

# **Service Manual**

**ViewSonic VA1932wa/wma**

**Model No. VS12915**

**19" Color TFT LCD Display**

(VA1932wa/wma\_SM Rev. 1a Jan. 2010)

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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	Jan.15,2010	Initial Release	VA1932wa	T99MNFNCRXVSNN	Kevin
				T99MNFNYRXVWNN	
				T99MNFNYRXVSNN	
				T99LNFNYRXVWNC	
				T99LNFNCRXVWNC	
				T99LNFNYRXVWNN	
			T99MNFNYRXVWNC		
			VA1932wma	T99MNFNCRXVSAN	
T99LNFNCRXVWAC					
1b	Jul.15, 2010	Add new models	VA1932wa	T99LNFNBRXVWNN	Lana
				T99LNFNCRXV3NC	
				T99LNFNCRXV6NC	
				T99LNFNMRXVWNC	
				T99MNFNBRXVSNN	
				T99MNFNCRXV3NN	
				T99MNFNCRXV6NN	
				T99MNFNMRXVSNC	
				T99MNFNMRXVSNN	
				T99MNFNYRXVSNC	
				T99LNFNYRXV5NN	
				T99MNFNBRXVSNC	
				T99MNFNCRXVSNC	
				T99LNFNBRXVWNC	
			T99LNFNYRXVSNN		
			VA1932wma	T99LNFNCRXV3AC	
			T99LNFNCRXV6AC		
			T99MNFNCRXV6AC		
			T99MNFNCRXV6AN		
			T99MNFNCRXV3AC		
T99MNFNCRXV3AN					

				T99MNFNCRXVSAC	
				T9ANNSNCRXVWAN	
1d	Sep.07,2010	Add new models	VA1932wma	T99LNFNCRXVWAN	Lana
			VA1932wa	T99LNFNCRXVWNN	
1e	Jan. 07,2011	Add new models	VA1932wma	T99LNFNERXV5AN	Kevin
				T99LNFNERXV5AC	
				T99MNFNERXV5AN	
				T99MNFNERXV5AC	

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# **1. Precautions and Safety Notices**

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## **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</p>	<p>Taking out the monitor by grasping the LCD panel. That may cause "Mura."</p>
	

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

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<b>LCD</b>	Type	19" (full 18.95" wide viewable diagonal area), TFT (Thin Film Transistor), Active Matrix 1440 x 900 LCD, 0.2835 mm pixel pitch
	Color Filter	RGB vertical stripe
	Glass Surface	Anti-Glare
<b>Input Signal</b>	Video Sync	RGB analog (0.7/1.0 Vp-p, 75 ohms) Separate Sync fh:24-82 kHz, fv:50-75 Hz
<b>Compatibility</b>	PC Macintosh1	Up to 1440 x 900 Non-interlaced Power Macintosh up to 1440 x 900
<b>Resolution</b>	Recommended and supported	1440 x 900 @ 60, 75 Hz 1360 x 768 @ 60 Hz 1280 x 1024 @ 60, 75 Hz 1280 x 960 @ 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
<b>Power</b>	Voltage	100-240 VAC, 50/60 Hz (auto switch)
<b>Display area</b>	Full Scan	408.24 mm (H) x 255.15 mm (V) 16.07" (H) x 10.05" (V)
<b>Operating conditions</b>	Temperature	+32° F to +104° F (0° C to +40° C)
	Humidity	20% to 90% (non-condensing)
	Altitude	To 10,000 feet
<b>Storage conditions</b>	Temperature	-4° F to +140° F (-20° C to +60° C)
	Humidity	5% to 90% (non-condensing)
	Altitude	To 40,000 feet
<b>Dimensions</b>	Physical	445.2 mm (W) x 376 mm (H) x 189.4 mm (D) 17.5" (W) x 14.8" (H) x 7.5" (D)
<b>Weight</b>	Physical	7.54 lb (3.42 kg)
<b>Regulations</b>		BSMI, CCC, PSB, C-Tick, KC, CE, Ergo, Gost-R/Hygienic, Ukraine, SASO, UL/cUL, NOM, FCC-B, ICES-B, TUV-S/UL-AR S Mark
<b>Power saving modes</b>	On	35W (Typical) (VA1932wa) (blue LED) 40W (Typical) (VA1932wma) (blue LED)
	Off	<0.5W

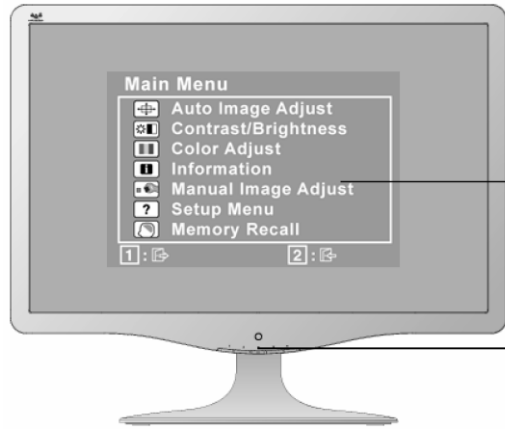
**Preset Timing Mode**(pre-adjusted to VESA@1440 x 900 @ 60 Hz)

**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.

### 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. The OSD controls are explained at the top of the next page and are defined in "Main Menu Controls" on page 10.

#### VA1932wa



**Main Menu**  
with OSD controls

**Front Control Panel**  
shown below in detail

Displays the control screen for the highlighted control.

Also toggles between two controls on some screens.

Also a shortcut to Auto Image Adjust.

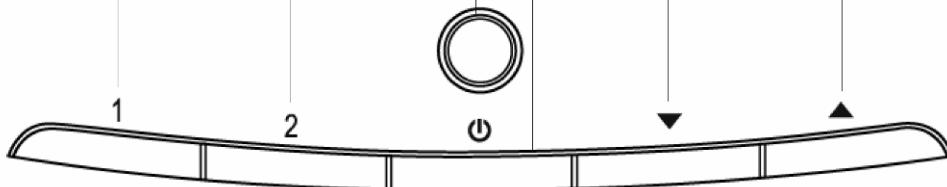
Displays the Main Menu or exits the control screen and saves adjustments.

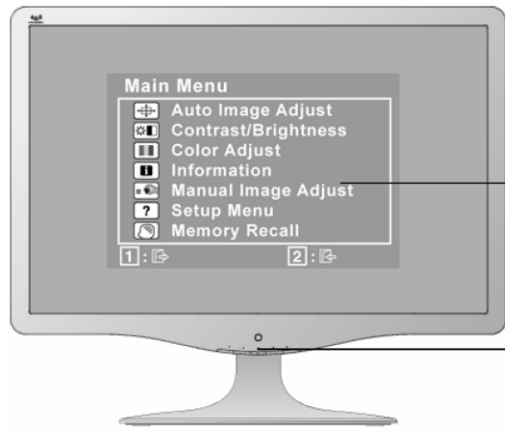
Power light  
Blue = ON  
Orange = Power Saving

Standby Power On/Off

Scrolls through menu options and adjusts the displayed control.

Brightness (▼) / Contrast (▲)





**Main Menu**  
with OSD controls

**Front Control Panel**  
shown below in detail

Displays the control screen for the highlighted control.

Also toggles between two controls on some screens.

Also a shortcut to Auto Image Adjust.

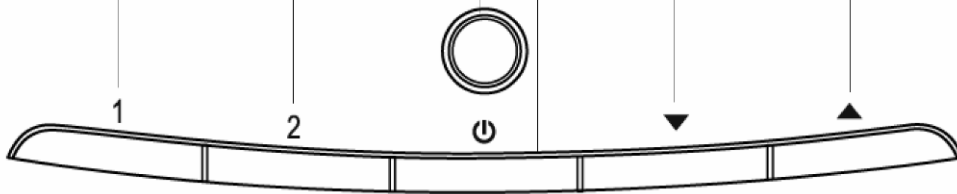
Displays the Main Menu or exits the control screen and saves adjustments.

Power light  
Blue = ON  
Orange = Power Saving

Standby Power On/Off

Scrolls through menu options and adjusts the displayed control.

Brightness (▼) / Contrast (▲)

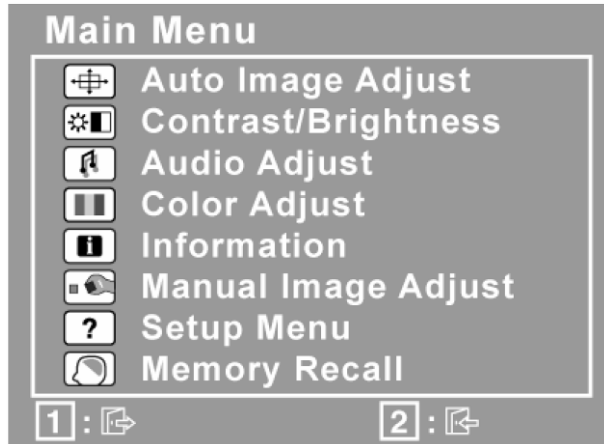
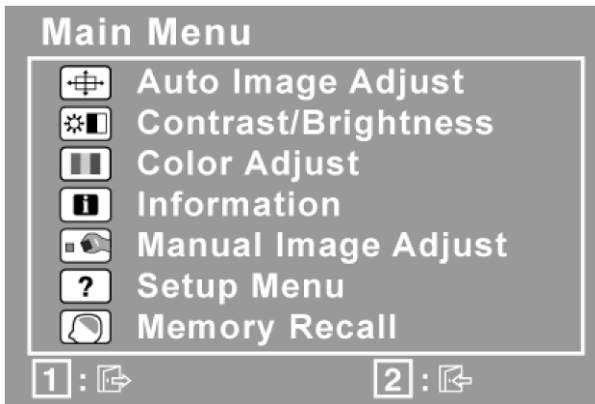


**Do the following to adjust the display setting:**

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

VA1932wa

VA1932wma



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.


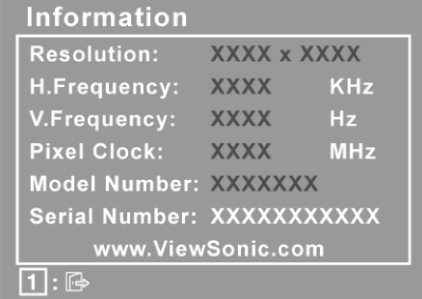

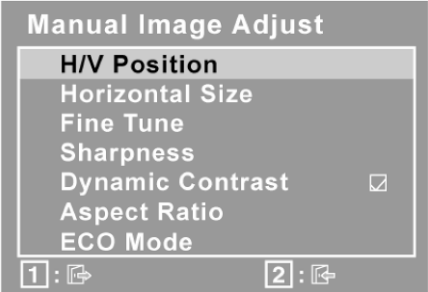

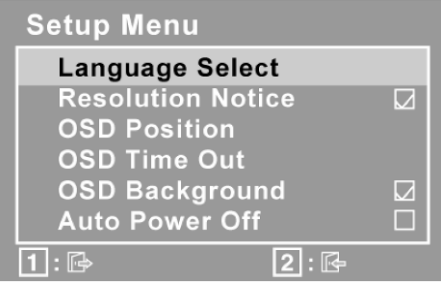
**The following tips may help you optimize your display:**


- Adjust the computer's graphics card so that it outputs a 1400 x 900 @ 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>Audio Adjust (For VA1932wma only)</b></p> <p><b>Volume</b> increases the volume, decreases the volume, and mutes the audio.</p> <p><b>Mute</b> temporarily silences audio output.</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="300 1050 751 1346" style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Color Adjust</p> <ul style="list-style-type: none"> <li>sRGB</li> <li><b>9300K</b></li> <li>7500K</li> <li>6500K</li> <li>5000K</li> <li>User Color</li> </ul> <p>[1] : [↩]                      [2] : [↩]</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 sRGB setting will cause the 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>7500K</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>5000K</b>-Adds red to the screen image for warmer white and richer red.</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 RECALL 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).</p> <p><b>NOTE:</b> VESA 1400 x 900 @ 60Hz (recommended) means that the resolution is 1400 x900 and the refresh rate is 60 Hertz.</p> 
	<p><b>Manual Image Adjust</b> displays 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>Dynamic Contrast</b> allows the user to turn the contrast ratio enhancement on or off.</p> <p><b>Aspect ratio</b> Selects the image size for 4:3 and full screen.</p> <p><b>ECO Mode</b> provides the lower power consumption by reducing the brightness.</p> <p><b>Standard:</b> The default brightness setting.</p> <p><b>Optimize:</b> Decreases the brightness by 25 %.</p> <p><b>Conserve:</b> Decreases the brightness by 50 %.</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> <p><b>Auto Power Off:</b> if enabled, will power off the display automatically when no signal is detected for 3 minutes.</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 Dynamic Contrast control, Language Select or Power Lock setting.</p>

## 4. Circuit Description

### 4.1 Main Board

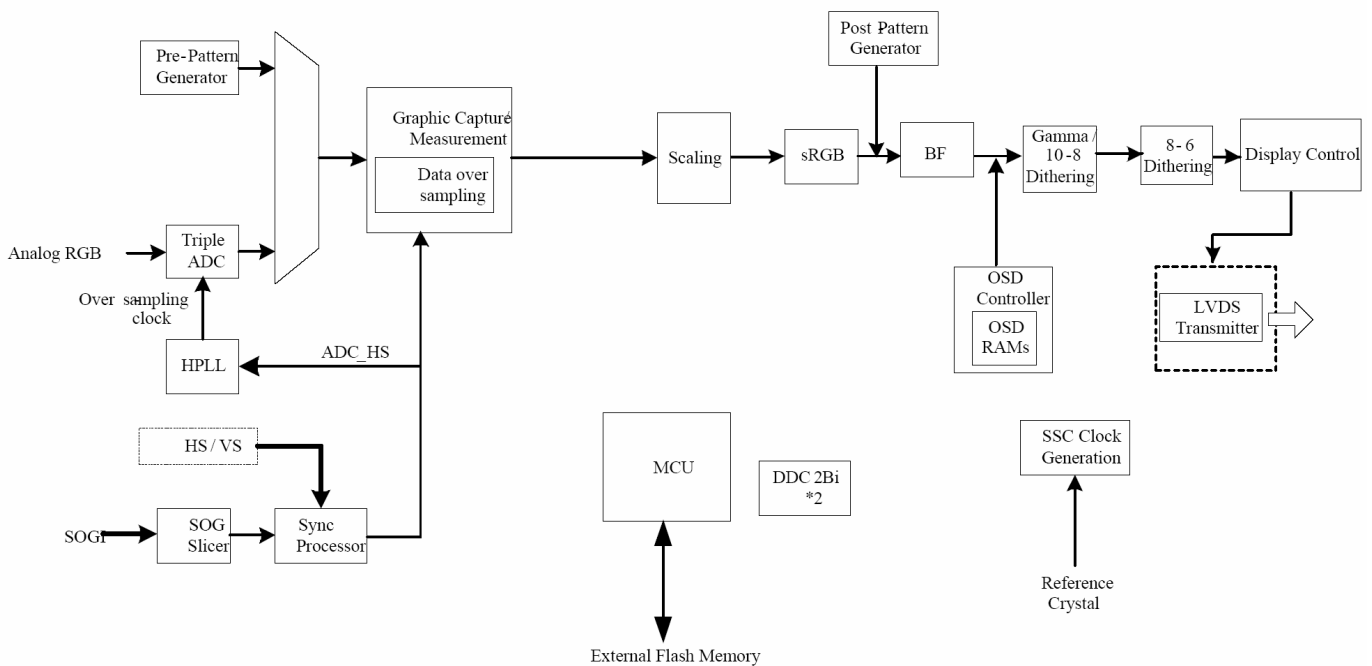
#### SCALAR IC--- NT68167FG/D (U401)

The NT68167 is a highly integrated flat panel display controller that interfaces analog, digital, and video inputs. It combines a triple ADC, a high quality zoom and shrinks engine, a multi-color on screen display (OSD) controller and many other functions in a single chip. It provides the user with a simple, flexible and cost-effective solution for various flat panel display products.

The NT68167 operates at frequencies up to 166MHz, suitable for LCD monitor up to 1680x1050@75 resolution and NT68167U operates at frequencies up to 190MHz, suitable for LCD monitor up to 1920x1080@75 resolution. The NT68167 also has a built-in noise reduction function to provide more stable video quality, spread spectrum to provide low EMI solution, sRGB for video color space convert and post pattern for manufacture test.

The display provided single/double pixel clock LVDS interface.

In addition, NT68167 includes an integrated 8-Bit Microcontroller (MCU). It contains an 8-bit 8031 micro-controller, 1,280-bytes internal data memory, four 7-bit resolutions A/D Converter, 10-channel 8-bit resolution PWM DAC, and a UART. Except those, it has one-channel hardware DDC solution, and VESA 2Bi/2B+ master/slave I2C bus interface.



## Pin Assignment

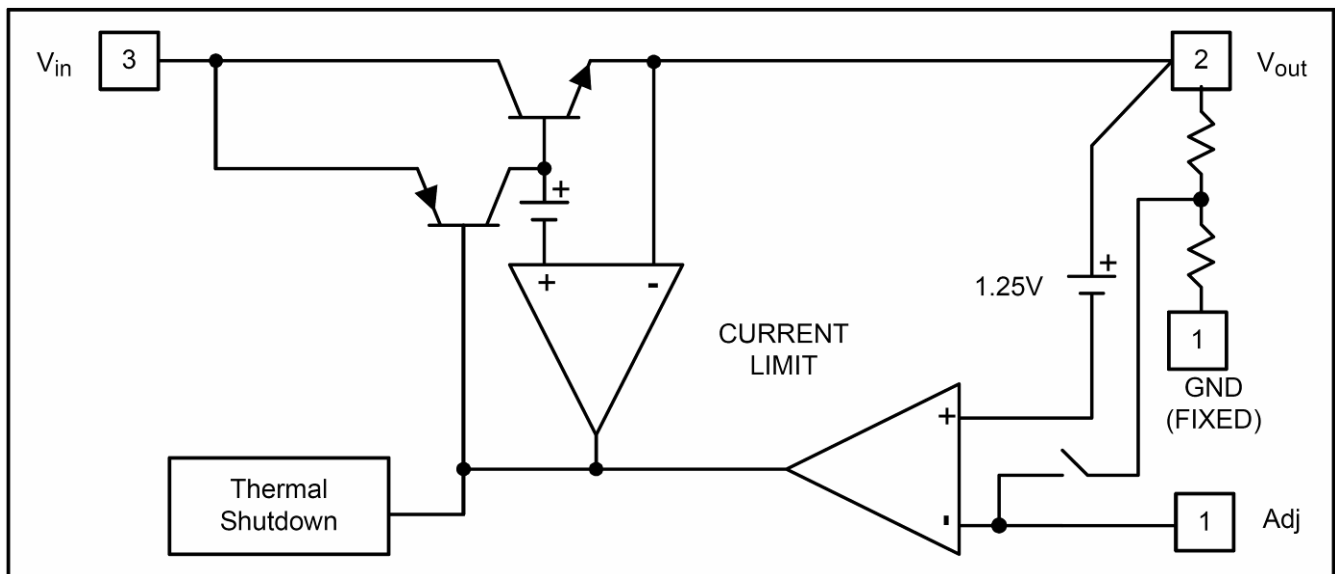
No.	Pin	Type	Definition
1	ADC_VAA 3.3	Power	Internal LDO 3.3V input for ADC power , External capacitor (0.1uF) connected is recommended.
2	ADC_VAA 1.8	Power	Internal LDO 1.8V output for ADC power , External capacitor (0.1uF) connected is recommended.
3	AGND	Power	ADC analog GND.
4	BIN1+	I	B channel positive analog video input
5	BIN1-	I	B channel negative analog video input
6	SOGI	I	VGA Port Sync On Green Input with Schmitt trigger
7	GIN1+	I	G channel positive analog video input
8	GIN1-	I	G channel negative analog video input
9	RIN1+	I	R channel positive analog video input
10	RIN1-	I	R channel negative analog video input
11	DVDD_BIAS	Power	Display Digital Power Supply
12	DVDD	Power	Display Digital Power Supply
13	MGND	Power	DVDD_BIAS power ground
14	HSYNCI	I	VGA Port Horizontal Sync Input with Schmitt trigger
15	VSYNCI	I	VGA Port Vertical Sync Input with Schmitt trigger
16	PB4*	I/O	5V I/O Pin; Open-Drain with Schmitt Trigger Input
	DDC_SCL0*	I/O	5V Open-Drain Serial Clock I/O Pin for the DDC Port 0 and the slave/master I <sup>2</sup> C-Bus Port 0/
17	PB5*	I/O	5V I/O Pin; Open-Drain with Schmitt Trigger Input
	DDC_SDA0*	I/O	5V Open-Drain Serial Data I/O Pin for the DDC Port 0 and the slave/master I <sup>2</sup> C-Bus Port 0/
18	RSTB	I	Active-Low Reset Input; with Schmitt Trigger Input
19	SCL/P34	I/O	Host Interface Serial Clock. Incorporate Schmitt trigger buffer & spike filter/ GPIO Port-34 of Micro-Processor F8031
20	PA0	I/O	I/O Pin; Schmitt Trigger Input
	PWM2	O	PWM-Type D/A Converter; 3.3V Push-Pull Structure
21	PA1	I/O	I/O Pin; Schmitt Trigger Input
	PWM3	O	PWM-Type D/A Converter; 3.3V Push-Pull Structure
22	PB0/ADC0	I/O	I/O Pin; Push-Pull Structure with Schmitt Trigger Input A/D Converter Input-0; Hi-Z input
23	PB1/ADC1	I/O	I/O Pin; Push-Pull Structure with Schmitt Trigger Input A/D Converter Input-1; Hi-Z input
24	DGND	Power	Digital Ground
25	CVDD 3.3	Power	Core logic power supply (3.3V) pin.
26	CVDD 1.8	Power	Core logic power supply 1.8V output
27	PA4*	I/O	I/O Pin; Open-Drain Structure with Schmitt Trigger Input
	PWM6*	O	PWM-Type D/A Converter; 5V Open-Drain Structure
28	PA5*	I/O	I/O Pin; Open-Drain Structure with Schmitt Trigger Input
	PWM7*	O	PWM-Type D/A Converter; 5V Open-Drain Structure
29	PC0*	I/O	I/O Pin; 5V Open-Drain Structure with Schmitt Trigger

			Input
	PWMA*	O	PWM-Type with 5V Open-Drain Structure
30	P30	I/O	GPIO Port-30 of Micro-Processor F8031
	RXD	I	UART RX Data Input of Micro-Processor F8031
31	P31	I/O	GPIO Port-31 of Micro-Processor F8031
	TXD	O	UART TX Data Output of Micro-Processor F8031
32	T7P	LVDSO	Positive LVDS differential data output of channel 7
33	T7M	LVDSO	Negative LVDS differential data output of channel 7
34	T6P	LVDSO	Positive LVDS differential data output of channel 6
35	T6M	LVDSO	Negative LVDS differential data output of channel 6
36	T5P	LVDSO	Positive LVDS differential data output of channel 5
37	T5M	LVDSO	Negative LVDS differential data output of channel 5
38	T4P	LVDSO	Positive LVDS differential data output of channel 4
39	T4M	LVDSO	Negative LVDS differential data output of channel 4
40	T3P	LVDSO	Positive LVDS differential data output of channel 3
41	T3M	LVDSO	Negative LVDS differential data output of channel 3
42	TCLK1P	LVDSO	Positive LVDS differential clock 1 output
43	TCLK1M	LVDSO	Negative LVDS differential clock12 output
44	T2P	LVDSO	Positive LVDS differential data output of channel 2
45	T2M	LVDSO	Negative LVDS differential data output of channel 2
46	T1P	LVDSO	Positive LVDS differential data output of channel 1
47	T1M	LVDSO	Negative LVDS differential data output of channel1
48	T0P	LVDSO	Positive LVDS differential data output of channel 0
49	T0M	LVDSO	Negative LVDS differential data output of channel 0
50	DGND	Power	Digital Ground
51	SDA/P35	I/O	Host Interface Serial Data In/Out. Incorporate Schmitt trigger buffer & spike filter/ GPIO Port-35 of Micro-Processor F8031
52	PC1*	I/O	I/O Pin; 5V Open-Drain Structure with Schmitt Trigger Input
	PWMB*	O	PWM-Type with 5V Open-Drain Structure
53	PA7*	I/O	I/O Pin; Open-Drain Structure with Schmitt Trigger Input
	PWM9*	O	PWM-Type D/A Converter; 5V Open-Drain Structure
54	PA6*	I/O	I/O Pin; Open-Drain Structure with Schmitt Trigger Input
	PWM8*		PWM-Type D/A Converter; 5V Open-Drain Structure
55	PB3	I/O	I/O Pin; Push-Pull Structure with Schmitt Trigger Input
	ADC3	I	A/D Converter Input-3; Hi-Z input
	INTE1	I	External Interrupt input 1; Schmitt Trigger Input
56	PB2	I/O	I/O Pin; Push-Pull Structure with Schmitt Trigger Input
	ADC2	I	A/D Converter Input-2; Hi-Z input
	INTE0	I	External Interrupt input 0, Schmitt Trigger Input
57	PA3	I/O	I/O Pin; Schmitt Trigger Input
	PWM5	O	PWM-Type D/A Converter; 3.3V Push-Pull Structure
58	PA2	I/O	I/O Pin; Schmitt Trigger Input
	PWM4	O	PWM-Type D/A Converter; 3.3V Push-Pull Structure
59	SPI_CLK	O	External FLASH CLK
60	SPI_SO	I	External FLASH serial data output
61	SPI_SI	O	External FLASH serial data input
62	SPI_CE	O	External FLASH chip enable
63	OSCO	I	External Crystal OSC output
64	OSCI	O	External Crystal OSC input

## DC to DC--- AP1117E18LA (U704)

### General Description

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.



### Pin Descriptions

NAME	I/O	PIN #	FUNCTION
Adj (GND)	I	1	A resistor divider from this pin to the $V_{out}$ pin and ground sets the output voltage (Ground only for Fixed-Mode).
$V_{out}$	O	2	The output of the regulator. A minimum of 10uF capacitor ( $0.15\Omega \leq ESR \leq 20\Omega$ ) must be connected from this pin to ground to insure stability.
$V_{in}$	I	3	The input pin of regulator. Typically a large storage capacitor ( $0.15\Omega \leq ESR \leq 20\Omega$ ) 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 $V_{out}$ in order for the device to regulate properly.

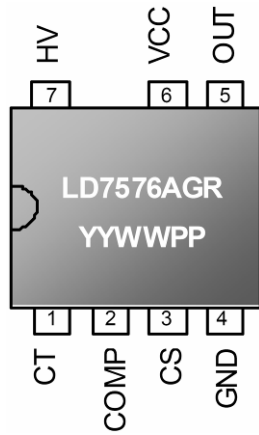
## 4.2 Power Board

### IC901 LD7576AGR

The LD7576A brings high performance, and combines highly integrated functions, protections and EMI-improve solution. It's an ideal solution for those cost-sensitive systems, reducing component count and overall system cost. The LD7576A features near-lossless high voltage startup circuit, green-mode power-saving operation, leading-edge blanking of the current sensing and internal slope compensation. They are also equipped with protections, such as OLP (Over Load Protection), OVP (Over Voltage Protection) and OTP (Over Temperature Protection), to prevent circuit damage under abnormal conditions.

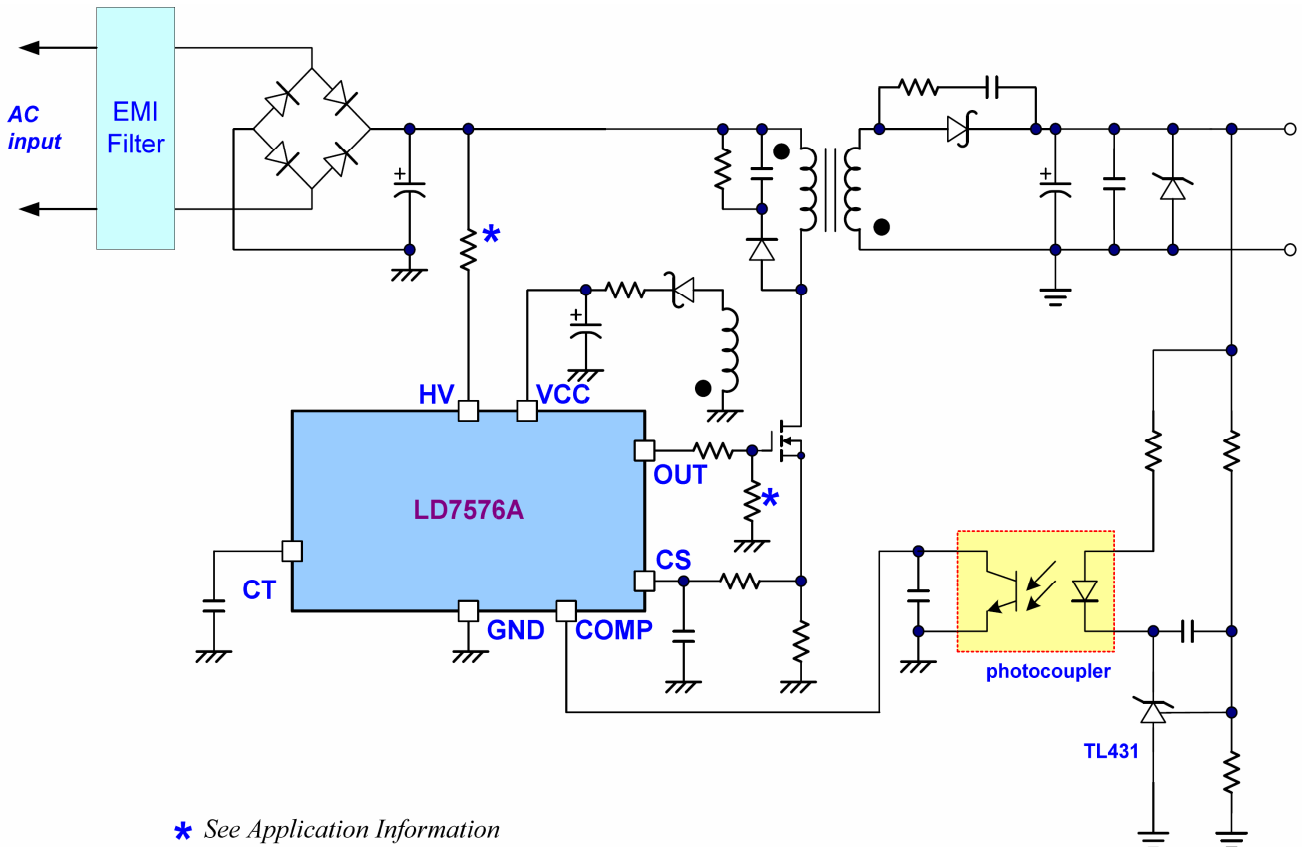
The LD7576A is available in DIP-8 and SOP-8 packages.

#### SOP (TOP VIEW)



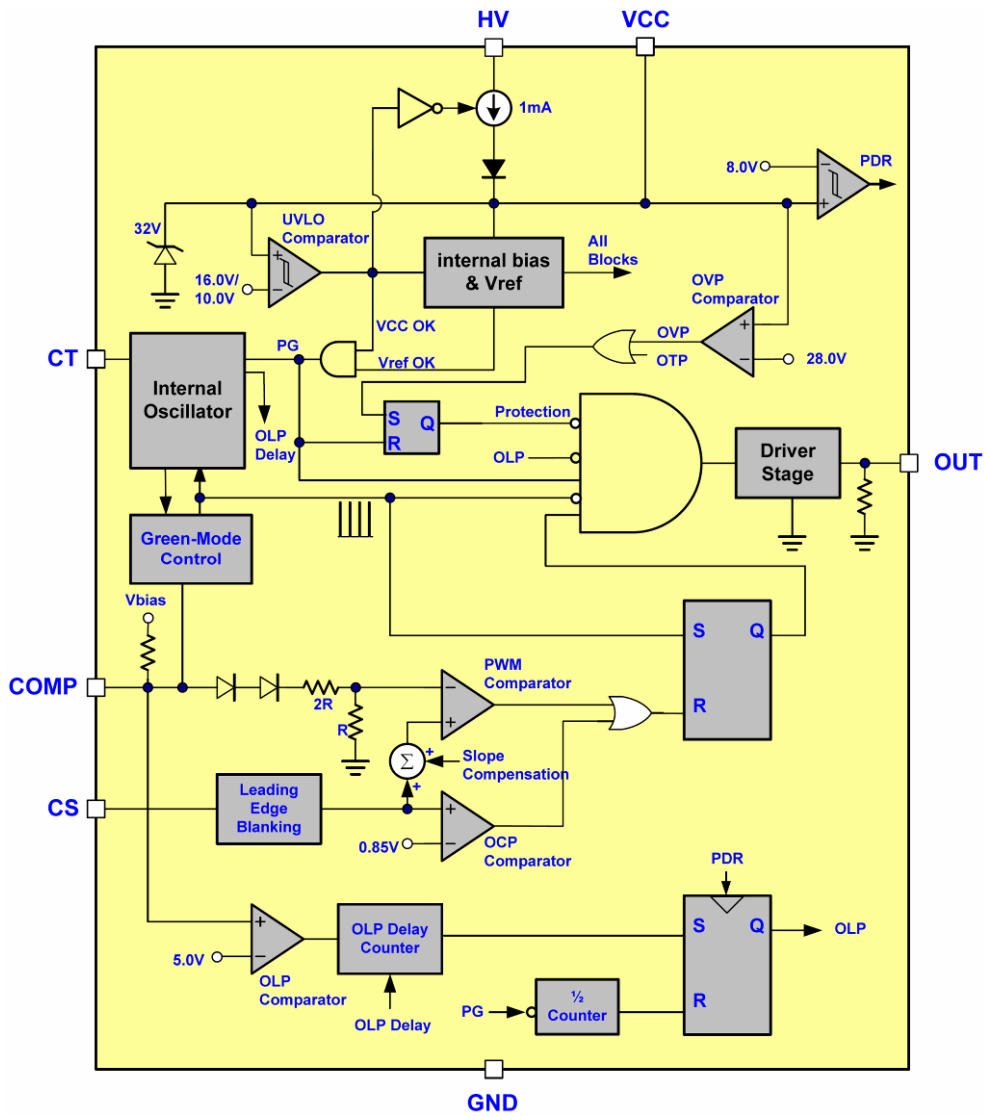
YY: Year code  
 WW: Week code  
 PP: Production code

#### Typical Application



\* See Application Information

## Block Diagram



PIN	NAME	FUNCTION
1	CT	This pin is to program the frequency of a lower frequency timer. Connecting a capacitor to ground sets the OLP delay time.
2	COMP	Voltage feedback pin (same as the COMP pin in UC384X). Connecting a photo-coupler closes the control loop to achieve the regulation. A high quality ceramic capacitor (X7R), with capacitance of 102pF at least, is required for general applications.
3	CS	Current sense pin, for sensing the MOSFET current.
4	GND	Ground.
5	OUT	Gate drive output to drive an external MOSFET.
6	VCC	Supply voltage pin.
7	NC	Unconnected Pin.
8	HV	Connect this pin to a positive terminal of a bulk capacitor to provide the startup current for the controller. When Vcc voltage trips up to the UVLO(on), this HV loop will be off to save the power loss on the startup circuit.

## IC801 ta9687GN-A-0-TR

Ta9687 is a high performance, cost-effective CCFL (Cold Cathode Fluorescent Lamp) controller designed for driving large-size Liquid Crystal Display (LCD) applications requiring 2 to 6 CCFLs.

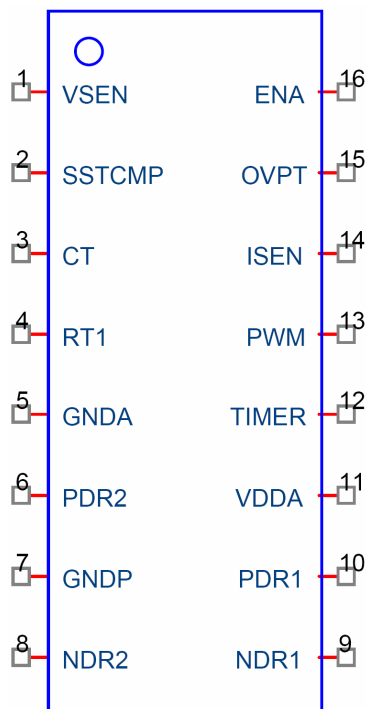
The controller converts unregulated DC voltages into a nearly sinusoidal lamp voltage and current waveforms.

The ta9687 supports full-bridge power conversion topologies while maintaining high-efficiency operation. The controller provides a soft-start operation, current and voltage regulation, over voltage and over-current protection, high drive capability.

The control logic provides a regulated ignition voltage and appropriate protection features for over-voltage or over-current conditions.

