	CBPC LABEL	
CN701	033G3802 9	WAFER 9P RIGHT ANELE PITCH	
CN404	033G8027 12	WAFER 2*6P 2.0MM R/A	
CN703	033G8027 24 H	CONN W TO B12P*2 P*2.0 4505-2	
C702	067G 3151014KV	EC 105℃ CAP 100UF M 25V	
C426	067G305V100 3P	10UF +-20% 16V 105°C	
C441	067G305V100 3P	10UF +-20% 16V 105°C	
C711	067G305V100 3P	10UF +-20% 16V 105°C	
C708	067G305V220 3P	22UF 16V +-20% 105°C	
C712	067G305V220 3P	22UF 16V +-20% 105°C	
C706	067G305V220 3P	22UF 16V +-20% 105°C	
CN401	088G 35315F H	D-SUB 15PIN	2nd source
CN401	088G 35315F HD	D-SUB CONN F ATTACHED SCREW	
CN401	088G 35315F HJ	SOC SUBD H 15P F	2nd source
X401	093G 22 53	TAL 14.318MHZHC-49US	
X401	093G 22 53 H	14.31818MHZ/30PF/49US	2nd source
U702	056G 1331PH	IC LD1117S18 SOT-223	
U701	056G 1334PH	IC LD1117S33TR SOT-223	
U401	056G 562522	IC TSUM16AWL-LF-1 MSTAR	
U702	056G 56327A	IC AP1117E18LA SOT223-3L ANACHIP	
U701	056G 585 4A	IC AP1117E33L-13	
U402	056G1133 81	SST25LF020A-33-4C-SAE	

Q702	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q701	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q403	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q404	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q704	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q702	057G 417 12 T	KEC 2N3904S-RTK/PS	
Q701	057G 417 12 T	KEC 2N3904S-RTK/PS	
Q404	057G 417 13 T	KEC 2N3906S-RTK/PS	
Q403	057G 417 13 T	KEC 2N3906S-RTK/PS	
Q704	057G 417 13 T	KEC 2N3906S-RTK/PS	
Q408	057G 758 1	2N7002ESOT23 SILICONIX	
Q409	057G 758 1	2N7002ESOT23 SILICONIX	
Q408	057G 759 2A	TANSISTOR 2N7002 SOT-23	
Q409	057G 759 2A	TANSISTOR 2N7002 SOT-23	
Q703	057G 763 1	A03401 SOT23 BY AOS(A1)	
R471	061G0402000	RST CHIP MAX 0R05 1/16W	
R467	061G0402000	RST CHIP MAX 0R05 1/16W	
R507	061G0402100	RST CHIPR 10 OHM +-5% 1/16W	
R508	061G0402100	RST CHIPR 10 OHM +-5% 1/16W	
R405	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R407	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R409	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R460	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R461	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R462	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R463	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R511	061G0402101	RST CHIPR 100 OHM +-5% 1/16W	
R414	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	
R416	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	
R422	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	
R701	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W	
R721	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R710	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R708	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R704	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R510	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R509	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R469	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R465	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	

R451	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R449	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R445	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R443	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R411	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W	
R446	061G0402200	RST CHIP 20R 1/16W 5%	
R447	061G0402200	RST CHIP 20R 1/16W 5%	
R412	061G0402203	RST CHIP 20K 1/16W 5%	
R415	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W	
R413	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W	
R466	061G0402241	RST CHIP 240R 1/16W 5%	
R442	061G0402390 0F	RST CHIP 390R 1/16W 1%	
R417	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R419	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R499	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R502	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R503	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R506	061G0402470	RST CHIPR 47 OHM +-5% 1/16W	
R410	061G0402471	RST CHIPR 470 OHM +-5% 1/16W	
R504	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R500	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R468	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R464	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R702	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R703	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R705	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R709	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W	
R711	061G0402513	RST CHIP 51K 1/16W 5%	
R404	061G0402562 9F	RST CHIP 56.2OHM 1/16W 1%	
R406	061G0402562 9F	RST CHIP 56.2OHM 1/16W 1%	
R408	061G0402562 9F	RST CHIP 56.2OHM 1/16W 1%	
R470	061G0402750	RST CHIPR 75 OHM +-5% 1/16W	
R401	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%	
R402	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%	
R403	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%	
FB401	061G0603000	RST CHIP MAX 0R05 1/10W	
FB402	061G0603000	RST CHIP MAX 0R05 1/10W	
FB403	061G0603000	RST CHIP MAX 0R05 1/10W	
R712	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	

