

Service Manual



TFT LCD COLOR COMPUTER DISPLAY

SONY

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1. Precaution

Warning on power connections

- Use the supplied power cord. If you use a different power cord, be sure that it is compatible with your local power supply.

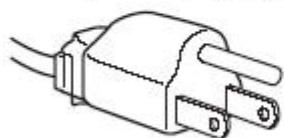
For the customers in the U.S.A.

If you do not use the appropriate cord, this monitor will not conform to mandatory FCC standards.

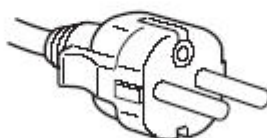
For the customers in the UK

If you use the monitor in the UK, be sure to use the appropriate UK power cord.

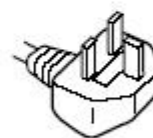
Example of plug types



for 100 to 120 V AC



for 200 to 240 V AC



for 240 V AC only

The equipment should be installed near an easily accessible outlet.

Installation

Do not install or leave the monitor:

- In places subject to extreme temperatures, for example near a radiator, heating vent, or in direct sunlight. Subjecting the monitor to extreme temperatures, such as in an automobile parked in direct sunlight or near a heating vent, could cause deformations of the casing or malfunctions.
- In places subject to mechanical vibration or shock.
- Near any equipment that generates a strong magnetic field, such as a TV or various other household appliances.
- In places subject to inordinate amounts of dust, dirt, or sand, for example near an open window or an outdoor exit. If setting up temporarily in an outdoor environment, be sure to take adequate precautions against airborne dust and dirt. Otherwise irreparable malfunctions could occur.

Handling the LCD screen

- Do not leave the LCD screen facing the sun as it can damage the LCD screen. Take care when you place the monitor by a window.
- Do not push on or scratch the LCD screen. Do not place a heavy object on the LCD screen. This may cause the screen to lose uniformity or cause LCD panel malfunctions.
- If the monitor is used in a cold place, a residual image may appear on the screen. This is not a malfunction. The screen returns to normal as the temperature rises to a normal operating level.
- If a still picture is displayed for a long time, a residual image may appear for a while. The residual image will eventually disappear.
- The LCD panel becomes warm during operation. This is not a malfunction.

Maintenance

- Be sure to unplug the power cord from the power outlet before cleaning your monitor.
- Clean the LCD screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the LCD screen's coating.
- Clean the cabinet, panel, and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ballpoint pen or screwdriver. This type of contact may result in a scratched picture tube.
- Note that material deterioration or LCD screen coating degradation may occur if the monitor is exposed to volatile solvents such as insecticide, or if prolonged contact is maintained with rubber or vinyl materials.

Transportation

- Disconnect all cables from the monitor and grasp both side of the LCD display firmly taking care not to scratch the screen when transporting. If you drop the monitor, you may be injured or the monitor may be damaged.
- When you transport this monitor for repair or shipment, use the original carton and packing materials.

2. Specification

2.1 Product character

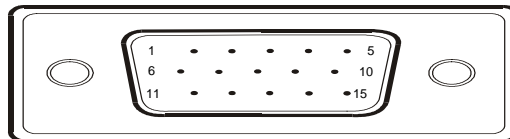
LCD Panel	Driving system	TFT LCD
	Size	17.0"
	Type	CLAA170EA
	Pixel pitch	0.264mm(H) x 0.264mm(V)
	Viewing angle	140(H) 130(V) (CR>10)
	Luminance	300 cd/m ² (typ)
	Contrast Ratio	500:1 (typ)
	Response time	12ms (typ)
	Display colors	16.2 million Colors
	Max dimension	Horizontal: 337.920mm Vertical: 270.336mm
Input signals	R G B Analog	0.7Vp-p
	H/V separate	TTL level
	Horizontal frequency	28kHz~80kHz (Aalog)
	Vertical rate	48-75Hz (Aalog)
	Recommend resolution	1280 x 1024@60HZ
Power consumption	Normal operation	≤45W
	Active off (deep sleep)	≤1W
	Power off	≤1W
Power supply	AC voltage	100~240VAC,50~60Hz
Operating condition	Temperature	5-35°C
	Humidity	10-80%

2.2 Interface description

Analog connectors

NO.	Description	NO.	Description
1.	Red Video	9.	+5V
2.	Green Video	10.	Detect Cable
3.	Blue Video	11.	NC
4.	GND	12.	SDA
5.	Sensor for PC	13.	Horizontal Sync
6.	Red GND	14.	Vertical Sync
7.	Green GND	15.	SCL
8.	Blue GND		

VGA Connector layout



2.3 Factory preset mode

Resolution	Frequency (KHz)	Vertical (Hz)	Clock (MHZ)
720 × 400	31.469	70.087	28.322
640 × 480	31.469	59.940	25.175
640 × 480	35.000	66.667	30.240
640 × 480	37.500	75.000	31.500
720 × 480	35.200	60.000	31.505
800 × 600	35.156	56.250	36.000
800 × 600	37.879	60.317	40.000
800 × 600	48.077	72.188	50.000
800 × 600	46.875	75.000	49.500
800 × 600	49.725	74.551	57.283
1024 × 768	48.363	60.004	65.000
1024 × 768	56.476	70.069	75.000
1024 × 768	60.023	75.029	78.750
1024 × 768	60.2	75	80.000
1152 × 864	67.5	75	108.000
1152 × 870	68.9	75	100.000
1152 × 900	61.8	66	92.940
1152 × 900	71.7	76	105.590
1170 × 584	31.2	50	46.200
1280 × 960	60.0	60	108.000
1280 × 1024	63.981	60.020	108.00
1280 × 1024	79.976	75.025	135.00

3.OSD operation

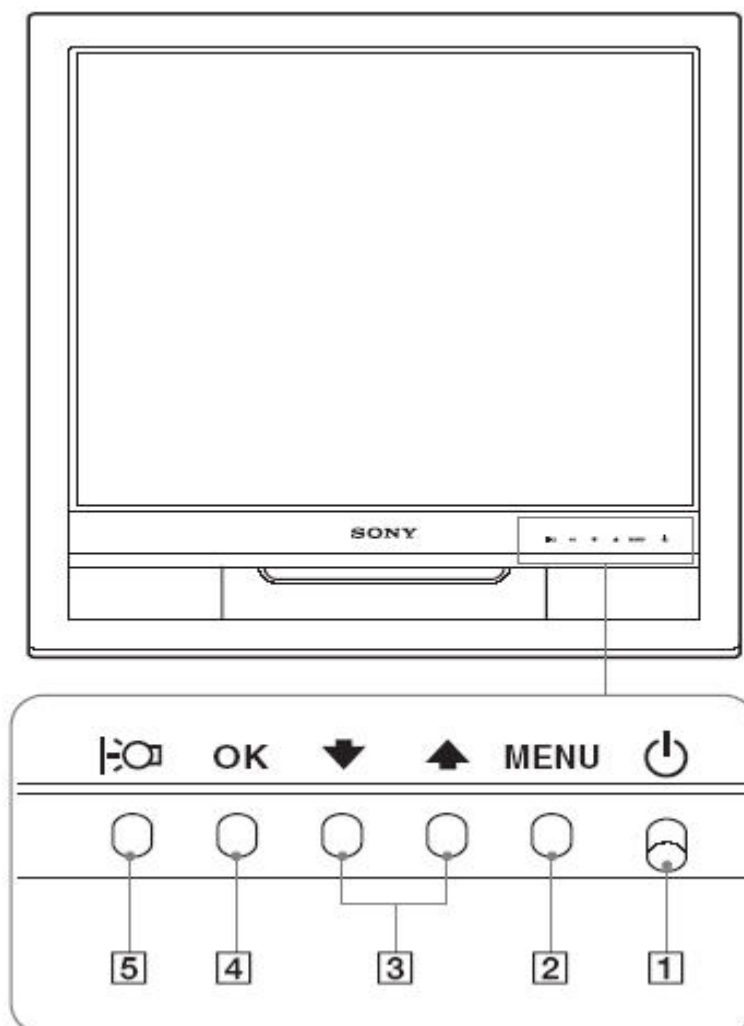
3.1 Generalization

Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor, the power indicator will light up.

3.2 Key control



Key control:




Power Switch: To turn the display on or off, press the Power Switch upward.

The power indicator lights up in green when the display is turned on, and lights up in orange when the monitor is in power saving mode.











Menu Button: This button displays or close the main menu.

  **(Arrow) Button:** These buttons are used to select the menu items make adjustments.

OK Button: This button selects the item or executes the settings in the menu.

 **Button:** This button is used to change the brightness of the screen.

3.3 Common adjustment

NO	Icon	Tag	Description
1		Backlight	Adjust the brightness of the backlight
2		Contrast	Adjust the picture contrast
3		Brightness	Adjust the picture brightness (black level)
4		Screen	Adjust the picture's sharpness or its centering
5		Color	Adjust the color temperature of the picture
6	γ	Gamma	Change the picture's color shade settings
7		Sharpness	Adjust to sharpen the edge of images
8		Menu position	Change the on screen menu position
9		Language	Change the language used on menus or messages
10		Reset	Reset the adjustments to the default settings
11		Menu lock	Lock the control of buttons to prevent accidental adjustments or resetting

Navigating the menu

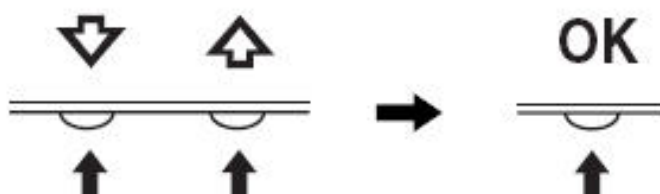
1 Display the main menu.

Press the MENU button to display the main menu on your screen.



2 Select the menu you want to adjust.

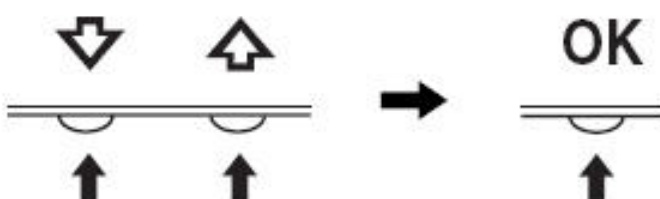
Press the ↓/↑ buttons to display the desired menu. Press the OK button to select the menu item.



3 Adjust the menu.

Press the ↓/↑ buttons to make the adjustment, then press the OK button.

When you press the OK button, the setting is stored, then the display returns to the previous menu.

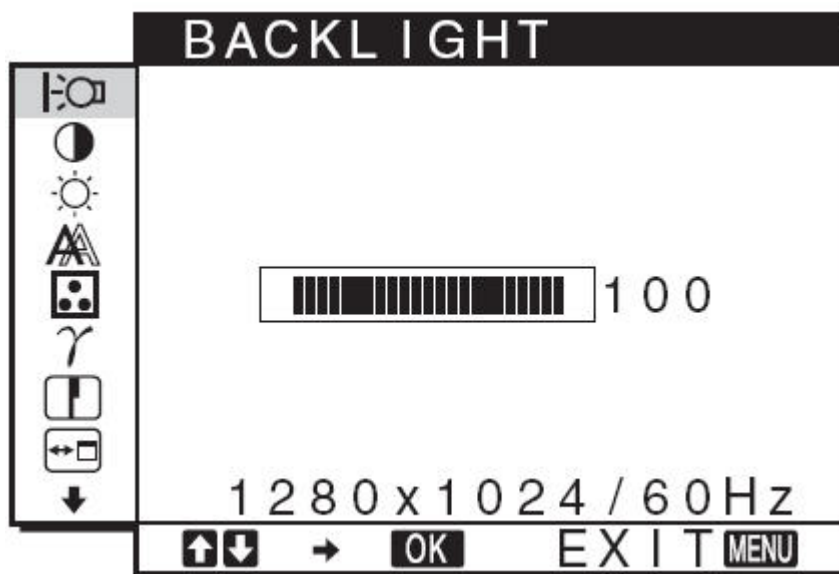


4 Close the menu.

Press the MENU button once to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 45 seconds.

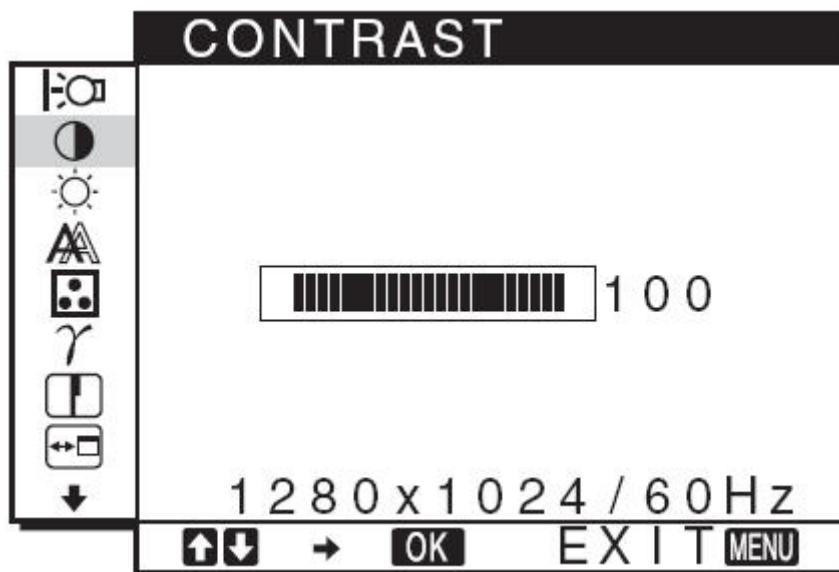


Adjustment steps of each menu

**Note**


The backlight cannot be adjusted when the ECO mode is set to HIGH, MIDDLE, or LOW

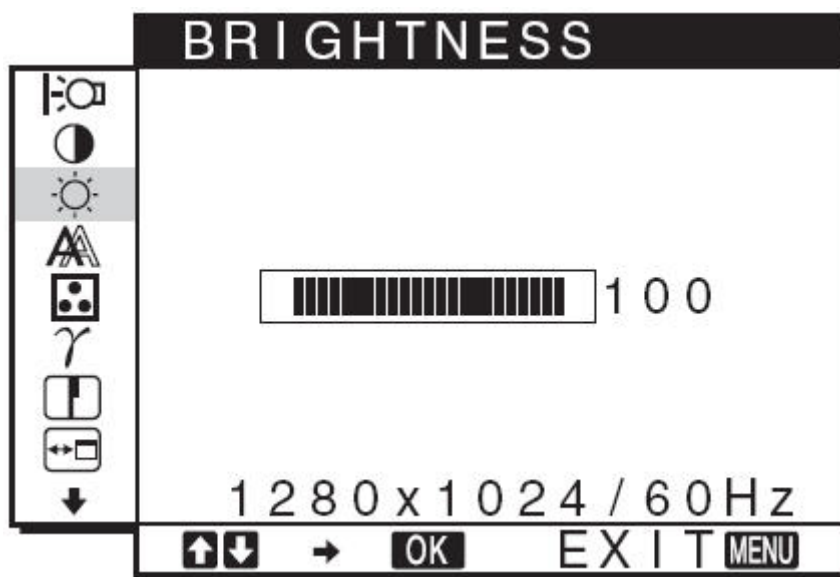
- 1 Press the MENU button.**
The main menu appears on the screen.
- 2 Press the ↓/↑ buttons to select  (BACKLIGHT) and press the OK button.**
The BACKLIGHT menu appears on the screen.
- 3 Press the ↓/↑ buttons to adjust the light level and press the OK button.**