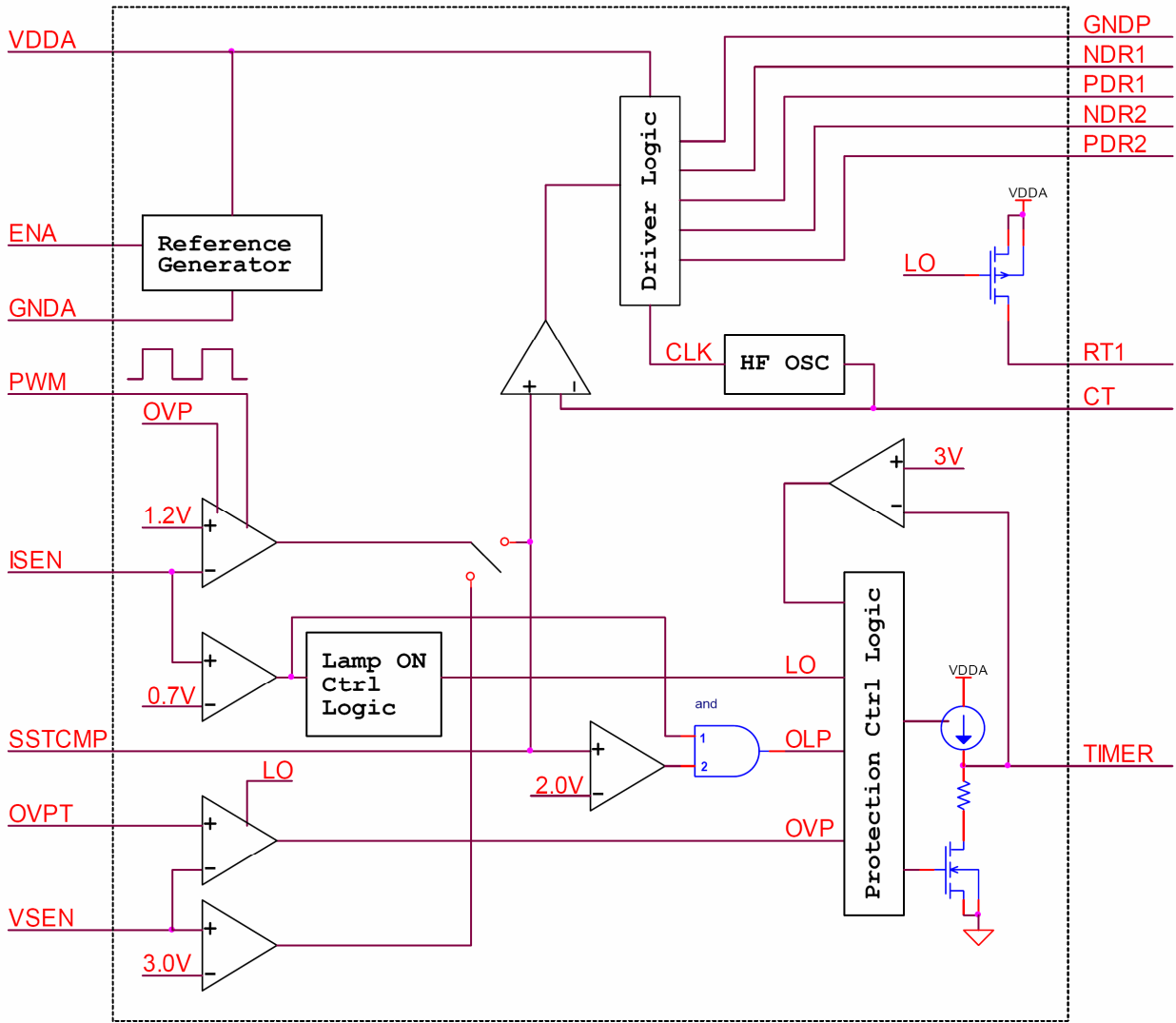
### Features

- Constant operating frequency
- Drives positive/negative-impedance lamps during ignition
- High drive current for external MOSFETs
- User-defined ignition time and shutdown delay time
- Built-in intelligence for ignition and normal operation of CCFLs
- Built-in open-lamp protection and over voltage protection for backlight system
- Optimized soft-start function



Pin Diagram

# FUNCTIONAL BLOCK DIAGRAM



## 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 1440 x 900) 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 1440 x 900 @ 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 3 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 3 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 0 to 9300K colors, MEM. Channel 1 to 7500K colors, MEM. Channel 2 to 6500K MEM. Channel 3 to 5000K MEM. Channel 4 to sRGB** (our 9300 parameter is  $x=283\pm 12, y=297\pm 1$ ; 7500 parameter is  $x=299\pm 12, y=315\pm 12$ ; 6500 parameter is  $x=313\pm 12, y=329\pm 12$ ; and 5000 parameter is  $x=347\pm 12, y=349\pm 12$ ; sRGB parameter is  $x=313\pm 12, y=329\pm 12$ )

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 **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 0 (with up or down arrow on Chroma-C7120)
3. The LCD-indicator on Minolta-CA210 will show  $x = 283 \pm 12$ ,  $y = 297 \pm 12$

#### b. Adjust 7500K color-temperature

4. Switch the Chroma-C7120 to **RGB-mode** (with press "MODE" button)
5. Switch the MEM.channel to Channel 1 (with up or down arrow on Chroma-C7120)
6. The LCD-indicator on Minolta-CA210 will show  $x = 299 \pm 12$ ,  $y = 315 \pm 12$

#### c. Adjust 6500K color-temperature

7. Switch the Chroma-C7120 to **RGB-mode** (with press "MODE" button)
8. Switch the MEM.channel to Channel 2 (with up or down arrow on Chroma-C7120)
9. The LCD-indicator on Minolta-CA210 will show  $x = 313 \pm 12$ ,  $y = 329 \pm 12$

#### d. Adjust 5000K color-temperature

1. Switch the Chroma-C71200 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  $x = 347 \pm 12$ ,  $y = 360 \pm 12$

#### e. Adjust sRGB 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  $x = 313 \pm 12$ ,  $y = 329 \pm 12$

10. Press "1" key to save adjusts value and exit.

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

**Max Brightness measurement:  $>250 \text{ cd/m}^2$**

#### **Test conditions:**

- a. Switch to the full white pattern, in user mode main menu:
  1. Set <Color Settings> Red, Green, and Blue to the max.
  2. Set <Brightness> Brightness, Contrast to the max.

## 5.2 Firmware Upgrade Procedure

### 5.2.1 Equipment needed:

- VA1932wa/wma
- PC (Personal computer)
- LPT cable
- Firmware upgrade program



ISP Board (Part No.: 715LT035-A)

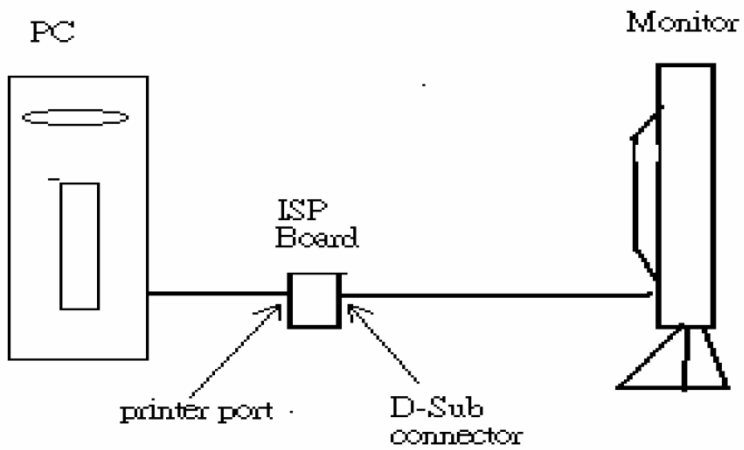


LPT Cable



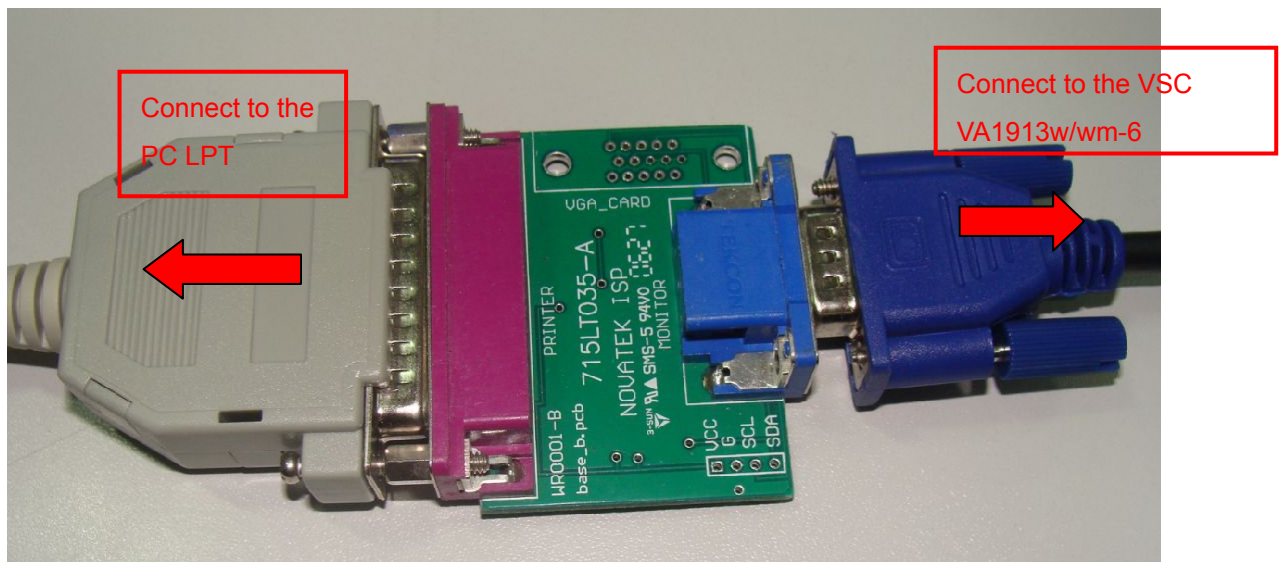
VGA Cable

## Hardware Connect status



### 5.2.2 Update the NOVATEK'S firmware(Take VA2013wm-4 for example)

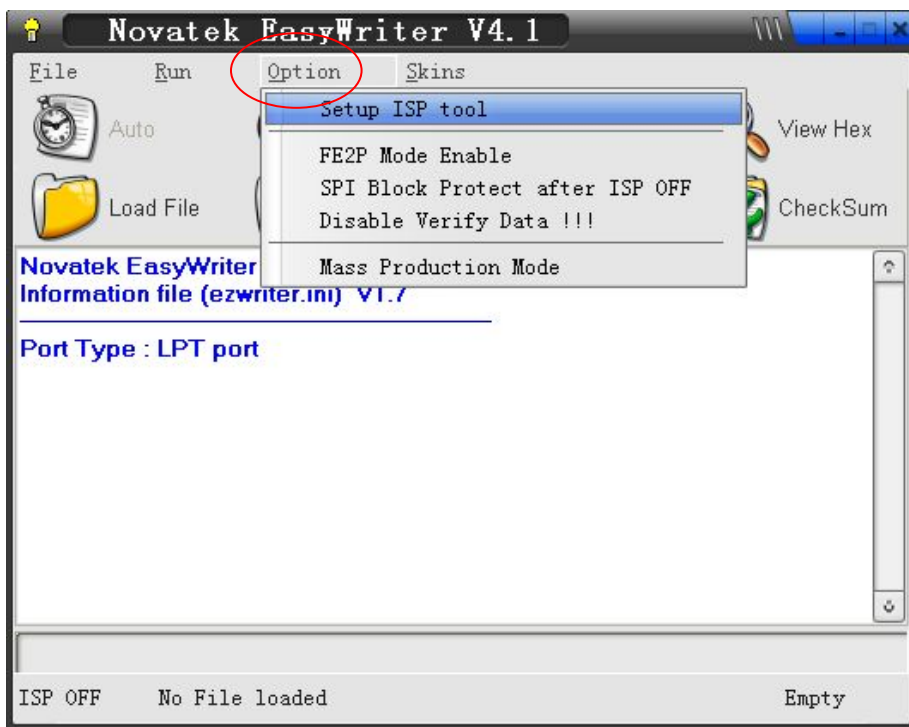
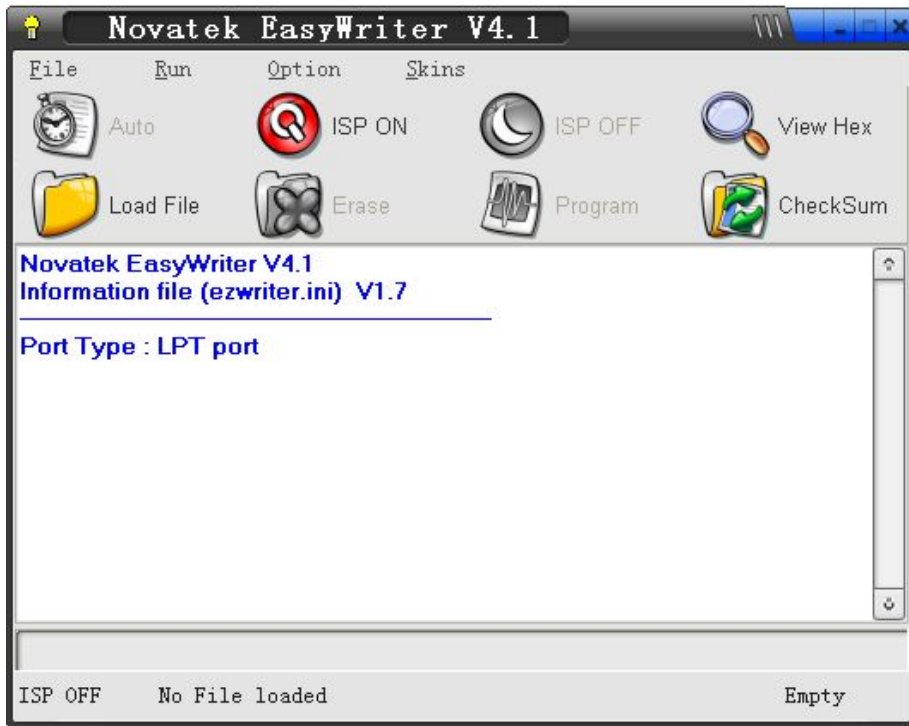
You should jump the pin to "For Flash" at ISP Board

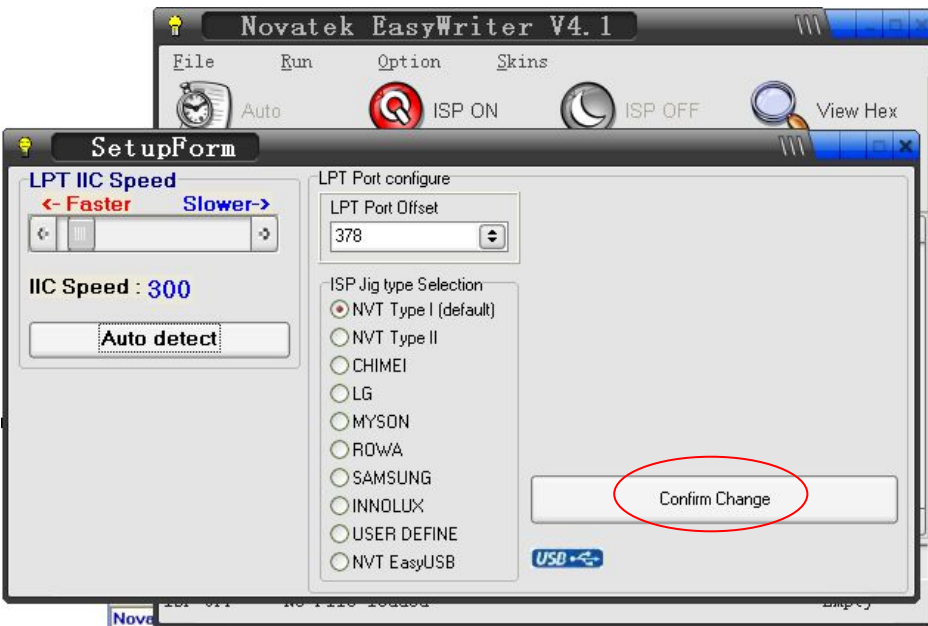
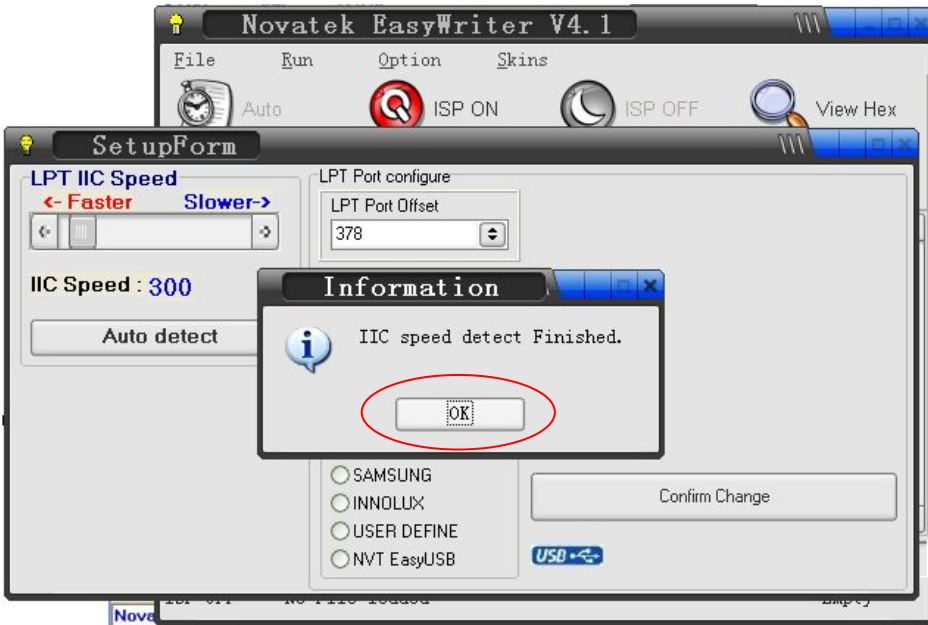
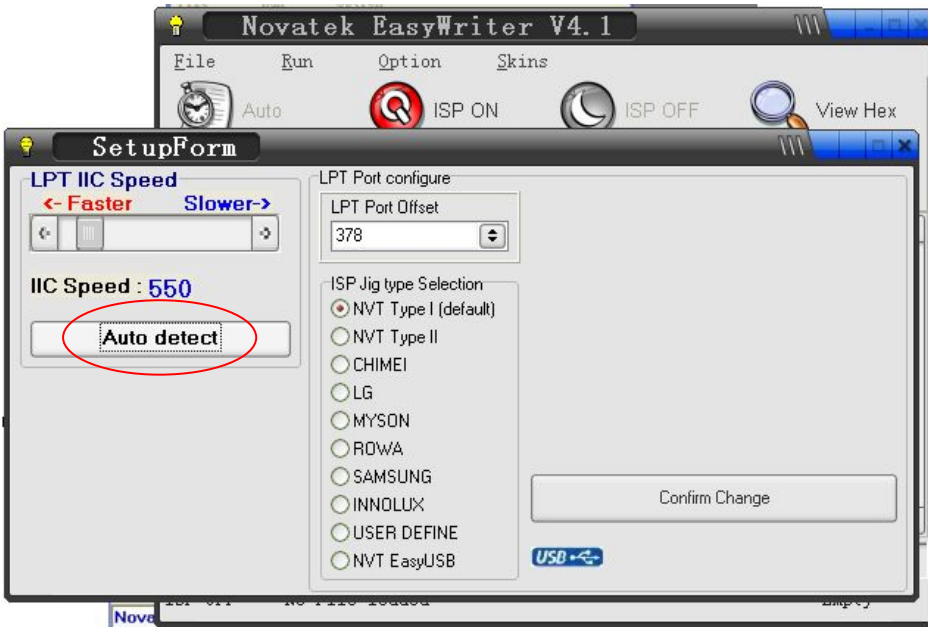


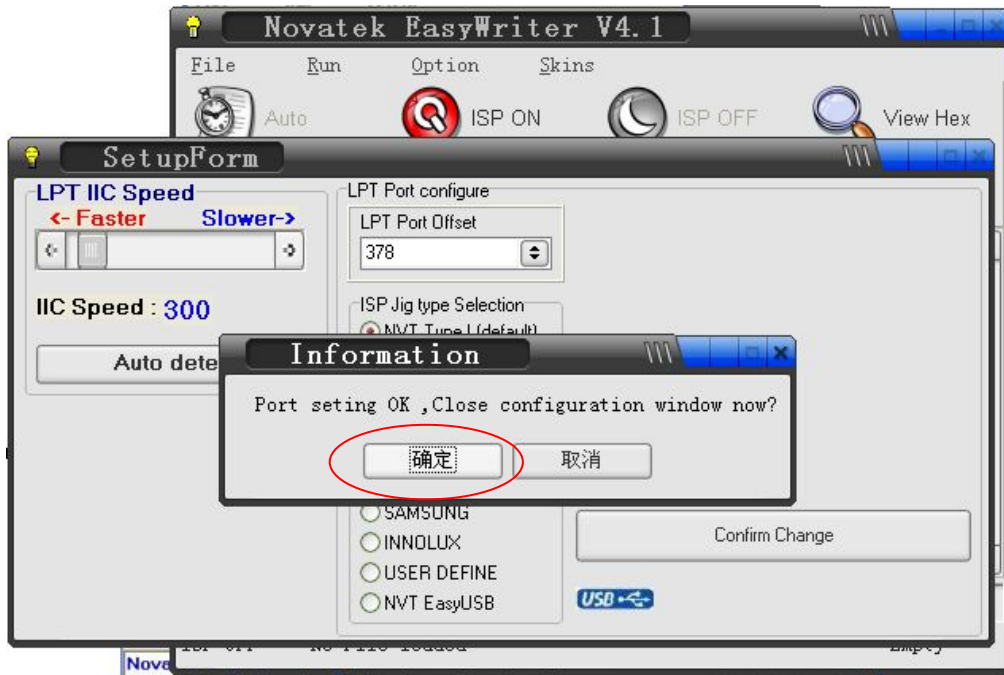
Double click "Writer.exe"



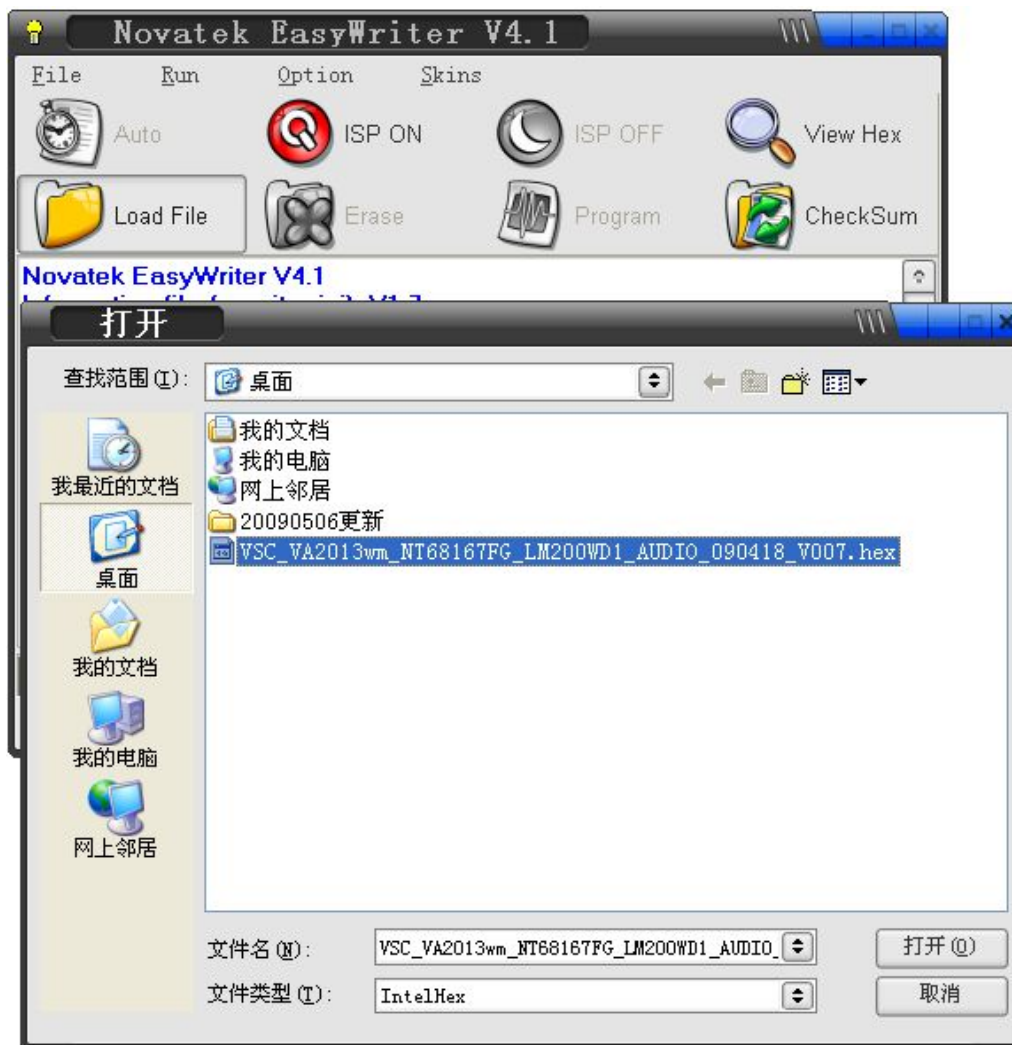
This tool can auto detect the right SCALAR programe speed,the process as follow:

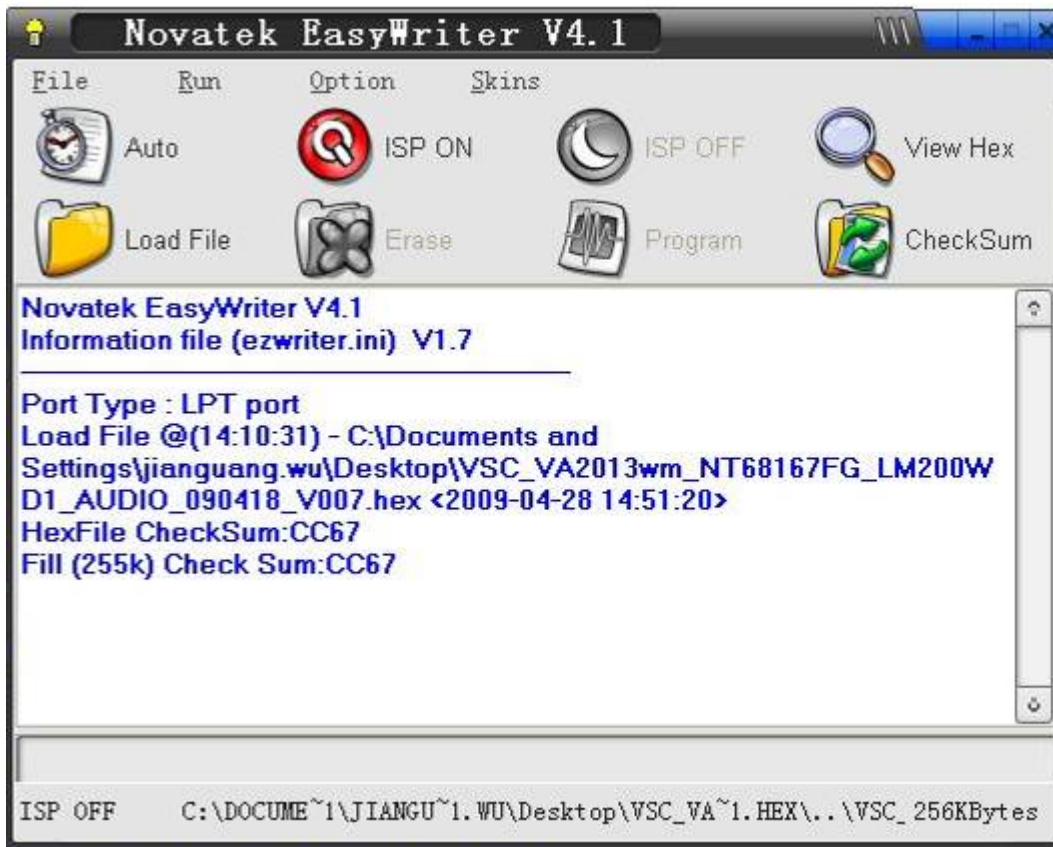




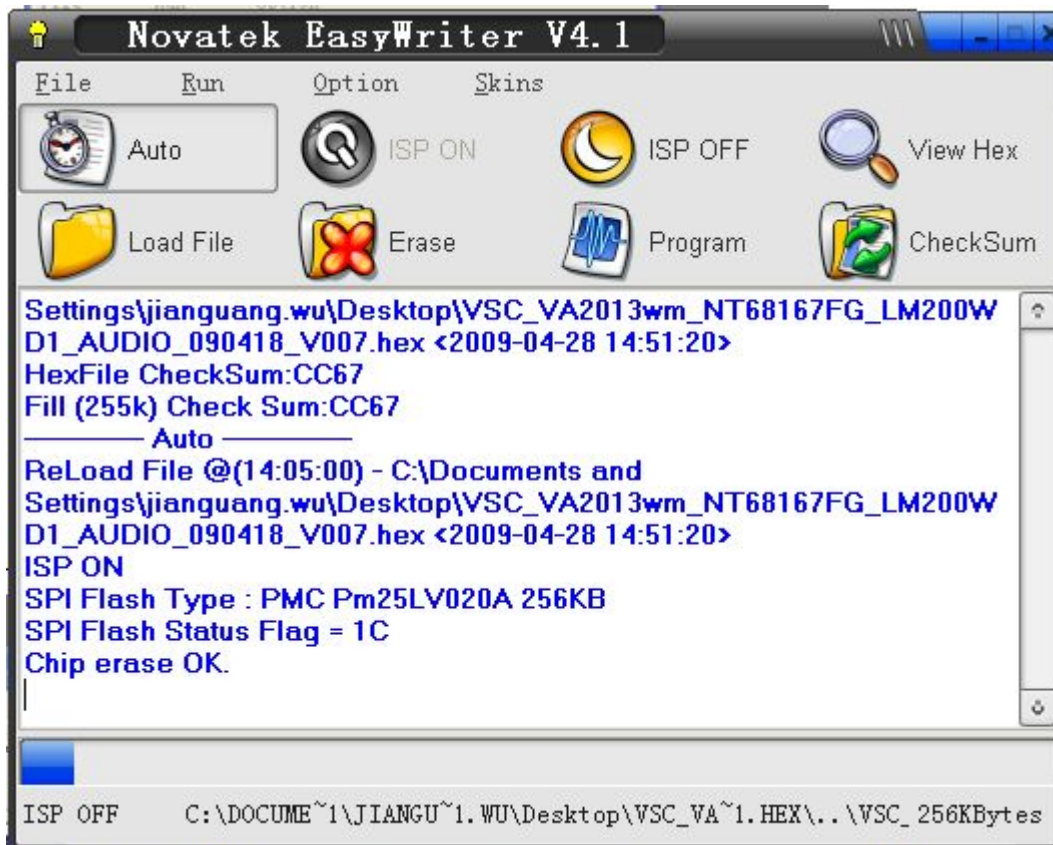


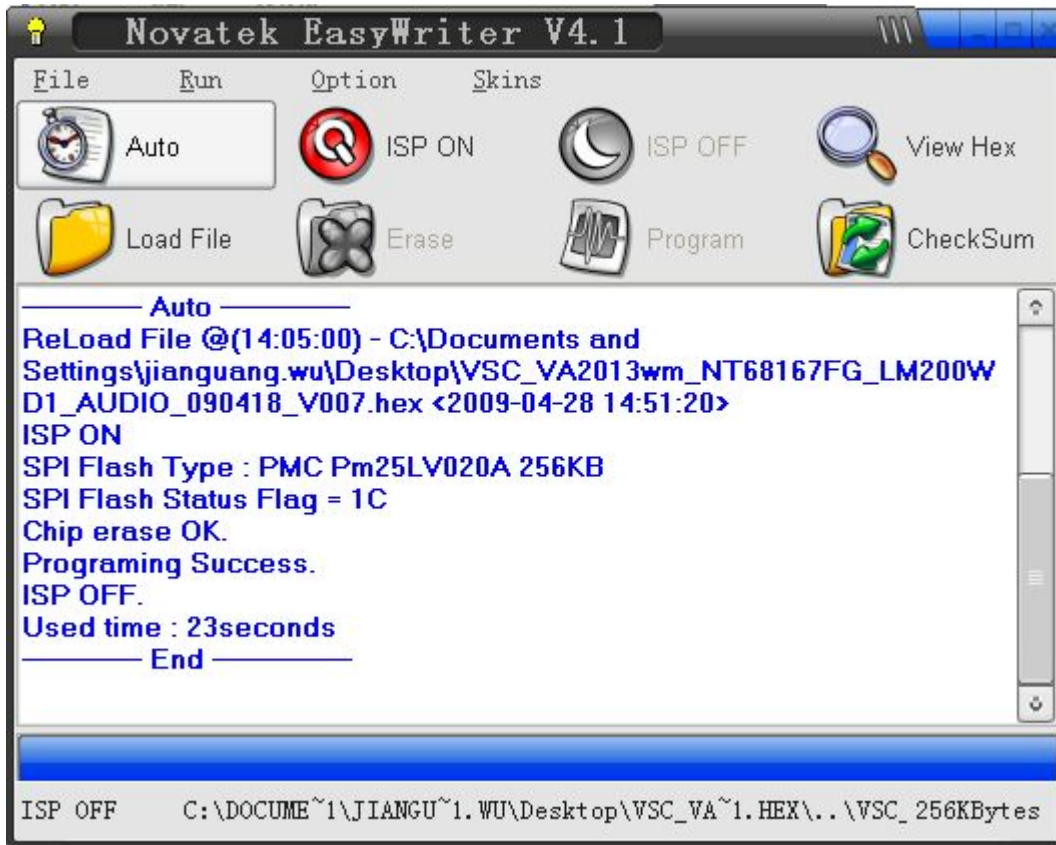
When auto detect is finished,click “Load File”,then chose the firmware that you want to update





Click "Auto", then the update will begin. Wait for a moment until the bar is 100%, the program windows will show "Programming Success". This means the update is successful.





### 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 monitor, you have to do the DDC key in.

#### 5.3.1 Equipment Needed


- VA1932wa/wma
- PC (Personal computer)
- LPT cable
- 12V DC
- Firmware upgrade program
- DDC Card

#### 5.3.2 Install software



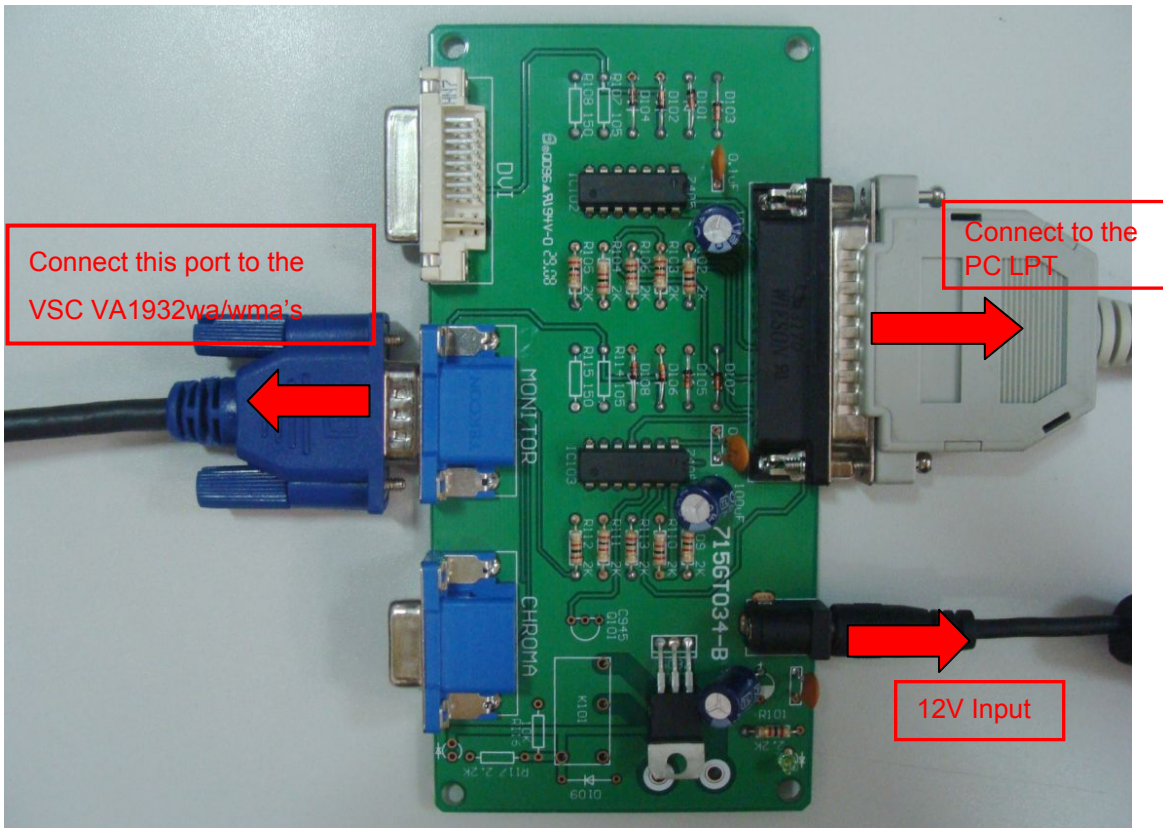
PORT95NT.EXE  
 PackageForTheWeb Stub  
 InstallShield Software Corpora...

You must install the  at the first. The processing as follows:

Click  to complete the installation.