FB405	061G0805000	RST CHIP MAX 0R05 1/8W	
R706	061G1206000	RST CHIP MAX 0R05 1/4W	
R713	061G1206151	RST CHIPR 150 OHM +-5% 1/4W	
R714	061G1206151	RST CHIPR 150 OHM +-5% 1/4W	
C440	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C455	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C704	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C705	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C707	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C709	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C710	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C439	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C438	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C437	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C436	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C424	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C403	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C402	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C401	065G0402104 15	MLCC 0402 0.1UF K 16V X5R	
C428	065G0402220 31	CHIP 22PF 50V NPO	
C429	065G0402220 31	CHIP 22PF 50V NPO	
C412	065G0402221 32	MLCC 0402 CAP 220PF J 50V X7R	
C433	065G0402221 32	MLCC 0402 CAP 220PF J 50V X7R	
C434	065G0402221 32	MLCC 0402 CAP 220PF J 50V X7R	
C425	065G0402224 17	CAP CER 0.22UF -20%-80%	
C411	065G0402330 31	CHIP CAP 0402 33PF J 50V NPO	
C432	065G0402330 31	CHIP CAP 0402 33PF J 50V NPO	
C404	065G0402473 12	CHIP 0.047UF 16V X7R	
C405	065G0402473 12	CHIP 0.047UF 16V X7R	
C406	065G0402473 12	CHIP 0.047UF 16V X7R	
C407	065G0402473 12	CHIP 0.047UF 16V X7R	
C408	065G0402473 12	CHIP 0.047UF 16V X7R	
C409	065G0402473 12	CHIP 0.047UF 16V X7R	
C410	065G0402473 12	CHIP 0.047UF 16V X7R	
C430	065G0402473 12	CHIP 0.047UF 16V X7R	
C431	065G0402473 12	CHIP 0.047UF 16V X7R	
C435	065G0402473 12	CHIP 0.047UF 16V X7R	
C442	065G0402473 12	CHIP 0.047UF 16V X7R	
C443	065G0402473 12	CHIP 0.047UF 16V X7R	

C444	065G0402473 12	CHIP 0.047UF 16V X7R	
C445	065G0402473 12	CHIP 0.047UF 16V X7R	
FB406	071G 56Z601 M	CHIP BEAD 600OHM	
FB407	071G 56Z601 M	CHIP BEAD 600OHM	
FB408	071G 56Z601 M	CHIP BEAD 600OHM	
FB409	071G 56Z601 M	CHIP BEAD 600OHM	
FB404	071G 59B121	TB160808B	
D414	093G 6432P	LL4148	
D403	093G 6433S	DIODE BAV99 SEMTECH	
D402	093G 6433S	DIODE BAV99 SEMTECH	
D401	093G 6433S	DIODE BAV99 SEMTECH	
ZD401	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD402	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD403	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD404	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD405	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD406	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD407	093G 39S 34 T	UDZSNP5.6B ROHM	
ZD401	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD402	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD403	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD404	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD405	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD406	093G 39S501 T	LUDZS5.6BT1G BY LRC	
ZD407	093G 39S501 T	LUDZS5.6BT1G BY LRC	
	715G2467 1	MAIN PCB	
	040G 45762420A	LABEL 25X6MM	
Q702	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
Q704	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q403	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q404	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q701	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
	J12G 394800	FOOT	
	J12G 808 2	VESA RUBBER	
	J15G0013 1	VESA BKT	
	J15G8312 9 SN	MAIN FRAME	
	J52G6025110997	MYLAR	
	KEPC8QI4	KEY BOARD G1898-1-2-X-1-081120	
CN001	033G8027 12 H	PIN HEADER 2*6 R/A	