Note

The contrast cannot be adjusted when the ECO mode is set to HIGH, MIDDLE, or LOW

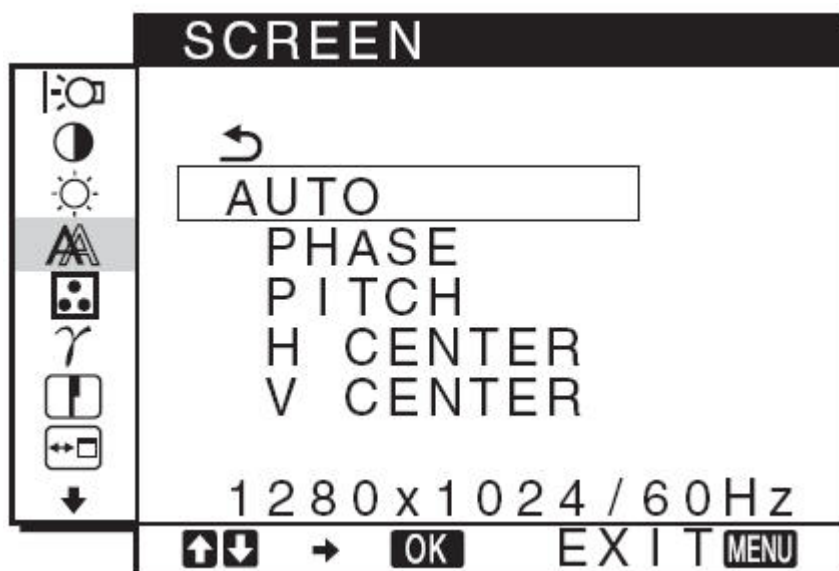
- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select  (CONTRAST) and press the OK button.**
The CONTRAST menu appears on the screen.
- 3 **Press the ↓/↑ buttons to adjust the contrast and press the OK button.**





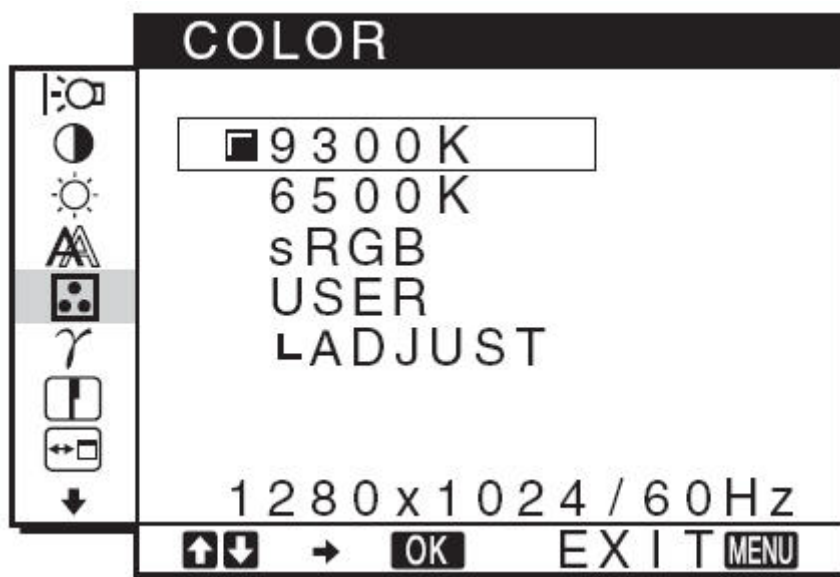
Note

The brightness cannot be adjusted when the ECO mode is set to HIGH, MIDDLE, or LOW (see page 5).

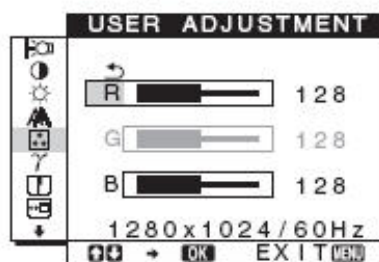
- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select ☀ (BRIGHTNESS) and press the OK button.**
The BRIGHTNESS menu appears on the screen.
- 3 **Press the ↓/↑ buttons to adjust the brightness and press the OK button.**



- 1 Press the MENU button.**
The main menu appears on the screen.
- 2 Press the ↓/↑ buttons to select  (SCREEN) and press the OK button.**
The SCREEN menu appears on the screen.
- 3 Press the ↓/↑ buttons to select AUTO and press the OK button.**
Make the appropriate adjustments of the screen's phase, pitch and horizontal/vertical position for the current input signal and store them.
- 4 Press the ↓/↑ buttons to select  and press the OK button.**
Return to the menu screen.



(USER ADJUSTMENT)



- 1 Press the **↓/↑** buttons to select ADJUST and press the OK button.

The USER ADJUSTMENT menu appears on the screen.

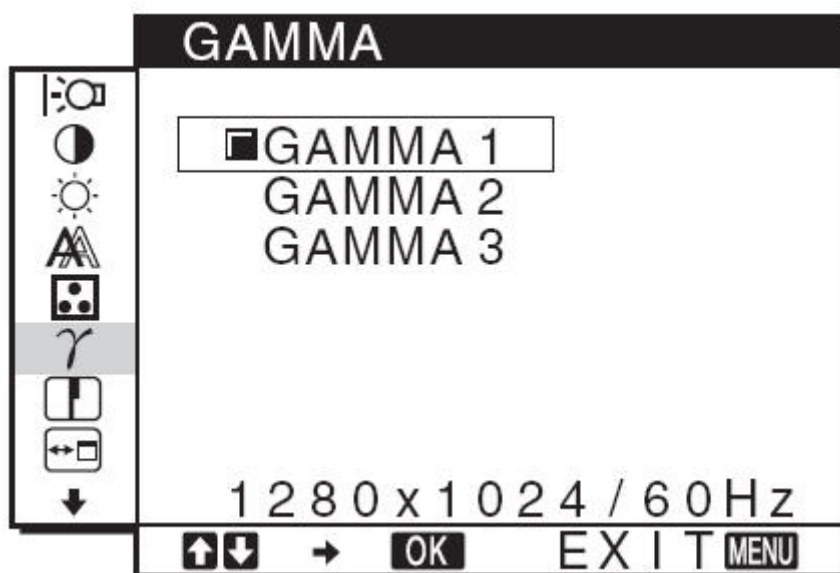
- 2 Press the **↓/↑** buttons to select R (Red) or B (Blue) and press the OK button. Then press the **↓/↑** buttons to adjust the color temperature and press the OK button.

Since this adjustment changes the color temperature by increasing or decreasing the R and B components with respect to G (green), the G component is fixed.

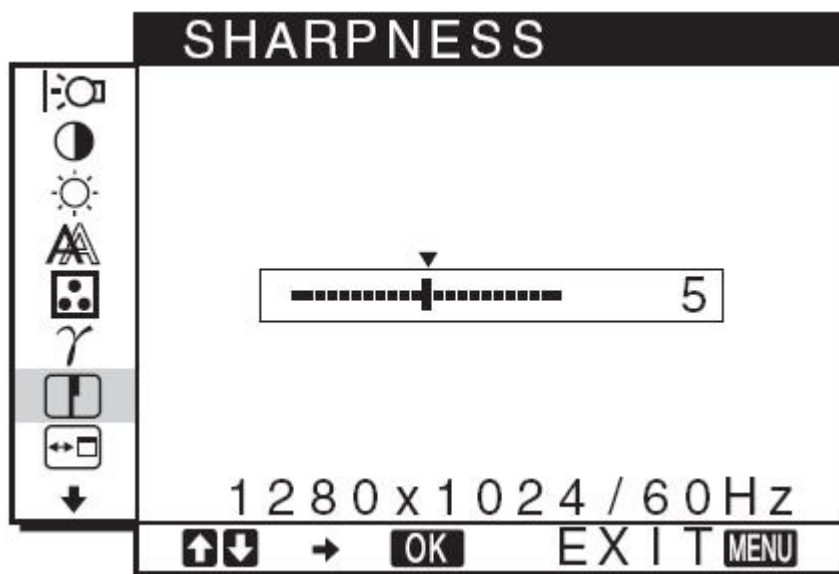
- 3 Press the **↓/↑** buttons to select ↶, then press the OK button.


The new color setting is stored in memory for USER and automatically recalled whenever USER is selected.

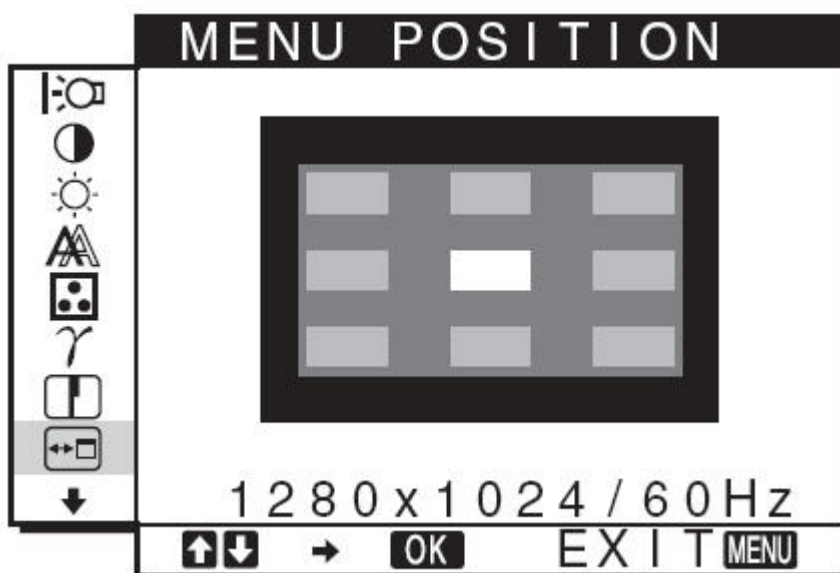
The main menu appears on the screen.




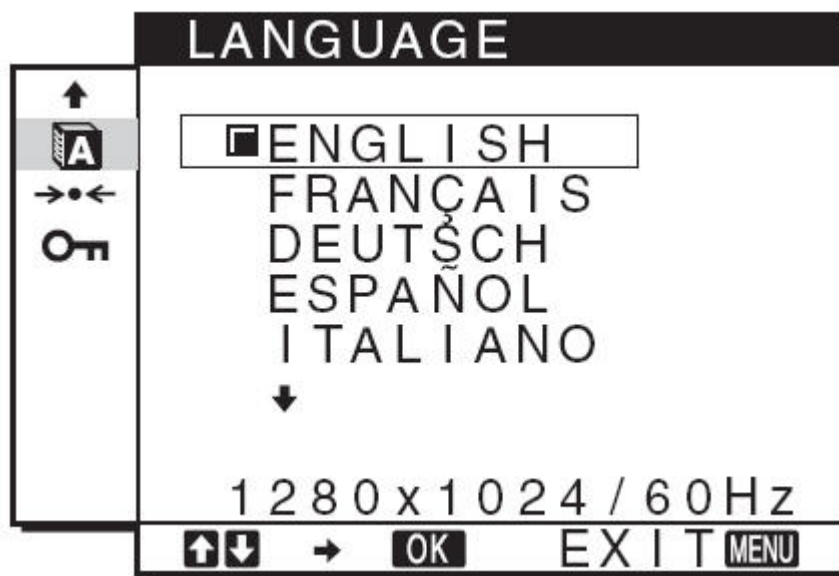
- 1 Press the MENU button.**
The main menu appears on the screen.
- 2 Press the ↓/↑ buttons to select γ (GAMMA) and press the OK button.**
The GAMMA menu appears on the screen.
- 3 Press the ↓/↑ buttons to select the desired mode and press the OK button.**



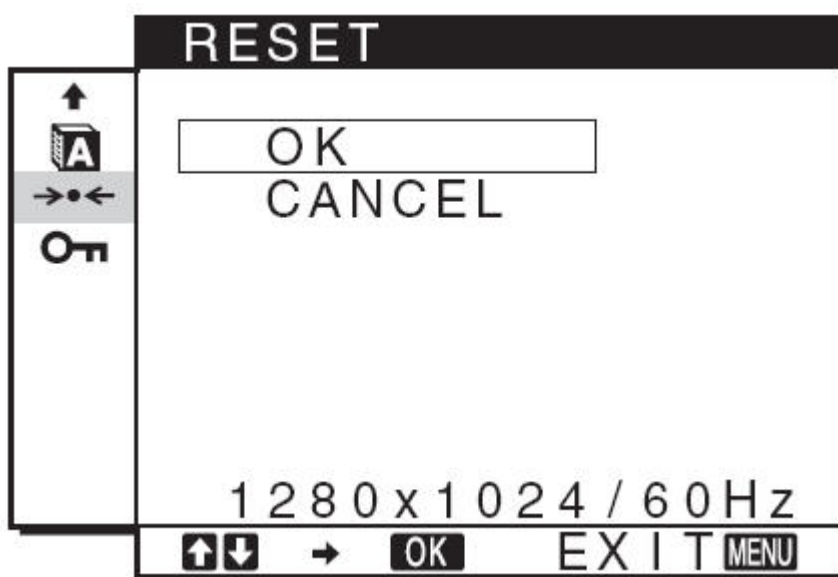
- 1 Press the MENU button.**
The main menu appears on the screen.
- 2 Press the ↓/↑ buttons to select  (SHARPNESS) and press the OK button.**
The SHARPNESS menu appears on the screen.
- 3 Press the ↓/↑ buttons to adjust the sharpness and press the OK button.**




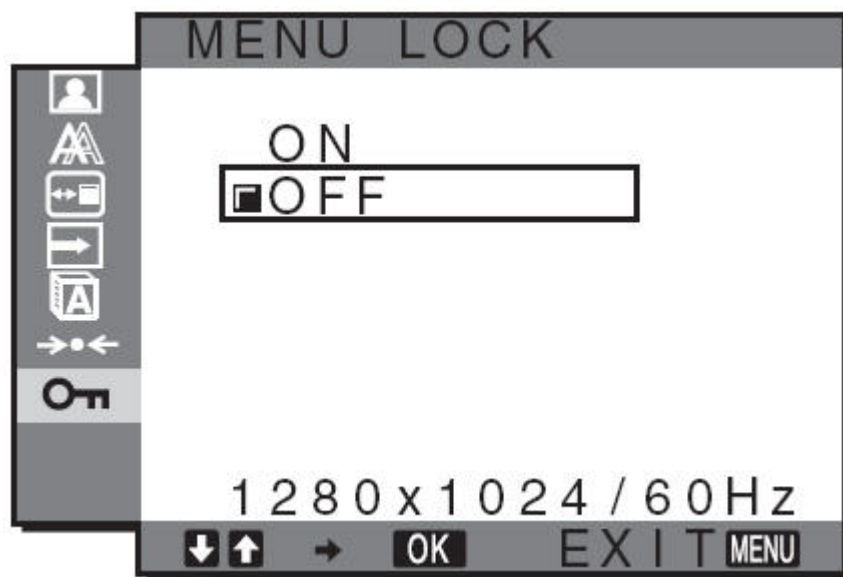
- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select  (MENU POSITION) and press the OK button.**
The MENU POSITION menu appears on the screen.
- 3 **Press the ↓/↑ buttons to select the desired position and press the OK button.**
You can choose one of 9 positions where the menu will appear.









- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select  (LANGUAGE) and press the OK button.**
The LANGUAGE menu appears on the screen.
- 3 **Press the ↓/↑ buttons to select a language and press the OK button.**
 - ENGLISH
 - FRANÇAIS: French
 - DEUTSCH: German
 - ESPAÑOL: Spanish
 - ITALIANO: Italian
 - NEDERLANDS: Dutch
 - SVENSKA: Swedish
 - РУССКИЙ: Russian
 - 日本語: Japanese
 - 中文: Chinese



- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select → (RESET) and press the OK button.**
The RESET menu appears on the screen.
- 3 **Press the ↓/↑ buttons to select the desired mode and press the OK button.**
 - OK: To reset all of the adjustment data to the default settings. Note that the  (LANGUAGE) setting is not reset by this method.
 - CANCEL: To cancel resetting and return to the menu screen.



- 1 **Press the MENU button.**
The main menu appears on the screen.
- 2 **Press the ↓/↑ buttons to select  (MENU LOCK) and press the OK button.**
The MENU LOCK menu appears on the screen.
- 3 **Press the ↓/↑ buttons to select either “On” or “Off.”**
 - **ON:** Only the  (power) switch and INPUT button will operate. If you attempt any other operation, the  icon appears on the screen.
 - **OFF:** Set “ MENU LOCK” to off. If “ MENU LOCK” has been set to “ON,” when you press the MENU button, “ MENU LOCK” is automatically selected.



4. Disassembly flow chart


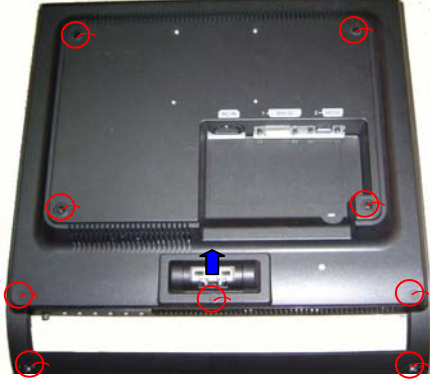


4.1 Disassembly steps

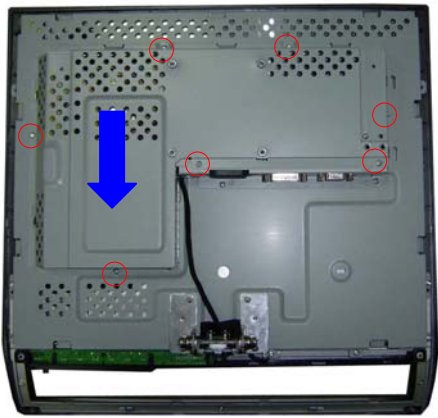


Notices

1. Lay the monitor on a steady table with a piece of clean cloth mat under it for preventing scratching the panel.
2. Be careful when open the bezel and rear cover with the tool that mentioned above for preventing mangling them.
3. Put away the screws for preventing rolling on the panel and scratching it.
4. Be careful and don't scratch the connection line when open the shield.
5. Press the interface with a hand and pull or insert the connection line with the other.

Flow Chart

Step1	Figure	Description
<p>Prepare</p>		<p>Pull out the rear cover and signal line, then put the monitor on a clean soft cloth with panel facing to the table.</p>
		

Step2	Figure	Description
<p>Discharge the back cabinet</p>		<p>1. Wring the two screws marked with red 2. Take stand away</p>
		<p>1. Wring the nine screws marked with red. 2. Take away as blue arrow direction</p>
		<p>Tool: a big screwdriver</p> <p>Step: 1, Wring the four screws in the bracket marked with blue. 2, Take the screw and stand away</p>
		

Step2	Figure	Description
<p>Discharge the shield</p>		<p>Step: 1, insert a hard plastic chip in the gap between bezel and rear cover at up-left corner</p> <p>2, Hold the monitor with a hand and press the hard plastic chip with the other, then move it in the forward hour hand.</p> <p>3, Pay attention to some hooks, then open it with little force till the bezel and rear cover separated.</p> <p>4, The position marked with arrows exists some hooks.</p> <p>5, After bezel and rear cover separated, the bezel is shown in the figure down-left.</p>
		
<p>Discharge the Bezel</p>		<p>Step: Wring down the two screws marked with red in the key board.</p>



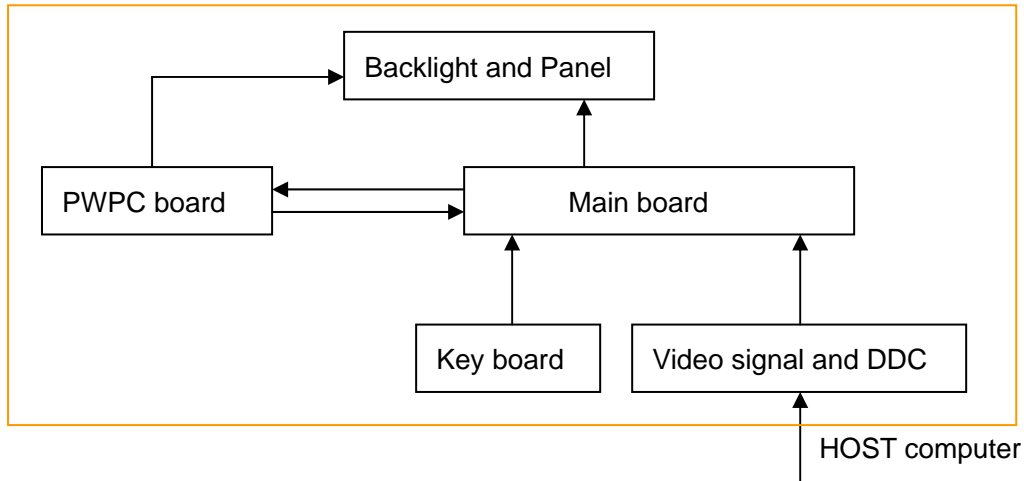
**Discharge
the power
board and
the main
board**



1. Wring down all screws in the power board and main board directly.
2. Take all connectors in the power board and main board away.

5. Circuit principle analysis

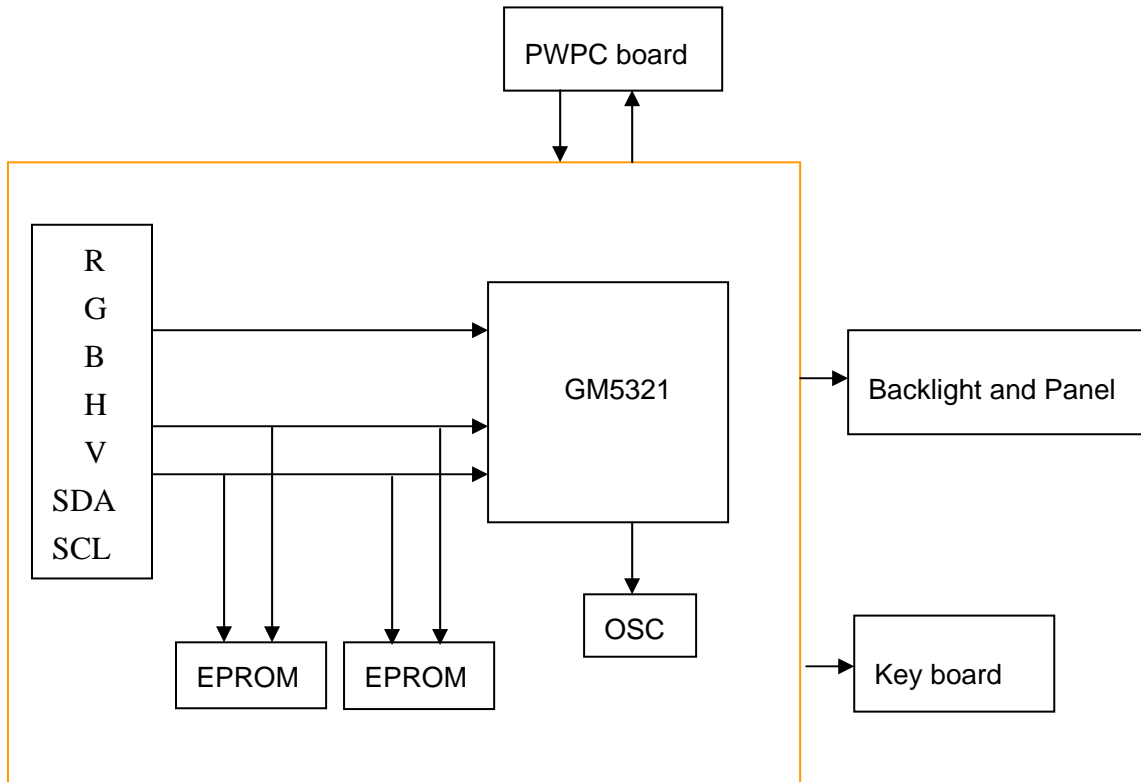
The LCD Monitor contains a main board, an inverter/power board, key board which house the flat panel control logic, brightness control logic and DDC.



5.1 Main board

5.1.1 Block diagram

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



5.1.2 Introduction of IC

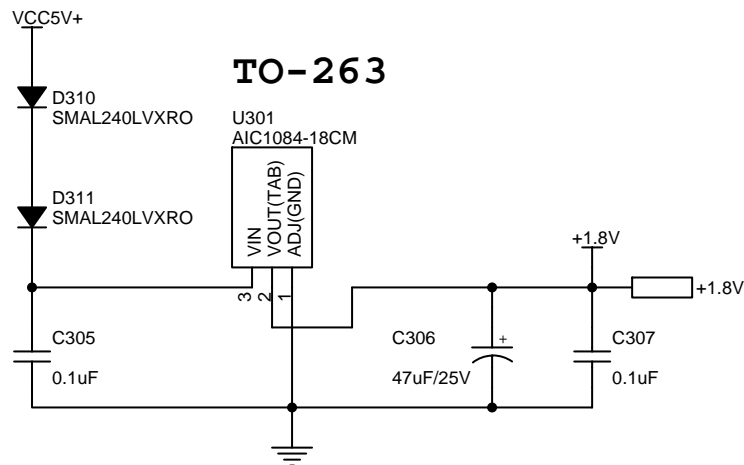
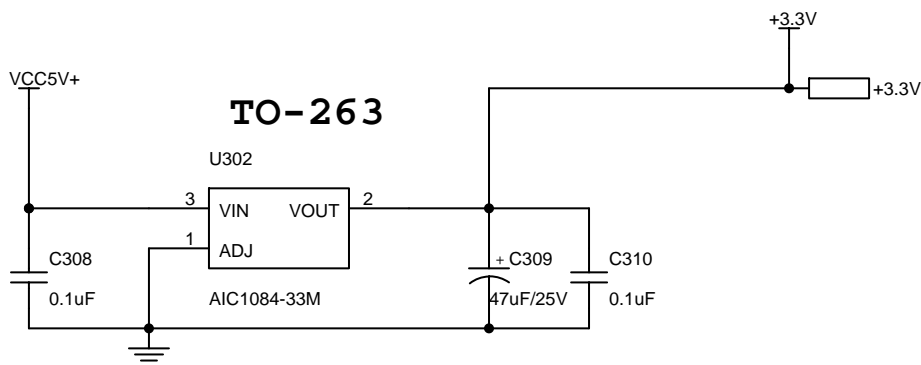
GM5321: integrate ADC, OSD, SCALER, TCON, LVDS, RSDS convert analog RGB into digital and zoom and shrink scaling output to LCD panel.

AIC1084-33M: DC power convert, used to 5v convert 3.3v.

AIC1084-18CE: DC power convert, used to 5v convert 1.8v.

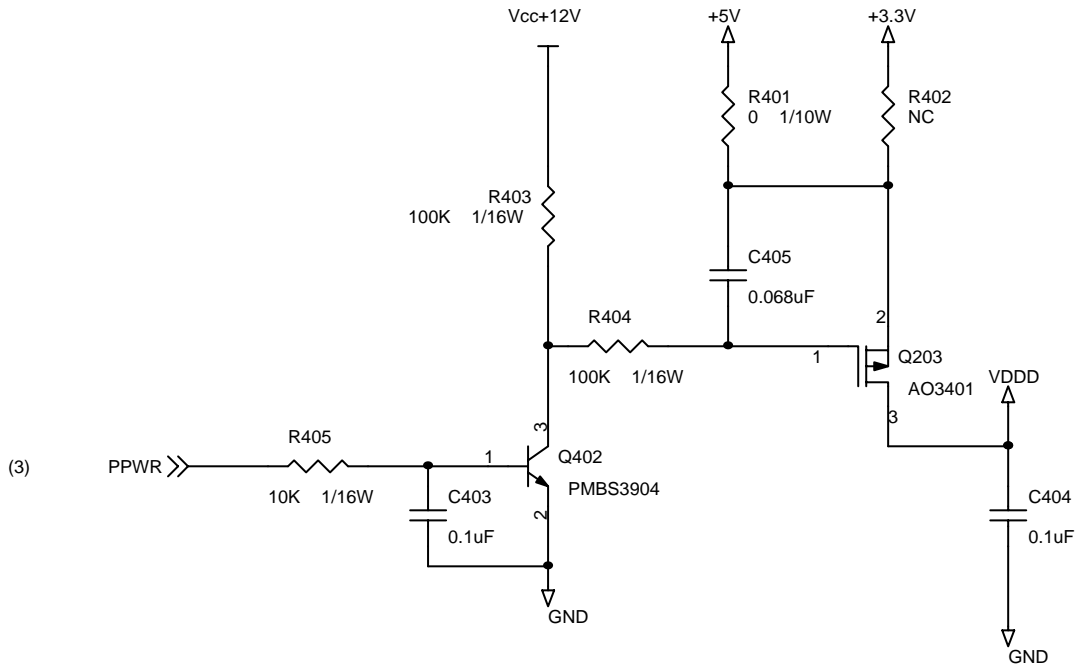
5.1.3 Introduction of important function

DC TO DC: The required power supply are different for each chip, and the voltage of 12v, 5v offered by PWPC can't reach the requirement, so we deal with this problem by means of two pieces of DC TO DC chips (AIC1084-18CM, AIC1084-33CM). The circuit diagrams are as follows:



Panel Control Circuit:

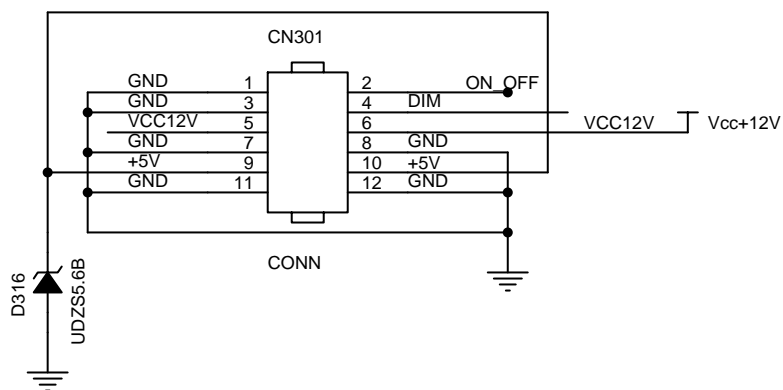
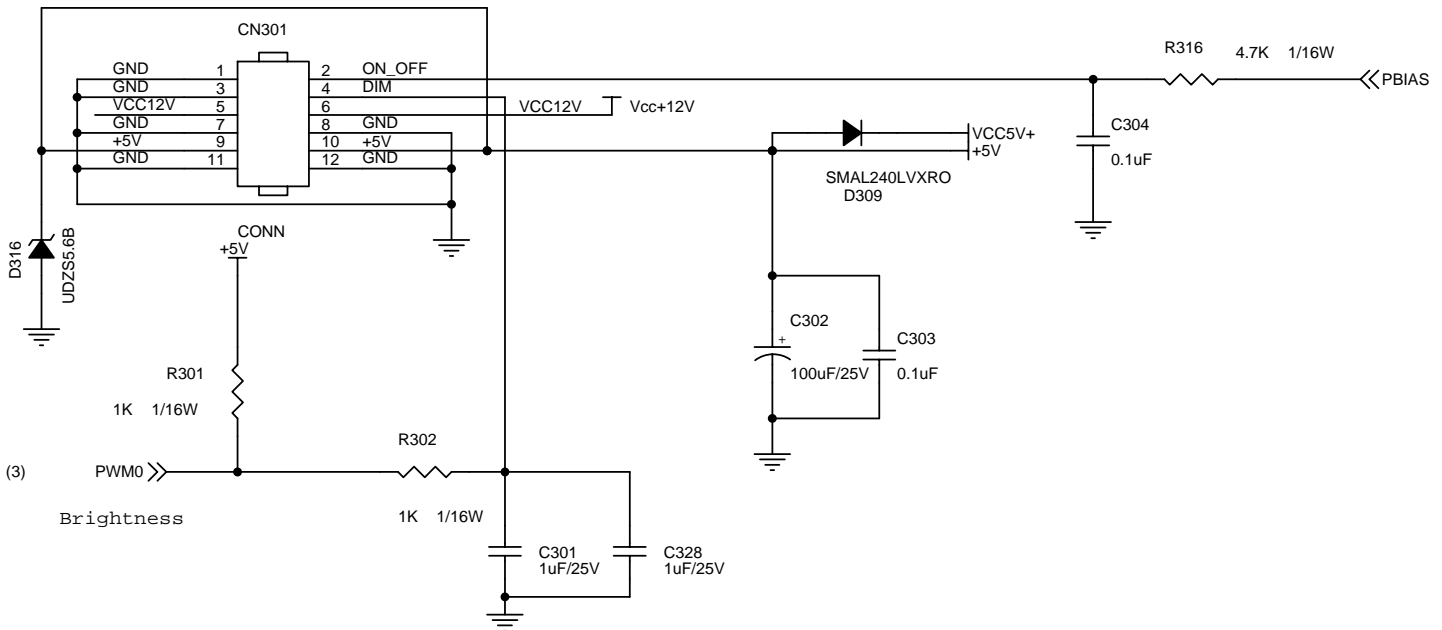
The high level output from PIN67 of U201 makes Q402 break through, Q203 break through and offer 5V to panel when work well. The output is low level when it's saving energy state and Q402 break off, Q203 break off, so the panel doesn't work.



On/Off /Brightness control circuit:

ON/OFF control: When it works well, the high level output form PIN 68 of U201, and low in saving energy state.

Brightness control: When it works well, the output PWM pulse from PIN98 of U201 adjusts the brightness, the bigger the duty, the higher the brightness.



Interface of main board and PWPC board

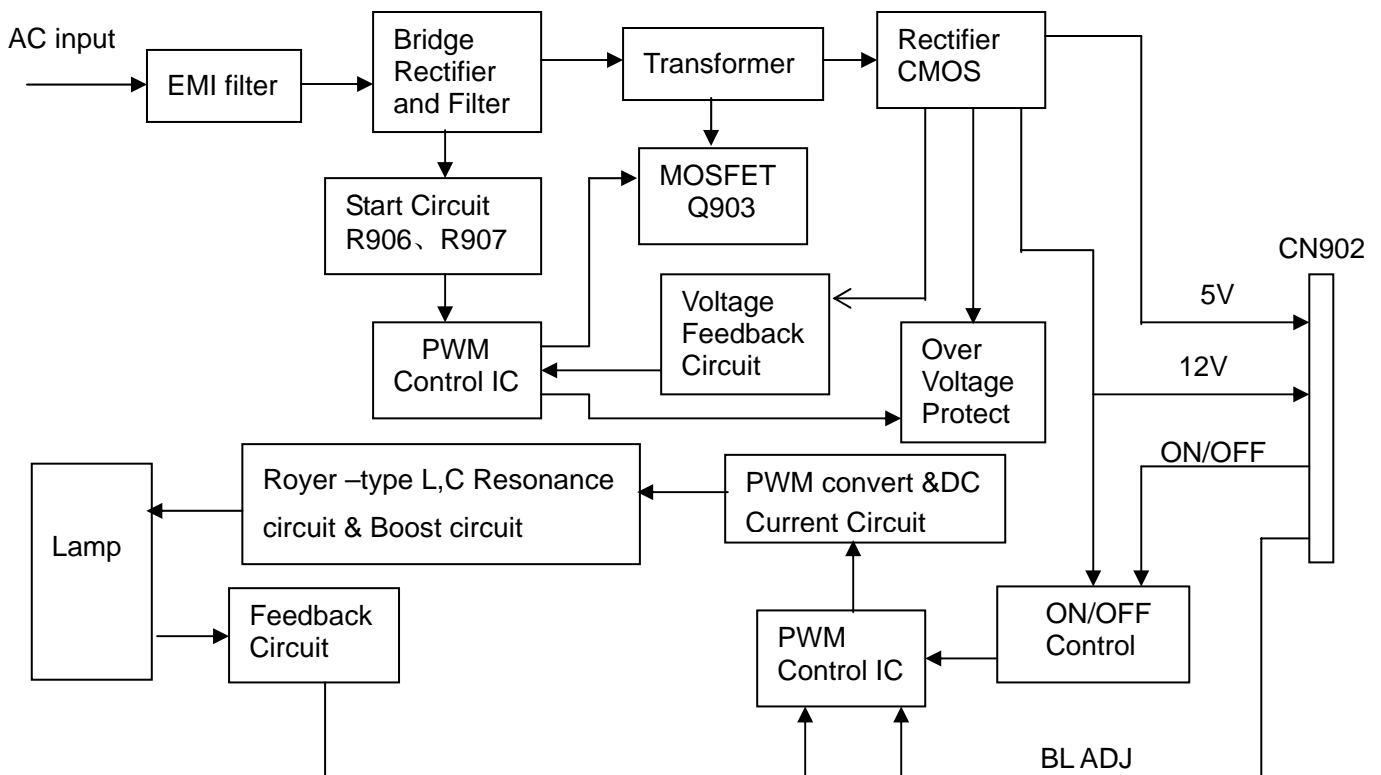
5.2 PWPC board

5.2.1 Block diagram

PWPC board combines to adapter and inverter, this design has the merits in predigesting constructions, reducing cost and improving product's capability.

Adapter which commonly consists of bridge rectifier and filter, start circuit, PWM control circuit (TOP247Y), protection circuits and convert to 12V, 5V DC voltage by input 90V-240V AC voltage that provide power supply for each chips in the main board and inverter.

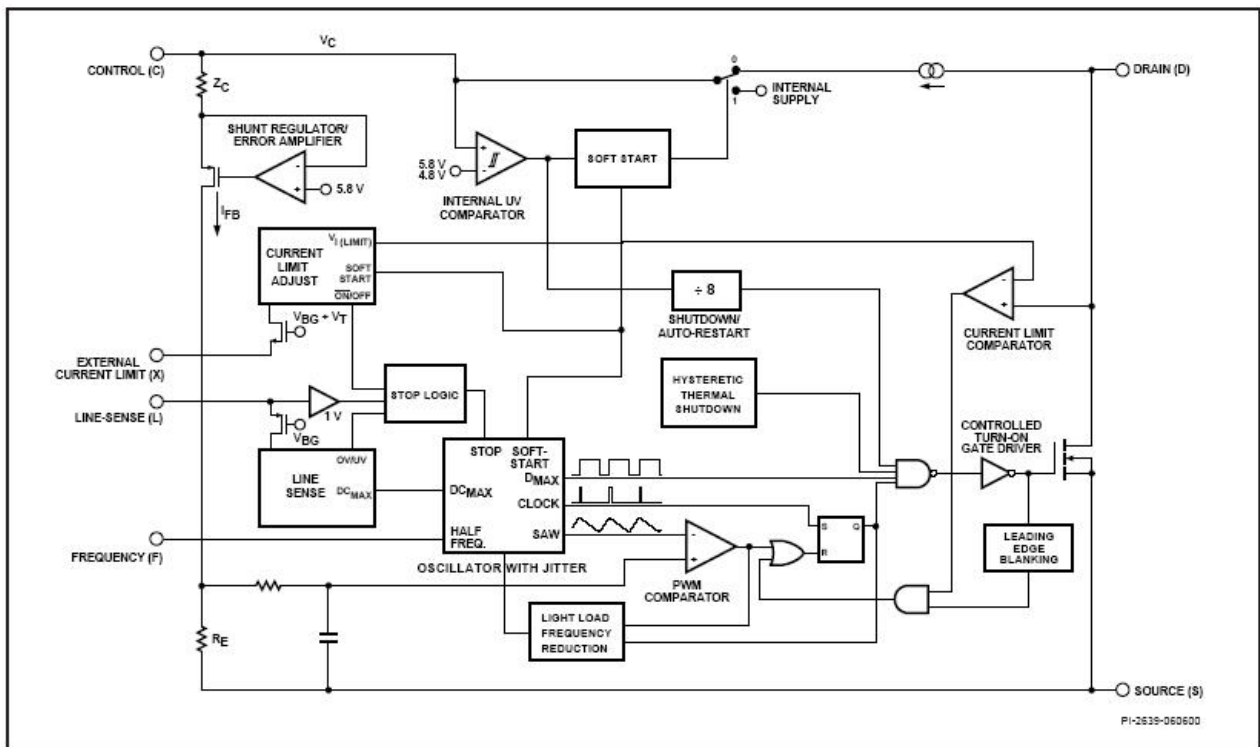
Inverter is DC TO AC circuit. It changes the 12v DC of power supply to about 600-800v AC that drives the backlight. It mostly consists of starting circuit, PWM controller, output circuit and protection circuit etc.



5.2.2 Introduction of IC

TOP247Y: It cost effectively integrating the high voltage power MOSFET, PWM control, fault protection and other control circuitry onto a single CMOS chip. The function of each pin and the inside circuit diagram are as follows:

Pin	Symbol	Functional Description
1	C	Control Pin, Error amplifier and feedback current input pin for duty cycle control
2	L	Line-Sense Pin, Input pin for OV, UV, line feed forward with DCMAX reduction, remote ON/OFF and synchronization
3	X	External Current Limit Pin, Input pin for external current limit adjustment, remote ON/OFF and synchronization
4	S	Source Pin, Output MOSFET source connection for high voltage power return
5	F	Frequency Pin, Input pin for selecting switching frequency
7	D	Drain Pin, High voltage power MOSFET drain output



OZ9RRB: OZ9RRB operates at a constant operating frequency. The operating frequency can be synchronized with an external signal that eliminates any undesired interference between the controller and LCD panel. The controller provides a wide dimming range control with a low-frequency Pulse Width Modulation (LPWM) dimming function. The control logic provides a regulated ignition voltage and appropriate protection for over-voltage or over-current conditions. The function of each pin is as follows:

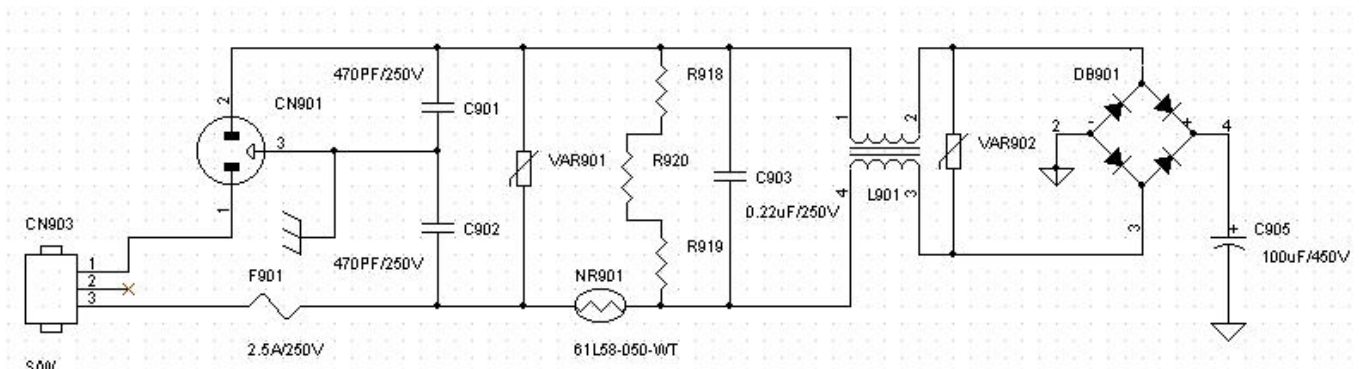
PIN	NAME	Description
1	ENA_SST_CMP	Enable, Soft Start Time and Compensation
2	CT	Timing Capacitor to Set Striking, Operating and LPWM Frequency
3	GNDA	Ground
4	DRV2	N MOSFET Drive Output
5	DRV1	N MOSFET Drive Output
6	VDDA	Supply Voltage
7	VSEN_DIM	Voltage Sense_Dimming Voltage
8	ISEN	Current-Sense Feedback

5.2.3 Introduction of important function

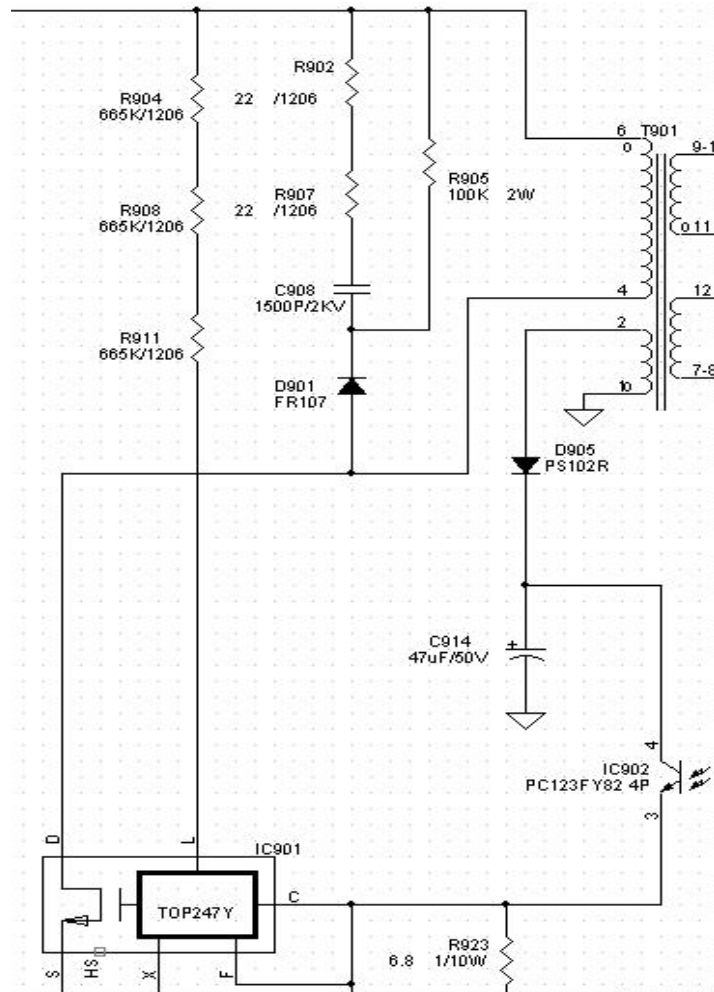
a. Adapter

EMI filter circuit: It is common used to get rid of the disturbance existing in the electric net or coming from outside. L901 is used to reduce the symmetry disturbance and filter the high frequency noise; C901, C902 can restrain the symmetry and filter the low frequency noise; R918, R919, R920 is used for discharging the capacitance when cut off the power. NR901 is used to prevent the impulse of surge current when start the machine, which possesses minus temperature modulus.