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

**5.3.3 Connect the DDC board as follow:**



Part No.: 715GT034-B

Note: If you can't update the EDID firmware, please cut off the 5th Pin of the VGA cable that connects the monitor side. Picture as below:



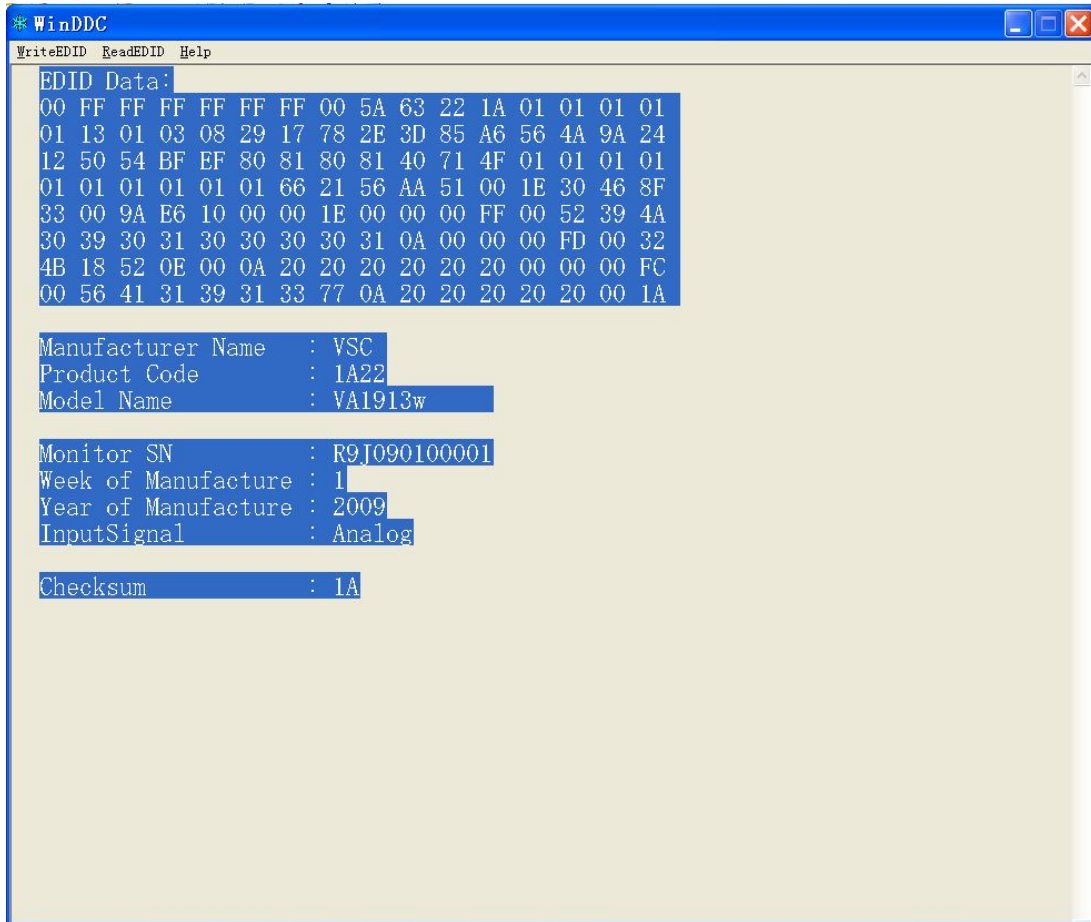
Cut off this Pin

Please connect this port of the VGA cable with the VSC monitor

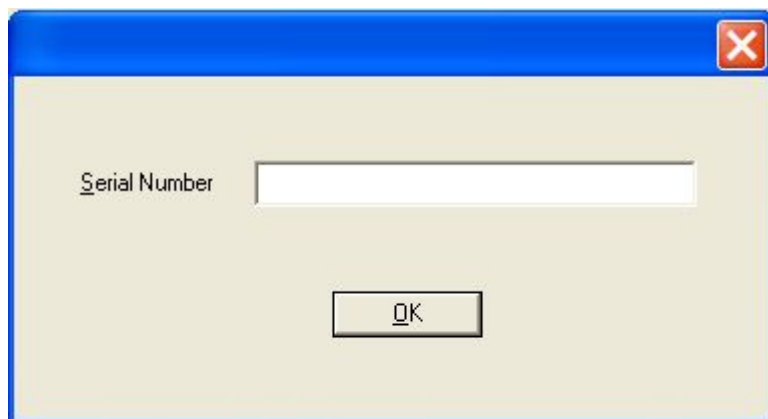
For analog (Take VA1913w-6 for example)



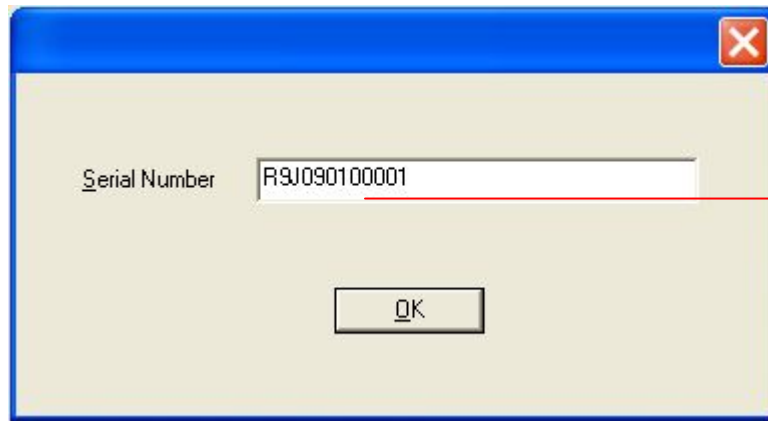
a. Double-click `WinDDC.exe` , appear as follow Figs :



b. Click `WriteEDID`

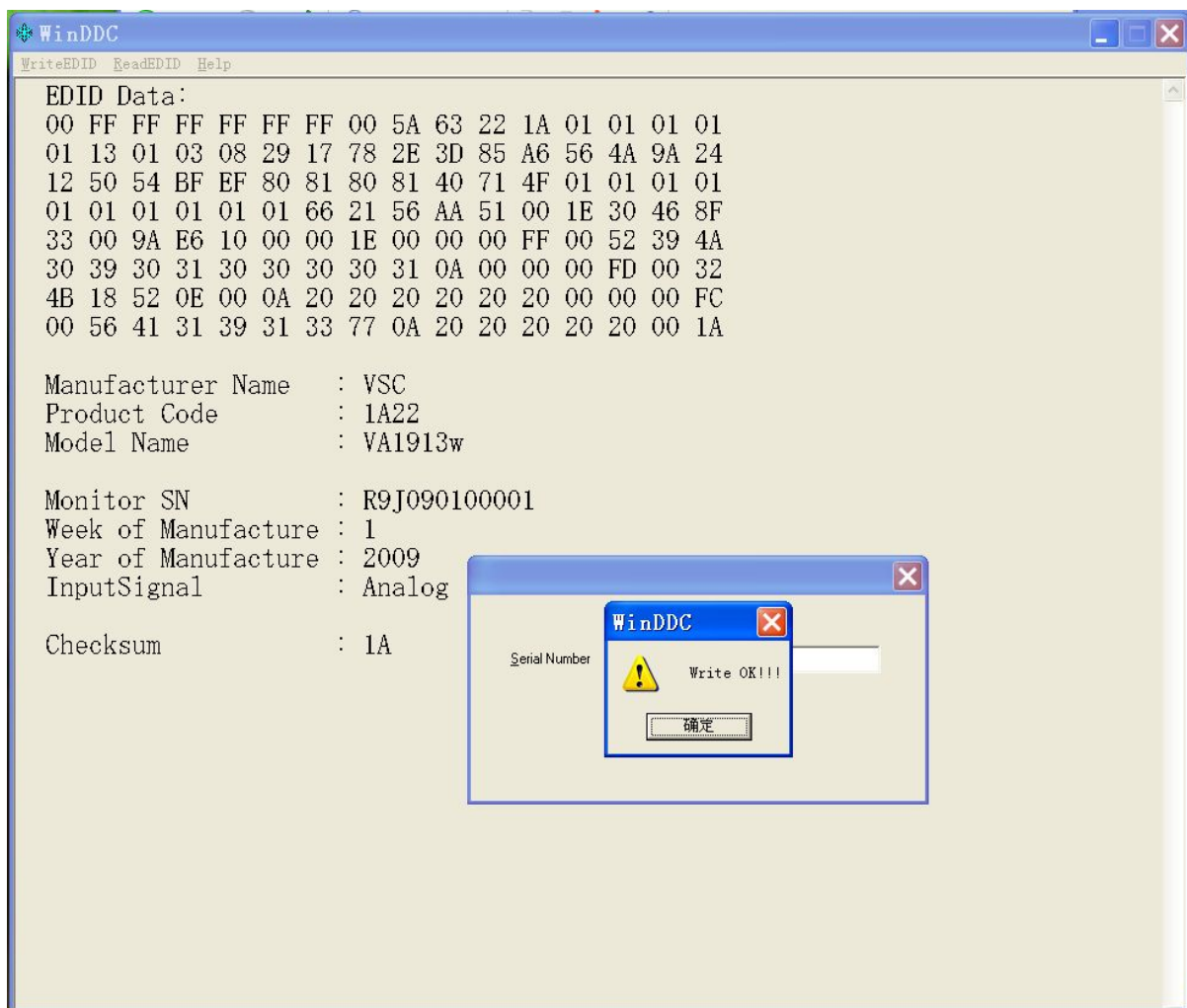


c. Key in the Serial Number printed on the barcode label, then click "OK"

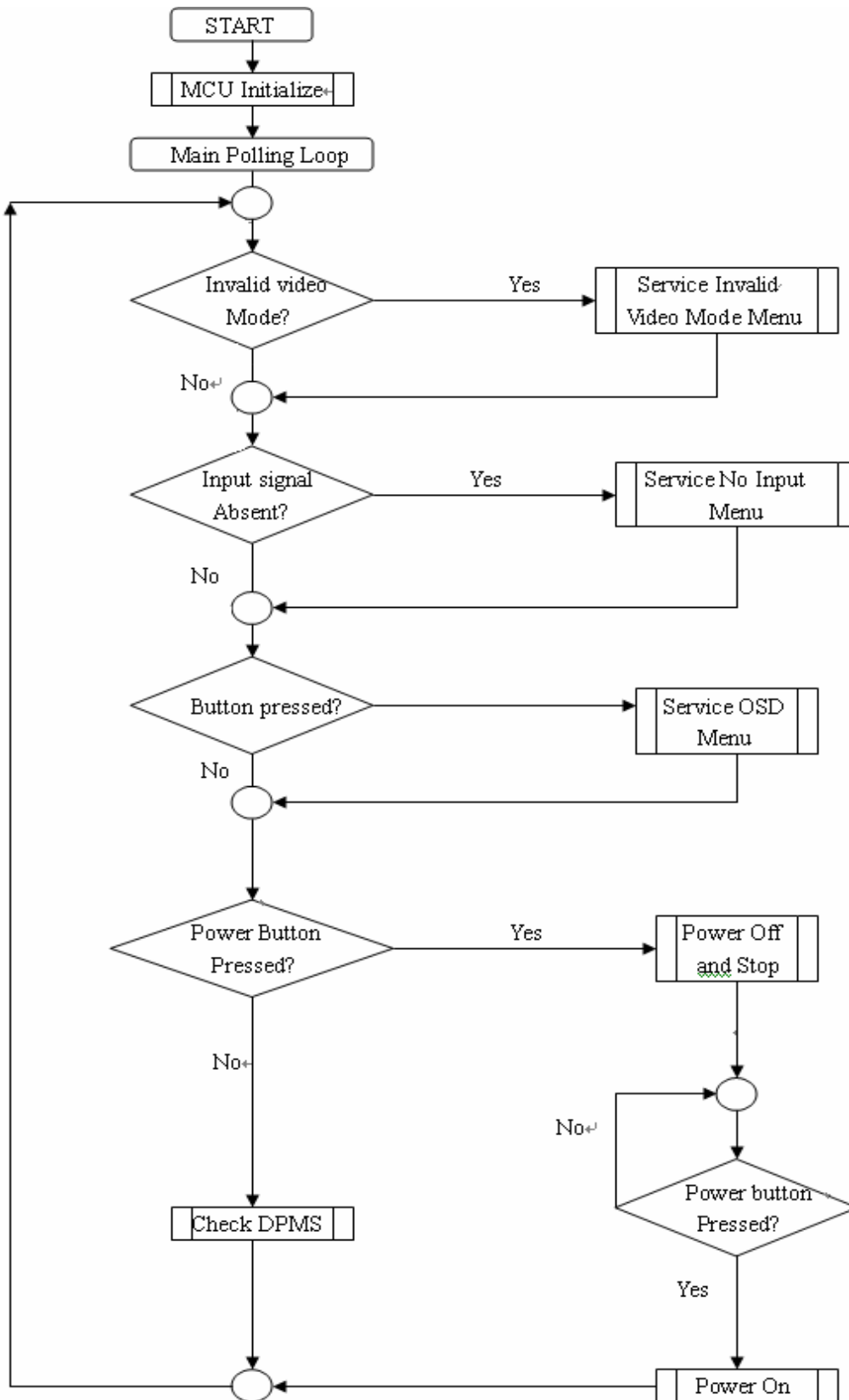


12 codes,  
for example.

d. Unit appears the following Fig, writer completed.

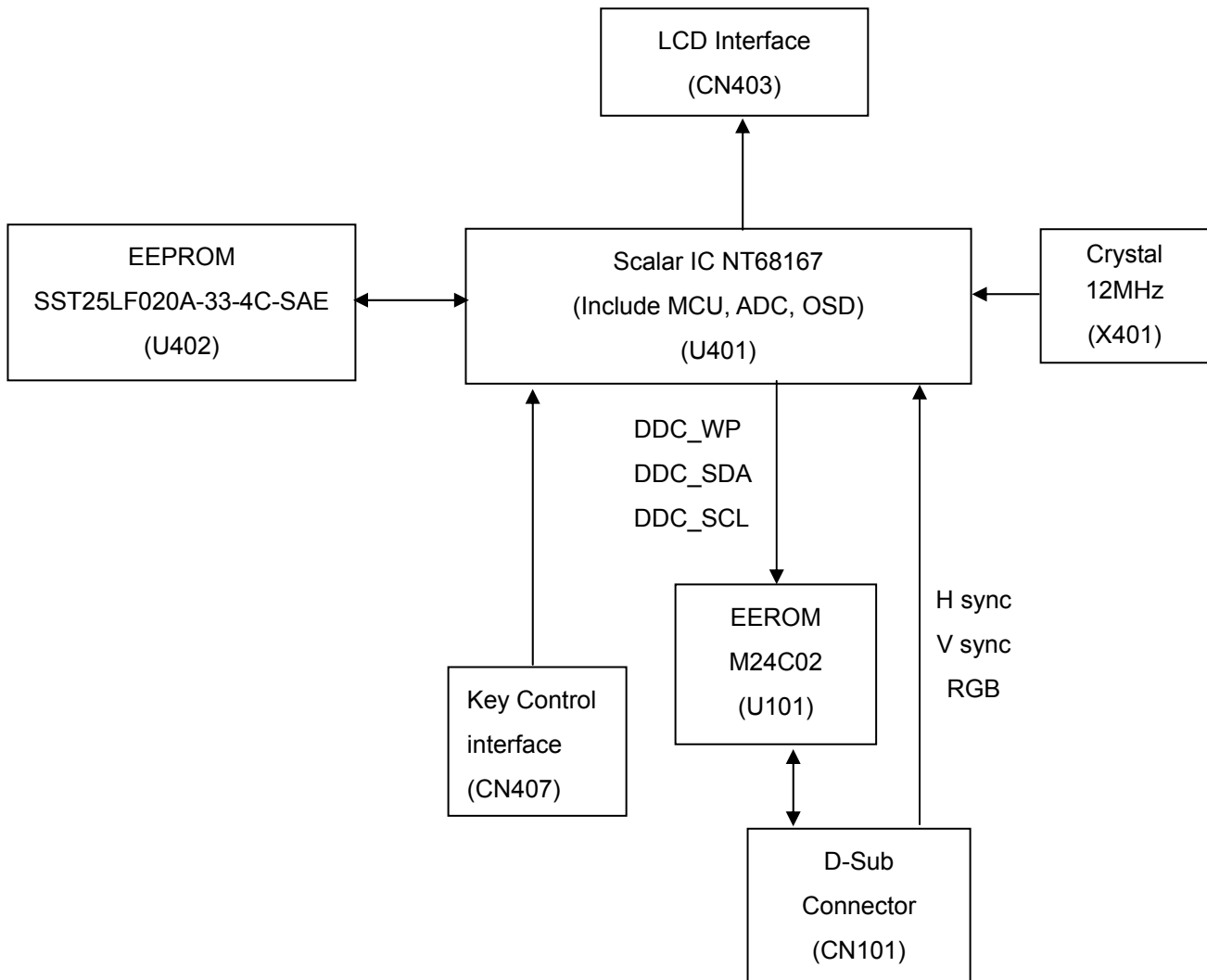


## 6. Troubleshooting Flow Chart



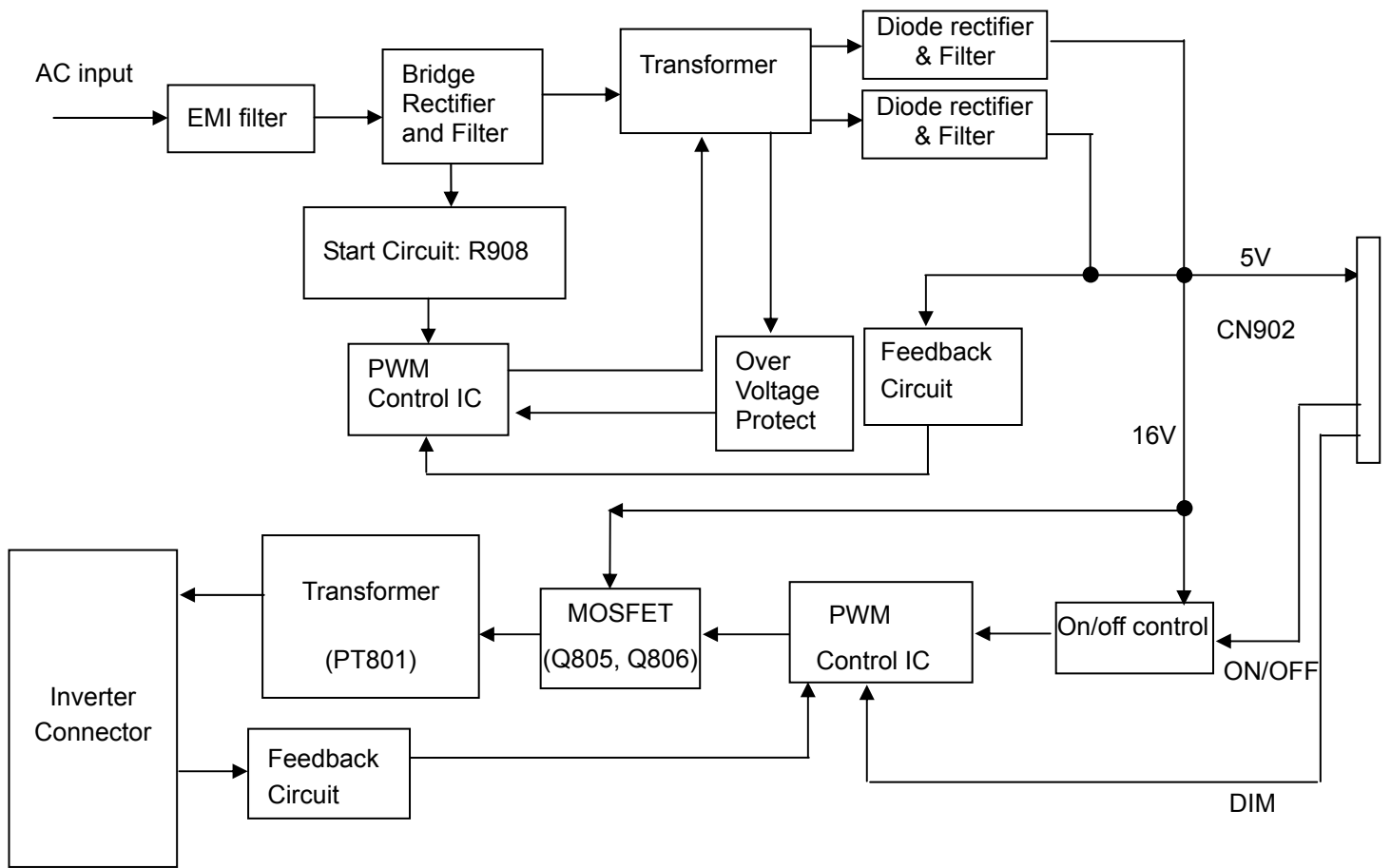
## 7. Block Diagram

### 7.1 Main Board

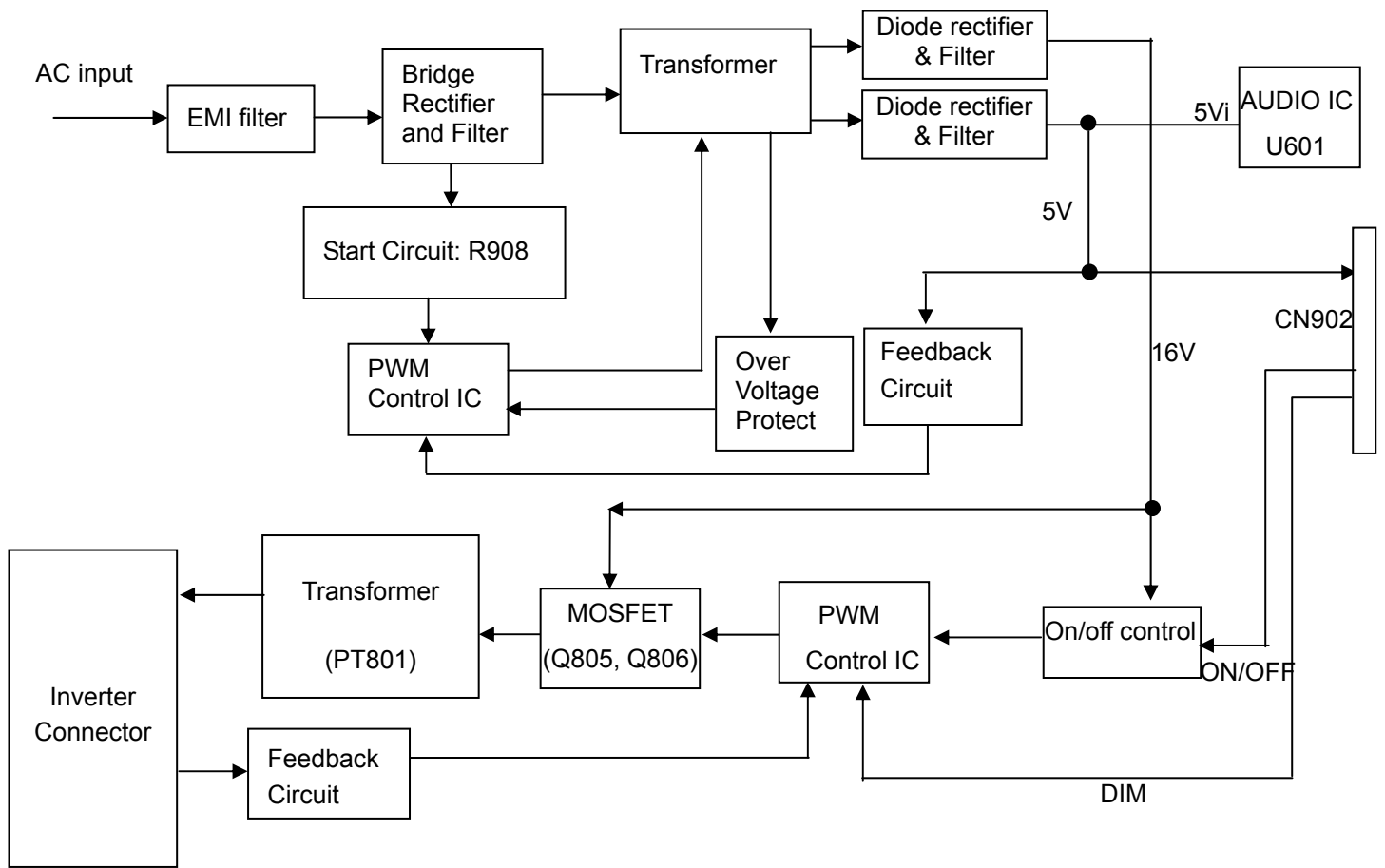


## 7.2 Power Board

For VA1932wa



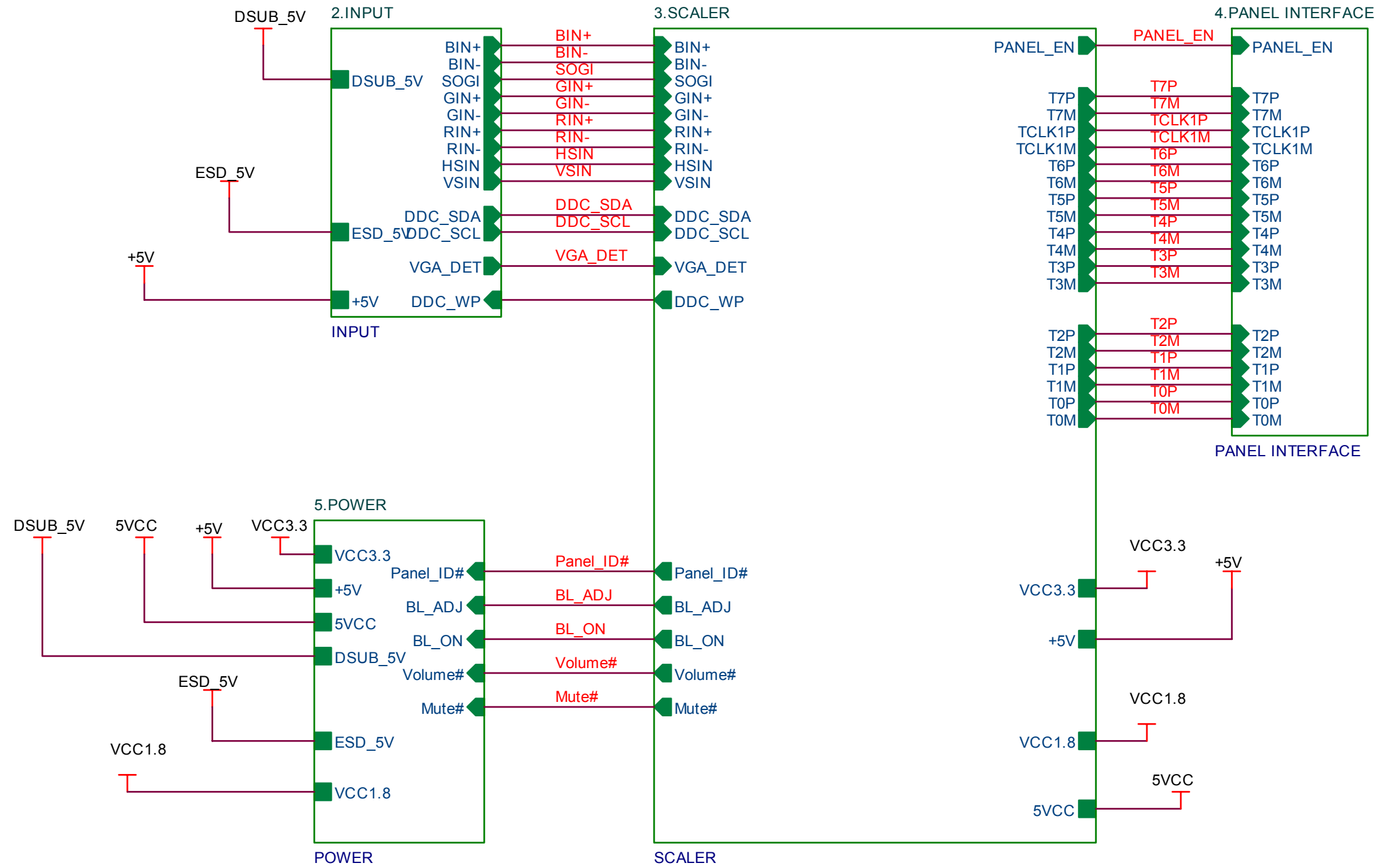
For VA1932wma



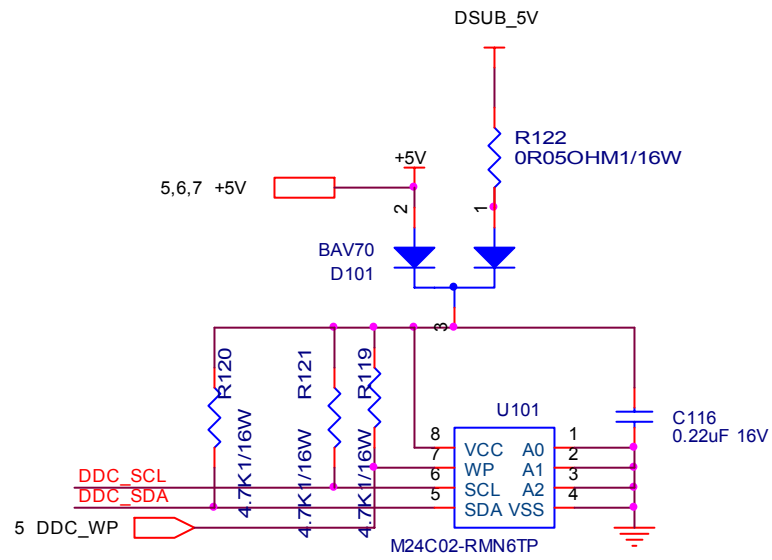
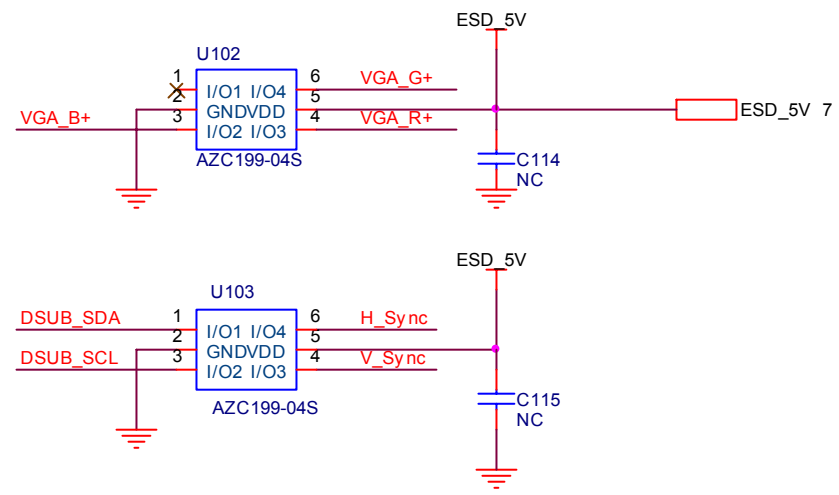
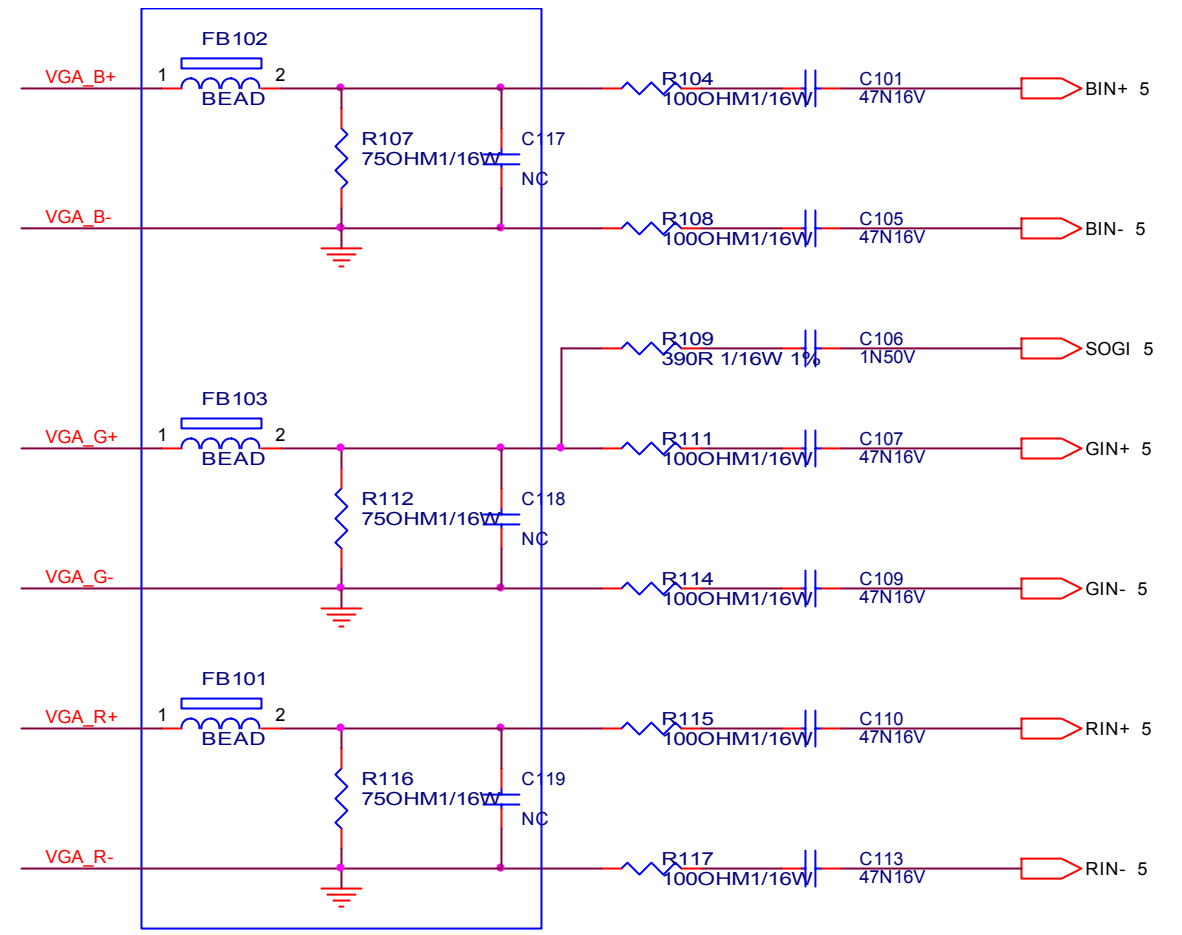
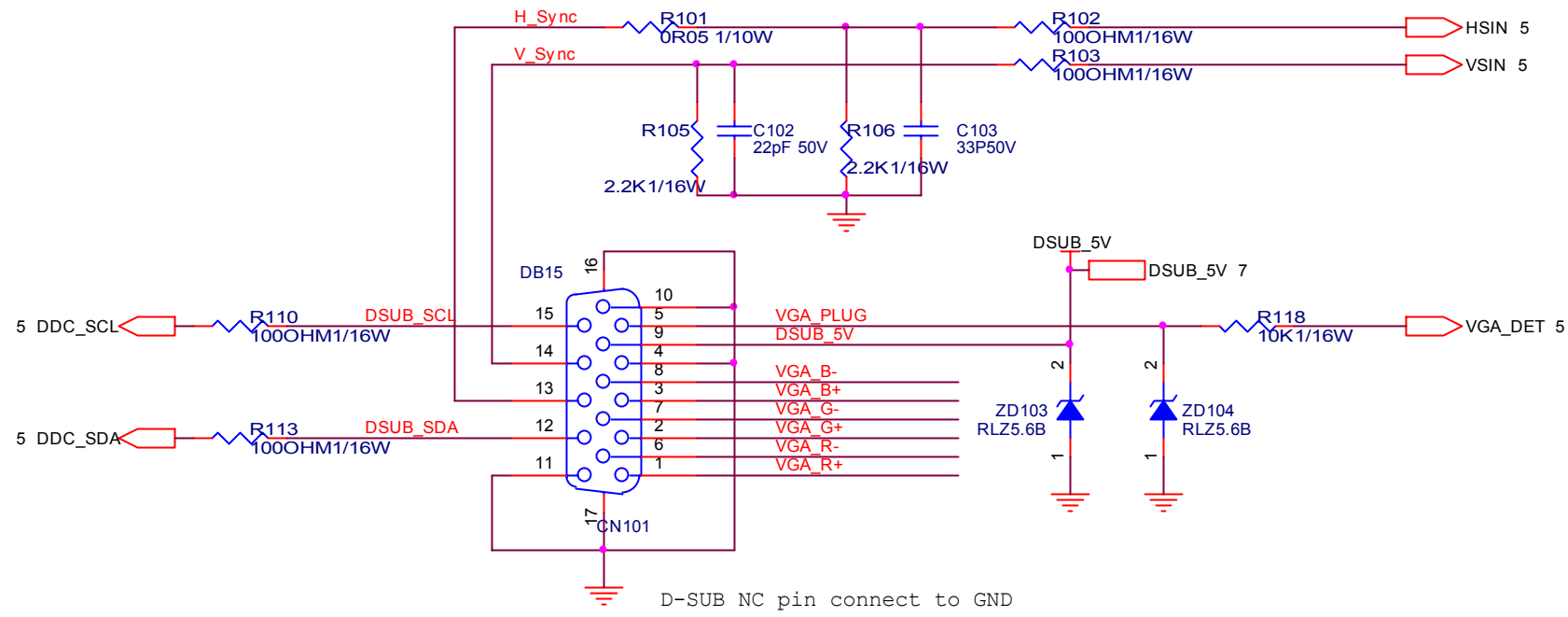
## 8. Schematic Diagrams