SW2	077G 600 1GCJ	TACT SWITCH TSPB-2 -NP	
SW3	077G 600 1GCJ	TACT SWITCH TSPB-2 -NP	
SW4	077G 600 1GCJ	TACT SWITCH TSPB-2 -NP	
SW5	077G 600 1GCJ	TACT SWITCH TSPB-2 -NP	
SW1	077G 600 1GCJ	TACT SWITCH TSPB-2 -NP	
SW3	077G 600 1GNA	TACK SWITCH	
SW4	077G 600 1GNA	TACK SWITCH	
SW5	077G 600 1GNA	TACK SWITCH	
SW1	077G 600 1GNA	TACK SWITCH	
SW2	077G 600 1GNA	TACK SWITCH	
DP1	081G 12 1F GH	1ED 3PIN Φ3 YELLOW&GREEN GHZYG603D2-5B	
DP1	081G 12 1F GP	LED 3ΦYELLOW&GREEN GP32032M/G307-ZY-50-C	
R005	061G0603102	RST CHIPR 1K OHM +-5% 1/10W	
R001	061G0603392	RST CHIPR 3.9 KOHM +-5% 1/10W	
R003	061G0603392	RST CHIPR 3.9 KOHM +-5% 1/10W	
R002	061G0603392	RST CHIPR 3.9 KOHM +-5% 1/10W	
J001	095G 90 23	JUMPER WIRE	
J002	095G 90 23	JUMPER WIRE	
	715G1898 1 2	KEPC PCB	
	PWPC8742CQWB	POWER BOARD	
	040G 45762412B	CBPC LABEL	
GND1	009G6005 1	GROUND TERMINAL	
GND2	009G6005 1	GROUND TERMINAL	
CN801	033G8021 2E F	WAFER	
CN802	033G8021 2E F	WAFER	
CN803	033G8021 2E F	WAFER	
CN804	033G8021 2E F	WAFER	
IC902	056G 139 7 1	IC EL817MA M-TYPE	
IC902	056G 139 3A	IC PC123Y22FZ0F	
NR901	061G 58100 WD	RST NTCR 10 OHM +-20% 5A THINKING	
R907	061G 208151 64	RST MOFR 150 OHM +-5% 1W	
R909	061G152M104 64	100KOHM 5% 2W	
C909	063G107K474 TS	CAP X2 0.47UF K 275VAC	
C909	063G107K474 US	0.47UF +-10%	
C812	065G 6J1006ET	10PF 5% SL 6KV	
C801	065G 6J1006ET	10PF 5% SL 6KV	
C902	065G305M1022E2	1000P 400VAC/250VAC	
C901	065G305M1022E2	1000P 400VAC/250VAC	
C902	065G305M1022EM	Y2 1000PF +-20% 250VAC	