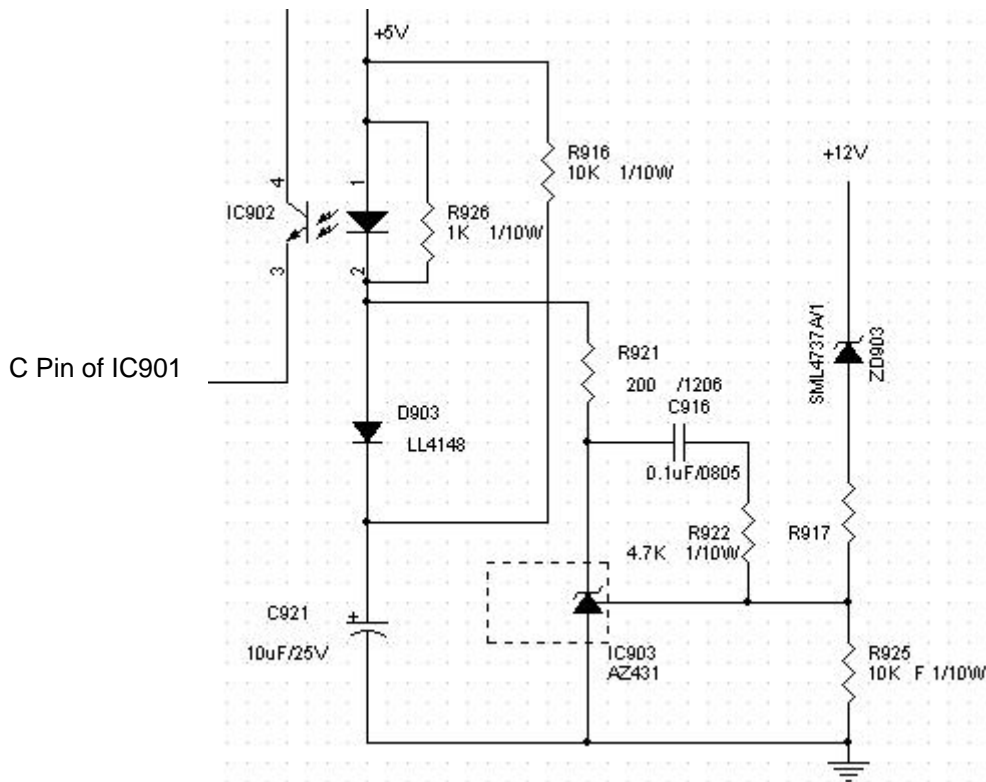
Rectifier and filter circuit: The AC input is changed to a high DC voltage, that magnitude is the product of 1.414 to AC after it is commuted by bridge rectifier (DB901) and filtered by the capacitance (C905).



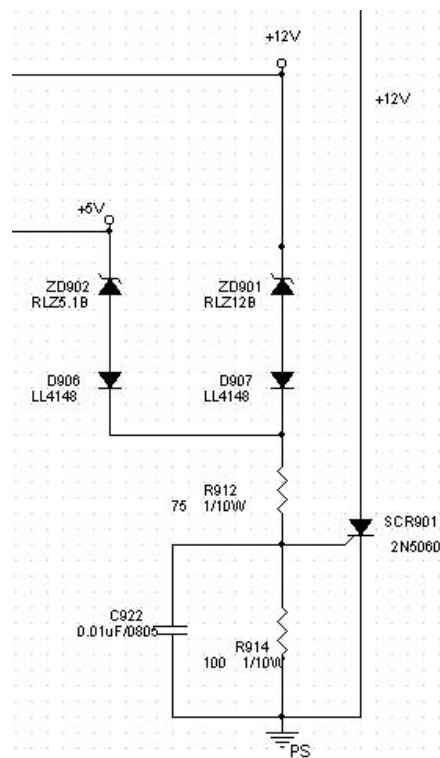
Start-up circuit: After being commuted and filtered, the high DC voltage falls down through R (R904, R908, and R911 series), the start-up carries out when the lowered voltage is supplied to L Pin of IC901 (TOP247Y). The output pulse makes T901 work. The voltage produced at the two terminals of T901 is offered to C Pin of IC901 after being commuted by D905 and filtered by C914, and then the whole start-up process is end.



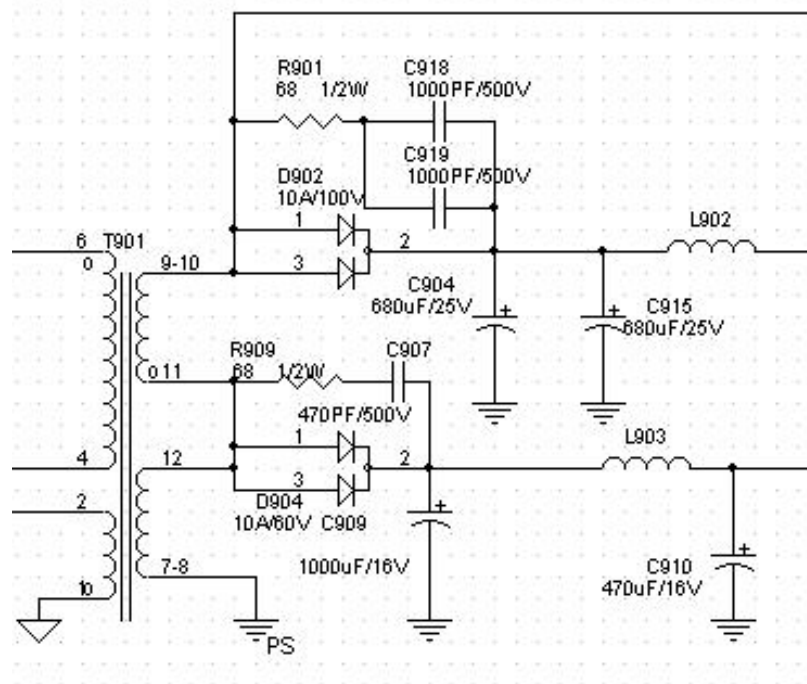
Over-voltage Protection circuit: 1. ZD903 can be broken down when 12V DC voltage increases, which leads to the current increase through IC902, and voltage increase of C Pin of IC901, and then it cuts off the pulse output.



2. ZD901, ZD902 can be broken down when 12V and 5V DC voltage increase, which lead to SCR901 breaks through, then 12 connected to ground and realizes over-voltage protection.



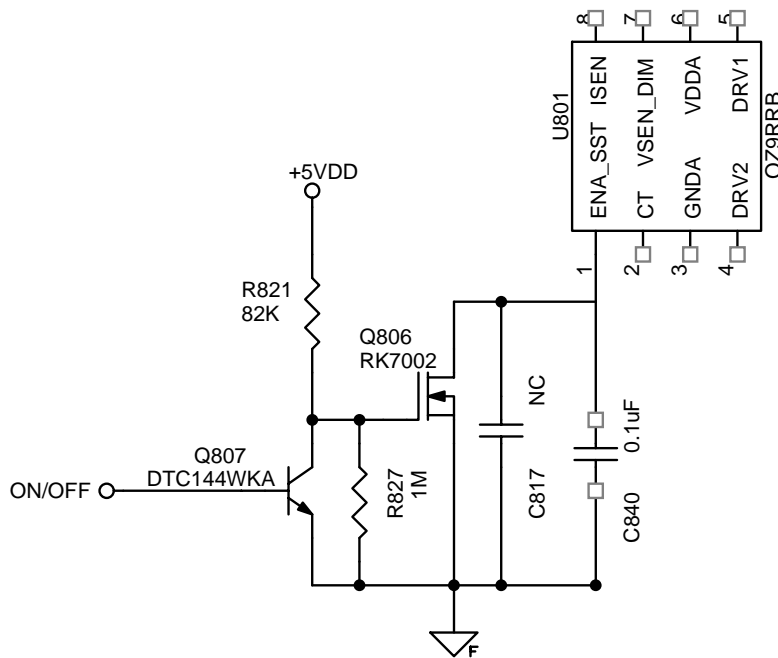
Commute and filter output circuit: When D Pin of IC901 has pulse output, which makes T901 work, while being given a low level, and there is a current in the primary coil of T901 with a voltage up terminal positive and down negative, so the secondary coil produces a reverse electromotive force. It is the stage of storing energy in the coil because D902, D904 are closed. But while being given a high level, The primary coil produces a EMF with its down terminal positive and up negative, and the secondary coil appears a reverse EMF at the same time, then D902, D904 get through accompanied with a voltage output of 12V and 5V through C904, C909 which are used to filter. R901, C918 contained in the RC circuit is used to absorb the surge voltage produced by D902, while R909, C907 is use to absorb the surge voltage produced by D904.



b. Inverter

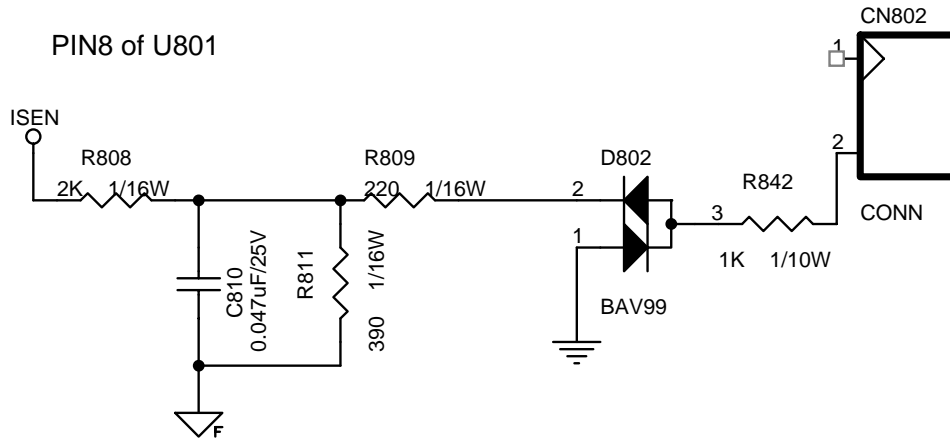
Input interface section: 1.1.2V DC input, offered by power section; 2. ON/OFF enable signal, offered by MCU in the main board with its value of 0V or 5V. When OFF=0V, the inverter doesn't work, while OFF=5V, it works under normal situation. 3. DIM signal for luminance modulation, offered by GM5321 in the main board with its range of 0~5V. The Inverter offers different currents to the loads because of the different feedback of voltage to the feedback-terminal of PWM. The smaller the value of DIM, the smaller the current output of Inverter, the darker the brightness.

Voltage start-up circuit: It consists of a NPN transistor and a NMOSFET with two working stages. The first stage: When the ON/OFF enable voltage is 0V, the Q807 is closed, Q806 gets through, the voltage of drain pulled down, so U801 doesn't work. The second stage :ON/OFF is high level, Q807 gets through, Q806 breaks off, Hence U201 produces pulse output to control switch transistor, and the Inverter which applied high voltage across the backlight works well.



Feedback circuit:

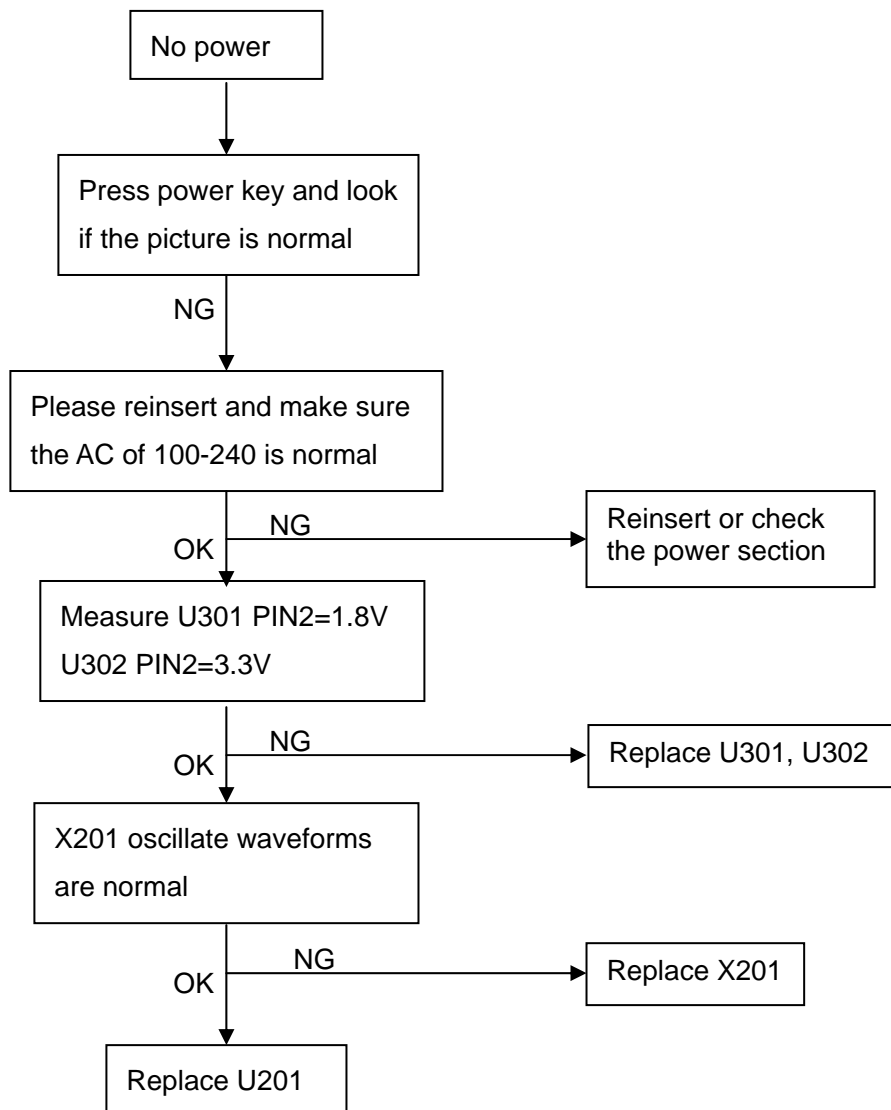
Alternating voltage exists at the two terminals of R842 when the loads are working. After being commuted and filtered, it changed to a DC sampling voltage. Apply the voltage to PIN8 of U801, and it is used to control the duty of pulse output. The whole process acts as steadying the output voltage.