### 8.1 Main Board

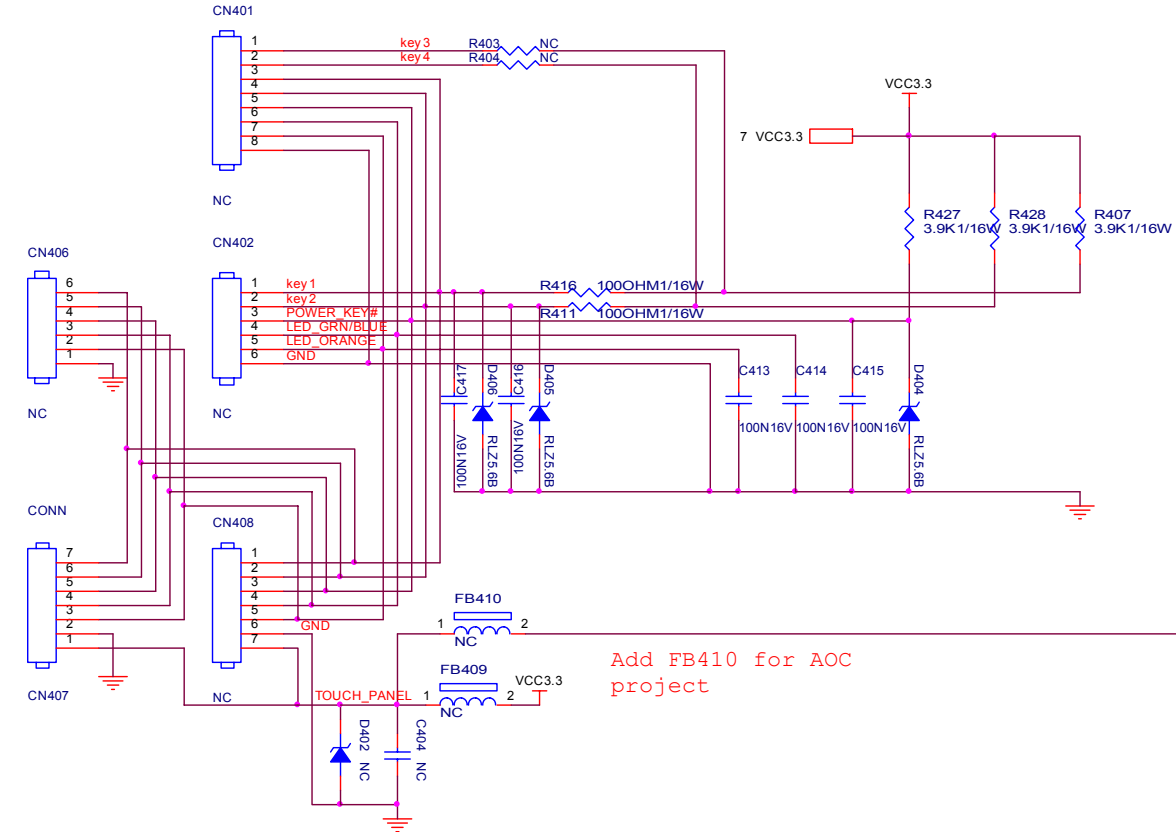
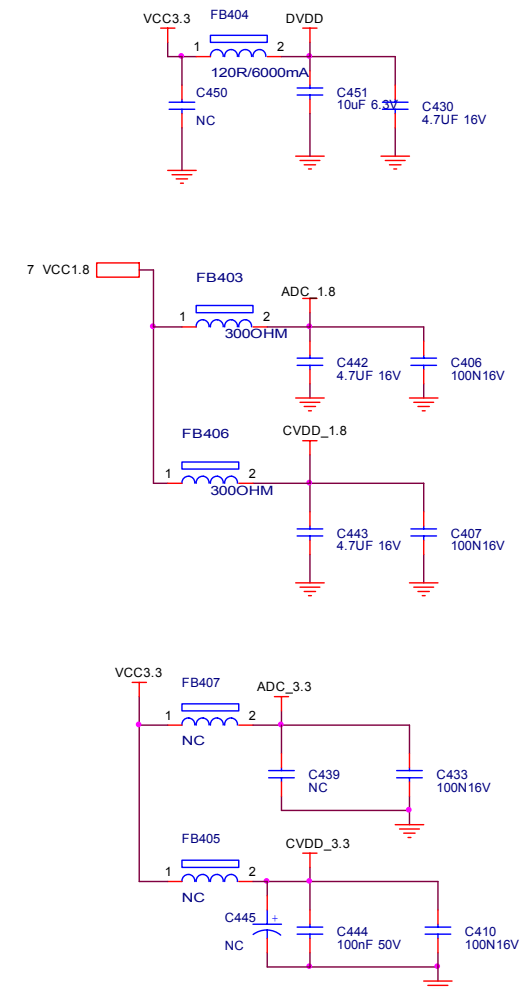
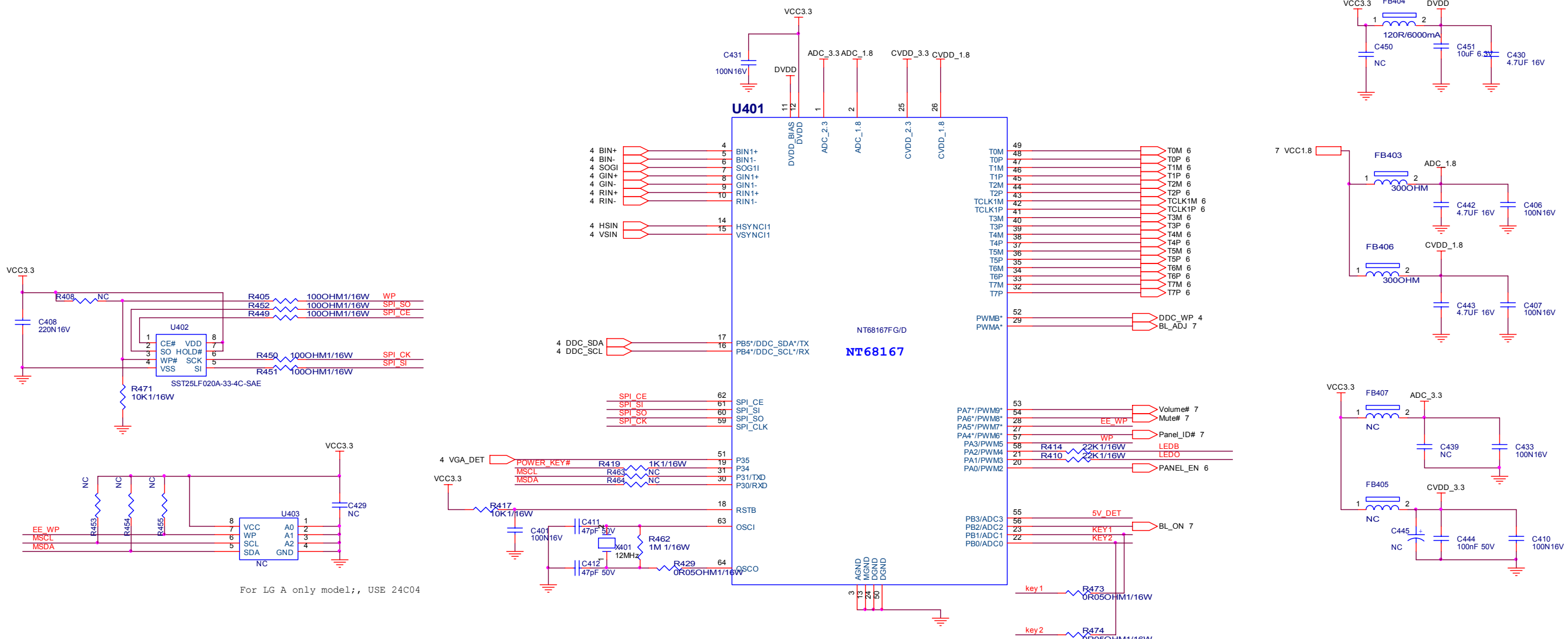
(For VA1932wa)



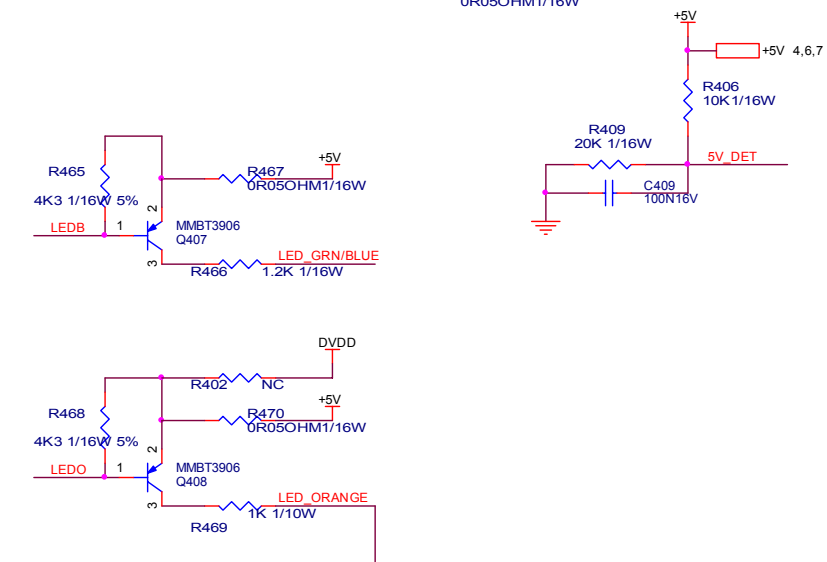
TPV ( Top Victory Electronics Co . , Ltd. )		OEM MODEL	Size	A
絨隔瓜網腹	G3225-1-2-X-16-091210	TPV MODEL	Rev	1
Key Component	1.0 Block Diagram	PCB NAME	715G3225-1-2	称爹
Date	Wednesday , December 09, 2009	Sheet	1 of 6	



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	B
紙隔瓜網膜	G3225-1-2-X-16-091210	TPV MODEL	Rev	1
Key Component	2.INPUT	PCB NAME	715G3225-1-2	称爹
Date	Wednesday, December 09, 2009	Sheet	3 of 6	



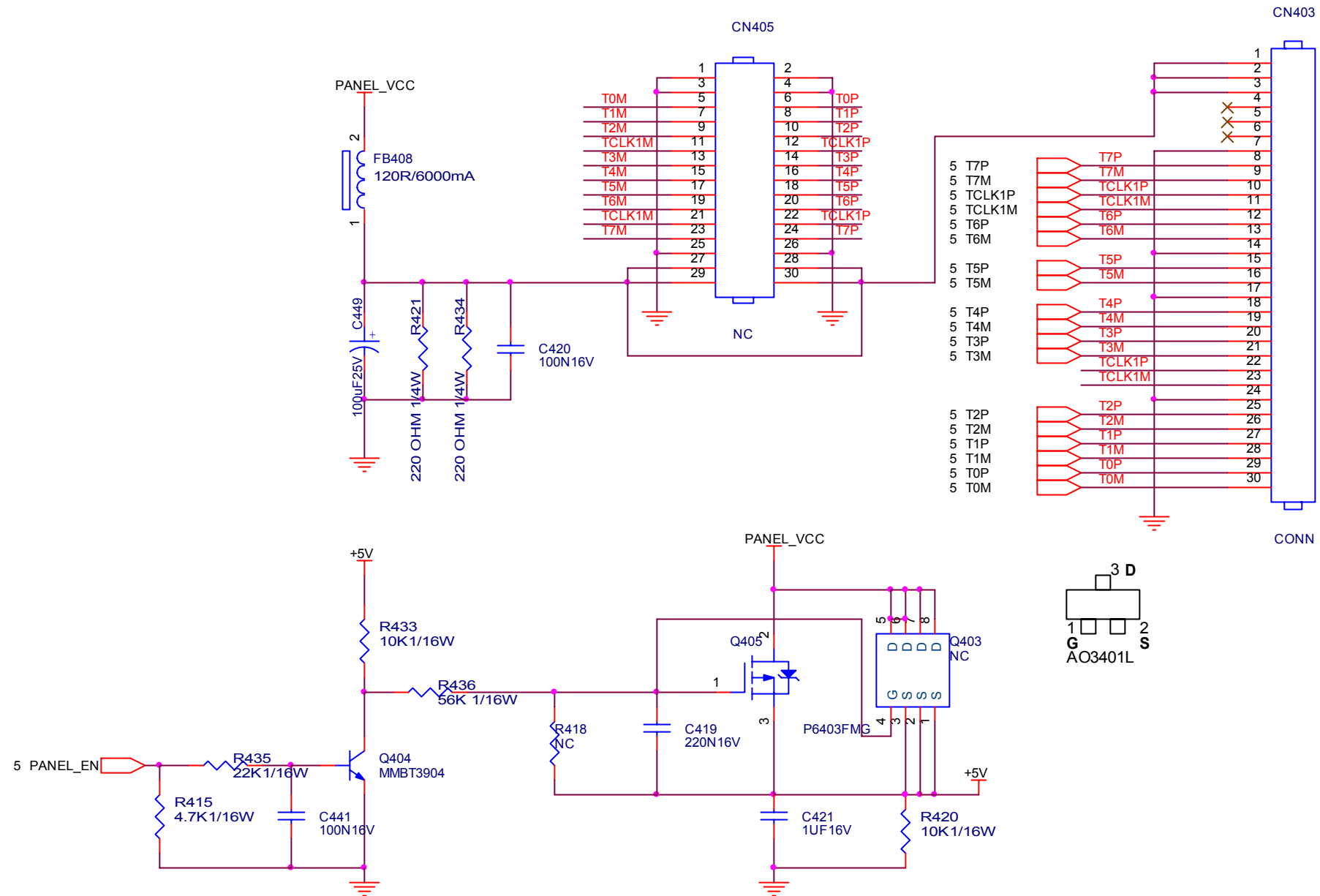
Add FB410 for AOC project



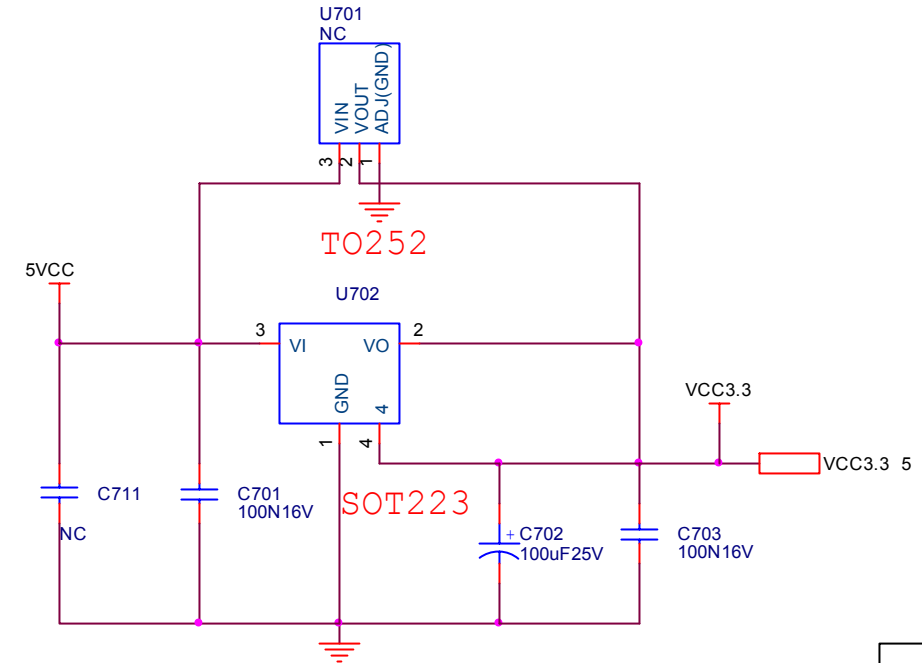
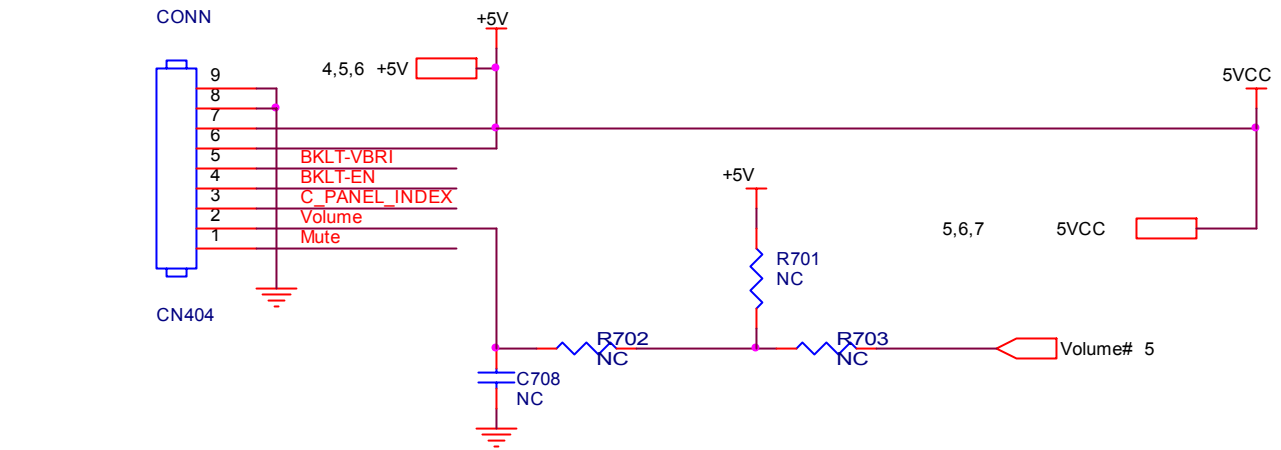
Ext. 1.8V in 1920x1080	FB407: NC FB405: NC C439,C444: NC C445: NC FB403,FB406 300 ohm bead
Inte. 1.8V under 1920x1080	FB407: 300 Ohm bead FB405: 300 Ohm bead C439,C444: 2.2uF C445: NC (if ripple in spec) FB403,FB406: 0 ohm



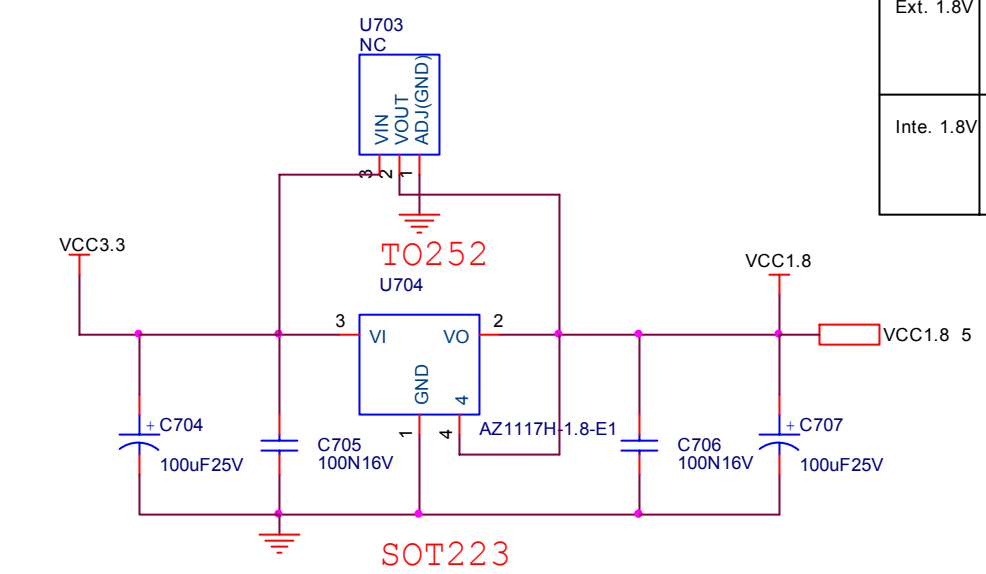
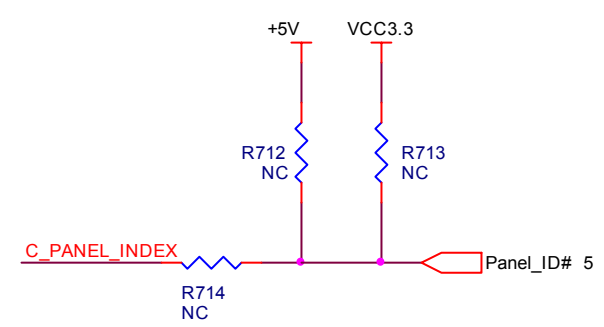
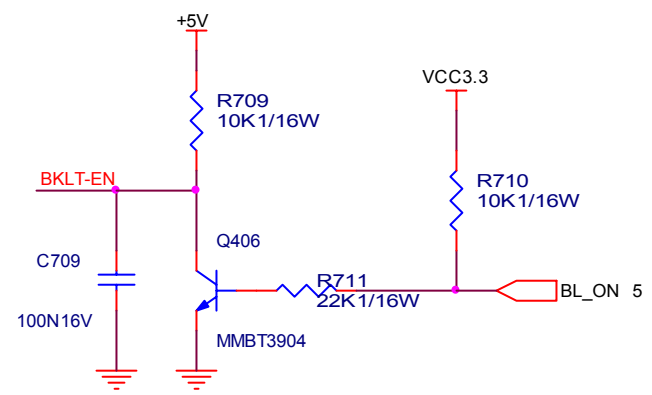
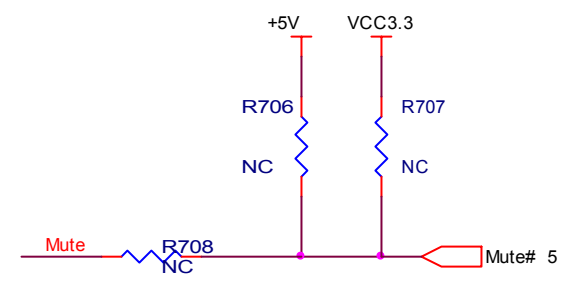
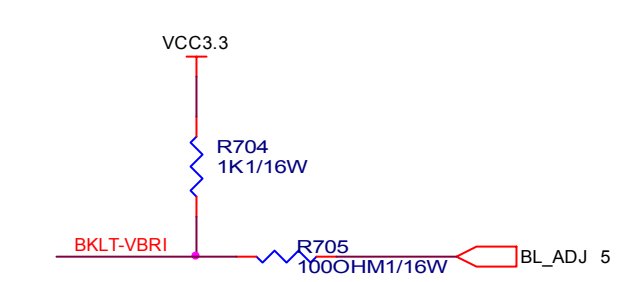
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	C
話隔瓜製	G3225-1-2-X-16-091210	TPV MODEL	Rev	1
Key Component	3_SCALER	PCB NAME	715G3225-1-2	称委
Date	Wednesday, December 09, 2009	Sheet	4 of 6	



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A
結構圖網膜	G3225-1-2-X-16-091210	TPV MODEL	Rev	1
Key Component	4.PANEL INTERFACE	PCB NAME	715G3225-1-2	称爹
Date	Wednesday, December 09, 2009	Sheet	5 of 6	

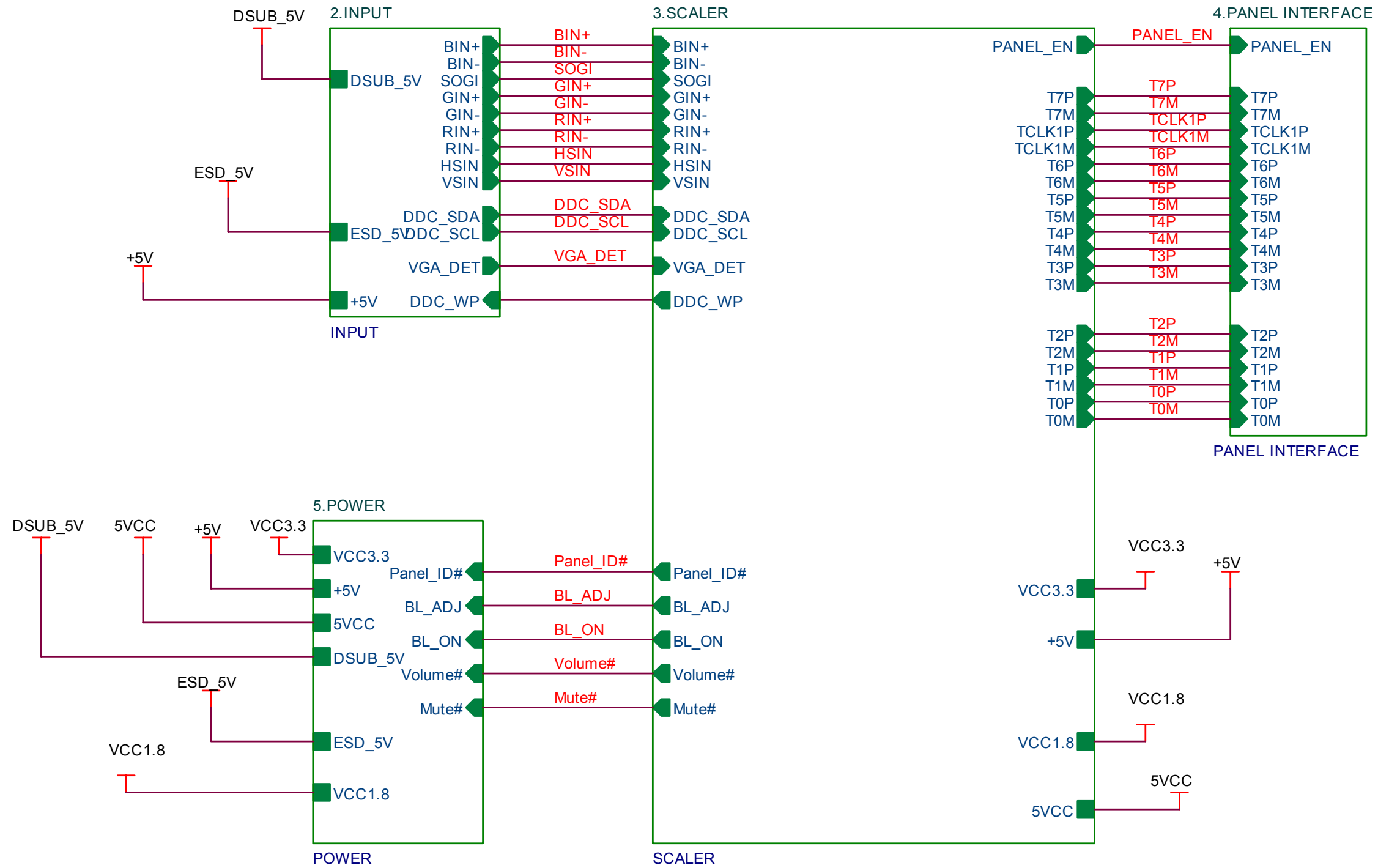


Ext. 1.8V	U703/U704: AP1117E18LA(SOT223) C705: 0.1uF C704: 100uF/16V
Inte. 1.8V	U703/U704: NC C705: NC C704: 100uF/16V

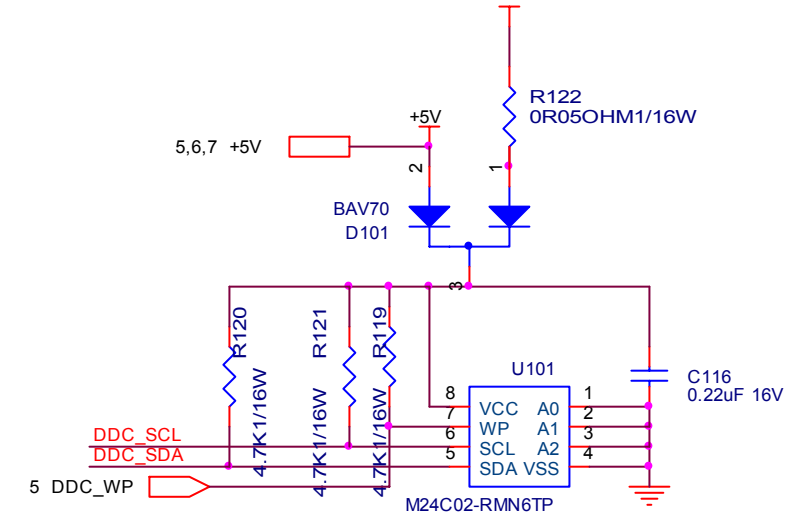
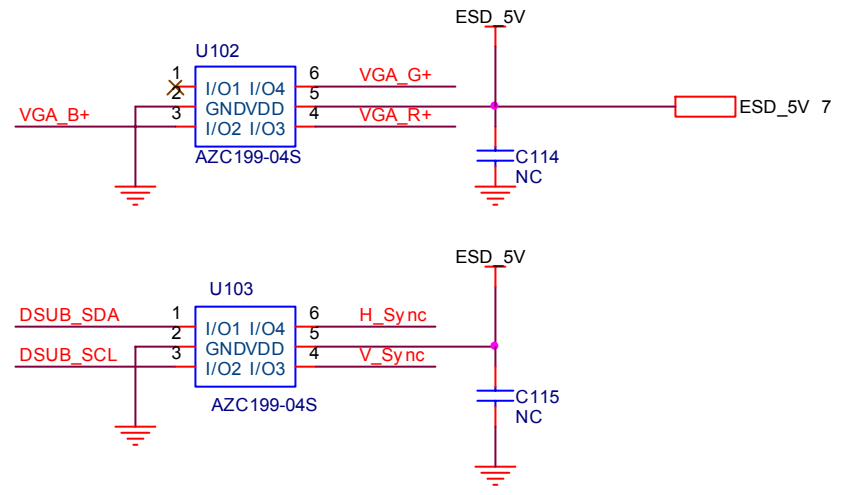
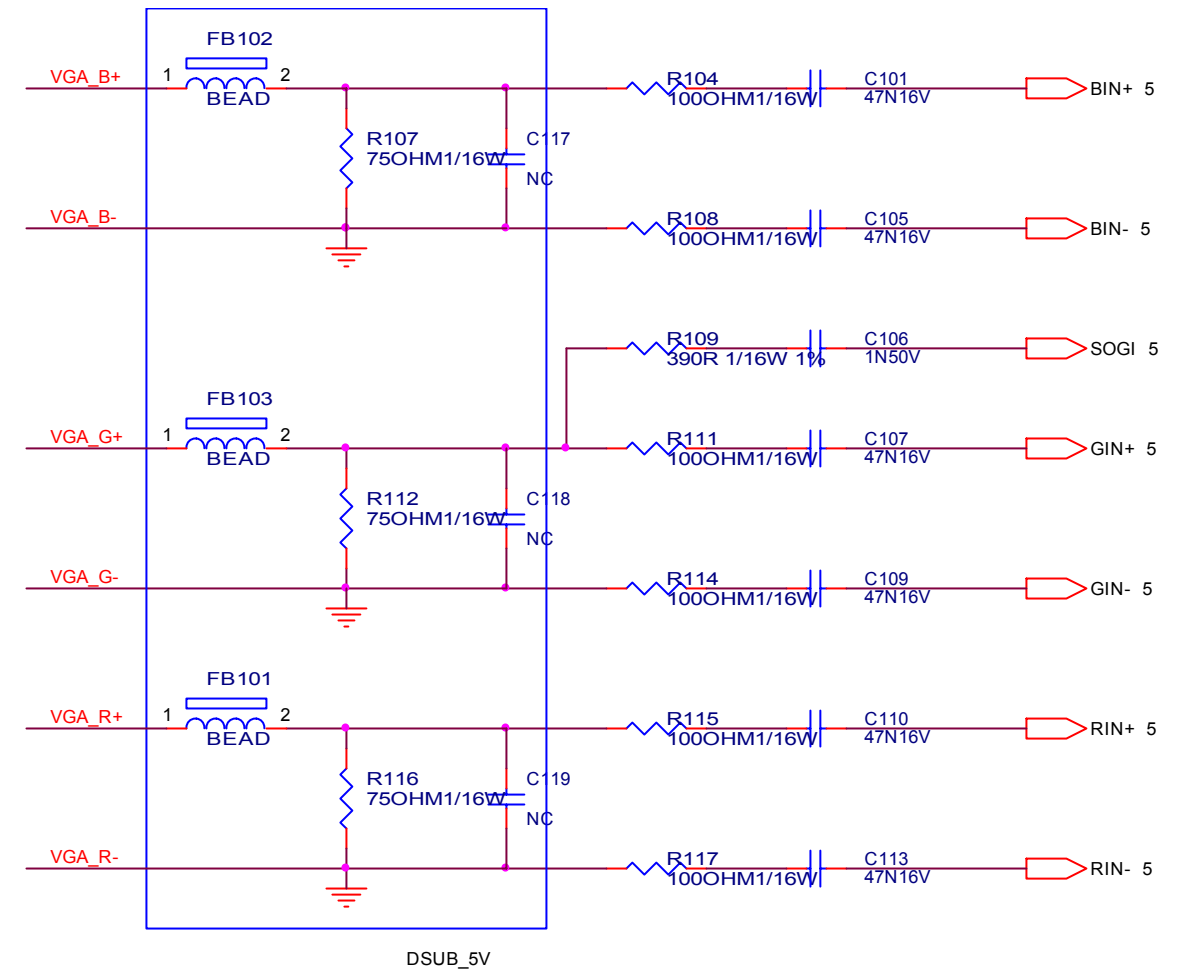
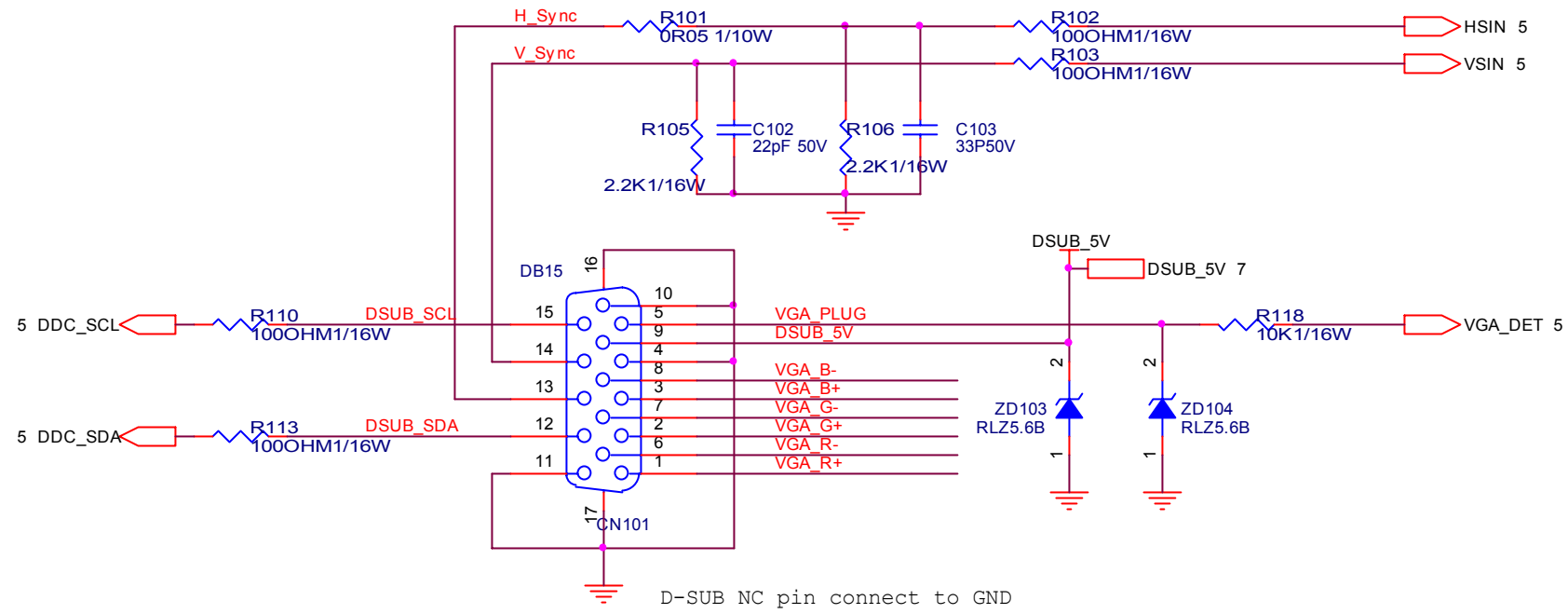


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	Size	B
結構瓜網膜	G3225-1-2-X-16-091210	Rev	1
Key Component	5 .POWER	PCB NAME	715G3225-1-2
Date	Wednesday, December 09, 2009	Sheet	6 of 6

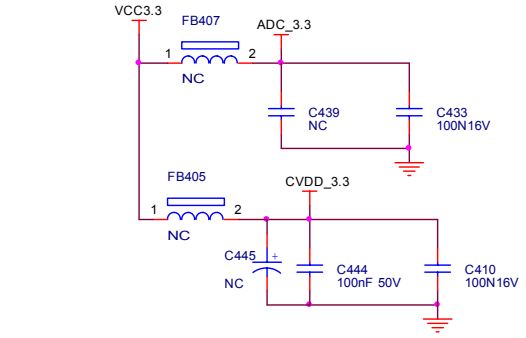
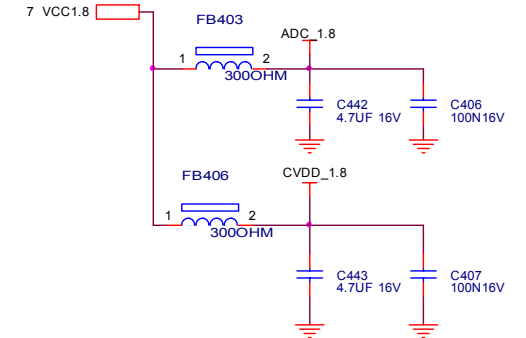
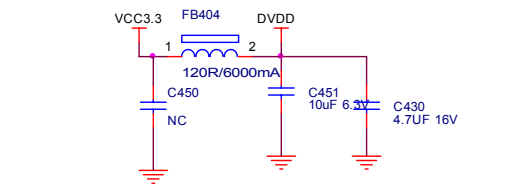
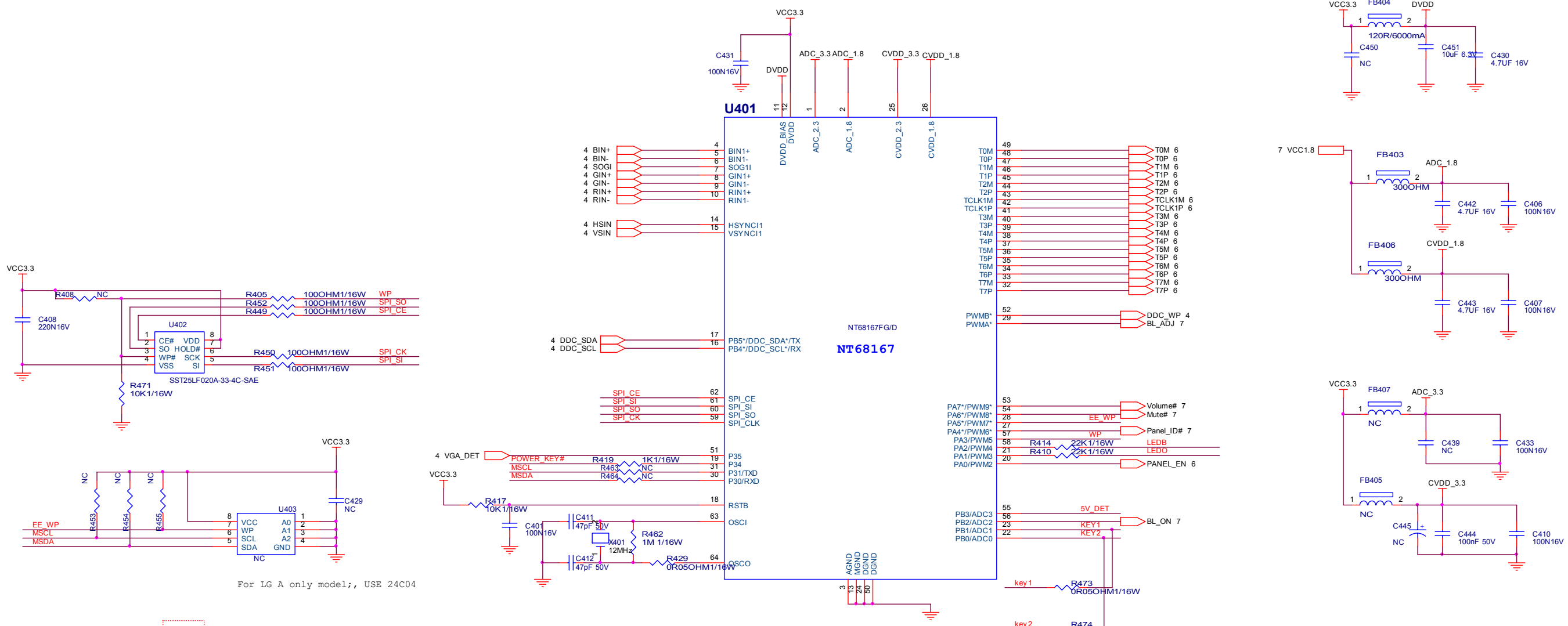
(For VA1932wma)