C901	065G305M1022EM	Y2 1000PF +-20% 250VAC	
C903	065G305M2222BP	2200PF +-20%	
C900	065G306M2222BP	2200PF +-20% 250VAC	
C907	067G 40Z10115K	CAP 105℃ 100UF M 450V	
C925	067G215D4714KV	E.C 105℃ CAP 470UF M 25V ED SERIES	
C811	067G215D4714KV	E.C 105℃ CAP 470UF M 25V ED SERIES	
C805	067G215D4714KV	E.C 105℃ CAP 470UF M 25V ED SERIES	
C922	067G215D6814KV	CAP 105℃ 680UF M 25V	
C923	067G215D6814KV	CAP 105℃ 680UF M 25V	
C926	067G215S1023KV	EC CAP 105℃ 1000UF M 16V	
C927	067G215S4713KV	EC 105℃ CAP 470UF M 16V	
C805	067G215Y4714HV	EC 105℃ CAP 470UF M 25V	
C811	067G215Y4714HV	EC 105℃ CAP 470UF M 25V	
C925	067G215Y4714HV	EC 105℃ CAP 470UF M 25V	
L902	073G 174 65 H1	LINE FILTER 26MH MIN	
L921	073G 253 91 H	CHOKE COIL	
L922	073G 253 91 H	CHOKE COIL	
T901	080GL17T 33 N2	XFMR POWER 550UH YUVA	
T901	080GL17T 33 T2	X'FMR 550UH SRW28EC-T147H015	
PT801	080GL17T 40 DN	X'FMR TK.2001U.101	
PT802	080GL17T 40 DN	X'FMR TK.2001U.101	
CN901	087G 501 32 S	AC SOCKET	
BD901	093G 50460 28	BRIDGE DIODE KBP208G LITEON	
D922	093G3006 1 1	31DQ06FC3 NIHON INTER	
CN902	095G 82510Q705	WIRE HARNESS 9P(PH)-10P(SCN) 140MM	
CN902	095G 82510W705	WIRE HARNESS 9P(PH)-10P(SCN) 140MM	
CN902	095G 82510X705	WIRE HARNESS 9P(PH)-10P(SCN) 140MM	
	096G 29 10	H.S. TUBE	
	705GQ851002	OIL FOR DISAPPEAR ASS'Y	
	051G 200 1	OIL FOR DISAPPEAR	
	052G 2191 A	PAPER TAPE	
	705GQ9KP 57001	Q900 ASS"Y	
Q900	057G 667 21	STP10NK70ZFP	
HS1	090G6264 1	HEAT SINK	
	0M1G1730 8120	SCREW	
	705GQ9KP 93001	D920 ASS"Y	
HS5	090G6241 1 GP	HEAT SINK	
D920	093G 60276	DIODE SBT150-10LST SANYO	
	0M1G1730 8120	SCREW	

	709G2594 QM001	CONSUMPTIVE ASS'Y	
	049G 51 1A	ERADICATOR	
	052G 2191 A	PAPER TAPE	
	055G 2	ALCOHOL	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q51G 6 4509	GLUE_RTV	
	Q55G 100622	TIN STICK(SAC0507)	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
IC801	056G 379 22	IC TL494IDR SOIC-16	
IC901	056G 379 61	LD7575PS SOP-8	
Q902	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q811	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q810	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q807	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q803	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q805	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q806	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q804	057G 600 55	P5506 HVG SO-8	
Q809	057G 600 55	P5506 HVG SO-8	
Q808	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM	
Q812	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM	
Q801	057G 760 4B	PDTA144WK SOT346	
Q802	057G 760 5B	PDTC144WK SOT346	
R801	061G0603000	RST CHIP MAX 0R05 1/10W	
R804	061G0603000	RST CHIP MAX 0R05 1/10W	
R830	061G0603000	RST CHIP MAX 0R05 1/10W	
R832	061G0603000	RST CHIP MAX 0R05 1/10W	
R806	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R807	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R827	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R834	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R835	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R848	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R849	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R853	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R852	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R840	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R838	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R833	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	