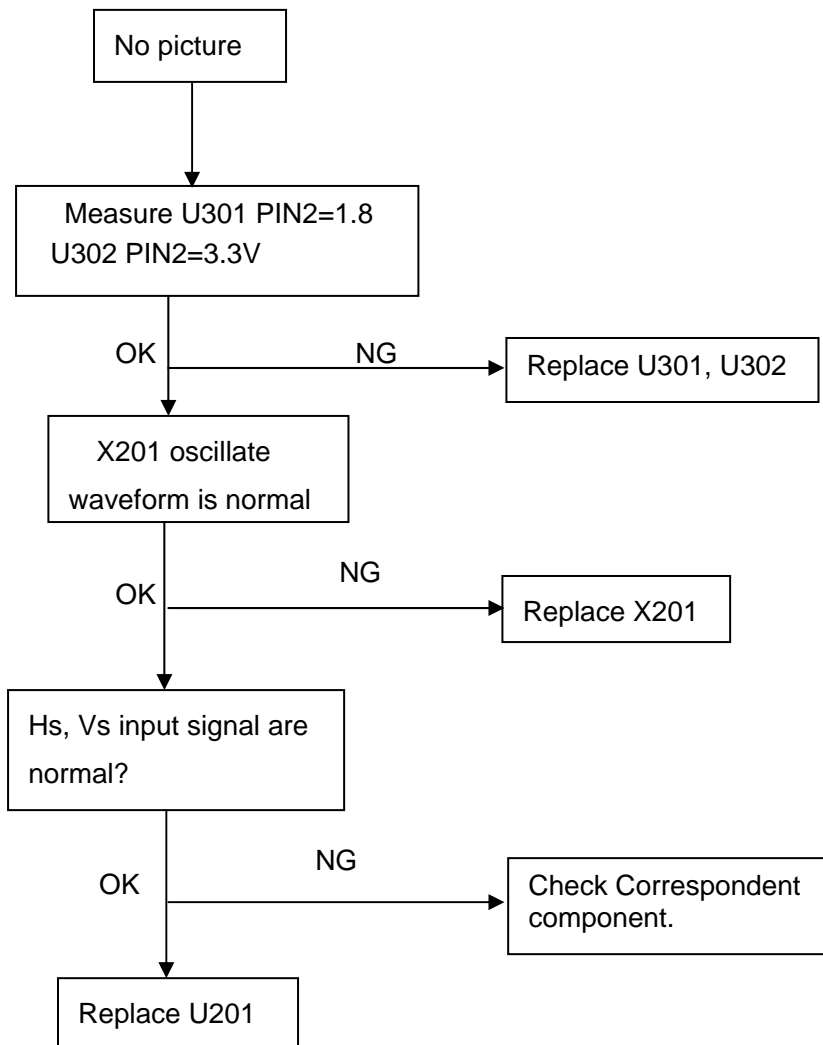
6. Trouble shooting

6.1 Main board

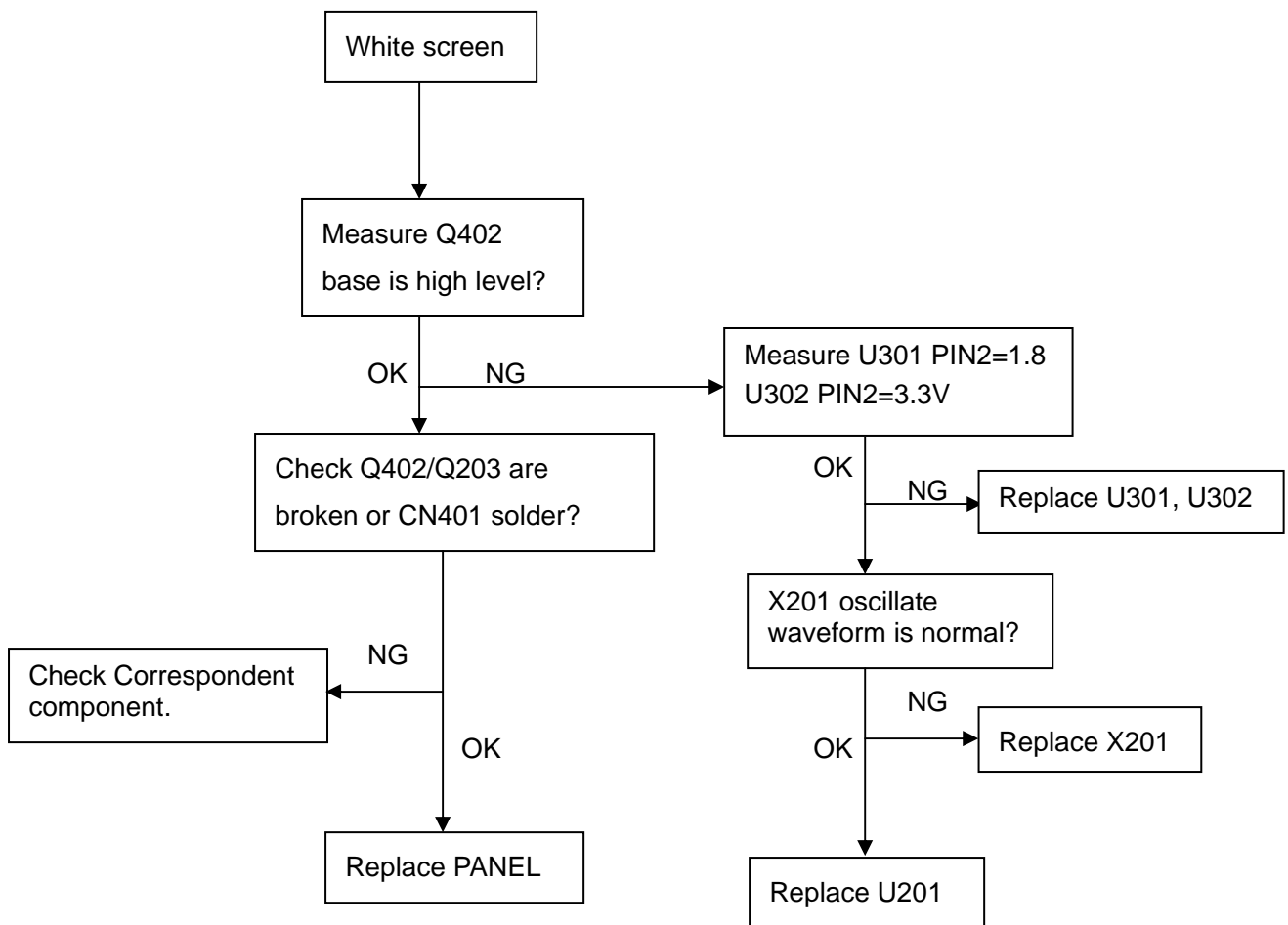
No power



No picture (LED orange)

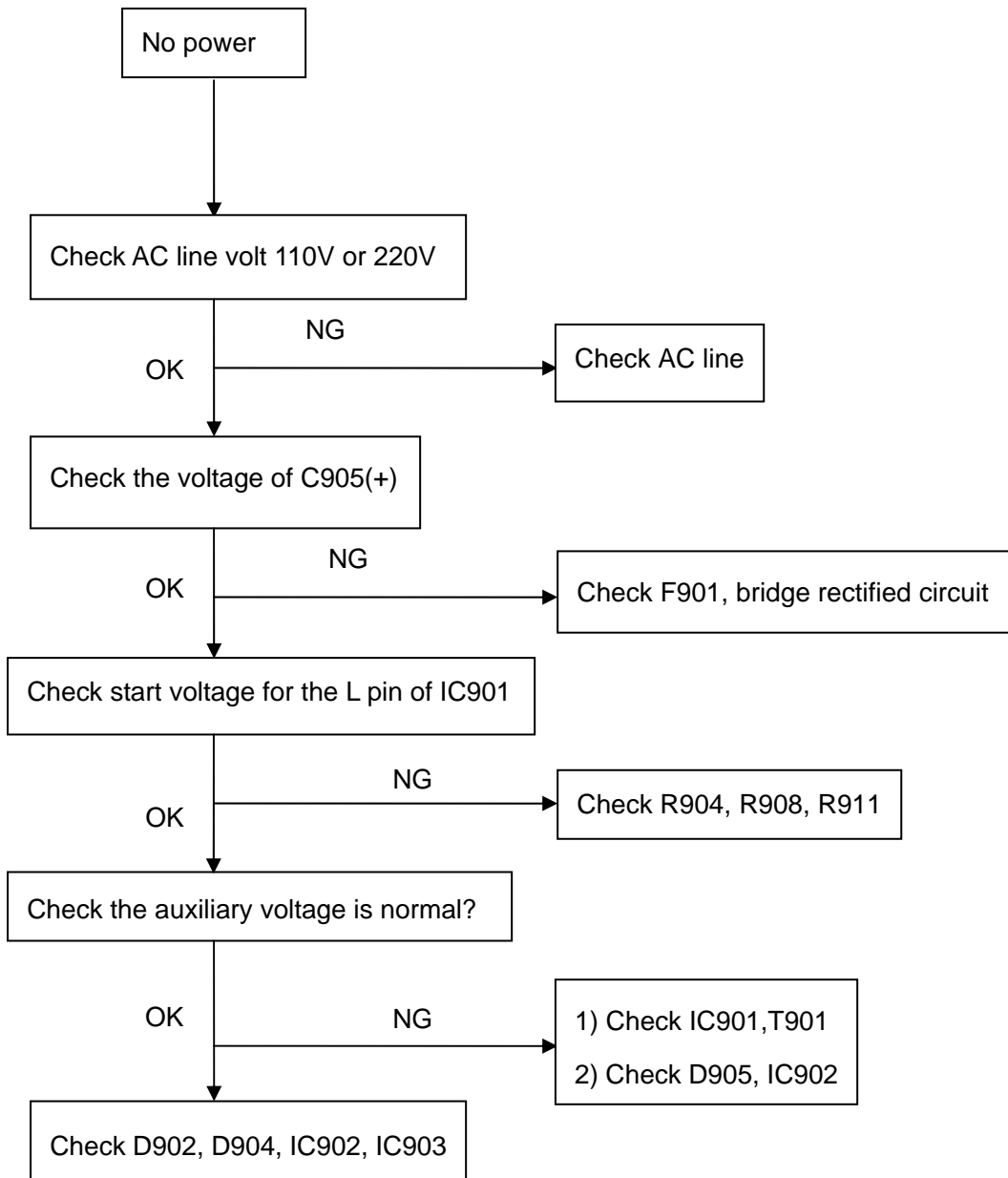


White screen

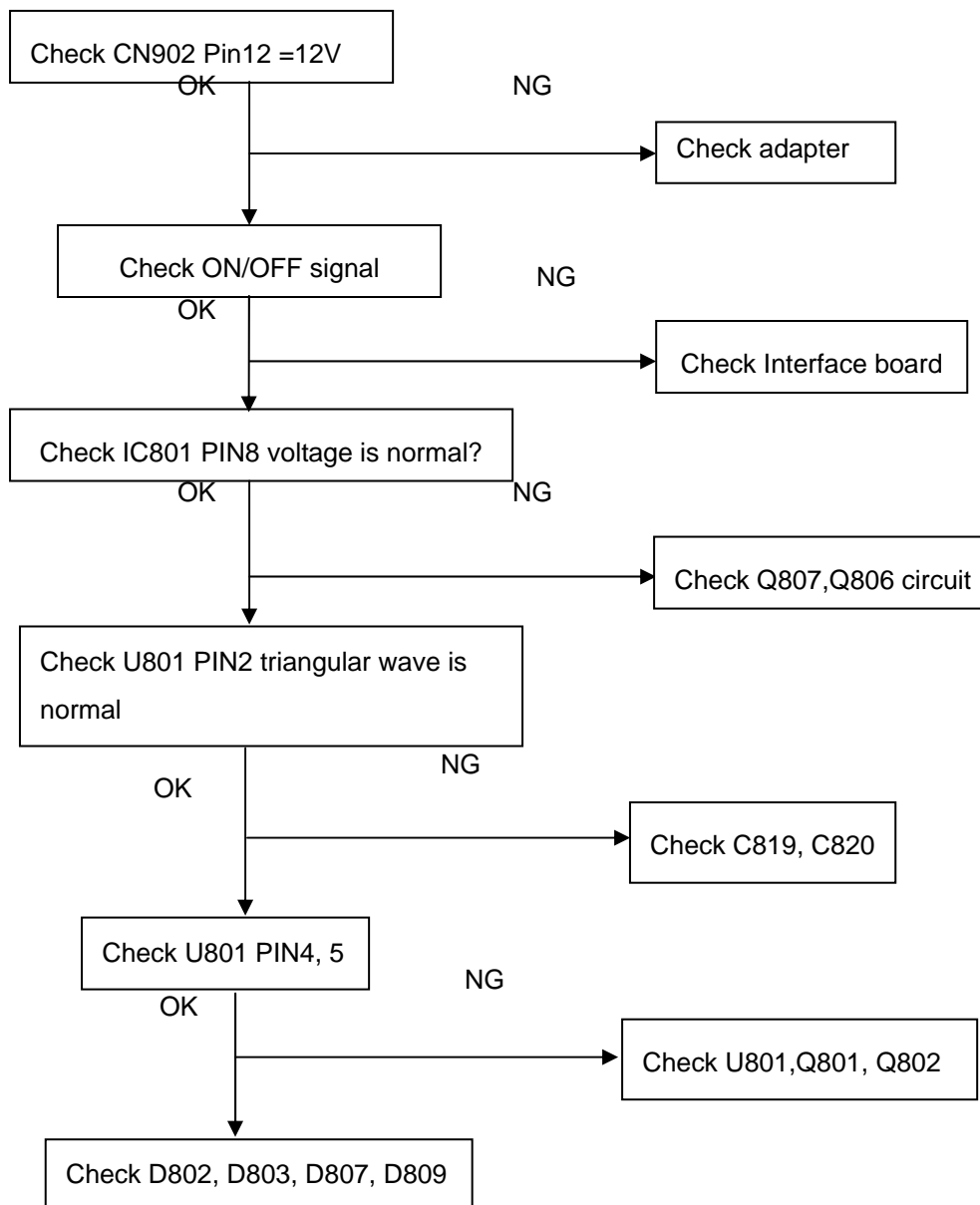


6.2 PWPC board

No Power



No Backlight



7. BOM

T 782KCDNK24SNP

Symbol	Part No for TPV	Description
	M1G1730 6128 GP	SCREW
	CBPC780KCD2SP	CONVERSION BOARD
	PWPC1742CPS8P	POWER BOARD
	11G6040 1 GP	TWIST LOCK
	11G6048 1 GP	CLAMP-S
	11G6054 1 GP	LOCK WASHER
	12G 425 1 GP	RUBBER FOOT(FRONT)
	15G8137 2 GP	MAIN FRAME
	20G 022 1 QC GP	STAND
	23G3178834 6A GP	LOGO
	33G4816 QC L GP	HINGE COVER
	34G1491AQB L GP	BACK CABINET
	34G1492 PY L GP	REAR COVER
	37G 521 1 GP	HINGE ASS'Y
	40G 190834 1	ID LABEL
	40G 457834 4A GP	S/N LABEL FOR ID
	40G 457834 9A GP	CARTON LABEL
	40G 58162435A GP	LABEL FOR PE BAG
	44GP705 1 GP	PULP MOLD
	44GP705 2 GP	PULP MOLD
	44GP705624 1A GP	CARTON
	45G 88607SY1 GP	EPE BAG FOR MONITOR
	50G 600 2 GP	HANDLE1
	50G 600 3 GP	HANDLE2
	52G 1186 GP	SMALL TAPE
	52G 1208 A GP	AL TAPE
	52G6019 5 GP	TAPE
	52G6022 22 GP	TAPE STAND
	52G6025 12104 GP	MYLAR
	52G6025 12107 GP	MYLAR
	85G 688 1 GP	MAIN SHIELD