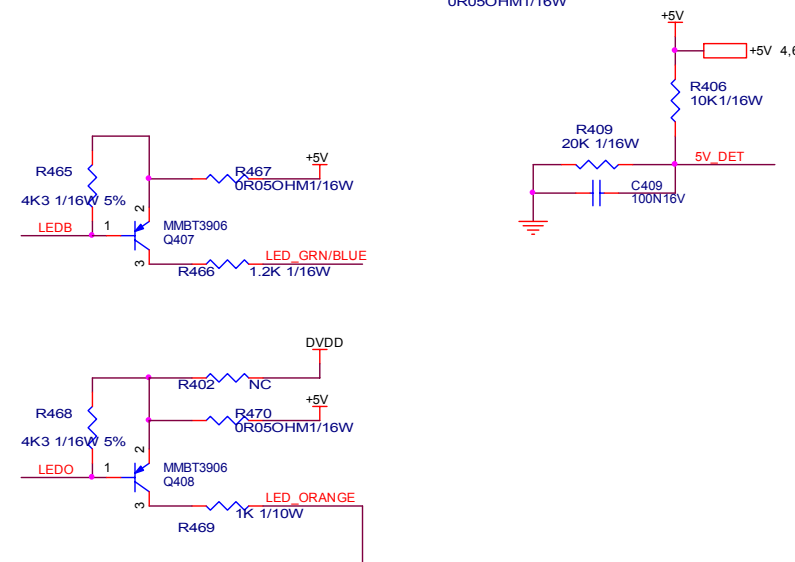
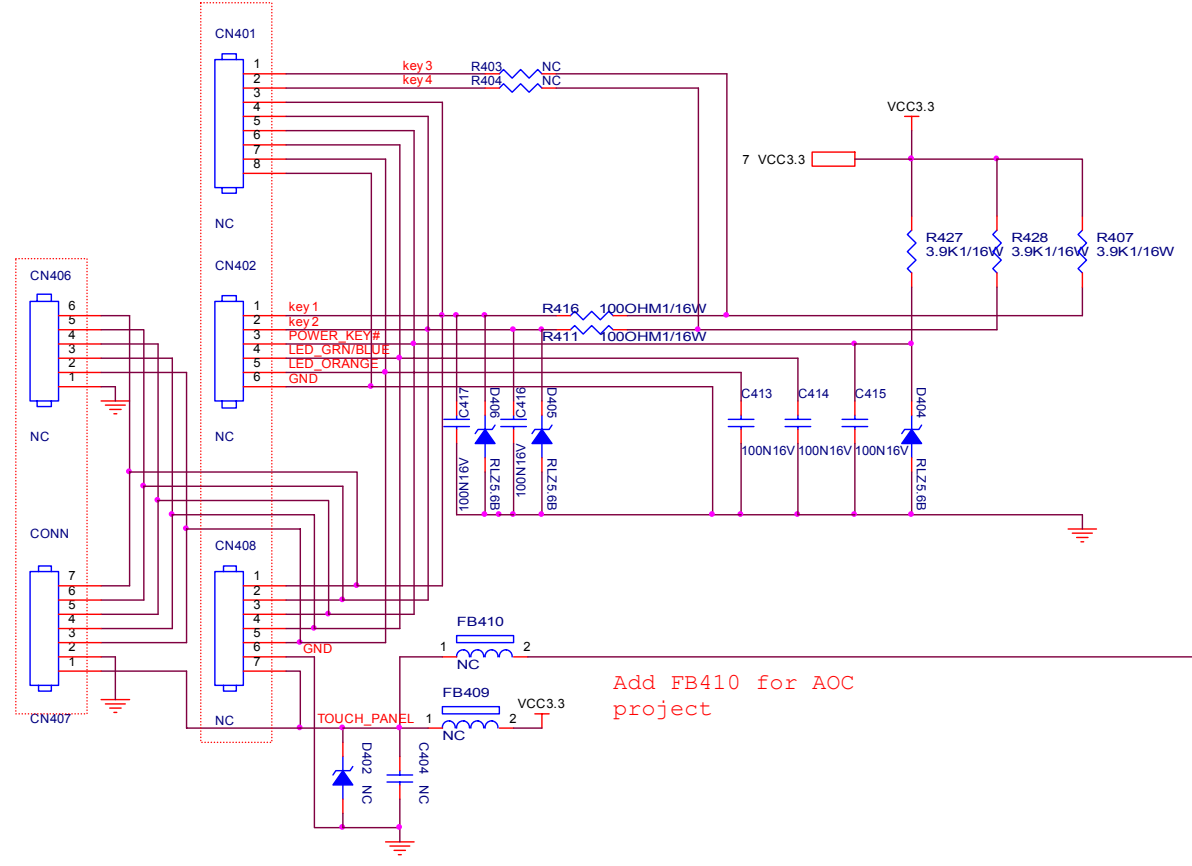
TPV ( Top Victory Electronics Co. , Ltd. )		OEM MODEL	Size	A
結構瓜網腹	G3225-1-2-X-15-091210	TPV MODEL	Rev	1
Key Component	1.0 Block Diagram	PCB NAME	715G3225-1-2	称爹
Date	Wednesday, December 09, 2009	Sheet	1 of 6	



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	B
結構瓜網膜	G3225-1-2-X-15-091210	TPV MODEL	Rev	1
Key Component	2.INPUT	PCB NAME	715G3225-1-2	称爹
Date	Wednesday, December 09, 2009	Sheet	3 of 6	



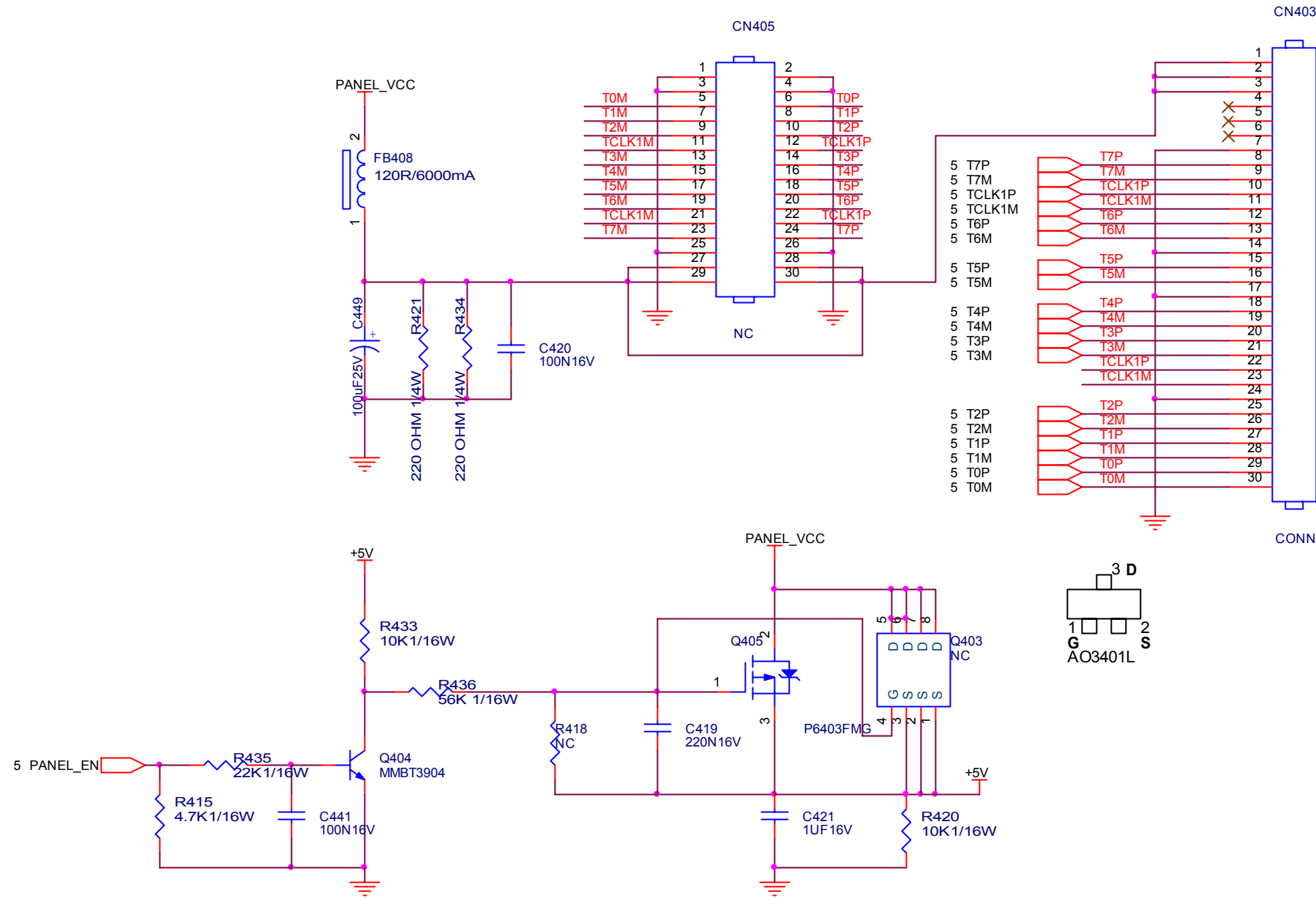
For LG A only model; , USE 24C04



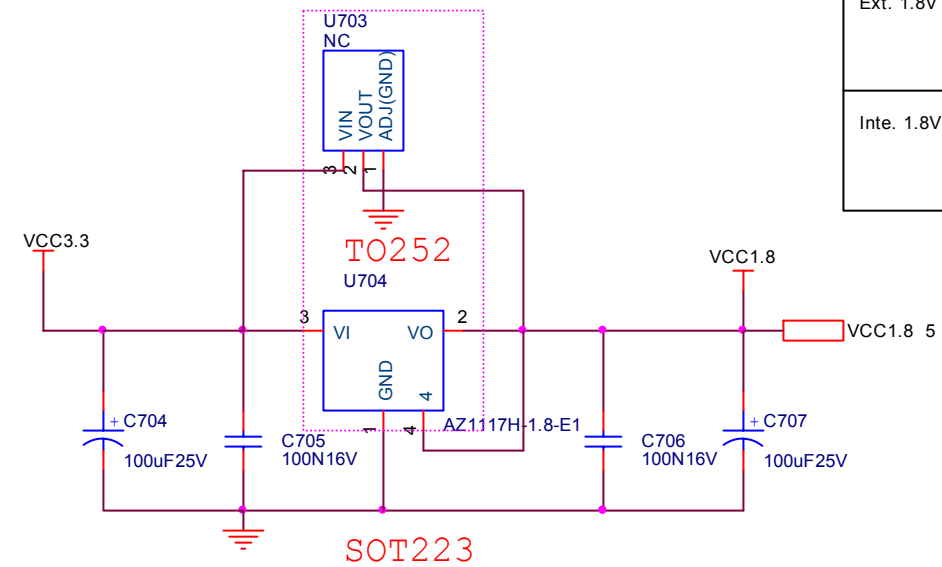
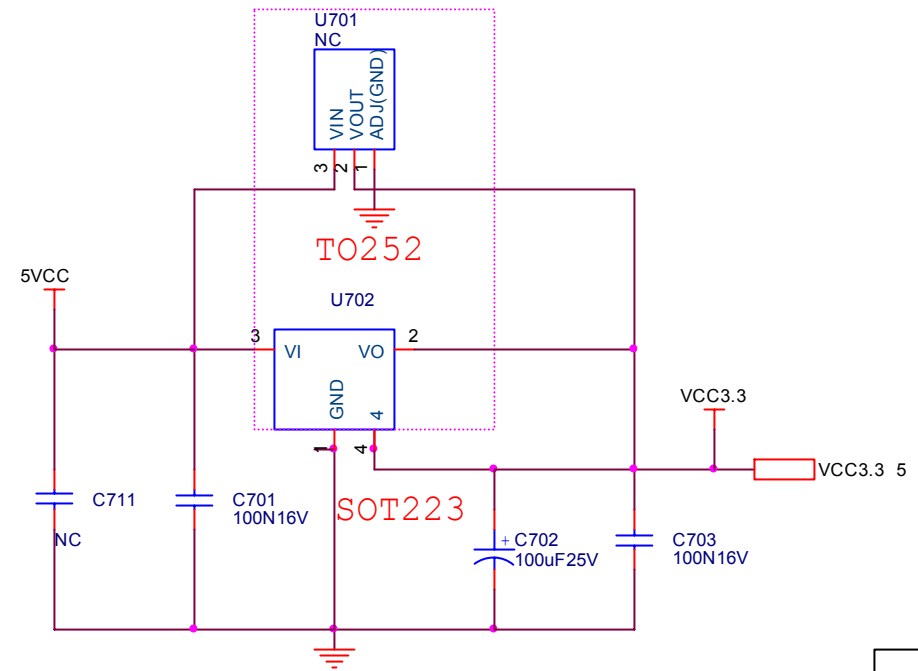
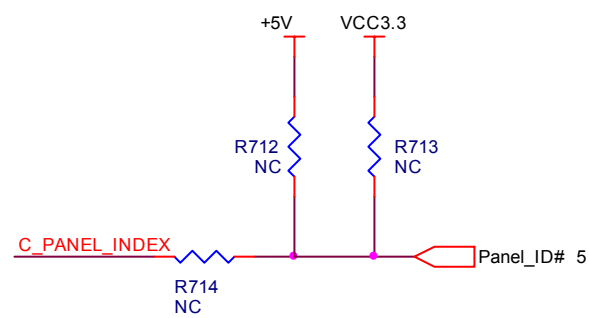
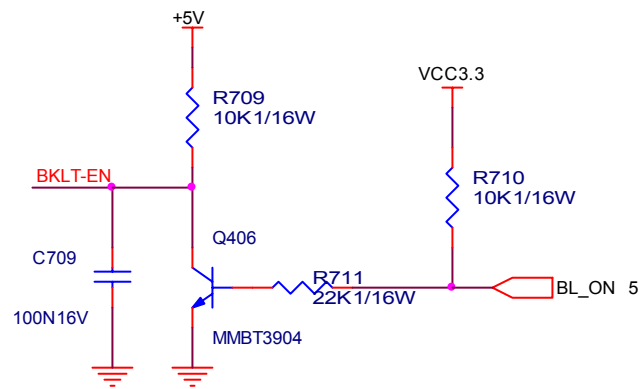
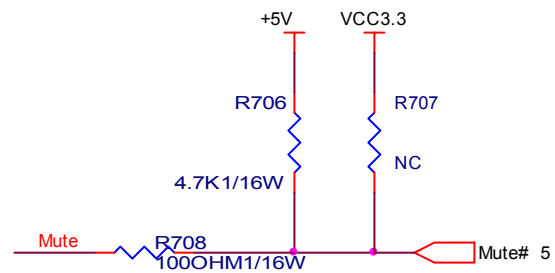
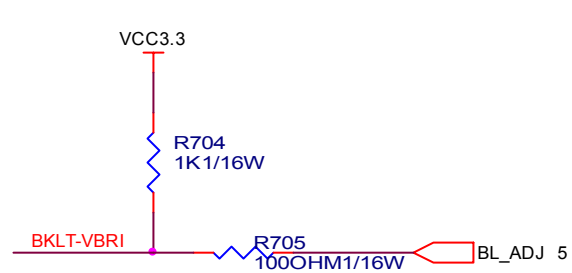
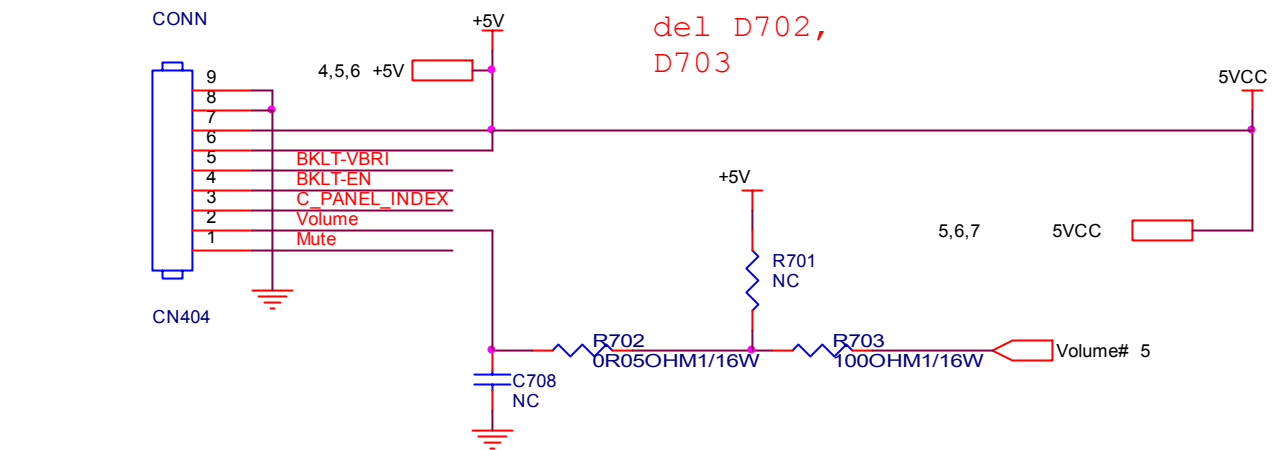
Ext. 1.8V in 1920x1080	FB407: NC FB405: NC C439,C444: NC C445: NC FB403,FB406 300 ohm bead
Inte. 1.8V under 1920x1080	FB407: 300 Ohm bead FB405: 300 Ohm bead C439,C444: 2.2uF C445: NC (if ripple in spec) FB403,FB406: 0 ohm



T P V (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	C
蓝雨瓜 蓝雨	G3225-1-2-X-15-091210	TPV MODEL	Rev	1
Key Component	3.SCALER	PCB NAME	715G3225-1-2	称差
Date	Wednesday, December 09, 2009	Sheet	4 of 6	



	TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A
蜂隔瓜網腹	G3225-1-2-X-15-091210	TPV MODEL		Rev	1
Key Component	4.PANEL INTERFACE	PCB NAME	715G3225-1-2	称爹	
Date	Wednesday, December 09, 2009	Sheet	5 of 6		

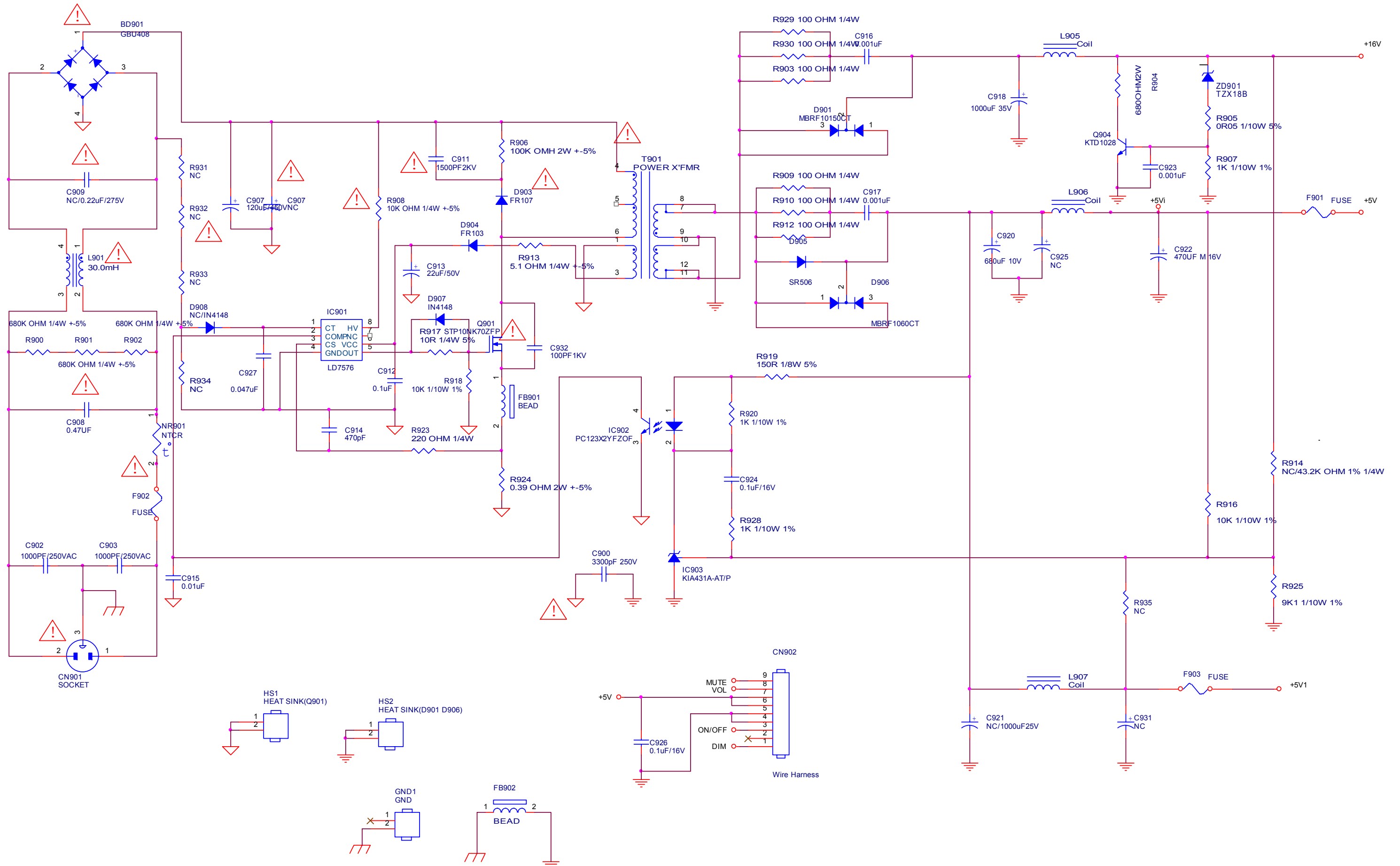


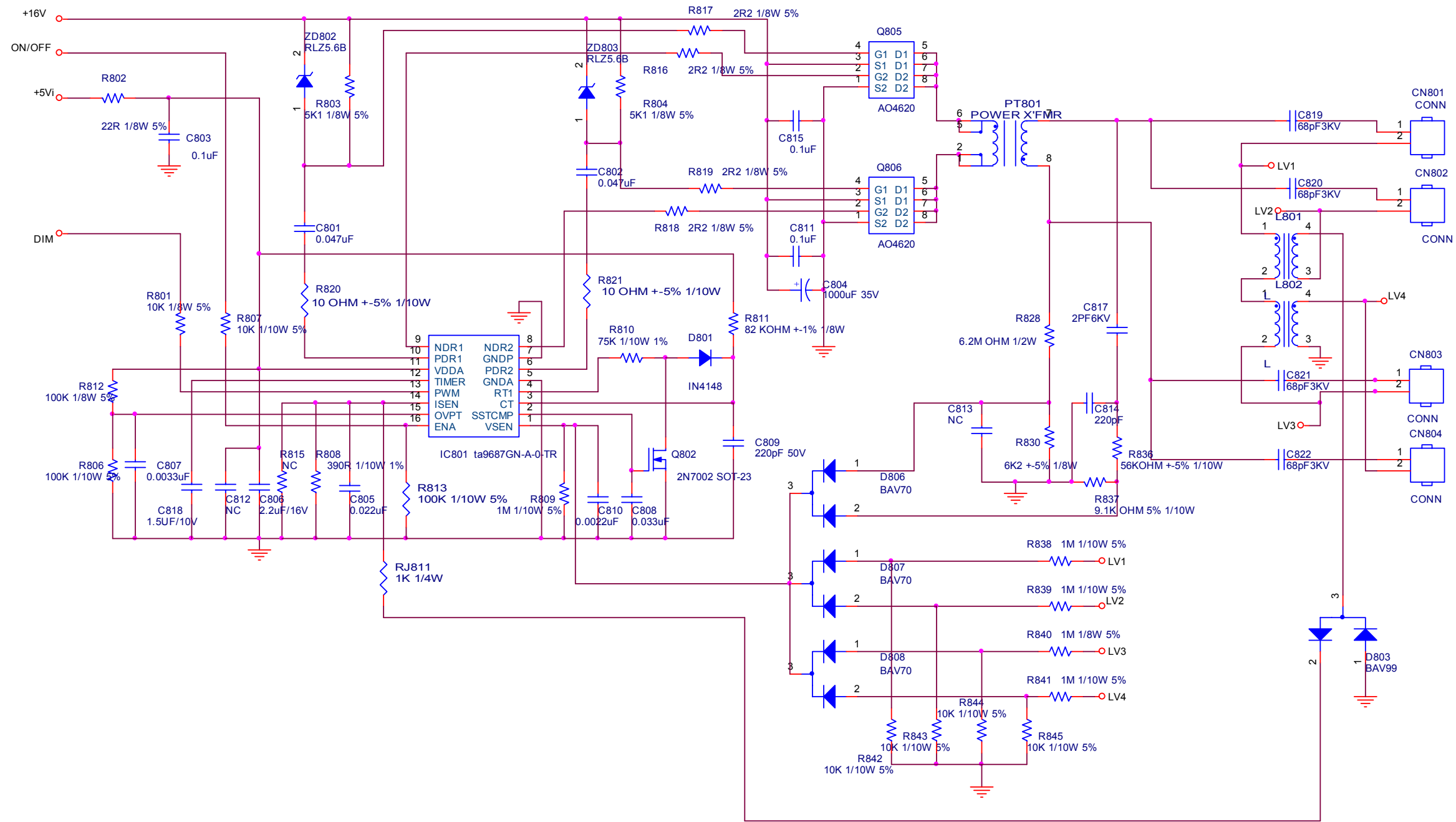
Ext. 1.8V	U703/U704: AP1117E18LA(SOT223) C705: 0.1µF C704: 100µF/16V
Inte. 1.8V	U703/U704: NC C705: NC C704: 100µF/16V



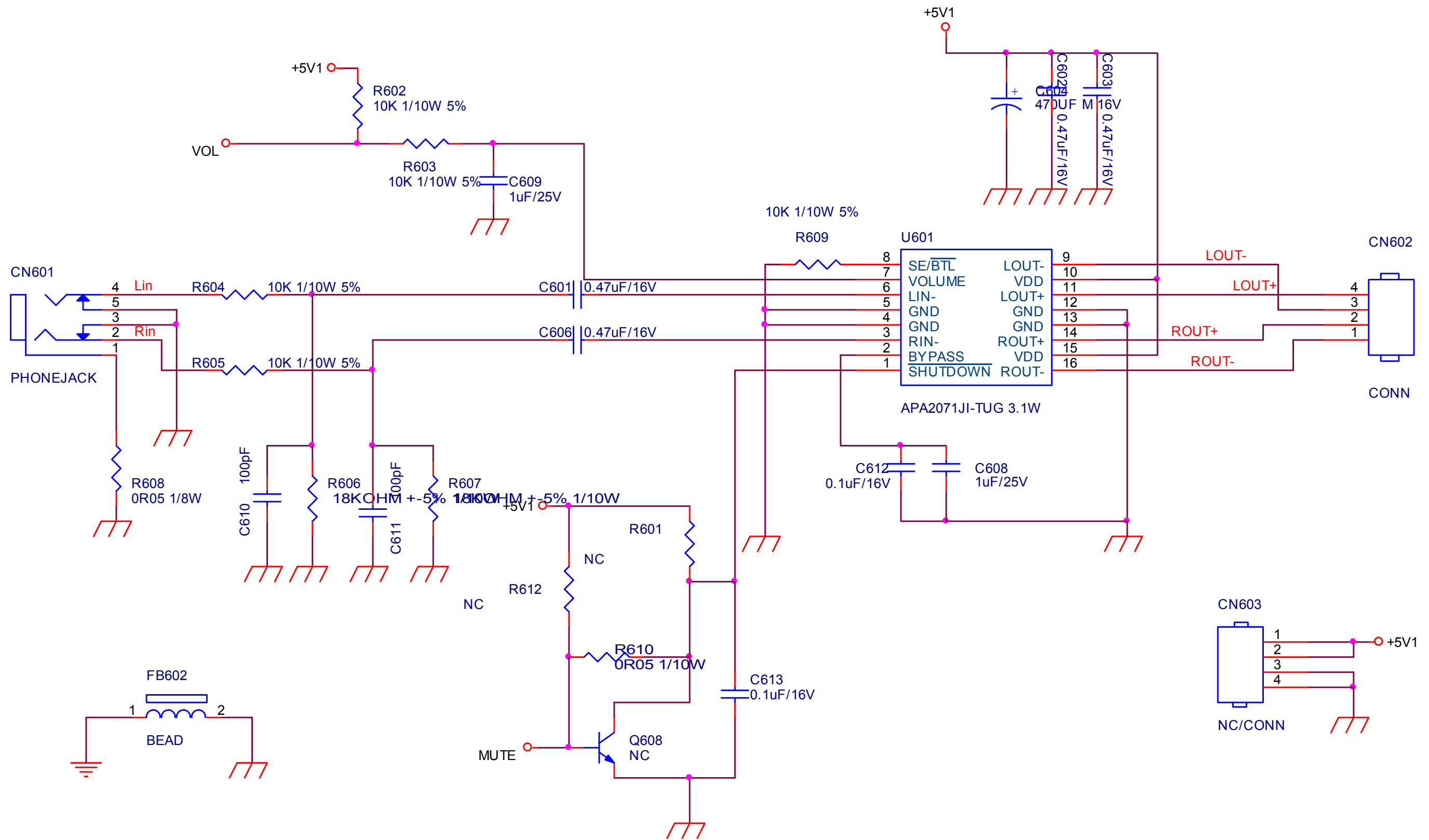
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	B
结构瓜网膜	G3225-1-2-X-15-091210	TPV MODEL	Rev	1
Key Component	5.POWER	PCB NAME	715G3225-1-2	称爹
Date	Wednesday, December 09, 2009	Sheet	6 of 6	

## 8.2 Power Board (For VA1932wa)



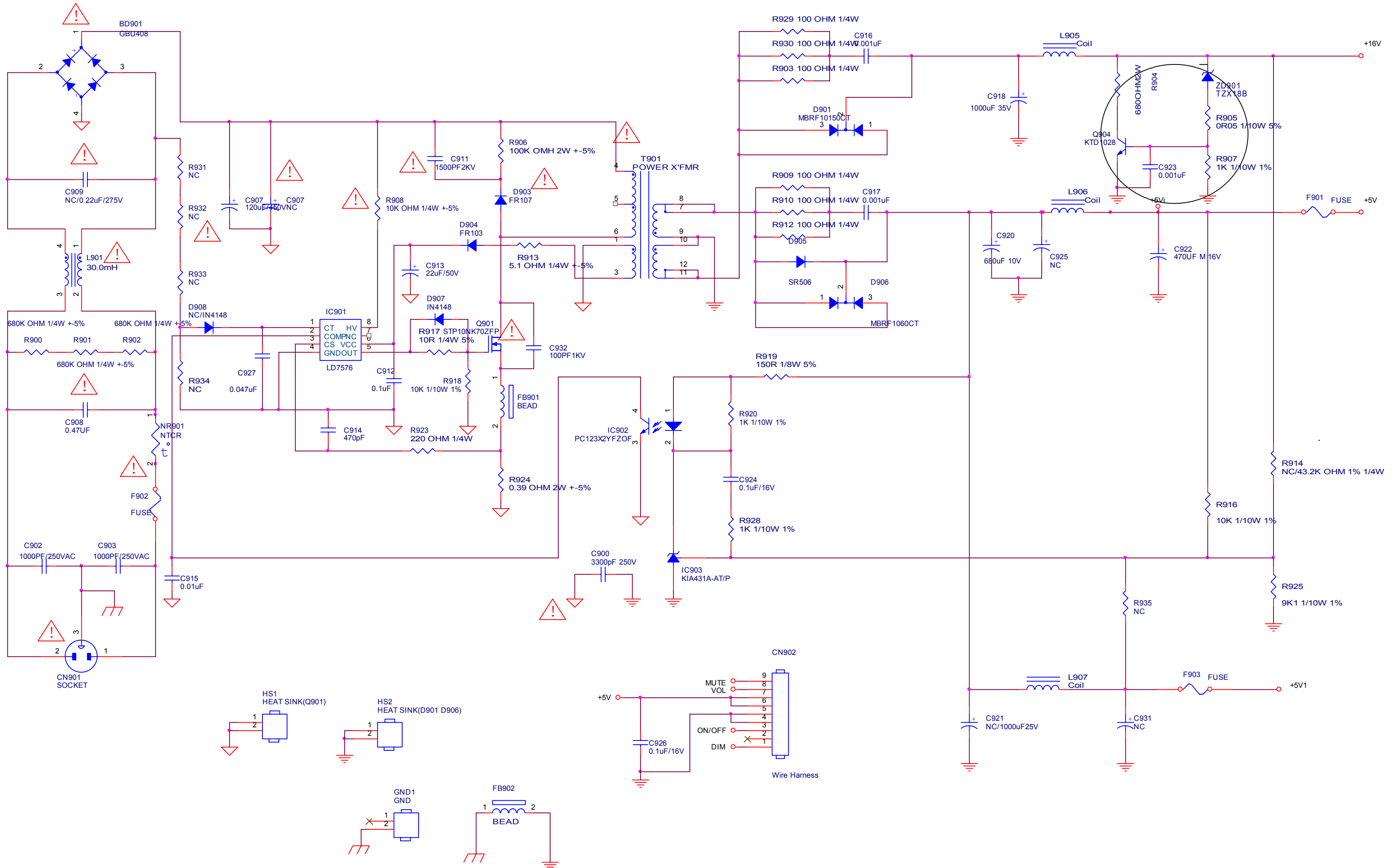


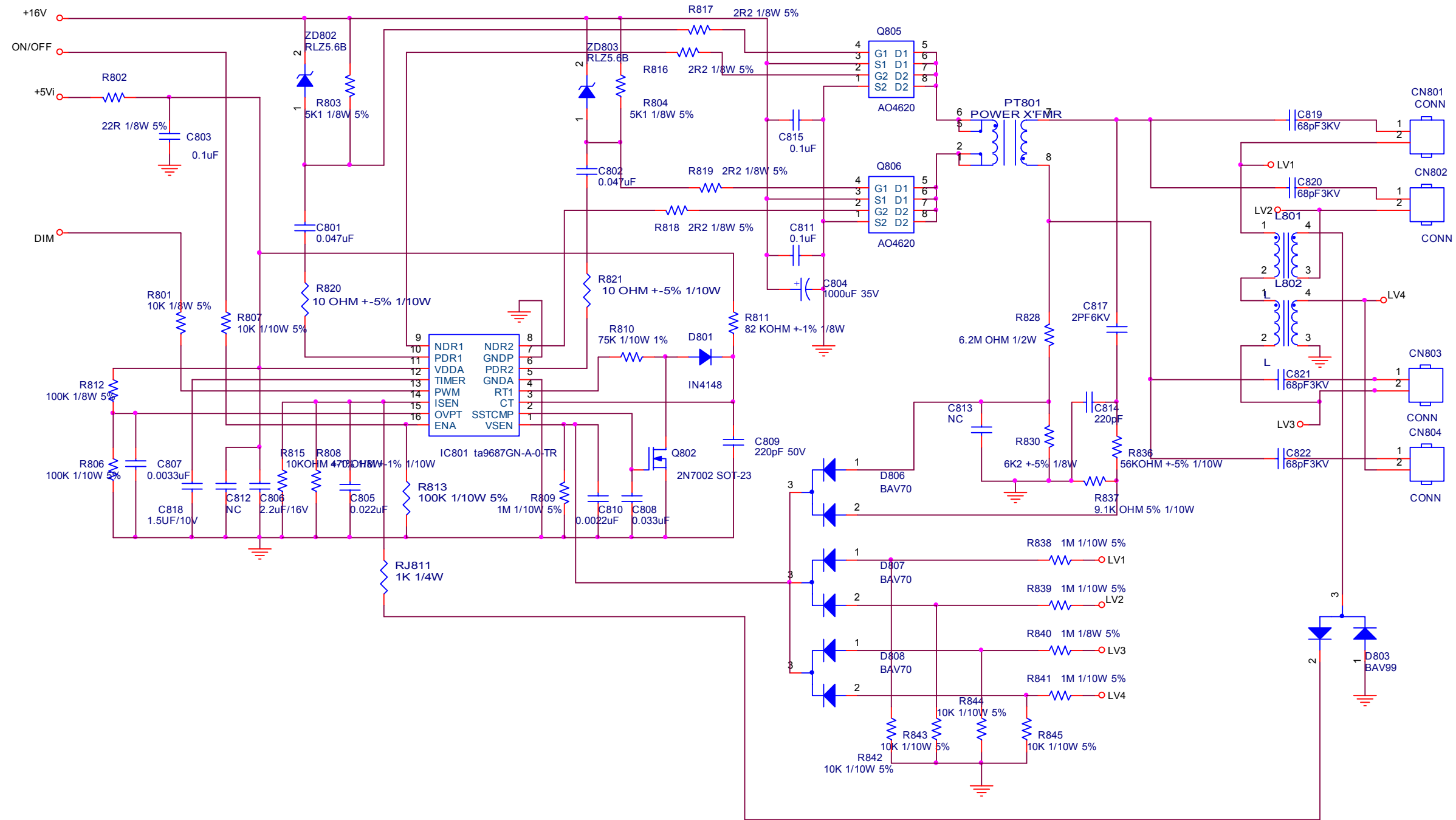
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A3
絲瓜網版 G2892-2-8-X-10-091110	TPV MODEL		Rev	2
Key Component 03.INVERTER	PCB NAME	715G2892-2-8	稱參	ODM MODEL
Date Monday, November 09, 2009	Sheet	of		