R831	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R824	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R819	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R808	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R813	061G0603101	RST CHIPR 100 OHM +-5% 1/10W	
R823	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R821	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R836	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R841	061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	
R839	061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	
R811	061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	
R812	061G0603150 1F	RST CHIPR 1.5 KOHM +-1% 1/10W	
R847	061G0603220	RST CHIPR 22 OHM +-5% 1/10W	
R846	061G0603220	RST CHIPR 22 OHM +-5% 1/10W	
R845	061G0603220	RST CHIPR 22 OHM +-5% 1/10W	
R844	061G0603220	RST CHIPR 22 OHM +-5% 1/10W	
R815	061G0603270 2F	RST CHIPR 27 KOHM +-1% 1/10W	
R803	061G0603362	RST CHIPR 3.6 KOHM +-5% 1/10W	
R842	061G0603470 2F	RST CHIPR 47 KOHM +-1% 1/10W	
R828	061G0603470 2F	RST CHIPR 47 KOHM +-1% 1/10W	
R805	061G0603472	RST CHIPR 4.7K OHM +-5% 1/10W	
R822	061G0603473	RST CHIPR 47 KOHM +-5% 1/10W	
R820	061G0603564	RST CHIPR 560 KOHM +-5% 1/10W	
R816	061G0603680 2F	RST CHIPR 68K OHM +-1% 1/10W	
R829	061G0603680 2F	RST CHIPR 68K OHM +-1% 1/10W	
R814	061G0603750 2F	RST CHIPR 75KOHM +-1% 1/10W	
R913	061G0805100 1F	RST CHIPR 1K OHM +-1% 1/8W	
R930	061G0805100 1F	RST CHIPR 1K OHM +-1% 1/8W	
R928	061G0805100 1F	RST CHIPR 1K OHM +-1% 1/8W	
R927	061G0805100 1F	RST CHIPR 1K OHM +-1% 1/8W	
R925	061G0805100 1F	RST CHIPR 1K OHM +-1% 1/8W	
R915	061G0805100 2F	RST CHIPR 10KOHM +-1% 1/8W	
R923	061G0805100 2F	RST CHIPR 10KOHM +-1% 1/8W	
R911	061G0805100 3F	RST CHIPR 100KOHM +-1% 1/8W	
R802	061G0805101	1ST CHIPR 100 OHM +-5% 1/8W	
R903	061G0805102	RST CHIPR 1K OHM +-5% 1/8W	
R826	061G0805180 3F	RST CHIPR 180 KOHM +-1% 1/8W	
R929	061G0805240 1F	RST CHIPR 2.4K OHM +-1% 1/8W	
R926	061G0805330 2F	RST CHIPR 33K OHM +-1% 1/8W	

R922	061G0805331	RST CHIPR 330 OHM +-5% 1/8W	
R924	061G0805360 1F	RST CHIPR 3.6K OHM +-1% 1/8W	
R908	061G0805471	RST CHIPR 470 OHM +-5% 1/8W	
R825	061G0805510 2F	RST CHIPR 51K OHM +-1% 1/8W	
J807	061G1206000	RST CHIP MAX 0R05 1/4W	
J813	061G1206000	RST CHIP MAX 0R05 1/4W	
J814	061G1206000	RST CHIP MAX 0R05 1/4W	
J815	061G1206000	RST CHIP MAX 0R05 1/4W	
J816	061G1206000	RST CHIP MAX 0R05 1/4W	
J818	061G1206000	RST CHIP MAX 0R05 1/4W	
J907	061G1206000	RST CHIP MAX 0R05 1/4W	
J908	061G1206000	RST CHIP MAX 0R05 1/4W	
F902	061G1206000 4	RST CHIP MAX 0R05 1/4W	
R912	061G1206100	RST CHIPR 10 OHM +-5% 1/4W	
R905	061G1206103	RST CHIPR 10K OHM +-5% 1/4W	
R931	061G1206103	RST CHIPR 10K OHM +-5% 1/4W	
ZD801	061G1206103	RST CHIPR 10K OHM +-5% 1/4W	
R810	061G1206150	RST CHIPR 15 OHM +-5% 1/4W	
R837	061G1206150	RST CHIPR 15 OHM +-5% 1/4W	
R850	061G1206150	RST CHIPR 15 OHM +-5% 1/4W	
R851	061G1206150	RST CHIPR 15 OHM +-5% 1/4W	
R910	061G1206229	RST CHIPR 2.2 OHM +-5% 1/4W	
R900	061G1206334	RST CHIPR 330KOHM +-5% 1/4W	
R901	061G1206334	RST CHIPR 330KOHM +-5% 1/4W	
R902	061G1206334	RST CHIPR 330KOHM +-5% 1/4W	
R951	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
R952	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
R953	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
R954	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
R955	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
R956	061G1206470	RST CHIPR 47 OHM +-5% 1/4W	
C904	065G0603102 32	1000PF +-10% 50V X7R	
C804	065G0603104 12	CER2 0603 X7R 16V 100N P	
C807	065G0603104 12	CER2 0603 X7R 16V 100N P	
C814	065G0603104 12	CER2 0603 X7R 16V 100N P	
C810	065G0603104 22	CAP CHIP 0603 0.1UF K 25V X7R	
C806	065G0603105 22	CHIP 1UF 25V X7R 0603	
C802	065G060310512K T	CAP CHIP 0603 1UF K 16V X7R	
C813	065G0603222 22	CHIP 2200PF 25V X7R	