	89G1738LAA 17 GP	SIGNAL CABLE
	89G402A18N IS GP	POWER CORD
	95G8014 12 30 GP	HARNESS 12P-12P 210MM
	95G8018 30 64 GP	LVDS CABLE
	M1G 130 5120 GP	SCREW
	M1G 330 4128 GP	SCREW M3X4
	M1G1140 6128 GP	SCREW 4X6
	M1G1430 8 47 GP	SCREW
	Q1G 130 5120 GP	SCREW
	Q1G 130 10128 GP	SCREW
	Q1G 330 10120 GP	SCREW
	Q1G 330 14120 GP	SCREW
	Q1G1030 6 47 GP	SCREW
	705G780KB34 01	COVER ASS'Y
	750GLC70A07 GP	CPT 17" 030 PANEL
	KEPC780KS6P	KEY BOARD
	20G 021 1 GP	BEZEL HOLDER
	33G4812 QA L GP	FUNTION BUTTON
	33G4814 1 C GP	POWER LENS
	34G1493APZ L GP	DECO PANEL
	34G1494 QB 1L GP	BOTTOM-VENT-COVER
	Q1G 130 5120 GP	SCREW
	B34G1490APY L GP	FRONT PANEL
	AM1G1740 10128 GP	SCREW

CBPC780KCD2SP

Symbol	Part No for TPV	Description
	AIC780KCD2SP	MAIN BOARD
	40G 457624 1B GP	CPU LABEL
	40G 45762420A GP	CBPC LABEL 25X6mm
	M1G1730 6128 GP	SCREW
	705G780KC87 05	AC BKT ASS'Y
C201	67G305V100 7N GP	KME50VB10M-CC3 5*11
C209	67G305V100 7N GP	KME50VB10M-CC3 5*11
C215	67G305V100 7N GP	KME50VB10M-CC3 5*11
C220	67G305V100 7N GP	KME50VB10M-CC3 5*11
C221	67G305V100 7N GP	KME50VB10M-CC3 5*11
C231	67G305V100 7N GP	KME50VB10M-CC3 5*11
C232	67G305V100 7N GP	KME50VB10M-CC3 5*11
C236	67G305V100 7N GP	KME50VB10M-CC3 5*11
C238	67G305V100 7N GP	KME50VB10M-CC3 5*11
C302	67G215L101 4N GP	KY25VB100M-L(6.3*11)
C306	67G215L470 4N GP	KY25VB47M-L 5*11
C309	67G215L470 4N GP	KY25VB47M-L 5*11
C401	67G215L470 4N GP	KY25VB47M-L 5*11
CN102	88G 35315FHSW GP	D-SUB
CN301	33G8027 12 GP	WAFER
CN302	33G8027 14 GP	WAFER OR PLAG
CN401	33G8027 24 H GP	WAFER
U201	90G 372 1 GP	HEAT SINK
X201	93G 22 53	CRYSTAL 14.318MHzHC-49U
	715G1370 1A S GP	MAIN BOARD
C103	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C104	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C106	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C107	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C108	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C109	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C110	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C113	65G0603104 32 GP	CHIP 0.1UF 50V X7R

C122	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C123	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C124	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C126	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C202	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C203	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C204	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C205	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C206	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C207	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C208	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C210	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C211	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C212	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C213	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C214	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C216	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C217	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C218	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C219	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C222	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C223	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C224	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C225	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C226	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C227	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C228	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C229	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C230	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C233	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C234	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C235	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C237	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C239	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C240	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C241	65G0603104 32 GP	CHIP 0.1UF 50V X7R

C242	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C243	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C244	65G0603330 31 GP	33PF+-5% 50V NPO
C245	65G0603330 31 GP	33PF+-5% 50V NPO
C246	65G0603103 32 GP	CHIP 0.01UF 50V X7R
C248	65G0805105 22 GP	CHIP 1UF 25V X7R 0805
C250	65G0805105 22 GP	CHIP 1UF 25V X7R 0805
C251	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C301	65G0805105 22 GP	CHIP 1UF 25V X7R 0805
C303	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C304	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C305	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C307	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C308	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C310	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C313	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C314	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C315	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C316	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C317	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C318	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C319	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C320	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C322	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C323	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C325	65G0603102 32 GP	1000PF +-10% 50V X7R
C326	65G0603221 31 GP	CAP:CER 220PF 5% 50V SM
C327	65G0603221 31 GP	CAP:CER 220PF 5% 50V SM
C328	65G0805105 22 GP	CHIP 1UF 25V X7R 0805
C402	65G0603103 32 GP	CHIP 0.01UF 50V X7R
C403	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C404	65G0603104 32 GP	CHIP 0.1UF 50V X7R
C405	65G0603683 32 GP	CHIP 0.068UF 50V X7R
D102	93G 64 33	BAV99
D103	93G 64 33	BAV99
D104	93G 64 33	BAV99

D105	93G 64 42 PP	BAV70 SOT-23
D301	93G 39S 34 T	UDZS5.6B
D302	93G 39S 34 T	UDZS5.6B
D303	93G 39S 34 T	UDZS5.6B
D304	93G 39S 34 T	UDZS5.6B
D305	93G 39S 34 T	UDZS5.6B
D306	93G 39S 34 T	UDZS5.6B
D307	93G 39S 34 T	UDZS5.6B
D308	93G 39S 34 T	UDZS5.6B
D309	93G2004 2A	SM240A DO-214AC
D310	93G2004 2A	SM240A DO-214AC
D311	93G2004 2A	SM240A DO-214AC
D312	93G 39S 34 T	UDZS5.6B
D313	93G 39S 34 T	UDZS5.6B
D314	93G 39S 34 T	UDZS5.6B
D315	93G 39S 34 T	UDZS5.6B
D316	93G 39S 34 T	UDZS5.6B
FB101	71G 56K121 M GP	120 OHM 6A
FB102	71G 59C800 GP	CHIP BEAD
FB103	71G 59C800 GP	CHIP BEAD
FB104	71G 59C800 GP	CHIP BEAD
FB201	71G 56K121 M GP	120 OHM 6A
FB202	71G 56K121 M GP	120 OHM 6A
FB203	71G 56K121 M GP	120 OHM 6A
FB204	71G 56K121 M GP	120 OHM 6A
FB205	71G 56K121 M GP	120 OHM 6A
FB206	71G 56K121 M GP	120 OHM 6A
FB207	71G 56K121 M GP	120 OHM 6A
FB208	71G 56K121 M GP	120 OHM 6A
FB209	71G 56K121 M GP	120 OHM 6A
Q101	57G 417 4	PMBS3904/PHILIPS-SMT(04
Q102	57G 759 2	RK7002
Q103	57G 759 2	RK7002
Q203	57G 763 1	A03401 SOT23 BY AOS(A1)
Q301	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q302	57G 417 6	PMBS3906/PHILIPS-SMT(06

Q402	57G 417 4		PMBS3904/PHILIPS-SMT(04
R106	61L0603181	GP	CHIPR 180 OHM +5% 1/16W
R107	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R108	61L0603181	GP	CHIPR 180 OHM +5% 1/16W
R109	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R110	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R111	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R112	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R114	61L0603181	GP	CHIPR 180 OHM +5% 1/16W
R115	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R116	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R118	61L0603750	GP	CHIPR 75 OHM+-5% 1/10W
R119	61L0603750	GP	CHIPR 75 OHM+-5% 1/10W
R120	61L0603750	GP	CHIPR 75 OHM+-5% 1/10W
R121	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R122	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R125	61L0603220	GP	CHIPR 22 OHM+-5% 1/10W
R126	61L0603220	GP	CHIPR 22 OHM+-5% 1/10W
R127	61L0603222	GP	CHIPR 2.2K OHM+-5% 1/10
R128	61L0603222	GP	CHIPR 2.2K OHM+-5% 1/10
R131	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R134	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R135	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R145	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R150	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R151	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R152	61L0603330 1F	GP	CHIPR 3.3K OHM +-1% 1/1
R153	61L0603100 2F	GP	CHIPR 10K OHM +-1% 1/10
R201	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R202	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R205	61L0603255 0F	GP	CHIP 255 OHM 1/16W
R215	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R218	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R233	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R234	61L0603222	GP	CHIPR 2.2K OHM+-5% 1/10
R235	61L0603222	GP	CHIPR 2.2K OHM+-5% 1/10

R236	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R237	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R238	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R239	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R241	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
R242	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R243	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R244	61L0603101	GP	CHIPR 100 OHM +-5% 1/10
R245	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R249	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R251	61L0603203	GP	CHIPR 20K OHM+-5% 1/10W
R252	61L0603473	GP	CHIP 47K OHM 1/10W
R253	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
R301	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R302	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R306	61L0603223	GP	CHIP 22KOHM 1/16W
R307	61L0603303	GP	CHIP 30K OHM 5% 1/10W
R308	61L0603473	GP	CHIP 47K OHM 1/10W
R309	61L0603223	GP	CHIP 22KOHM 1/16W
R310	61L0603303	GP	CHIP 30K OHM 5% 1/10W
R311	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R314	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R315	61L0603103	GP	CHIPR 10K OHM +-5% 1/10
R316	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R317	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R318	61L0603473	GP	CHIP 47K OHM 1/10W
R319	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
R320	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R321	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R322	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
R323	61L0603472	GP	CHIPR 4.7K OHM +-5% 1/1
R324	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R401	61L0805000	GP	CHIP O OHM 1/8W
R403	61L0603104	GP	CHIPR 100K OHM +-5% 1/1
R404	61L0603104	GP	CHIPR 100K OHM +-5% 1/1
R405	61L0603103	GP	CHIPR 10K OHM +-5% 1/10

R408	61L1206331	GP	CHIP 330 OHM 5%
R409	61L0603470	GP	CHIPR 47 OHM +-5% 1/10W
R410	61L0603470	GP	CHIPR 47 OHM +-5% 1/10W
R415	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
R416	61L0603000	GP	CHIPR 0OHM +-5% 1/10W
U102	56G113334A		24LC02B/SNG SOIC-8PIN
U104	56G4LVC 14	P	74LVC14ADT
U201	56L 562 71		GM2321 PQFP-208
U202	56G 643 11		ASM809SEVRF-T SOT-23
U203	56G1133 63CS1		PMC25LV010
U205	56G113356A		24LC16B/SNG SOIC-8PIN
U301	56G 563 34		AIC 1084-18PM TO-263
U302	56G 563 7		AIC1084-33PM
ZD104	93G 39S 34	T	UDZS5.6B
ZD105	93G 39S 34	T	UDZS5.6B
ZD106	93G 39S 34	T	UDZS5.6B
ZD107	93G 39S 34	T	UDZS5.6B
ZD109	93G 39S 34	T	UDZS5.6B
ZD110	93G 39S 34	T	UDZS5.6B
ZD114	93G 39S 34	T	UDZS5.6B
	15G8138 1	GP	AC BKT
	M1G 130 6 47	GP	SCREW
	705G 780 87 05		AC SOCKET ASS'Y
	87G 501 7 RF	GP	AC SOCKET
	95G 900578	GP	WIRE HARNESS
	95G8021 2512	GP	WIRE HARNESS
	96G 29 8	GP	TUBE

PWPC1742CPS8P

Symbol	Part No for TPV	Description
	PW1742CPS8SMTP	POWER BOARD
	40G 45762420A GP	CBPC LABEL 25X6mm
	51G 100510500 GP	1-2577
	55G 23524500 GP	ISOPARE
	705G 780 56 01	IC901 ASS'Y
	705G 780 93 S6	D902/D904 ASS'Y
C801	67G215V471 4N GP	KY25VB470M-CC3 10*16
C803	65L 3J2206ET GP	22PF 5% 3KV TDK
C805	65L 3J2206ET GP	22PF 5% 3KV TDK
C806	65L 3J5096ET GP	CERAMIC CAP
C809	65L 3J5096ET GP	CERAMIC CAP
C816	65L 3J2206ET GP	22PF 5% 3KV TDK
C822	65L 3J2206ET GP	22PF 5% 3KV TDK
C823	65L 3J5096ET GP	CERAMIC CAP
C824	67G215V471 4N GP	KY25VB470M-CC3 10*16
C825	65L 3J5096ET GP	CERAMIC CAP
C901	65G306M1022BM GP	Y1.CAP.001UF 250VAC MUR
C902	65G306M1022BM GP	Y1.CAP.001UF 250VAC MUR
C903	63G 10722410S GP	0.22UF/250V X1 ARCO
C905	67G215S10115N GP	EC CAP 450V/100
C909	67G215V102 3N GP	KY10VB1000M-CC3 10*16
C910	67G215V471 3N GP	KY16VB470M-CC3 10*12.5
C912	65G306M1022BM GP	Y1.CAP.001UF 250VAC MUR
C923	67G215V471 4N GP	KY25VB470M-CC3 10*16
CN801	33G8021 2D U GP	WAFER
CN802	33G8021 2D U GP	WAFER
CN803	33G8021 2D U GP	WAFER
CN804	33G8021 2D U GP	WAFER
CN901	33G8029 3A H GP	WAFER
CN902	33G8027 12 GP	WAFER
CN903	95G 90 23 GP	TIN COATED
D901	93G 6026T52T	RECTIFIER DIODE FR107
DB901	93L 50460 16	U4KB80R