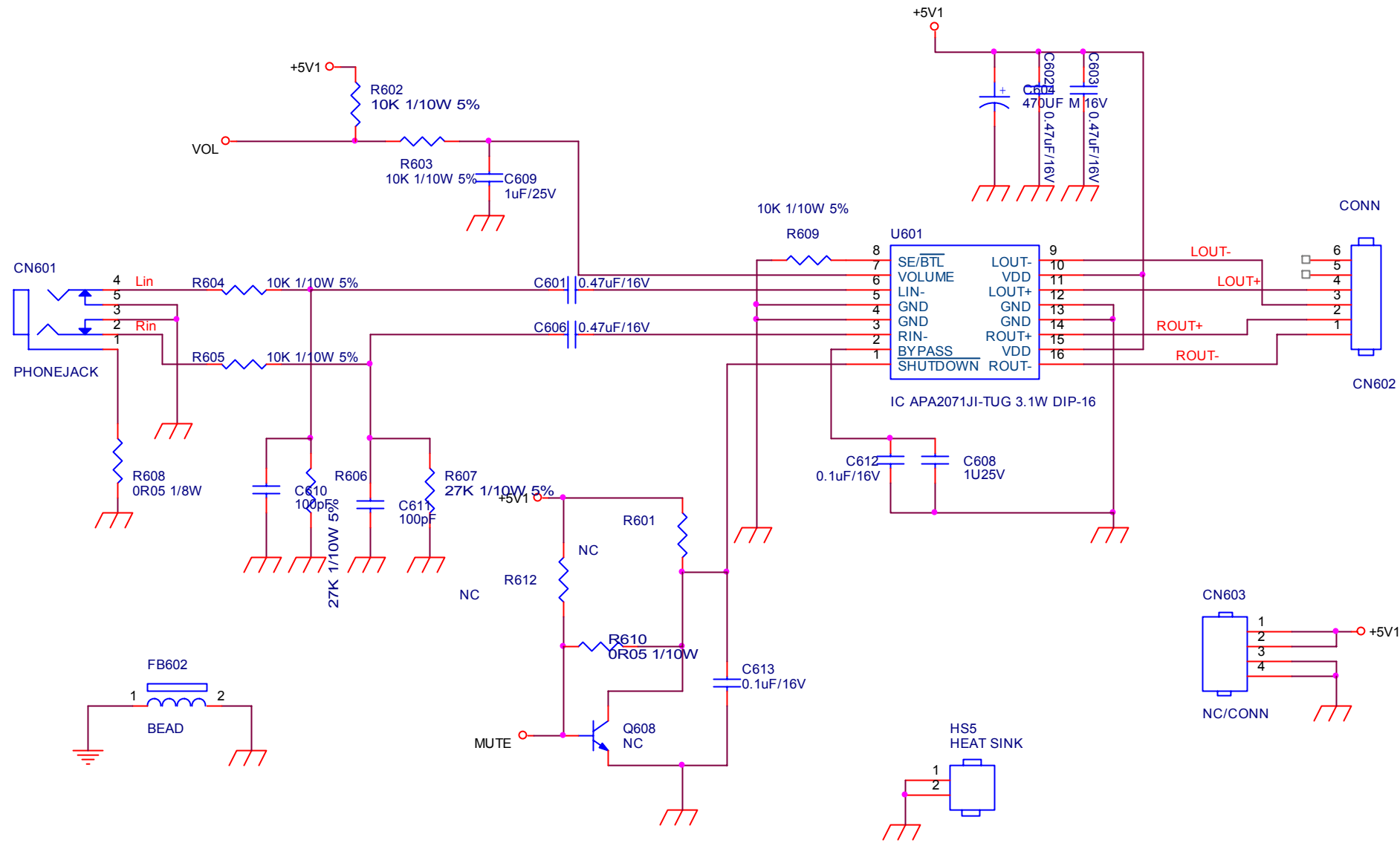
TPV ( Top Victory Electronics Co. , Ltd. )		OEM MODEL	Size	A
結構瓜網腹	G2892-2A-2-X-8-090402	TPV MODEL	Rev	1
Key Component	04.AUDIO	PCB NAME	称爹	ODM MODEL
Date	Thursday , April 02, 2009	Sheet	1 of 3	

(For VA1932wma)



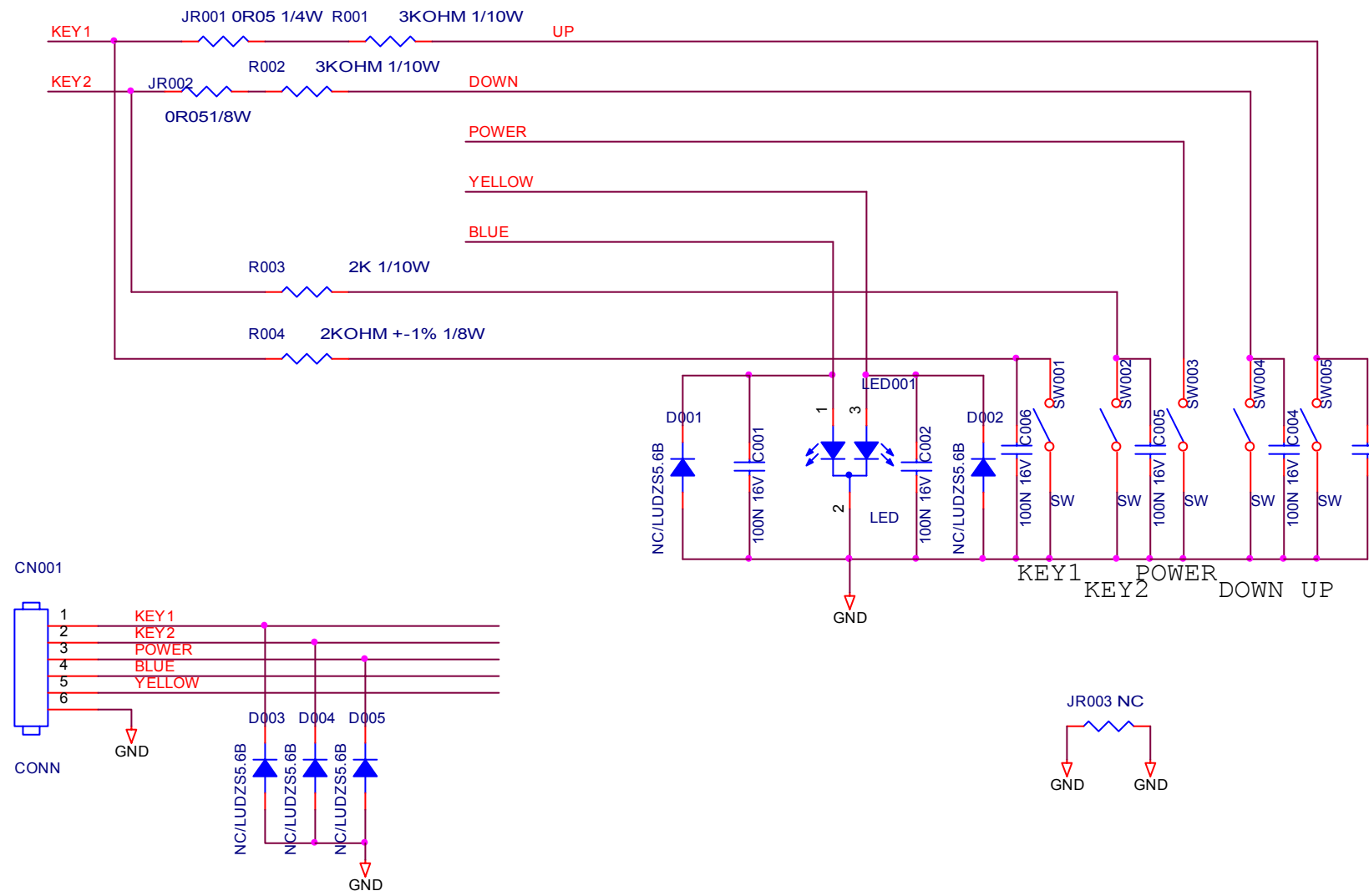


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A3
結隔瓜網腹	G2892-2-8-X-21-091126	TPV MODEL	Rev	2
Key Component	03.INVERTER	PCB NAME	715G2892-2-8	称爹
Date	Thursday, November 26, 2009	Sheet	of	ODM MODEL



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A
紙隔瓜網腹	G2892-2-8-X-21-091126	TPV MODEL	Rev	2
Key Component	1.COVER	PCB NAME	715G2852-2-8	称爹
Date	Thursday, November 26, 2009	Sheet	1 of 4	ODM MODEL

### 8.3 Key Board

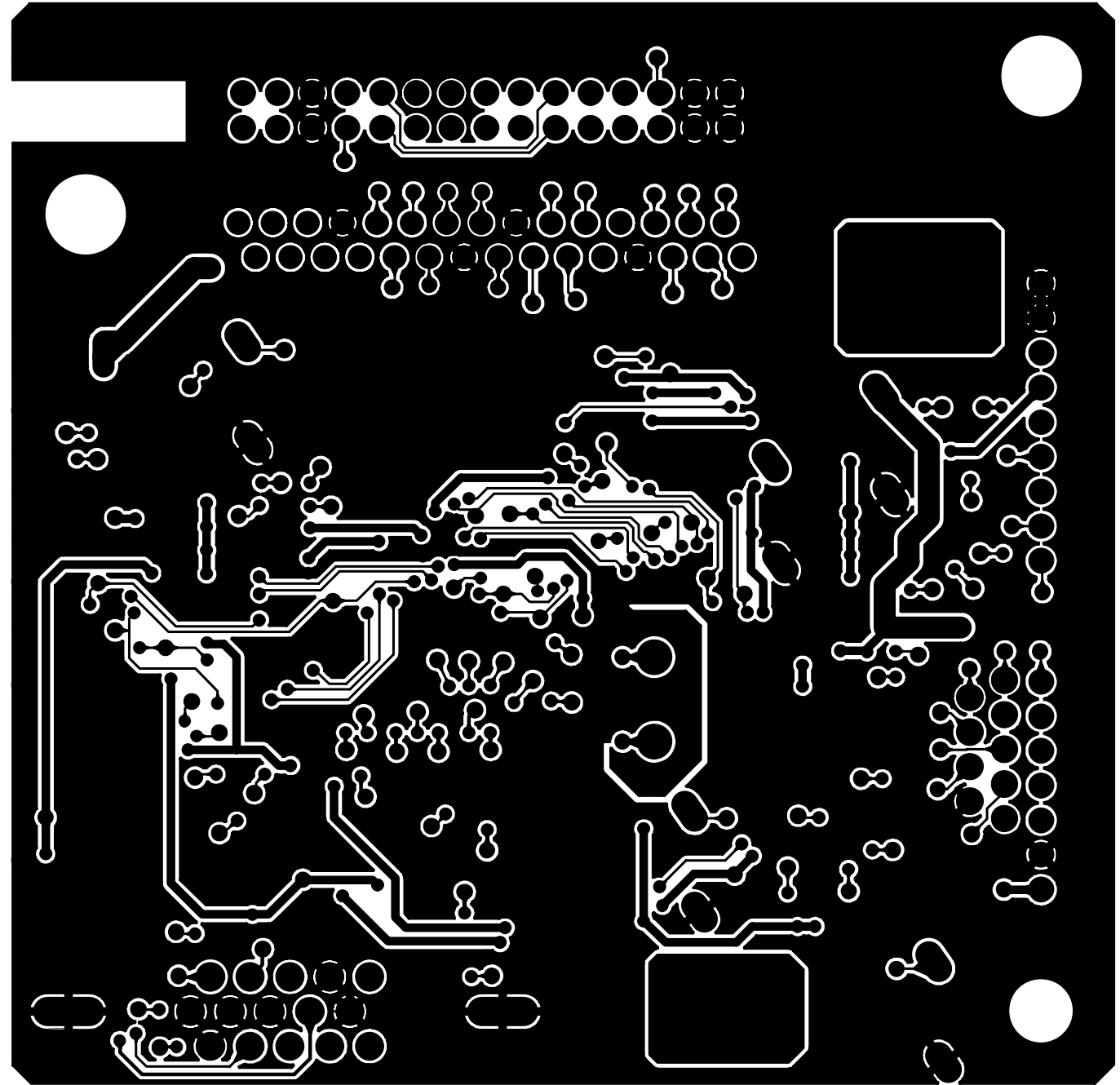
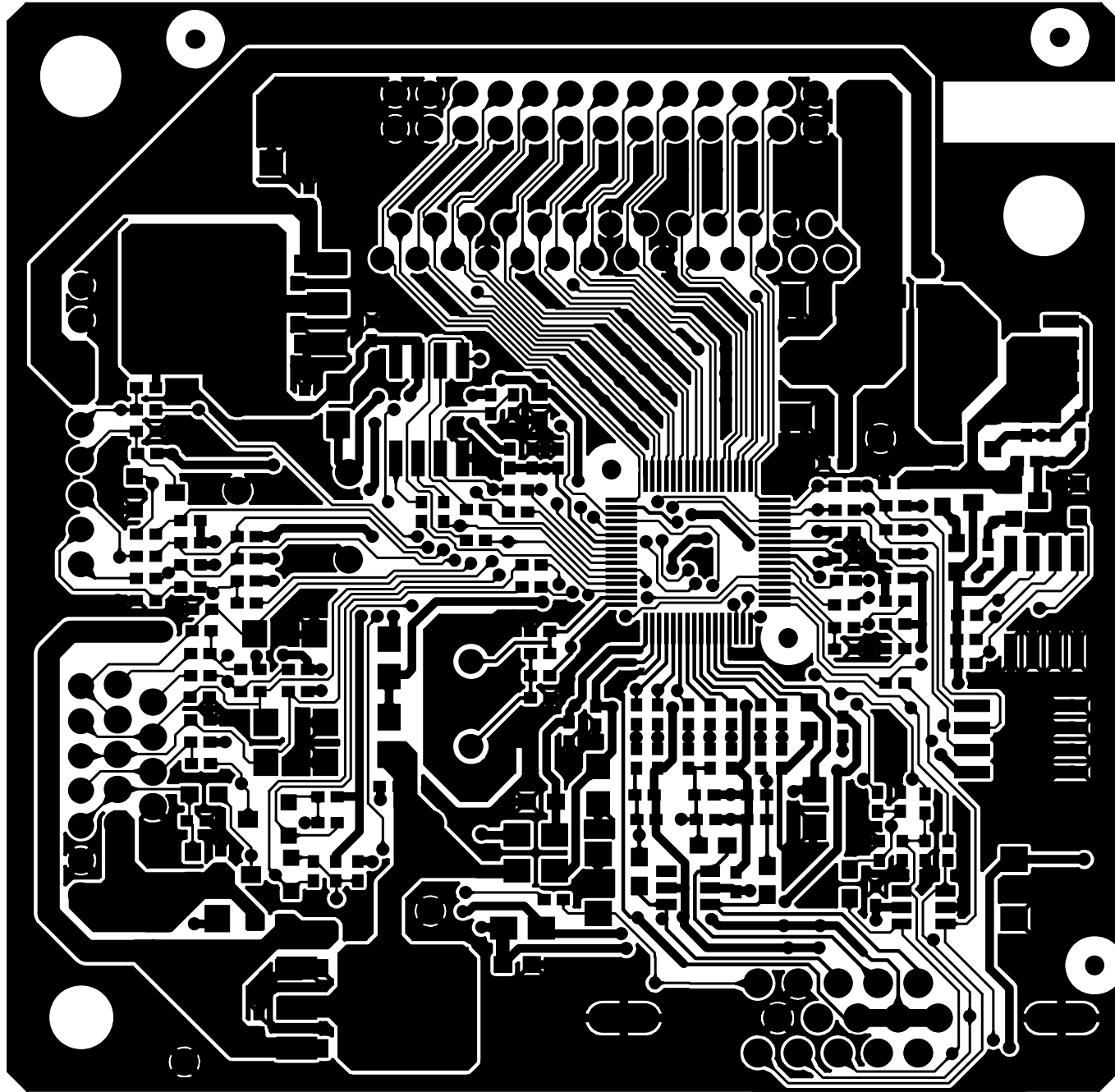


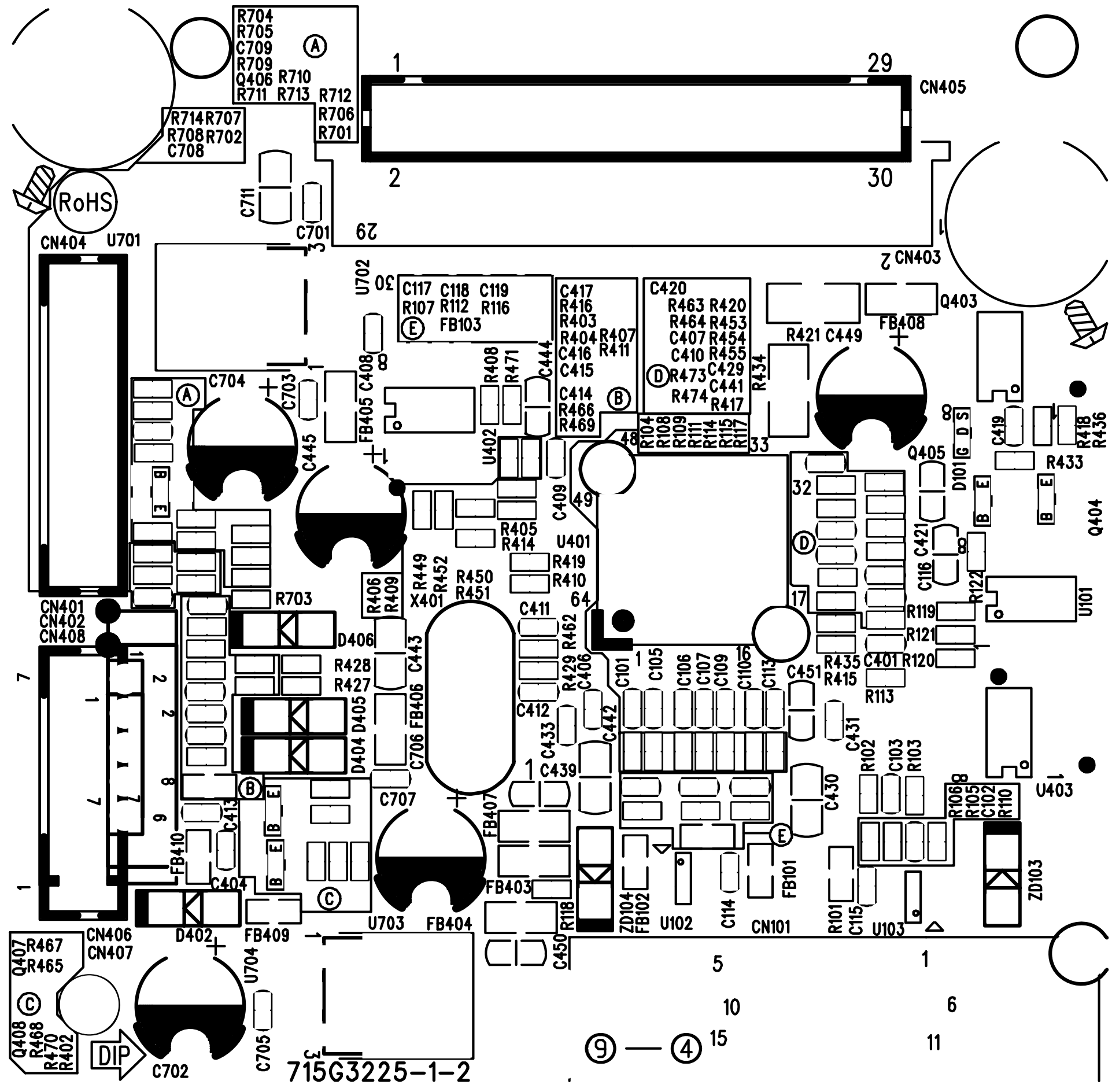
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	A
结隔瓜网膜	G3794-K01-000-0010-1-091116	TPV MODEL	Rev	C
Key Component	2. Key board	PCB NAME	715G3794-K01-000-0010	称爹
Date	Monday, November 16, 2009	Sheet	2 of 2	<称爹>

## 9. PCB Layout Diagrams

### 9.1 Main Board

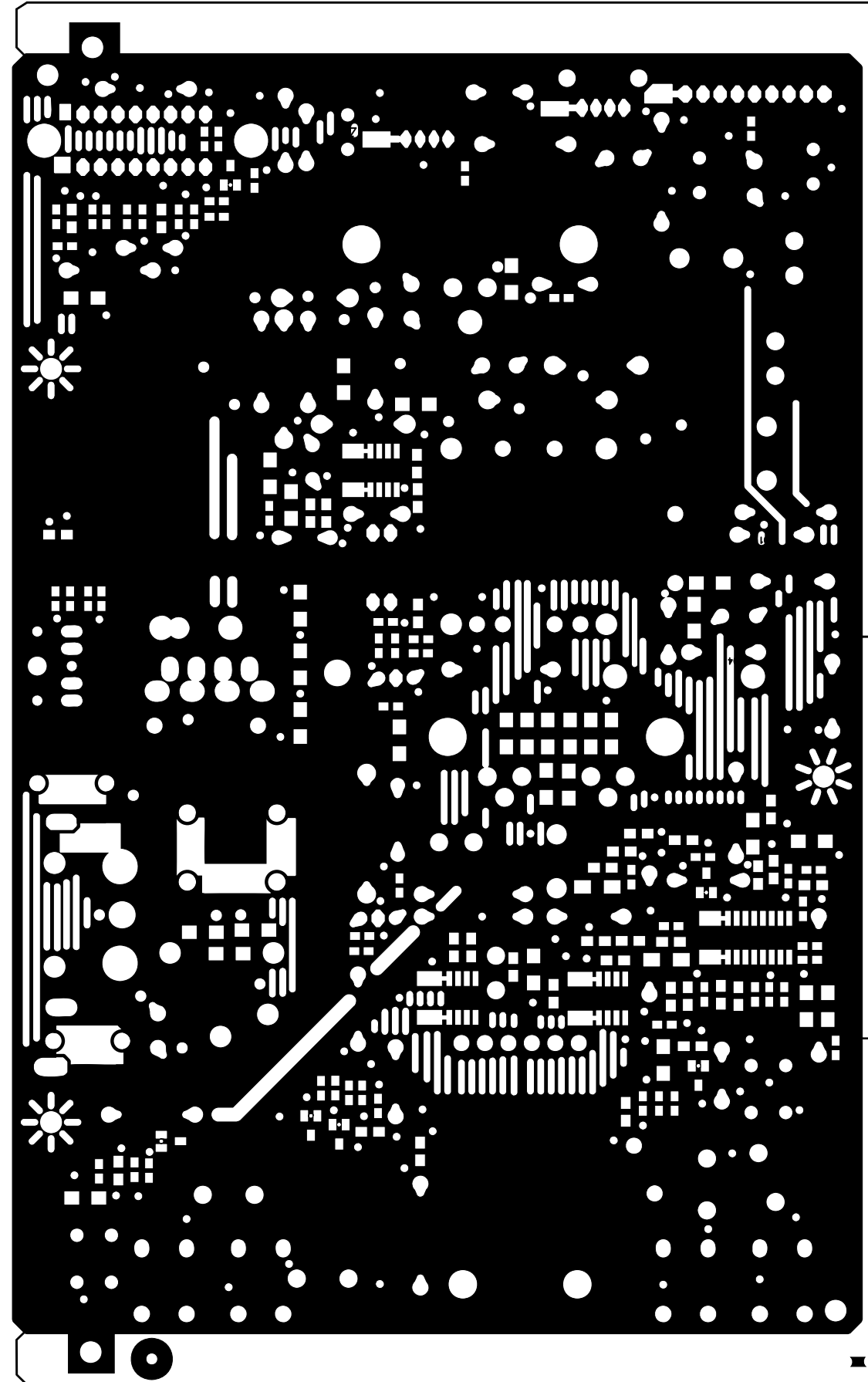
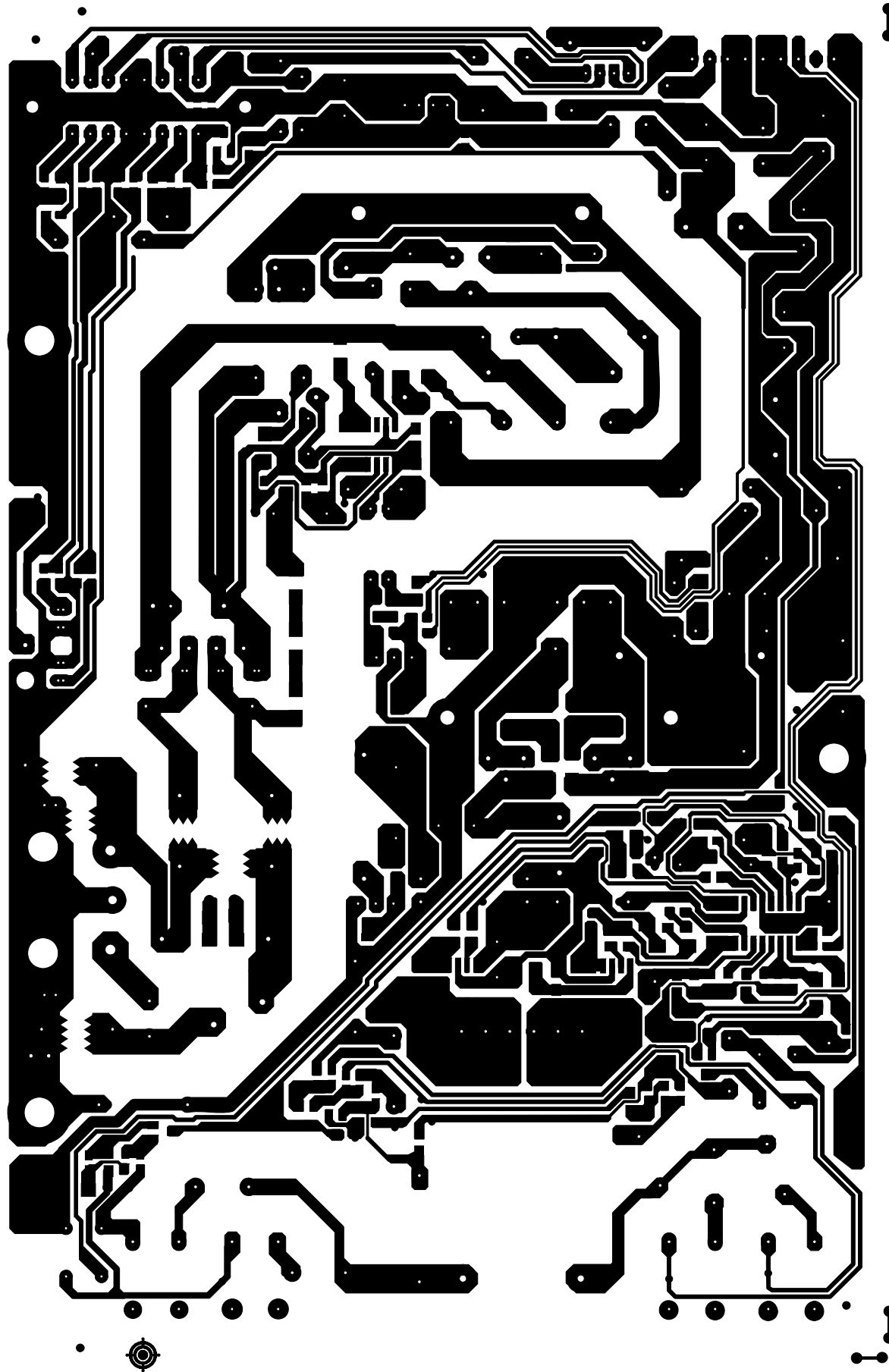
715G3225 1 2

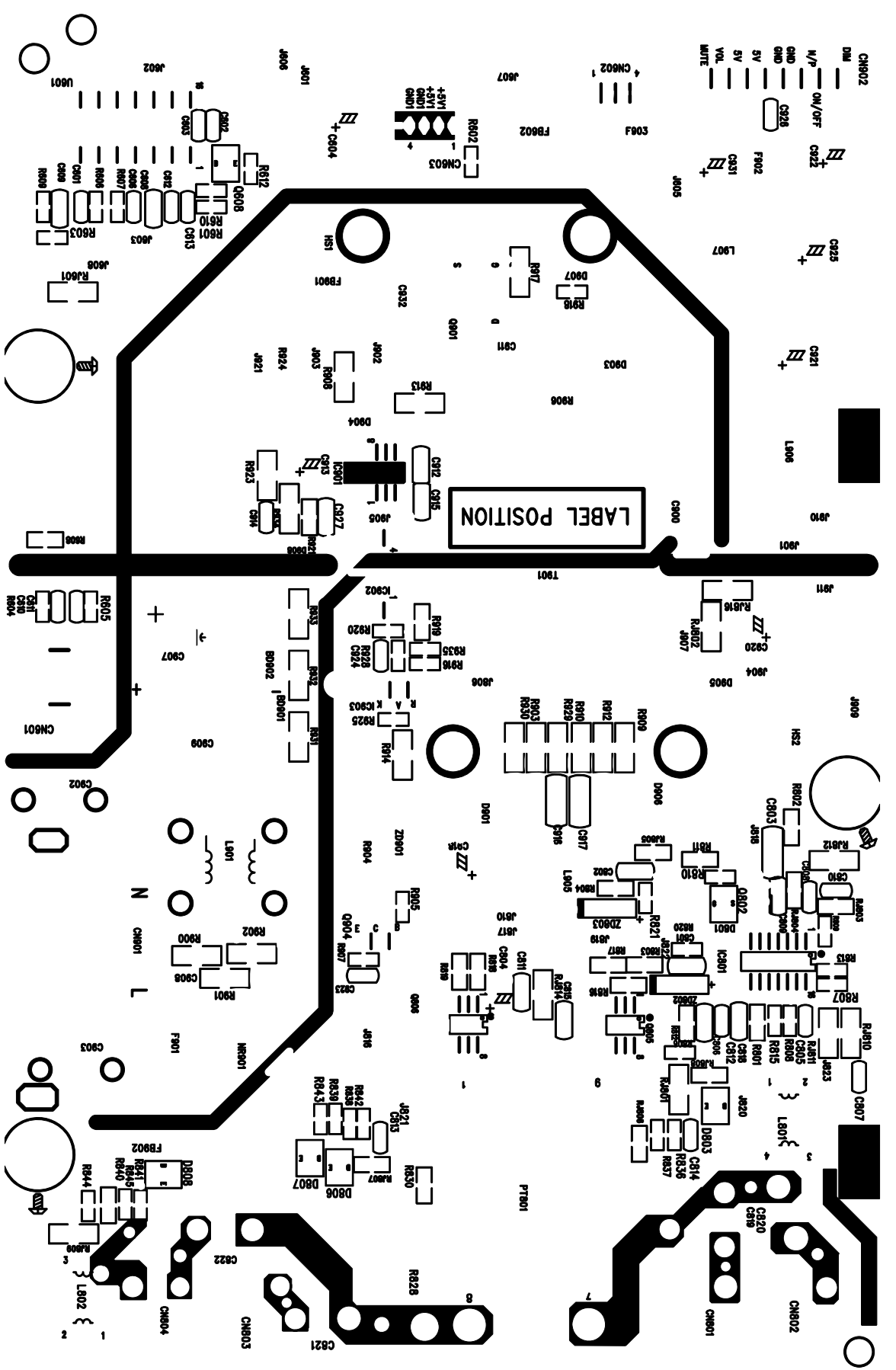
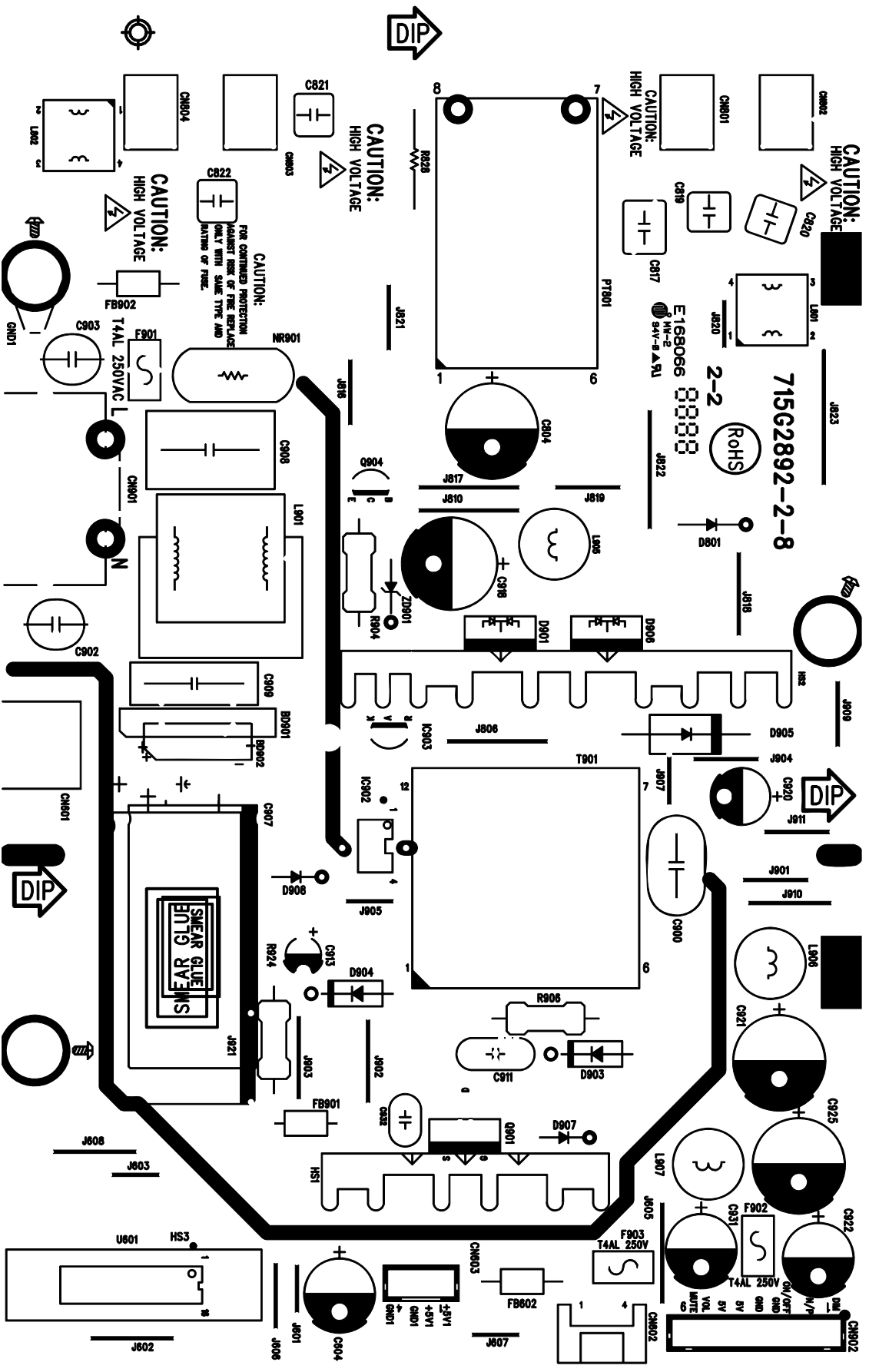


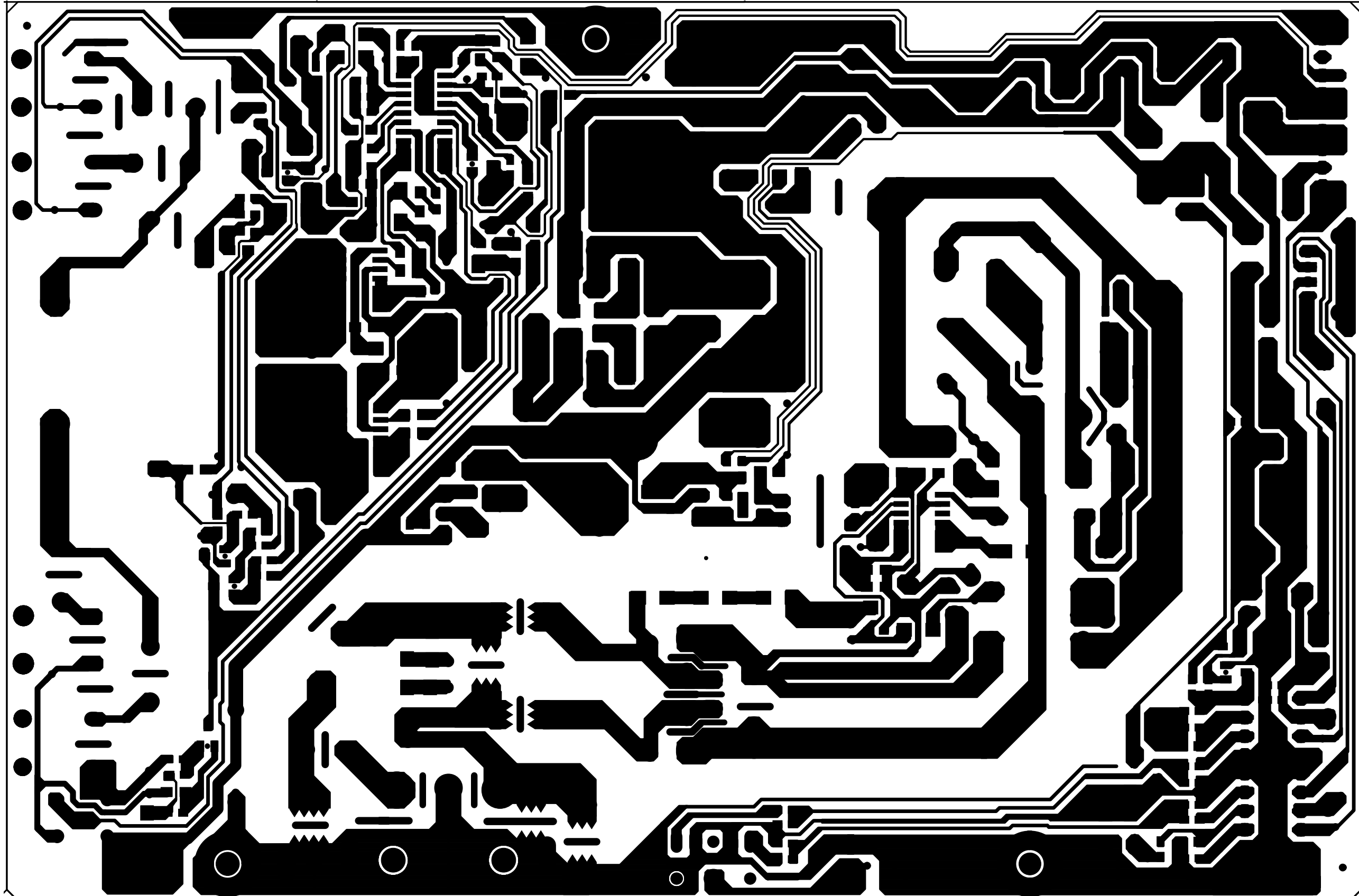


9.2 Power Board

(For VA1932wa: 715G2892 2 8)