C815	065G0603222 22	CHIP 2200PF 25V X7R	
C817	065G0603222 22	CHIP 2200PF 25V X7R	
C818	065G0603222 22	CHIP 2200PF 25V X7R	
C823	065G0805104 22	0.1UF +-10% 25V X7R 080	
C824	065G0805104 22	0.1UF +-10% 25V X7R 080	
C912	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C916	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C928	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C929	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C930	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C931	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R	
C822	065G0805152 32	CHIP 1500PF 50V X7R 0805	
C821	065G0805152 32	CHIP 1500PF 50V X7R 0805	
C816	065G0805152 32	CHIP 1500PF 50V X7R 0805	
C803	065G0805152 32	CHIP 1500PF 50V X7R 0805	
C913	065G0805221 31	CAP CHIP 0805 220PF J 50V NPO	
C809	065G080522131G	CAP CHIP 0805 220PF G 50V NPO	
C808	065G0805225 12	CAP CHIP 0805 2.2UF K 16V X7R	
C914	065G0805471 21	CAP CHIP 0805 470PF J 25V NPO	
D808	093G 64 38 P	BAW56	
D806	093G 64 38 P	BAW56	
D801	093G 6433P	BAV99	
D802	093G 6433P	BAV99	
D809	093G 6433P	BAV99	
D810	093G 6433P	BAV99	
ZD922	093G 39S 25 T	RLZ5.1B LLDS	
ZD921	093G 39S 40 T	RLZ 13B LLDS	
ZD920	093G 39S 40 T	RLZ 13B LLDS	
D803	093G 64S511SEM	1N4148W	
D807	093G 64S511SEM	1N4148W	
D811	093G 64S511SEM	1N4148W	
D812	093G 64S511SEM	1N4148W	
D813	093G 64S511SEM	1N4148W	
D910	093G 64S511SEM	1N4148W	
D915	093G 64S511SEM	1N4148W	
D916	093G 64S511SEM	1N4148W	
NR901	006G 31 4	1.7MM RIVET	
CN901	006G 31500	EYELET	
T901	006G 31502	1.5MM RIVET	

IC903	056G 158 10 T	IC AS431AZTR-E1 TO-92	
R916	061G152M43852T	RST MOF 0R43 5% 2W	
C910	065G 2K152 1T6921	1.5NF/2KV Y5P +-10%	
C920	065G517K102 5T	1000PF 10% Y5P 500V	
C921	065G517K102 5T	1000PF 10% Y5P 500V	
C911	067G 2152207NT	KY50VB22M-TP5 5*11	
FB901	071G 55 29	FERRITE BEAD	
FB903	071G 55 29	FERRITE BEAD	
F901	084G 56 4W	FUSE 4.0A 250V	
F903	084G 56 4W	FUSE 4.0A 250V	
D901	093G 6038T52T	FR103	
D900	093G1100 1152T	DIODE PR1007R 1A/1000V DO-41	
FB902	095G 90 23	JUMPER WIRE	
J801	095G 90 23	JUMPER WIRE	
J802	095G 90 23	JUMPER WIRE	
J803	095G 90 23	JUMPER WIRE	
L901	095G 90 23	JUMPER WIRE	
J910	095G 90 23	JUMPER WIRE	
J909	095G 90 23	JUMPER WIRE	
J906	095G 90 23	JUMPER WIRE	
J905	095G 90 23	JUMPER WIRE	
J904	095G 90 23	JUMPER WIRE	
J903	095G 90 23	JUMPER WIRE	
J901	095G 90 23	JUMPER WIRE	
J819	095G 90 23	JUMPER WIRE	
J817	095G 90 23	JUMPER WIRE	
J812	095G 90 23	JUMPER WIRE	
J811	095G 90 23	JUMPER WIRE	
J810	095G 90 23	JUMPER WIRE	
J809	095G 90 23	JUMPER WIRE	
J808	095G 90 23	JUMPER WIRE	
J806	095G 90 23	JUMPER WIRE	
J805	095G 90 23	JUMPER WIRE	
J804	095G 90 23	JUMPER WIRE	
	715G2594 2	POWER PCB	
IC903	056G 158 12	KIA431A-AT/P TO-92	
	709G2594 QA001	CONSUMPTIVE ASS'Y	
	052G 2191 A	PAPER TAPE	
D801	093G 64 33	DIO SIG SM BAV99 (PHSE)R	

D802	093G 64 33	DIO SIG SM BAV99 (PHSE)R	
D809	093G 64 33	DIO SIG SM BAV99 (PHSE)R	
D810	093G 64 33	DIO SIG SM BAV99 (PHSE)R	
D806	093G 64 38 D	DIODE BAW56 DIODES	
D808	093G 64 38 D	DIODE BAW56 DIODES	
Q804	057G 763 6	AO4828 SOIC-8 BY AOS	
Q809	057G 763 6	AO4828 SOIC-8 BY AOS	
Q804	057G 763 14	AM9945N	
Q809	057G 763 14	AM9945N	
	709G2594 QS001	CONSUMPTIVE ASS'Y	
	Q05G6054 1	SHEET	
	Q09G6012 1	PIN	
	052G 2191 A	PAPER TAPE	
	Q51G 100502	GLUE_RED_MALER	
Q802	057G 760 5A	DTC 144WN3/S SOT-23	
Q801	057G 760 4A	DTA144WN3/S SOT-23	
HS4	Q85G0053 1 S	SHIELD	
	Q07G 1 5V86 X	WOODEN PALLET	
	Q15G8313 1	AC SOCKET BRACKET	
	Q40G 58170931A	HT POT LABEL	
	Q40G0001624 4A	PALLET LABEL	
	Q40G000270927A	EPA LABEL	
	Q40G000270941A	HG LABEL	
	Q44G6000 139A	EMPTY CARTON FOR PALLET	
	Q44G6002115101	PAPER BOARD	
	Q44G6002CP129A	PAPER CAP	
	Q44G7111101	EPS R	
	Q44G7111201	EPS L	
	Q44G7111709 1A	17"LCD CARTON	
	Q45G 77 5	PE PACKING	
	Q45G 88606 R	PE BAG FOR BASE	
	Q45G 88607 R	PE BAG FOR MONITOR	
	Q50G 4 10	TIE	
	Q51G 200500	LUBE	
	Q85G 740 1 2	SHIELD	
	Q41G780070943A	QSG916	
	Q41G780070949A	SERVICE INSERT	
	Q41G780070954A	BASE PROCEDURE CARD	
	Q41G780070955A	VISTA INSTALL INSTRUCTION	

	Q45G 76 28 RN R	PE BAG MANUAL	
	Q70G7008709 3A	CD FOR VA703	
	040G 58162435A	P/N LABEL FOR MANUAL PE BAG	
	Q40G 17N709 2A	RATING LABEL	
	Q40G 581709 1B	CARTON LABEL	
	Q40G0001709 2A	SN LANEL	

11. Recommended Spare Parts List

NA

* 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 of this Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Block Diagrams				
8. Schematic Diagrams				
9.PCB Layout Diagrams				
10. Exploded Diagram and Exploded Parts List				
11. Recommended Spare Parts List				

B. Are you satisfied with this Service Manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

Reader's basic dada:

Name:		**Title:**	
Company:			
Add:			
Tel:		**Fax:**	
E-mail:			

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 suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)