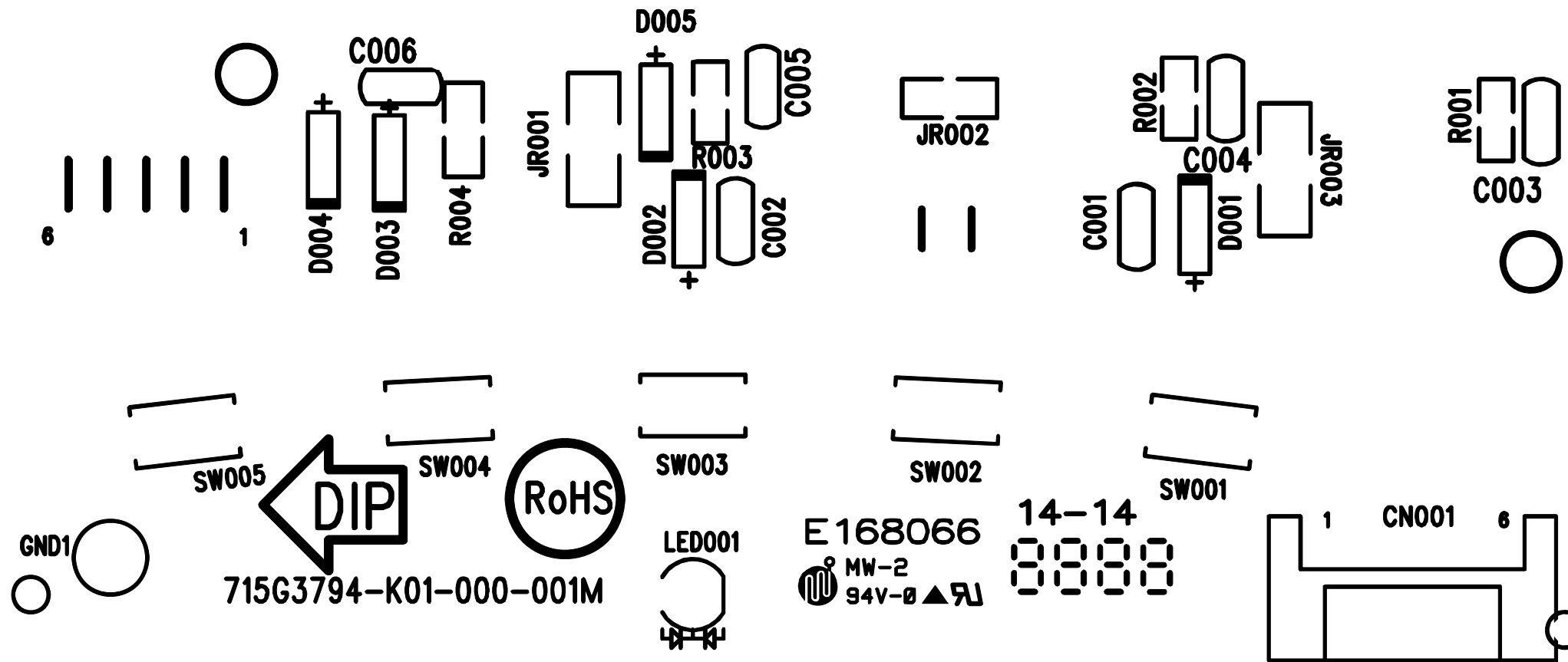
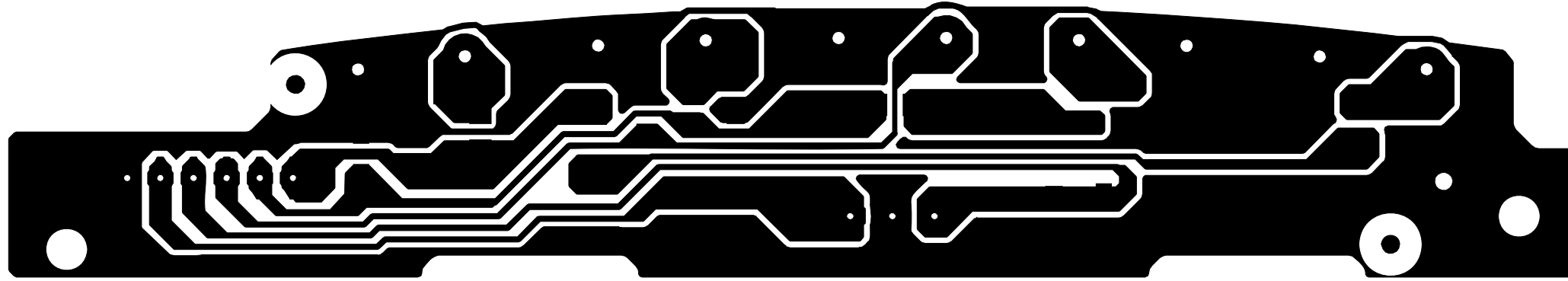






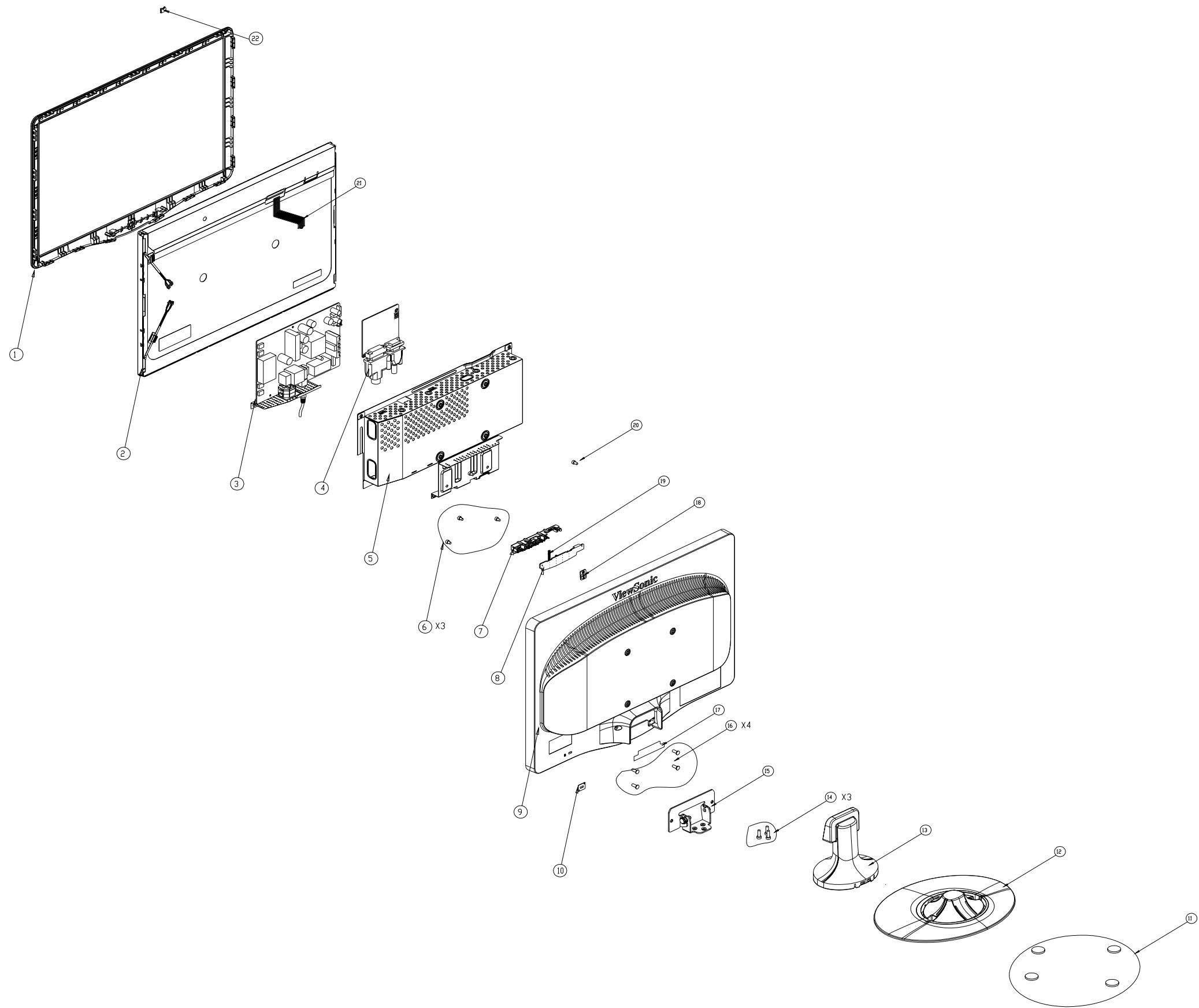


9.3 Key Board (715G3794K01000001M)



# 10. Exploded Diagram and Exploded Parts List

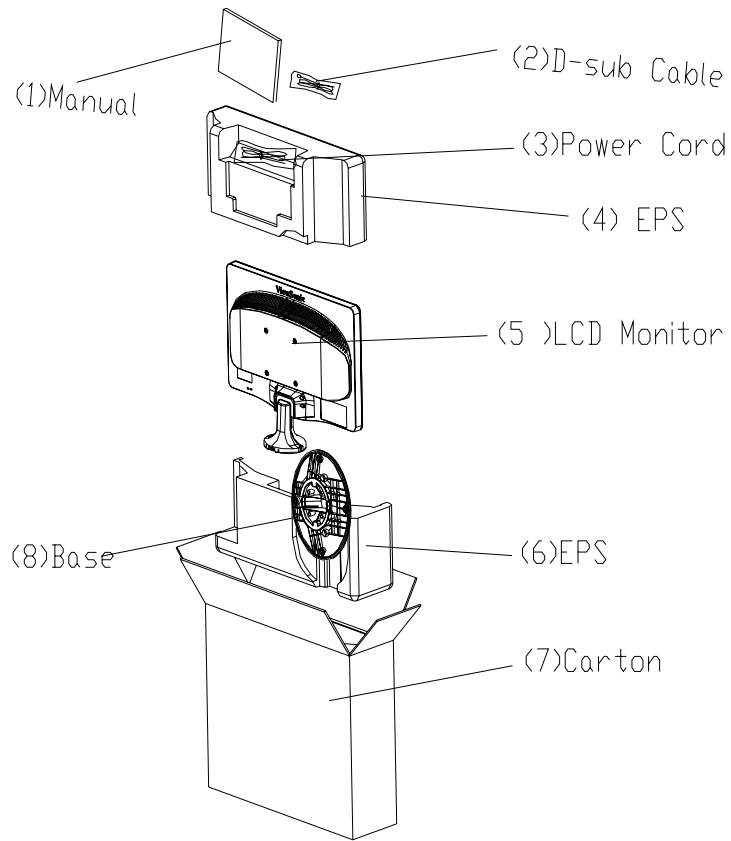
## 10.1 EPL



## Explode Parts List

Item	Description	Part Number	Q'ty
1	BEZEL	NA	1
2	PANEL	NA	1
3	POWER BOARD	NA	1
4	MAIN BOARD	NA	1
5	MAIN FRAME	NA	1
6	SCREW	0G1G1030 6120	3
7	KEY PAD	NA	1
8	KEY BOARD	NA	1
9	REAR COVER	NA	1
10	LOCK BKT	NA	1
11	RUBBER PAD	NA	1
12	BASE	NA	1
13	STAND	NA	1
14	SCREW	AM1G1740 12120	3
15	HINGE	NA	1
16	SCREW	Q01G6078 3	3
17	INSULATE SHEET	NA	1
18	LENS	NA	1
19	KEY BOARD CABLE	NA	1
20	SCREW	0G1G1030 6120	1
21	FFC CABLE	NA	1
22	LOGO	NA	1

**PPL**



Item	Description	Part Number	Q'ty
1	MANUAL	NA	1
2	D-SUB CALE	NA	1
3	POWER CORD	NA	1
4	EPS	NA	1
5	LCD Monitor	NA	1
6	EPS	NA	1
7	CARTON	NA	1
8	BASE	NA	1

Note: The parts information listed below are for reference only, and are subject to change without notice. Please go to <http://cs.tpv.com.cn/hello1.asp> for the latest information.

## 10.2 Spare Parts List

### VA1932wa T99MNFNYRXVWNN

Location	Part No.	Description	Remark
	023G3178709 3A	LOGO	
	050G 600 1 W	WHITE STRAP (1G004991)	
	050G 600 2	HANDLE1	
	050G 600 3	HANDLE2	
	052G 1150 C	INSULATING TAPE	
	052G 1185 24	VSC TAPE FOR PALLET	
	052G 1186	SMALL TAPE	
	052G 1207 A	CONDUCTIVE TAPE 45MM *25MM *0.08MM	
	052G 1209 A	200MINIUM TAPE	
	052G 1211 B	CONDUCTIVE TAPE 85MM *40MM *0.09MM	
	052G 2191 A	PAPER TAPE	
E08902	089G 728CAA DB	D-SUB CABLE	2nd Source
E08902	089G 728GAA DB	D-SUB CABLE	2nd Source
E08902	089G 728HAA DB	D-SUB CABLE	
E08902	089G 728LAA DB	D-SUB CABLE	2nd Source
E08907	089G179E30NA08	FFC CABLE	2nd Source
E08907	089G179J30NA08	FFC CABLE	2nd Source
	089G420A18N IS	POWER CORD 32-D001922	
E09502	095G8014 7W577	HARNESS 7P(PLUG)-6P(PH) 160MM	2nd Source
E09502	095G8014 7X577	HARNESS 7P(PLUG)-6P(PH) 160MM	
	0G1G1030 6120	SCREW	
	705GQ934334	STAND-BASE ASS'Y	
	AM1G1740 12120	SCREW	
	P12G 61033	RUBBER PAD	
	Q34G7050AFQ 1B0130	BASE S2	
	Q34G7051AFQ 1B0100	STAND	
	Q37G0174011	HINGE	
	750GLM90A1A12N	PANEL M190A1-L0A C1 NB CMO	
	756GQ9CB VV077 01	MAIN BOARD-CBPC9NFVWQ4	
SMTC9-U402	100GVNM900BN11	MCU ASS'Y-056G1133 81	
	040G 45762412B	CBPC LABEL	
CN407	033G3802 7B Y	CONNECTOR 7P 2.0 DIP	
CN407	033G3802 7B Y L	CONN 2.0 7P	
CN404	033G3802 9B Y	CONNECTOR 9P 2.0	
CN404	033G3802 9B Y L	CONN 2.0 9P	

CN403	033G801930F CH L	FFC CONNECTOR 30P 1.0PITCH	
CN403	033G801930F CH JS	CONNECTOR	
CN101	088G 35315F HD	D-SUB CONN F ATTACHED SCREW	
CN101	088G 35315F XH	D-SUB 15PIN VERTICAL CONN WITH SCREW	
X401	093G 2251B J	CRYSTAL 12MHZ NXS12.000AC30F-KAB10	
	709G3225 QM001	CONSUMPTIVE ASS'Y	
	055G 2	ALCOHOL	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
C704	067G 2151014NT	100UF	
C702	067G 2151014NT	100UF	
C449	067G 2151014NT	100UF	
C707	067G 2151014NT	100UF	
C449	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C707	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C704	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C702	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C707	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C704	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C449	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C702	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
	709G3225 QA001	CONSUMPTIVE ASS'Y	
U704	056G 133 33AAC	AZ1117H-1.8-E1	
U401	056G 562585	IC NT68167FG/D QFP64	
U702	056G 563114	IC G1117-33T63UF 1A/3.3V SOT-223	
U704	056G 56327A	IC AP1117E18LA SOT223-3L ANACHIP	
U102	056G 662502	IC ESD AZC199-04S SOT23-6L	
U103	056G 662502	IC ESD AZC199-04S SOT23-6L	
U101	056G1133 34 1	IC M24C02-RMN6TP 2KB SO-8	
U402	056G1133 81	SST25LF020A-33-4C-SAE	
U101	056G1133918	IC AT24C02BN-SH-T 8-SOIC	
Q406	057G 417511	MMBT3904	
Q404	057G 417511	MMBT3904	
Q408	057G 417512	MMBT3906	
Q407	057G 417512	MMBT3906	
Q408	057G 417517	TRA LM3906LT1G -200MA/-40V SOT-23 LRC	
Q407	057G 417517	TRA LM3906LT1G -200MA/-40V SOT-23 LRC	
Q404	057G 417518	TRA LM3904LT1G 200MA/40V SOT-23 LRC	
Q406	057G 417518	TRA LM3904LT1G 200MA/40V SOT-23 LRC	
Q405	057G 763 1	A03401 SOT23 BY AOS(A1)	

Q405	057G 763513	P6403FMG BY NIKO-SEM	
R122	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R429	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R467	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R470	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R473	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R474	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R474	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R473	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R470	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R467	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R429	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R122	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R102	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R103	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R104	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R108	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R110	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R111	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R705	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R452	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R451	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R450	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R449	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R416	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R411	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R405	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R117	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R115	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R114	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R113	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R117	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R405	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R411	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R416	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R449	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R450	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R451	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R452	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R705	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	

R102	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R103	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R104	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R108	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R110	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R111	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R113	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R114	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R115	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R419	061G0402102 JF	RST CHIPR 1KOHM +-5% 1/16W FENGHUA	
R704	061G0402102 JF	RST CHIPR 1KOHM +-5% 1/16W FENGHUA	
R419	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	
R704	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	
R710	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R709	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R471	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R433	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R420	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R417	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R406	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R118	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R710	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R709	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R471	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R433	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R420	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R417	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R406	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R118	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R462	061G0402105 JF	RST CHIPR 1MOHM 5% 1/16W FENGHUA	
R462	061G0402105 JY	RST CHIPR 1000KOHM 1/16W YAGEO	
R466	061G0402122 JF	RST CHIPR 1200 OHM 1/16W FENGHUA	
R466	061G0402122 JY	RST CHIPR 1200 OHM 1/16W YAGEO	
R409	061G0402203 JF	RST CHIPR 20KOHM +-5% 1/16W FENGHUA	
R409	061G0402203 JY	RST CHIPR 20KOHM +-5% 1/16W YAGEO	
R105	061G0402222 JF	RST CHIPR 2.2KOHM +-5% 1/16W FENGHUA	
R106	061G0402222 JF	RST CHIPR 2.2KOHM +-5% 1/16W FENGHUA	
R106	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R105	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R410	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	

R414	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R435	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R711	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R410	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R414	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R435	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R711	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R109	061G04023900FT	RST CHIP 390R 1/16W 1%	
R109	061G04023900FY	RST CHIPR 390 OHM +-1% 1/16W YAGEO	
R428	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R427	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R407	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R428	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R427	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R407	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R468	061G0402432 JF	RST CHIP 4K3 1/16W 5% FENGHUA	
R465	061G0402432 JF	RST CHIP 4K3 1/16W 5% FENGHUA	
R468	061G0402432 JY	RST CHIP 4K3 1/16W 5% YAGEO	
R465	061G0402432 JY	RST CHIP 4K3 1/16W 5% YAGEO	
R119	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R120	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R121	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R415	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R415	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R121	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R120	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R119	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R436	061G0402563 JF	RST CHIPR 56KOHM 1/16W FENGHUA	
R436	061G0402563 JY	RST CHIPR 56KOHM 1/16W YAGEO	
R107	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R112	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R116	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R107	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	
R112	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	
R116	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	
R101	061G0603000 JF	RST CHIPR MAX 0R05 1/10W FENGHUA	
R101	061G0603000 JY	RST CHIPR MAX0R05 1/10W YAGEO	
R469	061G0603102 JF	RST CHIPR 1K OHM +-5% 1/10W FENGHUA	
R469	061G0603102 JY	RST CHIPR 1KOHM +-5% 1/10W YAGEO	
R434	061G1206221 JF	RST CHIPR 220 OHM +-5% 1/4W FENGHUA	

R421	061G1206221 JF		RST CHIPR 220 OHM +-5% 1/4W FENGHUA	
R421	061G1206221 JT		RST CHIPR 220 OHM +-5% 1/4W TZAI YUAN	
R434	061G1206221 JT		RST CHIPR 220 OHM +-5% 1/4W TZAI YUAN	
C106	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C106	065G040210232K	T	CAP CHIP 0402 1000PF 50V X7R	
C420	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C431	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C433	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C441	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C416	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C415	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C414	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C413	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C410	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C409	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C407	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C705	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C417	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C401	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C406	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C701	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C703	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C706	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C709	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C401	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C406	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C407	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C409	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C410	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C413	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C705	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C709	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C706	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C703	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C701	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C441	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C433	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C431	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C420	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C417	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	

C416	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C415	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C414	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C102	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C102	065G040222031J	T	CAP CHIP 0402 22PF 50V NPO	
C408	065G040222415K	A	CAP CHIP 0402 0.22UF K 16V X5R	
C419	065G040222415K	A	CAP CHIP 0402 0.22UF K 16V X5R	
C408	065G040222415K	T	CAP CHIP 0402 220NF K 16V X5R	
C419	065G040222415K	T	CAP CHIP 0402 220NF K 16V X5R	
C103	065G040233031J	T	CAP CHIP 0402 33PF 50V NPO	
C103	065G040233031J	Y	CAP CHIP 0402 33P 50V NPO +/-5%	
C411	065G040247031J	A	CAP CHIP 0402 47PF J 50V NPO	
C412	065G040247031J	A	CAP CHIP 0402 47PF J 50V NPO	
C411	065G040247031J	Y	CAP CHIP 0402 47PF 50V NPO +/-5%	
C412	065G040247031J	Y	CAP CHIP 0402 47PF 50V NPO +/-5%	
C113	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C110	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C109	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C107	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C105	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C101	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C113	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C110	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C109	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C107	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C105	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C101	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C444	065G060310432K	A	CAP CHIP 0603 100NF K 50V X7R	
C444	065G060310432K	Y	CAP CHIP 0603 0.1UF K 50V X7R	
C421	065G060310512K	A	CAP CHIP 0603 1UF K 16V X7R	
C421	065G060310512K	T	CAP CHIP 0603 1UF K 16V X7R	
C451	065G060310605M	T	MLCC 0603 10UF 6.3V X5R +-20%	
C451	065G060310605M	Y	CAP CHIP 0603 10UF 6.3V X5R +/-20%	
C116	065G060322412K	A	CAP CHIP 0603 0.22UF K 16V X7R	
C116	065G060322412K	Y	CAP CHIP 0603 220N 16V X7R 10%	
C442	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C430	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C443	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C443	065G080547515K	T	CAP CHIP 0805 4.7UF K 16V X5R	
C442	065G080547515K	T	CAP CHIP 0805 4.7UF K 16V X5R	

C430	065G080547515K T	CAP CHIP 0805 4.7UF K 16V X5R	
FB404	071G 56K121 M	CHIP BEAD	
FB408	071G 56K121 M	CHIP BEAD	
FB404	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB408	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB403	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 BULLWILL	
FB406	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 BULLWILL	
FB101	071G 59K190 B	19 OHM BEAD	
FB102	071G 59K190 B	19 OHM BEAD	
FB103	071G 59K190 B	19 OHM BEAD	
D101	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D101	093G 64 42 P	BAV70 SOT23 BY PAN JIT	
D101	093G 64 42 PP	BAV70 SOT-23	
D406	093G 39GA01 T	RLZ5.6B	
D405	093G 39GA01 T	RLZ5.6B	
D404	093G 39GA01 T	RLZ5.6B	
ZD104	093G 39GA01 T	RLZ5.6B	
ZD103	093G 39GA01 T	RLZ5.6B	
D406	093G 39GA01 T	RLZ5.6B	
D405	093G 39GA01 T	RLZ5.6B	
D404	093G 39GA01 T	RLZ5.6B	
ZD104	093G 39GA01 T	RLZ5.6B	
ZD103	093G 39GA01 T	RLZ5.6B	
	709G3225 QS001	CONSUMPTIVE ASS'Y	
	052G 2191 A	PAPER TAPE	
	Q52G6026 6	MESH PRINTTING PAPER	
	715G3225 1 2	MAIN PCB BOARD	
	KEPC9QV2	KEY BOARD	
CN001	033G3802 6 H F	CONNECTOR	
CN001	033G3802 6 H X	WAFER 6P RIGHT ANGLE PITCH 2.0	
SW001	077G 603 3 TO	TACT SWITCH TS-03-BS	
SW005	077G 603 3 TO	TACT SWITCH TS-03-BS	
SW003	077G 603 3 TO	TACT SWITCH TS-03-BS	
SW004	077G 603 3 TO	TACT SWITCH TS-03-BS	
SW002	077G 603 3 TO	TACT SWITCH TS-03-BS	
LED001	081G 12 2M GP	LED GP34032/GP-1-ZY-50 GUANG PU	
R003	061G06032001FT	RST CHIP R 2KOHM 1/10W +/-1%	
R003	061G06032001FY	RST CHIPR 2KOHM +/-1% 1/10W YAGEO	
R001	061G06033001FT	RST CHIP 3K 1/10W 1%	
R002	061G06033001FT	RST CHIP 3K 1/10W 1%	

R001	061G06033001FY		RST CHIPR 3KOHM +-1% 1/10W YAGEO	
R002	061G06033001FY		RST CHIPR 3KOHM +-1% 1/10W YAGEO	
JR002	061G0805000 JF		RST CHIPR 0 OHM +-5% 1/8W FENGHUA	
JR002	061G0805000 JY		RST CHIPR MAX 0R05 OHM 1/8W YAGEO	
R004	061G08052001FF		RST CHIPR 2KOHM +-1% 1/8W FENGHUA	
R004	061G08052001FT		RST CHIP 2K 1/8W 1%	
JR001	061G1206000 JF		RST CHIPR MAX0R05 1/4W FENGHUA	
JR001	061G1206000 JY		RST CHIPR MAX0R05 1/4W YAGEO	
C001	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C002	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C003	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C004	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C006	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C005	065G060310412K	A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C003	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C004	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C005	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C006	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C001	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C002	065G060310412K	Y	CAP CHIP 0603 100N 16V X7R +/-10%	
	715G3794K01000001M		KEY PCB BOARD	
	PWPC9941EQAC		POWER BOARD	
	040G 45762412B		CBPC LABEL	
GND1	009G6005	1	GROUND TERMINAL	
CN801	033G8021	2E F	WAFER	
CN802	033G8021	2E F	WAFER	
CN803	033G8021	2E F	WAFER	
CN804	033G8021	2E F	WAFER	
CN801	033G8021	2E XY	CONNECTOR	
CN802	033G8021	2E XY	CONNECTOR	
CN803	033G8021	2E XY	CONNECTOR	
CN804	033G8021	2E XY	CONNECTOR	
IC902	056G 139	3A	IC PC123Y22FZ0F	
IC902	056G 139900		PHOTO COUPLER TLP421F	
NR901	061G 58100	WD	RST NTCR 10 OHM +-20% 5A THINKING	
C908	063G 10747410V		0.47UF 275VAC ARCO	
C908	063G107K474	6S	CAP X2 0.47UF K 275VAC	
C908	063G107K474	US	0.47UF +/-10%	
C932	065G 1K101	2T6921	CAP CER 100PF 1KV K Y5P	
C822	065G 3J6806ET		CAP CER 68PF J 3KV SL	

C821	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C820	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C819	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C817	065G 6J2096ET	2PF 5% SL 6KV	
C903	065G305M1022B2	1000PF400VAC/250VAC	
C902	065G305M1022B2	1000PF400VAC/250VAC	
C903	065G305M1022BP	Y2 1000PF M 250VAC Y5P	
C902	065G305M1022BP	Y2 1000PF M 250VAC Y5P	
C900	065G306M3322BP	3300PF 20%	
C907	067G 40Z12115K	EC 120UF V 450V 20*40MM	
C907	067G 40Z12115L	EC 120UF 450V M 20*40MM	
C918	067G215D1026LV	LOW ESR EC 1000UF M 35V 12.5*20MM	
C804	067G215D1026LV	LOW ESR EC 1000UF M 35V 12.5*20MM	
C918	067G215P1026KV	LOW ESR EC 1000UF M 35V 12.5*25MM	
C804	067G215P1026KV	LOW ESR EC 1000UF M 35V 12.5*25MM	
C922	067G215S4713KV	EC 105°C CAP 470UF M 16V	
C922	067G215S4713LV	LOW ESR EC 470UF 16V M 10*12.5MM	
C922	067G215V471 3H	CAP L105°C 470UF M 16V	
L801	073G 174 35 HA	IND FILTER 200MH+-25% DADON	
L802	073G 174 35 HA	IND FILTER 200MH+-25% DADON	
L801	073G 174 35DNA	FILTER 200MH±25%	
L802	073G 174 35DNA	FILTER 200MH±25%	
L906	073G 253 91 H	CHOKE COIL	
L905	073G 253 91 H	CHOKE COIL	
L906	073G 253 91 L	CHOKE BY LI TA	
L905	073G 253 91 L	CHOKE BY LI TA	
L907	073G 253191 H	IND CHOKE 1.1UH DADON	
L907	073G 253191 S	IND CHOKE 1.1UH	
L901	073L 174 40 HG	GBQM4.778.391	
L901	073L 174 40 NG	LINE FILTER 30MH	
T901	080GL22T 3 N1	X'FMR 490UH YUVA-1093	
PT801	080GL24T 23 DN	X'FMR 68UH TK.2005Y.101 VOC	
CN901	087G 501 32 S	AC SOCKET	
CN901	087G 501 32 DL	AC SOCKET DIP 3PIN+2PIN GROUND	
BD901	093G 50460900	BRIDGE 4A/800V GBU408 LITEON	
D905	093G 60334	DIODE SR506 5A/60V DO-201AD	
D905	093G 60519	DIODE SR560 5A/60V DO-27 SECOS	
D905	093G3006 1 1	31DQ06FC3 NIHON INTER	
CN902	095G 825 9W520	HARNESS 9P(SCN)-9P(PLUG) 140MM	
CN902	095G 825 9X520	HARNESS 9P(SCN)-9P(PLUG) 140MM	

	705GQ851001	OIL FOR DISAPPEAR ASS'Y	
	705GQ851001	OIL FOR DISAPPEAR ASS'Y	
	705GQ957065	Q901 ASS'Y	
Q901	057G 600 35	STP8NK80ZFP	
Q901	057G 667 21	STP10NK70ZFP	
Q901	057G 667 22	FQPF8N80C	
Q901	057G 667516	FET 2SK3673 TO-220 FUJI	
HS1	090G6064 1	HEAT SINK	
	0M1G 930 8120	SCREW	
	705GQ993098	D901/D906 ASS'Y	
HS2	090G6081 1	HEATSHINK FOR U301	
D901	093G 52 69	DIODE YG902C2RSC 10A/200V TO-220F15	
D901	093G 60245	SP10150 10A 150V ITO-220 BY SECOS	
D906	093G 60251	FCQ10U06	
D906	093G 60278	DIODE SP1060 ITO-220 SECOS	
D901	093G 60294	DIODE MBRF10150CT 10A/150V ITO-220	
D906	093G 60526	SCHOTTKY MBRF1060CT ITO-220AB	
	0M1G 930 8120	SCREW	
	709G2892 QM001	CONSUMPTIVE ASS'Y	
	055G 2	ALCOHOL	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
	PW9941EQACSM T	POWER BOARD FOR SMT	
IC901	056G 379529	IC LD7576AGR SOP-7	
IC801	056G 608 12	IC TA9687GN-A-0-TR SOP-16	
Q806	057G 600 61	AM4502C-TI-PF S0-8	
Q805	057G 600 61	AM4502C-TI-PF S0-8	
Q802	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM	
Q805	057G 763 91	ET AO4620 7.2A/30V -5.3A/-30V SOIC-8	
Q806	057G 763 91	ET AO4620 7.2A/30V -5.3A/-30V SOIC-8	
Q802	057G 763904	TRA FET 2N7002 SOT-23 PHILIPS	
R905	061G0603000	RST CHIP MAX 0R05 1/10W	
R846	061G0603000 JF	RST CHIPR MAX 0R05 1/10W FENGHUA	
R846	061G0603000 JY	RST CHIPR MAX0R05 1/10W YAGEO	
R820	061G0603100 Y	RST CHIPR 10 OHM +-5% 1/10W YAGEO	
R821	061G0603100 Y	RST CHIPR 10 OHM +-5% 1/10W YAGEO	
R907	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R920	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R928	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R916	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	

R918	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R807	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R842	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R843	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R844	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R845	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R806	061G0603104	RST CHIPR 100 KOHM +-5% 1/10W	
R813	061G0603104	RST CHIPR 100 KOHM +-5% 1/10W	
R809	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R838	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R839	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R841	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R808	061G06034700FF	RST CHIPR 470 OHM +-1% 1/10W FENGHUA	
R836	061G0603563 Y	RST CHIPR 56KOHM +-5% 1/10W YAGEO	
R810	061G0603750 2F	RST CHIPR 75KOHM +-1% 1/10W	
R925	061G0603910 1F	RST CHIPR 9.1 KOHM +-1% 1/10W	
R837	061G0603912 JY	RST CHIP R 9.1KOHM +-5% 1/10W YAGEO	
RJ803	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ804	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ805	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ806	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ807	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ808	061G0805000	RST CHIP MAX 0R05 1/8W	
R815	061G08051002FF	RST CHIPR 10KOHM +-1% 1/8W FENGHUA	
R801	061G0805103	RST CHIPR 10K OHM +-5% 1/8W	
R812	061G0805104	RST CHIPR 100K OHM +-5% 1/8W	
R840	061G0805105	RST CHIPR 1M OHM +-5% 1/8W	
R919	061G08051500FF	RST CHIPR 150OHM +-1% 1/8W FENGHUA	
R919	061G08051500FT	RST CHIPR 150 OHM +-5% 1/8W	
R802	061G0805220	RST CHIPR 22 OHM +-5% 1/8W	
R816	061G0805229	RST CHIP 2R2 1/8W 5%	
R817	061G0805229	RST CHIP 2R2 1/8W 5%	
R818	061G0805229	RST CHIP 2R2 1/8W 5%	
R819	061G0805229	RST CHIP 2R2 1/8W 5%	
R803	061G0805512	RST CHIPR 5.1 KOHM +-5% 1/8W	
R804	061G0805512	RST CHIPR 5.1 KOHM +-5% 1/8W	
R830	061G0805622 JY	RST CHIPR 6K2 +-5% 1/8W YAGEO	
R811	061G0805820 2F	RST CHIPR 82KOHM +-1% 1/8W	
RJ801	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ802	061G1206000	RST CHIP MAX 0R05 1/4W	

RJ809	061G1206000		RST CHIP MAX 0R05 1/4W	
RJ810	061G1206000		RST CHIP MAX 0R05 1/4W	
RJ812	061G1206000		RST CHIP MAX 0R05 1/4W	
RJ814	061G1206000		RST CHIP MAX 0R05 1/4W	
RJ816	061G1206000	7	RST CHIP MAX 0R05 1/4W	
R917	061G1206100		RST CHIPR 10 OHM +-5% 1/4W	
R903	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
R909	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
R910	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
R912	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
R929	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
R930	061G1206101		RST CHIPR 100 OHM +-5% 1/4W	
RJ811	061G1206102	JY	RST CHIPR 1KOHM 5% 1/4W YAGEO	
R908	061G1206103		RST CHIPR 10K OHM +-5% 1/4W	
R923	061G1206221		RST CHIPR 220 OHM +-5% 1/4W	
R913	061G1206519		RST CHIPR 5.1 OHM +-5% 1/4W	
R900	061G1206684		RST CHIPR 680K OHM +-5% 1/4W	
R901	061G1206684		RST CHIPR 680K OHM +-5% 1/4W	
R902	061G1206684		RST CHIPR 680K OHM +-5% 1/4W	
C923	065G060310232K	A	CAP CHIP 0603 1000PF K 50V X7R	
C924	065G0603104	12	CER2 0603 X7R 16V 100N P	
C926	065G0603104	12	CER2 0603 X7R 16V 100N P	
C814	065G060322131J	A	CAP 0603 220PF J 50V NPO	
C810	065G060322232K	A	CAP 0603 2.2NF K 50V X7R	
C805	065G060322332K	F	CAP CHIP 0603 22NF K 50V X7R	
C807	065G060333232K	F	CAP CHIP 0603 3300PF K 50V X7R	
C808	065G060333332K	A	CAP CHIP 0603 0.033UF K 50V X7R	
C914	065G060347131J	A	CAP CHIP 0603 470PF J 50V NPO	
C915	065G080510332K	F	CAP CHIP 0805 10NF K 50V X7R	
C912	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C815	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C811	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C818	065G0805155A2K	3	CAP CHIP 0805 1.5UF K 10V X7R	
C818	065G0805155A2K	M	CAP MLCC 0805 1.5UF K 10V X7R	
C818	065G0805155A2K	T	CAP CHIP 0805 1.5UF K 10V X7R	
C809	065G080522131J	A	CAP CHIP 0805 220PF J 50V NPO	
C809	065G080522131J	Y	CAP CHIP 0805 220P 50V NPO +/-5%	
C806	065G080522512K	3	CAP CHIP 0805 2U2 16V X7R +/-10%	
C806	065G080522512K	M	MLCC 0805 CAP 2.2UF 16V X7R	
C806	065G080522512K	T	CAP CHIP 0805 2.2UF K 16V X7R	

C802	065G080547332K F	CAP CHIP 0805 47NF K 50V X7R	
C927	065G080547332K F	CAP CHIP 0805 47NF K 50V X7R	
C801	065G080547332K F	CAP CHIP 0805 47NF K 50V X7R	
C916	065G120610272K Y	CAP CHIP 1206 1NF K 500V X7R	
C917	065G120610272K Y	CAP CHIP 1206 1NF K 500V X7R	
C803	065G120610432K Y	CER 1206 100N 50V X7R +/-10%	
D803	093G 64 33	DIO SIG SM BAV99 (PHSE)R	
D806	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D808	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D807	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D808	093G 64 42 PP	BAV70 SOT-23	
D807	093G 64 42 PP	BAV70 SOT-23	
D806	093G 64 42 PP	BAV70 SOT-23	
D803	093G 64900 T	DIO SIG SM BAV99 (VISH) R	
ZD803	093G 39GA01 T	RLZ5.6B	
ZD802	093G 39GA01 T	RLZ5.6B	
ZD803	093G 39S 24 T	RLZ 5.6B LLDS	
ZD802	093G 39S 24 T	RLZ 5.6B LLDS	
D808	093G 64S 6	SMT D-BAV70-7-F SOT-23	
D807	093G 64S 6	SMT D-BAV70-7-F SOT-23	
D806	093G 64S 6	SMT D-BAV70-7-F SOT-23	
	709G2892 QS001	CONSUMPTIVE ASS'Y	
	052G 2191 A	PAPER TAPE	
	PW9941EQZWA1	POWER BOARD FOR AI	
CN901	006G 31500	EYELET	
PT801	006G 31502	1.5MM RIVET	
IC903	056G 158 10 T	IC AS431AZTR-E1 TO-92	
IC903	056G 158 12	KIA431A-AT/P TO-92	
Q904	057G 530503 T	2SD1207T	
Q904	057G 761 16	TRA KTD1028 KEC	
R906	061G152M10452T	RST MOFR 100KOHM +-5% 2WS	
R924	061G152M39852T	RST MOFR 0.39 OHM +-5% 2WS	
R904	061G152M68152T	RST MOFR 680 OHM +-5% 2WS	
R828	061G212Y62552T SY	RST MGFR 6.2MOHM +-5% 1/2W FUTABA	
C911	065G 2K152 2T6213	CAP CER 1500PF K 2KV	
C911	065G 2K152 2T6921	CAP CER 1500PF K 2KV Y5P	
C920	067G 2046812KT	CS CAP 680UF 10V 8*11 MM	
C920	067G 2046812LT	CS CAP 680UF 10V 8*11.5 MM	
C913	067G215S2207RT	EC 22UF 50V 5*11MM	
C913	067G215Y2207KT	CAP 105°C 22UF M 50V KINGNICHII	

FB902	071G 55 9 T	FERRITE BEAD	
FB901	071G 55 29	FERRITE BEAD	
F901	084G 56 4 B	FUSE 4A 250V	
F902	084G 56 4 B	FUSE 4A 250V	
F903	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4W	FUSE 4.0A 250V	
F902	084G 56 4W	FUSE 4.0A 250V	
ZD901	093G 3952152T	TZX18B	
D904	093G 52 1552T	DIODE 1N4007-E3/73 1A/1000V DO-41	
D903	093G 52 1552T	DIODE 1N4007-E3/73 1A/1000V DO-41	
D903	093G 6026T52T	RECTIFIER DIODE FR107	
D904	093G 6038T52T	FR103	
D801	093G 64 1152T	1N4148	
D907	093G 64 1152T	1N4148	
D801	093G 64 1152T PH	SWITCH DIODE 1N4148 BY PHILIPS	
D907	093G 64 1152T PH	SWITCH DIODE 1N4148 BY PHILIPS	
	709G2892 QA001	CONSUMPTIVE ASS'Y	
	095G 90 23	JUMPER WIRE	
	715G2892 3 8	POWER PCB 184X122X1.6MM FR-1 S/S 1OZ	
L802	S73G17435VA	TRANSFORMER	
	040FP174 35	LABEL S73G17435VA	
	034FPE83P01P01	EE8.3 HP04	
	071FPE83101 02	FP2 EE8.3	
L801	S73G17435VA	TRANSFORMER	
	040FP174 35	LABEL S73G17435VA	
	034FPE83P01P01	EE8.3 HP04	
	071FPE83101 02	FP2 EE8.3	
T901	S80GL22T3V1	XFMR POWER 490UH TPV-PT	
PT801	S80GL24T23V	XFMR POWER 68UH TPV-PT VOC	
	Q01G6078 3	SCREW	
	Q15G0233 1	LOCK BKT	
	Q15G0427601003	MAINFRAME	
	Q33G0375 KGA1C0100	LENS	
	Q33G0376AFQ 1L0100	KEY PAD	
	Q34G7048AFQC1B0130	BEZEL L19WA-9VSC2(VA1932WA)	
	Q34G7049AFQ 3B0130	REAR COVER 19	
	Q40G 58170931A	HT POT LABEL	
	Q44G9183101	EPS	
	Q44G9183201	EPS	
	Q44G9183709 2B	19W LCD VSC CARTON	

	Q45G 88606 23	PE BAG FOR BASE	
	Q45G 88609118	EPE BAG	
	Q50G 4 10	TIE (Y1900221)	
	Q52G6020166	PROTECT FILM	
	Q52G6025 13271	INSULATE SHEET	
E08907	S89G179T30NA08	LVDS ASSY	
	089F80001803BG	1.0*30*2.5-180-3-0.65*0.06	
	033F303FH10BK3	F1010HA-30P-BK	
	033F303FJSHK30	1.0S-19-30A	
	044F3231SMJ001	TAPE 30*11.5*0.1	
	Q41G78D1709 3A	VA1932 AND VA2232 BASE PROCEDURE CARD	
	Q41G78S170911A	VA1932WA LI QSG	
	Q45G2010M0201A	PE BAG	
	Q70G19C1709 2A	VA1932WA VA1932WMA CD MANUAL	
	040G 58162435A	P/N LABEL FOR MANUAL PE BAG	
	Q40G 19N709 9A	RATING LABEL	
	Q40G 581709 1B	CARTON LABEL	
	Q40G0001709 2A	SN LABEL	

VA1932wma T99MNFNCRXVSAN

Location	Part Number	Description	Remark
	023G3178709 3A	LOGO	
	050G 600 1 W	WHITE STRAP (1G004991)	
	050G 600 2	HANDLE1	
	050G 600 3	HANDLE2	
	052G 1185 24	VSC TAPE FOR PALLET	
	052G 1186	SMALL TAPE	
	052G 1207 A	CONDUCTIVE TAPE 45MM *25MM *0.08MM	
	052G 1209 A	200MINIUM TAPE	
	052G 1211 B	CONDUCTIVE TAPE 85MM *40MM *0.09MM	
	052G 2191 A	PAPER TAPE	
E07801	078G 31120A G	SPK 4 OHM 3 W 57.5X23 180 180MM NEO	2nd Source
E07801	078G 31120A V	SPK 4 OHM 3 W 57.5X23 180 180MM VECO	
E08902	089G 728CAA DB	D-SUB CABLE	2nd Source
E08902	089G 728GAA DB	D-SUB CABLE	2nd Source
E08902	089G 728HAA DB	D-SUB CABLE	
E08902	089G 728LAA DB	D-SUB CABLE	2nd Source
E08907	089G179E30NA08	FFC CABLE	2nd Source
E08907	089G179J30NA08	FFC CABLE	2nd Source
	089G420A18N IS	POWER CORD 32-D001922	
E09502	095G8014 7W577	HARNESS 7P(PLUG)-6P(PH) 160MM	2nd Source
E09502	095G8014 7X577	HARNESS 7P(PLUG)-6P(PH) 160MM	
	0G1G1030 6120	SCREW	
	705GQ934334	STAND-BASE ASS'Y	
	AM1G1740 12120	SCREW	
	P12G 61033	RUBBER PAD	
	Q34G7050AFQ 1B0130	BASE S2	
	Q34G7051AFQ 1B0100	STAND	
	Q37G0174011	HINGE	
	750GLM90A1A12N	PANEL M190A1-L0A C1 NB CMO	
	756GQ9CB VV076 01	MAIN BOARD-CBPC9NFVWQ3	
SMTC9-U402	100GVNM900DN11	MCU ASS'Y-056G1133 81	
	040G 45762412B	CBPC LABEL	
CN407	033G3802 7B Y	CONNECTOR 7P 2.0 DIP	
CN407	033G3802 7B Y L	CONN 2.0 7P	
CN404	033G3802 9B Y	CONNECTOR 9P 2.0	
CN404	033G3802 9B Y L	CONN 2.0 9P	
CN403	033G801930F CH L	FFC CONNECTOR 30P 1.0PITCH	
CN403	033G801930F CH JS	CONNECTOR	

CN101	088G 35315F HD	D-SUB CONN F ATTACHED SCREW	
CN101	088G 35315F XH	D-SUB 15PIN VERTICAL CONN WITH SCREW	
X401	093G 2251B J	CRYSTAL 12MHZ NXS12.000AC30F-KAB10	
	709G3225 QM001	CONSUMPTIVE ASS'Y	
	055G 2	ALCOHOL	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
C702	067G 2151014NT	100UF	
C449	067G 2151014NT	100UF	
C704	067G 2151014NT	100UF	
C707	067G 2151014NT	100UF	
C449	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C702	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C707	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C704	067G 2151014RT	EC 105°C CAP 100UF M 25V	
C449	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C704	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C702	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
C707	067G 4051014PT	EC 100UF M 25V 6.3*11MM	
	709G3225 QA001	CONSUMPTIVE ASS'Y	
U704	056G 133 33AAC	AZ1117H-1.8-E1	
U401	056G 562585	IC NT68167FG/D QFP64	
U702	056G 563114	IC G1117-33T63UF 1A/3.3V SOT-223	
U704	056G 56327A	IC AP1117E18LA SOT223-3L ANACHIP	
U103	056G 662502	IC ESD AZC199-04S SOT23-6L	
U102	056G 662502	IC ESD AZC199-04S SOT23-6L	
U101	056G1133 34 1	IC M24C02-RMN6TP 2KB SO-8	
U402	056G1133 81	SST25LF020A-33-4C-SAE	
U101	056G1133918	IC AT24C02BN-SH-T 8-SOIC	
Q406	057G 417511	MMBT3904	
Q404	057G 417511	MMBT3904	
Q407	057G 417512	MMBT3906	
Q408	057G 417512	MMBT3906	
Q407	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q408	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q406	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
Q404	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
Q405	057G 763 1	A03401 SOT23 BY AOS(A1)	
Q405	057G 763513	P6403FMG BY NIKO-SEM	
R122	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	

R429	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R467	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R470	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R473	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R474	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R702	061G0402000 JF	RST CHIPR MAX0R05 1/16W FENGHUA	
R702	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R474	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R473	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R470	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R467	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R429	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R122	061G0402000 JY	RST CHIPR 0 OHM +-5% 1/16W YAGEO	
R102	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R103	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R708	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R703	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R705	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R452	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R451	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R450	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R449	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R416	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R411	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R104	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R108	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R110	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R111	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R113	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R114	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R115	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R117	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R405	061G0402101 JF	RST CHIPR 100 OHM +-5% 1/16W FENGHUA	
R117	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R405	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R411	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R416	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R449	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R450	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R451	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	

R452	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R115	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R114	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R113	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R111	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R110	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R108	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R104	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R103	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R102	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R703	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R705	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R708	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	
R419	061G0402102 JF	RST CHIPR 1KOHM +-5% 1/16W FENGHUA	
R704	061G0402102 JF	RST CHIPR 1KOHM +-5% 1/16W FENGHUA	
R419	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	
R704	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	
R710	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R709	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R471	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R433	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R420	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R417	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R406	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R118	061G0402103 JF	RST CHIPR 10KOHM +-5% 1/16W FENGHUA	
R710	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R709	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R471	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R433	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R420	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R417	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R406	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R118	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	
R462	061G0402105 JF	RST CHIPR 1MOHM 5% 1/16W FENGHUA	
R462	061G0402105 JY	RST CHIPR 1000KOHM 1/16W YAGEO	
R466	061G0402122 JF	RST CHIPR 1200 OHM 1/16W FENGHUA	
R466	061G0402122 JY	RST CHIPR 1200 OHM 1/16W YAGEO	
R409	061G0402203 JF	RST CHIPR 20KOHM +-5% 1/16W FENGHUA	
R409	061G0402203 JY	RST CHIPR 20KOHM +-5% 1/16W YAGEO	
R105	061G0402222 JF	RST CHIPR 2.2KOHM +-5% 1/16W FENGHUA	

R106	061G0402222 JF	RST CHIPR 2.2KOHM +-5% 1/16W FENGHUA	
R105	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R106	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R410	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R414	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R435	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R711	061G0402223 JF	RST CHIPR 22KOHM 5% 1/16W FENGHUA	
R711	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R435	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R414	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R410	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R109	061G04023900FT	RST CHIP 390R 1/16W 1%	
R109	061G04023900FY	RST CHIPR 390 OHM +-1% 1/16W YAGEO	
R428	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R427	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R407	061G04023901FF	RST CHIPR 3.9KOHM +-1% 1/16W FENGHUA	
R407	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R427	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R428	061G04023901FY	RST CHIPR 3.9KOHM 1% 1/16W YAGEO	
R468	061G0402432 JF	RST CHIP 4K3 1/16W 5% FENGHUA	
R465	061G0402432 JF	RST CHIP 4K3 1/16W 5% FENGHUA	
R468	061G0402432 JY	RST CHIP 4K3 1/16W 5% YAGEO	
R465	061G0402432 JY	RST CHIP 4K3 1/16W 5% YAGEO	
R706	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R415	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R121	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R120	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R119	061G0402472 JF	RST CHIPR 4.7KOHM +-5% 1/16W FENGHUA	
R119	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R120	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R121	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R415	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R706	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R436	061G0402563 JF	RST CHIPR 56KOHM 1/16W FENGHUA	
R436	061G0402563 JY	RST CHIPR 56KOHM 1/16W YAGEO	
R107	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R112	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R116	061G0402750 JF	RST CHIPR 75 OHM +-5% 1/16W FENGHUA	
R107	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	
R112	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	

R116	061G0402750 JY		RST CHIPR 75OHM +-5% 1/16W YAGEO	
R101	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
R101	061G0603000 JY		RST CHIPR MAX0R05 1/10W YAGEO	
R469	061G0603102 JF		RST CHIPR 1K OHM +-5% 1/10W FENGHUA	
R469	061G0603102 JY		RST CHIPR 1KOHM +-5% 1/10W YAGEO	
R421	061G1206221 JF		RST CHIPR 220 OHM +-5% 1/4W FENGHUA	
R434	061G1206221 JF		RST CHIPR 220 OHM +-5% 1/4W FENGHUA	
R421	061G1206221 JT		RST CHIPR 220 OHM +-5% 1/4W TZAI YUAN	
R434	061G1206221 JT		RST CHIPR 220 OHM +-5% 1/4W TZAI YUAN	
C106	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C106	065G040210232K	T	CAP CHIP 0402 1000PF 50V X7R	
C420	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C709	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C416	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C415	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C414	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C413	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C410	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C409	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C407	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C406	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C401	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C705	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C417	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C703	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C706	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C431	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C433	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C441	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C701	065G040210412K	A	CAP CHIP 0402 100NF K 16V X7R	
C401	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C406	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C407	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C409	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C410	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C705	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C709	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C706	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C703	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C701	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	

C441	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C433	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C431	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C420	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C417	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C416	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C415	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C414	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C413	065G040210412K	T	CAP CHIP 0402 0.1UF 16V X7R	
C102	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C102	065G040222031J	T	CAP CHIP 0402 22PF 50V NPO	
C408	065G040222415K	A	CAP CHIP 0402 0.22UF K 16V X5R	
C419	065G040222415K	A	CAP CHIP 0402 0.22UF K 16V X5R	
C408	065G040222415K	T	CAP CHIP 0402 220NF K 16V X5R	
C419	065G040222415K	T	CAP CHIP 0402 220NF K 16V X5R	
C103	065G040233031J	T	CAP CHIP 0402 33PF 50V NPO	
C103	065G040233031J	Y	CAP CHIP 0402 33P 50V NPO +/-5%	
C411	065G040247031J	A	CAP CHIP 0402 47PF J 50V NPO	
C412	065G040247031J	A	CAP CHIP 0402 47PF J 50V NPO	
C411	065G040247031J	Y	CAP CHIP 0402 47PF 50V NPO +/-5%	
C412	065G040247031J	Y	CAP CHIP 0402 47PF 50V NPO +/-5%	
C113	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C110	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C109	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C107	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C105	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C101	065G040247312K	A	68.31HIP 0402 47NF K 16V X7R	
C113	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C110	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C109	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C107	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C105	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C101	065G040247312K	T	CAP CHIP 0402 0.047UF 16V X7R	
C444	065G060310432K	A	CAP CHIP 0603 100NF K 50V X7R	
C444	065G060310432K	Y	CAP CHIP 0603 0.1UF K 50V X7R	
C421	065G060310512K	A	CAP CHIP 0603 1UF K 16V X7R	
C421	065G060310512K	T	CAP CHIP 0603 1UF K 16V X7R	
C451	065G060310605M	T	MLCC 0603 10UF 6.3V X5R +-20%	
C451	065G060310605M	Y	CAP CHIP 0603 10UF 6.3V X5R +/-20%	
C116	065G060322412K	A	CAP CHIP 0603 0.22UF K 16V X7R	

C116	065G060322412K	Y	CAP CHIP 0603 220N 16V X7R 10%	
C443	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C442	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C430	065G080547515K	3	MLCC 0805 4U7 16V X5R +/-10%	
C443	065G080547515K	T	CAP CHIP 0805 4.7UF K 16V X5R	
C442	065G080547515K	T	CAP CHIP 0805 4.7UF K 16V X5R	
C430	065G080547515K	T	CAP CHIP 0805 4.7UF K 16V X5R	
FB404	071G 56K121	M	CHIP BEAD	
FB408	071G 56K121	M	CHIP BEAD	
FB404	071G 56K121	TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB408	071G 56K121	TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB406	071G 56V301	B	CHIP BEAD FCM2012VF-301T07 BULLWILL	
FB403	071G 56V301	B	CHIP BEAD FCM2012VF-301T07 BULLWILL	
FB101	071G 59K190	B	19 OHM BEAD	
FB102	071G 59K190	B	19 OHM BEAD	
FB103	071G 59K190	B	19 OHM BEAD	
D101	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
D101	093G 64 42	P	BAV70 SOT23 BY PAN JIT	
D101	093G 64 42	PP	BAV70 SOT-23	
ZD103	093G 39GA01	T	RLZ5.6B	
ZD104	093G 39GA01	T	RLZ5.6B	
D404	093G 39GA01	T	RLZ5.6B	
D405	093G 39GA01	T	RLZ5.6B	
D406	093G 39GA01	T	RLZ5.6B	
ZD103	093G 39GA01	T	RLZ5.6B	
ZD104	093G 39GA01	T	RLZ5.6B	
D404	093G 39GA01	T	RLZ5.6B	
D405	093G 39GA01	T	RLZ5.6B	
D406	093G 39GA01	T	RLZ5.6B	
	709G3225 QS001		CONSUMPTIVE ASS'Y	
	052G 2191	A	PAPER TAPE	
	Q52G6026	6	MESH PRINTTING PAPER	
	715G3225	1 2	MAIN PCB BOARD	
	KEPC9QV2		KEY BOARD	
CN001	033G3802	6 H F	CONNECTOR	
CN001	033G3802	6 H X	WAFER 6P RIGHT ANGLE PITCH 2.0	
SW004	077G 603	3 TO	TACT SWITCH TS-03-BS	
SW005	077G 603	3 TO	TACT SWITCH TS-03-BS	
SW002	077G 603	3 TO	TACT SWITCH TS-03-BS	
SW003	077G 603	3 TO	TACT SWITCH TS-03-BS	

SW001	077G 603 3 TO	TACT SWITCH TS-03-BS	
LED001	081G 12 2M GP	LED GP34032/GP-1-ZY-50 GUANG PU	
R003	061G06032001FT	RST CHIP R 2KOHM 1/10W +/-1%	
R003	061G06032001FY	RST CHIPR 2KOHM +-1% 1/10W YAGEO	
R001	061G06033001FT	RST CHIP 3K 1/10W 1%	
R002	061G06033001FT	RST CHIP 3K 1/10W 1%	
R001	061G06033001FY	RST CHIPR 3KOHM +-1% 1/10W YAGEO	
R002	061G06033001FY	RST CHIPR 3KOHM +-1% 1/10W YAGEO	
JR002	061G0805000 JF	RST CHIPR 0 OHM +-5% 1/8W FENGHUA	
JR002	061G0805000 JY	RST CHIPR MAX 0R05 OHM 1/8W YAGEO	
R004	061G08052001FF	RST CHIPR 2KOHM +-1% 1/8W FENGHUA	
R004	061G08052001FT	RST CHIP 2K 1/8W 1%	
JR001	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	
JR001	061G1206000 JY	RST CHIPR MAX0R05 1/4W YAGEO	
C001	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C005	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C006	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C003	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C004	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C002	065G060310412K A	CAP CHIP 0603 0.1UF K 16V X7R SAMSUNG	
C002	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C003	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C004	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C005	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C006	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
C001	065G060310412K Y	CAP CHIP 0603 100N 16V X7R +/-10%	
	715G3794K01000001M	KEY PCB BOARD	
	PWPC9941EQAE	POWER BOARD	
	040G 45762412B	CBPC LABEL	
GND1	009G6005 1	GROUND TERMINAL	
CN602	033G3802 4 BH F	CONNECTOR	
CN602	033G3802 4 BH L	CONN 2.0MM 4P	
CN801	033G8021 2E F	WAFER	
CN802	033G8021 2E F	WAFER	
CN803	033G8021 2E F	WAFER	
CN804	033G8021 2E F	WAFER	
CN801	033G8021 2E XY	CONNECTOR	
CN802	033G8021 2E XY	CONNECTOR	
CN803	033G8021 2E XY	CONNECTOR	
CN804	033G8021 2E XY	CONNECTOR	

IC902	056G 139 3A	IC PC123Y22FZ0F	
IC902	056G 139900	PHOTO COUPLER TLP421F	
U601	056G 616 51	IC APA2071JI-TUG 3.1W DIP-16	
NR901	061G 58100 WD	RST NTCR 10 OHM +-20% 5A THINKING	
C908	063G 10747410V	0.47UF 275VAC ARCO	
C908	063G107K474 6S	CAP X2 0.47UF K 275VAC	
C908	063G107K474 US	0.47UF +-10%	
C932	065G 1K101 2T6921	CAP CER 100PF 1KV K Y5P	
C822	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C821	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C820	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C819	065G 3J6806ET	CAP CER 68PF J 3KV SL	
C817	065G 6J2096ET	2PF 5% SL 6KV	
C903	065G305M1022B2	1000PF 汇桥 400VAC/250VAC	
C902	065G305M1022B2	1000PF 汇桥 400VAC/250VAC	
C903	065G305M1022BP	Y2 1000PF M 250VAC Y5P	
C902	065G305M1022BP	Y2 1000PF M 250VAC Y5P	
C900	065G306M3322BP	3300PF 20%	
C907	067G 40Z12115K	EC 120UF V 450V 20*40MM	
C907	067G 40Z12115L	EC 120UF 450V M 20*40MM	
C918	067G215D1026LV	LOW ESR EC 1000UF M 35V 12.5*20MM	
C804	067G215D1026LV	LOW ESR EC 1000UF M 35V 12.5*20MM	
C918	067G215P1026KV	LOW ESR EC 1000UF M 35V 12.5*25MM	
C804	067G215P1026KV	LOW ESR EC 1000UF M 35V 12.5*25MM	
C922	067G215S4713KV	EC 105°C CAP 470UF M 16V	
C604	067G215S4713KV	EC 105°C CAP 470UF M 16V	
C922	067G215S4713LV	LOW ESR EC 470UF 16V M 10*12.5MM	
C604	067G215S4713LV	LOW ESR EC 470UF 16V M 10*12.5MM	
C922	067G215V471 3H	CAP L105°C 470UF M 16V	
L801	073G 174 35 HA	IND FILTER 200MH+-25% DADON	
L802	073G 174 35 HA	IND FILTER 200MH+-25% DADON	
L801	073G 174 35DNA	FILTER 200MH±25%	
L802	073G 174 35DNA	FILTER 200MH±25%	
L906	073G 253 91 H	CHOKE COIL	
L905	073G 253 91 H	CHOKE COIL	
L906	073G 253 91 L	CHOKE BY LI TA	
L905	073G 253 91 L	CHOKE BY LI TA	
L907	073G 253191 H	IND CHOKE 1.1UH DADON	
L907	073G 253191 S	IND CHOKE 1.1UH	
L901	073L 174 40 HG	GBQM4.778.391	

L901	073L 174 40 NG	LINE FILTER 30MH	
T901	080GL22T 3 N1	X'FMR 490UH YUVA-1093	
PT801	080GL24T 23 DN	X'FMR 68UH TK.2005Y.101 VOC	
CN901	087G 501 32 S	AC SOCKET	
CN901	087G 501 32 DL	AC SOCKET DIP 3PIN+2PIN GROUND	
CN601	088G 30214K DC	PHONE JACK 5PIN	
BD901	093G 50460900	BRIDGE 4A/800V GBU408 LITEON	
D905	093G 60334	DIODE SR506 5A/60V DO-201AD	
D905	093G 60519	DIODE SR560 5A/60V DO-27 SECOS	
D905	093G3006 1 1	31DQ06FC3 NIHON INTER	
CN902	095G 825 9W520	HARNESS 9P(SCN)-9P(PLUG) 140MM	2nd Source
CN902	095G 825 9X520	HARNESS 9P(SCN)-9P(PLUG) 140MM	
	705GQ851001	OIL FOR DISAPPEAR ASS'Y	
	705GQ957065	Q901 ASS'Y	
Q901	057G 600 35	STP8NK80ZFP	
Q901	057G 667 21	STP10NK70ZFP	
Q901	057G 667 22	FQPF8N80C	
Q901	057G 667516	FET 2SK3673 TO-220 FUJI	
HS1	090G6064 1	HEAT SINK	
	0M1G 930 8120	SCREW	
	705GQ993098	D901/D906 ASS'Y	
HS2	090G6081 1	HEATSHINK FOR U301	
D901	093G 52 69	DIODE YG902C2RSC 10A/200V TO-220F15	
D901	093G 60245	SP10150 10A 150V ITO-220 BY SECOS	
D906	093G 60251	FCQ10U06	
D906	093G 60278	DIODE SP1060 ITO-220 SECOS	
D901	093G 60294	DIODE MBRF10150CT 10A/150V ITO-220	
D906	093G 60526	SCHOTTKY MBRF1060CT ITO-220AB	
	0M1G 930 8120	SCREW	
	709G2892 QM001	CONSUMPTIVE ASS'Y	
	055G 2	ALCOHOL	
	055G 23524	WELDING FLUX WITHOUT PB	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
IC901	056G 379529	IC LD7576AGR SOP-7	
IC801	056G 608 12	IC TA9687GN-A-0-TR SOP-16	
Q805	057G 600 61	AM4502C-TI-PF S0-8	
Q806	057G 600 61	AM4502C-TI-PF S0-8	
Q802	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM	
Q805	057G 763 91	ET AO4620 7.2A/30V -5.3A/-30V SOIC-8	
Q806	057G 763 91	ET AO4620 7.2A/30V -5.3A/-30V SOIC-8	

Q802	057G 763904	TRA FET 2N7002 SOT-23 PHILIPS	
R905	061G0603000	RST CHIP MAX 0R05 1/10W	
R846	061G0603000 JF	RST CHIPR MAX 0R05 1/10W FENGHUA	
R610	061G0603000 JY	RST CHIPR MAX0R05 1/10W YAGEO	
R846	061G0603000 JY	RST CHIPR MAX0R05 1/10W YAGEO	
R821	061G0603100 Y	RST CHIPR 10 OHM +-5% 1/10W YAGEO	
R820	061G0603100 Y	RST CHIPR 10 OHM +-5% 1/10W YAGEO	
R907	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R920	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R928	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W	
R918	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R916	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W	
R602	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R603	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R604	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R605	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R609	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R807	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R842	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R843	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R844	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R845	061G0603103	RST CHIPR 10 KOHM +-5% 1/10W	
R813	061G0603104	RST CHIPR 100 KOHM +-5% 1/10W	
R806	061G0603104	RST CHIPR 100 KOHM +-5% 1/10W	
R809	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R838	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R839	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R841	061G0603105	RST CHIPR 1M OHM +-5% 1/10W	
R606	061G0603273 JY	RST CHIP 27K 1/10W 5% YAGEO	
R607	061G0603273 JY	RST CHIP 27K 1/10W 5% YAGEO	
R808	061G06034700FF	RST CHIPR 470 OHM +-1% 1/10W FENGHUA	
R836	061G0603563 Y	RST CHIPR 56KOHM +-5% 1/10W YAGEO	
R810	061G0603750 2F	RST CHIPR 75KOHM +-1% 1/10W	
R925	061G0603910 1F	RST CHIPR 9.1 KOHM +-1% 1/10W	
R837	061G0603912 JY	RST CHIP R 9.1KOHM +-5% 1/10W YAGEO	
RJ808	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ807	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ806	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ805	061G0805000	RST CHIP MAX 0R05 1/8W	
RJ804	061G0805000	RST CHIP MAX 0R05 1/8W	

RJ803	061G0805000	RST CHIP MAX 0R05 1/8W	
R608	061G0805000	RST CHIP MAX 0R05 1/8W	
R815	061G08051002FF	RST CHIPR 10KOHM +-1% 1/8W FENGHUA	
R801	061G0805103	RST CHIPR 10K OHM +-5% 1/8W	
R812	061G0805104	RST CHIPR 100K OHM +-5% 1/8W	
R840	061G0805105	RST CHIPR 1M OHM +-5% 1/8W	
R919	061G08051500FF	RST CHIPR 150OHM +-1% 1/8W FENGHUA	
R919	061G08051500FT	RST CHIPR 150 OHM +-5% 1/8W	
R802	061G0805220	RST CHIPR 22 OHM +-5% 1/8W	
R819	061G0805229	RST CHIP 2R2 1/8W 5%	
R818	061G0805229	RST CHIP 2R2 1/8W 5%	
R817	061G0805229	RST CHIP 2R2 1/8W 5%	
R816	061G0805229	RST CHIP 2R2 1/8W 5%	
R803	061G0805512	RST CHIPR 5.1 KOHM +-5% 1/8W	
R804	061G0805512	RST CHIPR 5.1 KOHM +-5% 1/8W	
R830	061G0805622 JY	RST CHIPR 6K2 +-5% 1/8W YAGEO	
R811	061G0805820 2F	RST CHIPR 82KOHM +-1% 1/8W	
RJ801	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ802	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ809	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ810	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ812	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ814	061G1206000	RST CHIP MAX 0R05 1/4W	
RJ816	061G1206000 7	RST CHIP MAX 0R05 1/4W	
R917	061G1206100	RST CHIPR 10 OHM +-5% 1/4W	
R903	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
R909	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
R910	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
R912	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
R929	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
R930	061G1206101	RST CHIPR 100 OHM +-5% 1/4W	
RJ811	061G1206102 JY	RST CHIPR 1KOHM 5% 1/4W YAGEO	
R908	061G1206103	RST CHIPR 10K OHM +-5% 1/4W	
R923	061G1206221	RST CHIPR 220 OHM +-5% 1/4W	
R913	061G1206519	RST CHIPR 5.1 OHM +-5% 1/4W	
R900	061G1206684	RST CHIPR 680K OHM +-5% 1/4W	
R901	061G1206684	RST CHIPR 680K OHM +-5% 1/4W	
R902	061G1206684	RST CHIPR 680K OHM +-5% 1/4W	
C610	065G060310131J F	CAP CHIP 0603 100PF J 50V NPO	
C611	065G060310131J F	CAP CHIP 0603 100PF J 50V NPO	

C923	065G060310232K	A	CAP CHIP 0603 1000PF K 50V X7R	
C612	065G0603104	12	CER2 0603 X7R 16V 100N P	
C613	065G0603104	12	CER2 0603 X7R 16V 100N P	
C924	065G0603104	12	CER2 0603 X7R 16V 100N P	
C926	065G0603104	12	CER2 0603 X7R 16V 100N P	
C814	065G060322131J	A	CAP 0603 220PF J 50V NPO	
C810	065G060322232K	A	CAP 0603 2.2NF K 50V X7R	
C805	065G060322332K	F	CAP CHIP 0603 22NF K 50V X7R	
C807	065G060333232K	F	CAP CHIP 0603 3300PF K 50V X7R	
C808	065G060333332K	A	CAP CHIP 0603 0.033UF K 50V X7R	
C914	065G060347131J	A	CAP CHIP 0603 470PF J 50V NPO	
C606	065G060347412K	Y	CAP CHIP 0603 0.47UF K 16V X7R	
C603	065G060347412K	Y	CAP CHIP 0603 0.47UF K 16V X7R	
C602	065G060347412K	Y	CAP CHIP 0603 0.47UF K 16V X7R	
C601	065G060347412K	Y	CAP CHIP 0603 0.47UF K 16V X7R	
C915	065G080510332K	F	CAP CHIP 0805 10NF K 50V X7R	
C811	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C912	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C815	065G080510432K	A	CAP CHIP 0805 100NF K 50V X7R	
C608	065G080510522K	T	CAP CHIP 0805 1UF K 25V X7R	
C609	065G080510522K	T	CAP CHIP 0805 1UF K 25V X7R	
C818	065G0805155A2K	3	CAP CHIP 0805 1.5UF K 10V X7R	
C818	065G0805155A2K	M	CAP MLCC 0805 1.5UF K 10V X7R	
C818	065G0805155A2K	T	CAP CHIP 0805 1.5UF K 10V X7R	
C809	065G080522131J	A	CAP CHIP 0805 220PF J 50V NPO	
C809	065G080522131J	Y	CAP CHIP 0805 220P 50V NPO +/-5%	
C806	065G080522512K	3	CAP CHIP 0805 2U2 16V X7R +/-10%	
C806	065G080522512K	M	MLCC 0805 CAP 2.2UF 16V X7R	
C806	065G080522512K	T	CAP CHIP 0805 2.2UF K 16V X7R	
C927	065G080547332K	F	CAP CHIP 0805 47NF K 50V X7R	
C801	065G080547332K	F	CAP CHIP 0805 47NF K 50V X7R	
C802	065G080547332K	F	CAP CHIP 0805 47NF K 50V X7R	
C917	065G120610272K	Y	CAP CHIP 1206 1NF K 500V X7R	
C916	065G120610272K	Y	CAP CHIP 1206 1NF K 500V X7R	
C803	065G120610432K	Y	CER 1206 100N 50V X7R +/-10%	
D803	093G 64 33		DIO SIG SM BAV99 (PHSE)R	
D806	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
D807	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
D808	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
D806	093G 64 42	PP	BAV70 SOT-23	

D807	093G 64 42 PP	BAV70 SOT-23	
D808	093G 64 42 PP	BAV70 SOT-23	
D803	093G 64900 T	DIO SIG SM BAV99 (VISH) R	
ZD803	093G 39GA01 T	RLZ5.6B	
ZD802	093G 39GA01 T	RLZ5.6B	
ZD802	093G 39S 24 T	RLZ 5.6B LLDS	
ZD803	093G 39S 24 T	RLZ 5.6B LLDS	
D806	093G 64S 6	SMT D-BAV70-7-F SOT-23	
D807	093G 64S 6	SMT D-BAV70-7-F SOT-23	
D808	093G 64S 6	SMT D-BAV70-7-F SOT-23	
	709G2892 QS001	CONSUMPTIVE ASS'Y	
	052G 2191 A	PAPER TAPE	
	PW9941EQZVAI	POWER BOARD FOR AI	
CN901	006G 31500	EYELET	
PT801	006G 31502	1.5MM RIVET	
IC903	056G 158 10 T	IC AS431AZTR-E1 TO-92	
IC903	056G 158 12	KIA431A-AT/P TO-92	
Q904	057G 530503 T	2SD1207T	
Q904	057G 761 16	TRA KTD1028 KEC	
R906	061G152M10452T	RST MOFR 100KOHM +-5% 2WS	
R924	061G152M39852T	RST MOFR 0.39 OHM +-5% 2WS	
R904	061G152M68152T	RST MOFR 680 OHM +-5% 2WS	
R828	061G212Y62552T SY	RST MGFR 6.2MOHM +-5% 1/2W FUTABA	
C911	065G 2K152 2T6213	CAP CER 1500PF K 2KV	
C911	065G 2K152 2T6921	CAP CER 1500PF K 2KV Y5P	
C920	067G 2046812KT	CS CAP 680UF 10V 8*11 MM	
C920	067G 2046812LT	CS CAP 680UF 10V 8*11.5 MM	
C913	067G215S2207RT	EC 22UF 50V 5*11MM	
C913	067G215Y2207KT	CAP 105°C 22UF M 50V KINGNICH	
FB602	071G 55 9 T	FERRITE BEAD	
FB902	071G 55 9 T	FERRITE BEAD	
FB901	071G 55 29	FERRITE BEAD	
F903	084G 56 4 B	FUSE 4A 250V	
F902	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4W	FUSE 4.0A 250V	
F902	084G 56 4W	FUSE 4.0A 250V	
ZD901	093G 3952152T	TZX18B	
D904	093G 52 1552T	DIODE 1N4007-E3/73 1A/1000V DO-41	
D903	093G 52 1552T	DIODE 1N4007-E3/73 1A/1000V DO-41	

D903	093G 6026T52T	RECTIFIER DIODE FR107	
D904	093G 6038T52T	FR103	
D907	093G 64 1152T	1N4148	
D801	093G 64 1152T	1N4148	
D801	093G 64 1152T PH	SWITCH DIODE 1N4148 BY PHILIPS	
D907	093G 64 1152T PH	SWITCH DIODE 1N4148 BY PHILIPS	
	709G2892 QA001	CONSUMPTIVE ASS'Y	
	095G 90 23	JUMPER WIRE	
	715G2892 3 8	POWER PCB 184X122X1.6MM FR-1 S/S 1OZ	
HS3	Q90G0180 1	HEAT SINK	
L802	S73G17435VA	TRANSFORMER	
	040FP174 35	LABEL S73G17435VA	
	034FPE83P01P01	EE8.3 HP04	
	071FPE83101 02	FP2 EE8.3	
L801	S73G17435VA	TRANSFORMER	
	040FP174 35	LABEL S73G17435VA	
	034FPE83P01P01	EE8.3 HP04	
	071FPE83101 02	FP2 EE8.3	
T901	S80GL22T3V1	XFMR POWER 490UH TPV-PT	
PT801	S80GL24T23V	XFMR POWER 68UH TPV-PT VOC	
	Q01G6078 3	SCREW	
	Q15G0233 1	LOCK BKT	
	Q15G0427601004	MAINFRAME	
	Q33G0375 KGA1C0100	LENS	
	Q33G0376AFQ 1L0100	KEY PAD	
	Q34G7048AFQD1B0130	BEZEL L19WA-9VSC2(VA1932WMA)	
	Q34G7049AFQ 4B0130	REAR COVER 19	
	Q40G 58170931A	HT POT LABEL	
	Q41G78S170913A	VA1932WMA LI QSG	
	Q44G9183101	EPS	
	Q44G9183201	EPS	
	Q44G9183709 4B	19W LCD VSC CARTON	
	Q45G 88606 23	PE BAG FOR BASE	
	Q45G 88609118	EPE BAG	
	Q50G 4 10	TIE (Y1900221)	
	Q52G6020166	PROTECT FILM	
	Q52G6025 13271	INSULATE SHEET	
E08907	S89G179T30NA08	LVDS ASSY	
	089F80001803BG	1.0*30*2.5-180-3-0.65*0.06	
	033F303FH10BK3	F1010HA-30P-BK	

	033F303FJSHK30	1.0S-19-30A	
	044F3231SMJ001	TAPE 30*11.5*0.1	
E08904	089G 17356C554	AUDIO CABLE	
E08904	089G 17356G554	AUDIO CABLE	
E08904	089G 17356X554	AUDIO CABLE	
	Q41G78D1709 3A	VA1932 AND VA2232 BASE PROCEDURE CARD	
	Q45G2010M0201A	PE BAG	
	Q70G19C1709 2A	VA1932WA VA1932WMA CD MANUAL	
	040G 58162435A	P/N LABEL FOR MANUAL PE BAG	
	Q40G 19N70910A	RATING LABEL	
	Q40G 581709 1B	CARTON LABEL	
	Q40G0001709 2A	SN LABEL	

## **11. Recommended Spare Parts List**

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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?

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

B. Are you satisfied with this Service Manual?

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

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

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<b>Company:</b>			
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<b>E-mail:</b>			

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)