L901	73L 174 40LSG GP	LINE FILTER
L902	73G 253 91 LS GP	CHOKE BY LI SHIN
L903	73G 253 91 LS GP	CHOKE BY LI SHIN
NR901	61G 58050 WT GP	5 OHM /5A NTCR
R905	61G152M10458F GP	100K OHM 5% 2W
T801	80GL19T 8 DN GP	TRANSFORMER
T802	80GL19T 8 DN GP	TRANSFORMER
T901	80LL17T 20LSG GP	POWER X'FMR
U902	56G 139 3A	PC123Y22
VAR901	61G 46 6 GP	TNR 10V471K
VAR902	61G 46 6 GP	TNR 10V471K
	PW1742CPS8AIP	POWER BOARD FOR AI
C802	65L0805222 32	2200PF/50V/0805/X7R
C804	65L0805222 32	2200PF/50V/0805/X7R
C808	65G1206225 17 GP	CHIP 2.2UF 16V Y5V 1206
C810	65G0603473 22 GP	0.047UF/25V
C811	65G0603103 32 GP	CHIP 0.01UF 50V X7R
C813	65G0603332 32 GP	3300PF X7R 50V
C814	65G0603333 22 GP	0.0033UF/25V
C815	65L0805222 32	2200PF/50V/0805/X7R
C818	65G0603473 22 GP	0.047UF/25V
C819	65G0603331 31 GP	330PF NPO 50V
C820	65G0603390 31 GP	39PF NPO 50V
C821	65L0805222 32	2200PF/50V/0805/X7R
C826	65G0603333 22 GP	0.0033UF/25V
C827	65G0603333 22 GP	0.0033UF/25V
C829	65G0603332 32 GP	3300PF X7R 50V
C830	65G0603104 22 GP	0.1UF/25V
C831	65G0603333 22 GP	0.0033UF/25V
C836	65G0603104 22 GP	0.1UF/25V
C837	65G0603104 22 GP	0.1UF/25V
C838	65G0603104 22 GP	0.1UF/25V
C839	65G0805104 22 GP	0.1UF +-10% 25V X7R 080
C840	65G0603473 32 GP	CHIP 0.047UF 50V X7R
C906	65G0805104 22 GP	0.1UF +-10% 25V X7R 080
C911	65G0805104 22 GP	0.1UF +-10% 25V X7R 080

C913	65G0805103 22 GP	CHIP 0.01UF 25V X7R 080
C916	65G0805104 22 GP	0.1UF +-10% 25V X7R 080
C917	65G0805104 22 GP	0.1UF +-10% 25V X7R 080
C922	65G0805104 22 GP	0.1UF +-10% 25V X7R 080
C924	65G0805105 22 GP	CHIP 1UF 25V X7R 0805
D802	93G 64 33	BAV99
D803	93L 6432V	LL4148-GS08
D804	93G 64 33	BAV99
D805	93L 6432V	LL4148-GS08
D806	93G 64 33	BAV99
D807	93G 64 33	BAV99
D809	93L 6432V	LL4148-GS08
D810	93L 6432V	LL4148-GS08
D811	93G 64 33	BAV99
D812	93G 64 33	BAV99
D813	93L 6432V	LL4148-GS08
D814	93L 6432V	LL4148-GS08
D903	93L 6432V	LL4148-GS08
D906	93L 6432V	LL4148-GS08
D907	93L 6432V	LL4148-GS08
Q801	57G 600 55	P5506 HVG SO-8
Q802	57G 417 4	PMBS3904/PHILIPS-SMT(04
Q803	57G 759 2	RK7002
Q804	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q805	57G 600 55	P5506 HVG SO-8
Q806	57G 759 2	RK7002
Q807	57G 760 5	DTC144WKA BY ROHM SMT
Q808	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q809	57G 759 2	RK7002
Q810	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q811	57G 417 6	PMBS3906/PHILIPS-SMT(06
R802	61L1206100 GP	CHIPR 10 OHM+-5% 1/4W
R803	61L0805102 GP	CHIPR 1K OHM +-5% 1/8W
R804	61L1206471 GP	CHIP 470 OHM 1/8W
R806	61L0603000 GP	CHIPR 0OHM +-5% 1/10W
R807	61L1206100 GP	CHIPR 10 OHM+-5% 1/4W

R808	61L0603202	GP	CHIP 2KOHM 1/16W
R809	61L0603221	GP	CHIP 220 OHM 1/16W
R810	61L0603160 2F	GP	16KOHM 1/16W
R811	61L0603431	GP	430 OHM 1/16W
R812	61L0603100 3F	GP	100K OHM 1/16W
R814	61L0603105	GP	1MOHM 1/16W
R815	61L0603180 3F	GP	180KOHM 1/16W
R816	61L0603431	GP	430 OHM 1/16W
R817	61L0603104	GP	CHIPR 100K OHM +-5% 1/1
R818	61L0603240 3F	GP	240KOHM 1/16W
R819	61L0603105	GP	1MOHM 1/16W
R820	61L0603105	GP	1MOHM 1/16W
R821	61L0603104	GP	CHIPR 100K OHM +-5% 1/1
R822	61L1206100	GP	CHIPR 10 OHM+-5% 1/4W
R823	61L0603202	GP	CHIP 2KOHM 1/16W
R824	61L0603221	GP	CHIP 220 OHM 1/16W
R826	61L0603431	GP	430 OHM 1/16W
R827	61L0603105	GP	1MOHM 1/16W
R828	61L1206100	GP	CHIPR 10 OHM+-5% 1/4W
R829	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R830	61L0603104	GP	CHIPR 100K OHM +-5% 1/1
R831	61L0603105	GP	1MOHM 1/16W
R832	61L0603431	GP	430 OHM 1/16W
R833	61L0603160 2F	GP	16KOHM 1/16W
R835	61L0603431	GP	430 OHM 1/16W
R836	61L0603105	GP	1MOHM 1/16W
R837	61L0603102	GP	CHIPR 1K OHM +-5% 1/10W
R838	61L0603105	GP	1MOHM 1/16W
R839	61L0603431	GP	430 OHM 1/16W
R840	61L0603105	GP	1MOHM 1/16W
R841	61L0603200 2F	GP	20KOHM 1/10W
R842	61L0805102	GP	CHIPR 1K OHM +-5% 1/8W
R843	61L0805102	GP	CHIPR 1K OHM +-5% 1/8W
R844	61L0805103	GP	CHIPR 10K OHM +-5% 1/8W
R845	61L0805000	GP	CHIP O OHM 1/8W
R901	61L1206201	GP	200 OHM 1/4W

R902	61L1206220	GP	22 OHM/1206
R903	61L1206335	GP	3.3MOHM 1/4W
R904	61L1206665 3F	GP	CHIPR 665KOHM +-1% 1/4W
R906	61L1206335	GP	3.3MOHM 1/4W
R907	61L1206220	GP	22 OHM/1206
R908	61L1206665 3F	GP	CHIPR 665KOHM +-1% 1/4W
R909	61L1206201	GP	200 OHM 1/4W
R910	61L1206205	GP	CHIP 2M OHM % 1/4W
R911	61L1206665 3F	GP	CHIPR 665KOHM +-1% 1/4W
R912	61L0805102	GP	CHIPR 1K OHM +5% 1/8W
R913	61L0805471	GP	CHIPR 470 OHM 1/8W
R914	61L0805102	GP	CHIPR 1K OHM +5% 1/8W
R915	61L0805150 3F	GP	150KOHM F 1/8W
R916	61L0805103	GP	CHIPR 10K OHM +5% 1/8W
R917	61L0805133 2F	GP	13.3KOHM F 1/8W
R918	61L1206684	GP	CHIPR 680K OHM+-5% 1/4W
R919	61L1206684	GP	CHIPR 680K OHM+-5% 1/4W
R920	61L1206684	GP	CHIPR 680K OHM+-5% 1/4W
R921	61L0805201	GP	CHIP 200 OHM 1/8W
R922	61L0805472	GP	CHIPR 4.7K OHM +-5% 1/8
R923	61L0805689	GP	CHIP 6.8 OHM 1/8W 5%
R924	61L0805143 2F	GP	14.3KOHM 1/8W
R925	61L0805100 2F	GP	10KOHM F 1/10W
R926	61L0805102	GP	CHIPR 1K OHM +5% 1/8W
R927	61L1206201	GP	200 OHM 1/4W
R928	61L1206201	GP	200 OHM 1/4W
R929	61L1206201	GP	200 OHM 1/4W
R930	61L1206201	GP	200 OHM 1/4W
U801	56G 608 9		OZ9RRBGN SOIC-8
ZD801	93G 39S 24	T	RLZ 5.6B LLDS
ZD901	93G 39S 17	T	RLZ12B LLDS
ZD902	93G 39S 25	T	RLZ5.1B LLDS
ZD903	93G 39S 19	T	PTZ7.5B
ZD904	93G 39S 10	T	RLZ6.8B LLDS
ZD905	93G 39S 10	T	RLZ6.8B LLDS
ZD906	93G 39S 10	T	RLZ6.8B LLDS

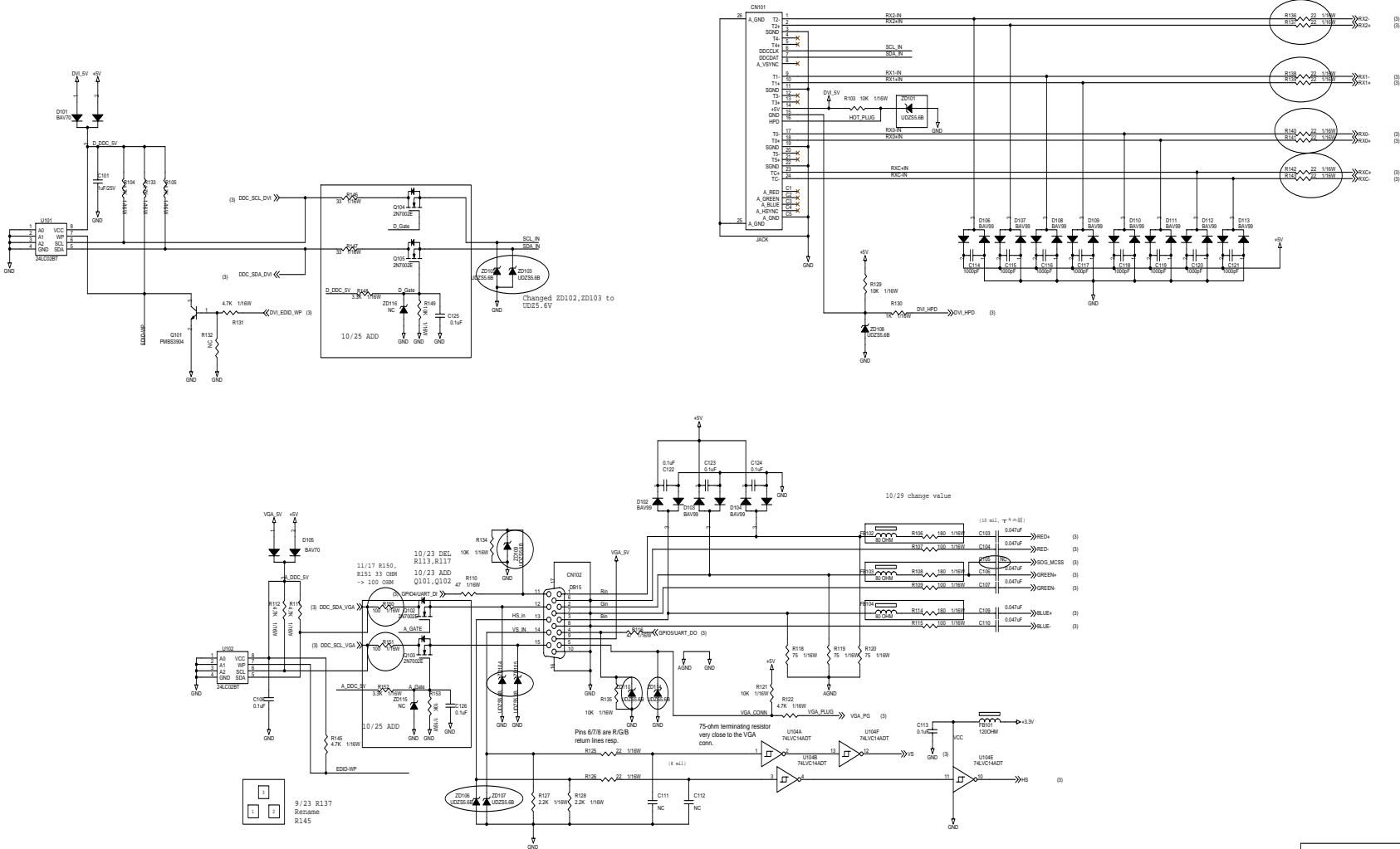
	715G1447 1 GP	PCB BOARD
C832	65G601G101 1T GP	100pf +-2% 50v
C833	65G601G101 1T GP	100pf +-2% 50v
C834	65G601G101 1T GP	100pf +-2% 50v
C835	65G601G101 1T GP	100pf +-2% 50v
C905	6G 31502 GP	1.5MM RIVET
C907	65G517K471 2T GP	470PF/500V
C908	65G 2K152 1T GP	CERAMIC CAP
C914	67G 2152207NT GP	LOW ESR 22UF+-20% 50V B
C918	65G517K471 2T GP	470PF/500V
C919	65G517K471 2T GP	470PF/500V
C920	67G 2154707NT GP	KY 50VB 47M-L 6.3*11
C921	67G 2151007NT GP	KY50VB10M-TP5(5*11)
CN901	6G 31500 GP	EYELET
CN903	6G 31500 GP	EYELET
D905	93G 6038T52T	FR103
F901	84G 55 5 GP	FUSE 2.5A 250V WICKMANN
L901	6G 31502 GP	1.5MM RIVET
NR901	6G 31502 GP	1.5MM RIVET
R805	61L212Y625 KT GP	MATEL GLAZE 6.2M OHM 3K
R825	61L212Y625 KT GP	MATEL GLAZE 6.2M OHM 3K
SCR901	57L 566 4	MCR100-6 SCR
T801	6G 31502 GP	1.5MM RIVET
T802	6G 31502 GP	1.5MM RIVET
T901	6G 31502 GP	1.5MM RIVET
U903	56G 158 10 T	AZ431AZ-AE1
VR903	62L 10 18 LS GP	SPARK GAP 200V +-20% LI
	90G6107 2 GP	HEAT SINK
	AM1G1730 8128 GP	SCREW M3*8
IC901	56G 379 41	TOP247Y T0220-7C
	90G6108 1 GP	HEAT SINK
	AM1G1730 8128 GP	SCREW M3*8
D902	93L 60249	FCH10U15 TO-220
D904	93G 60251	FCQ10U06G

KEPC780KS6P

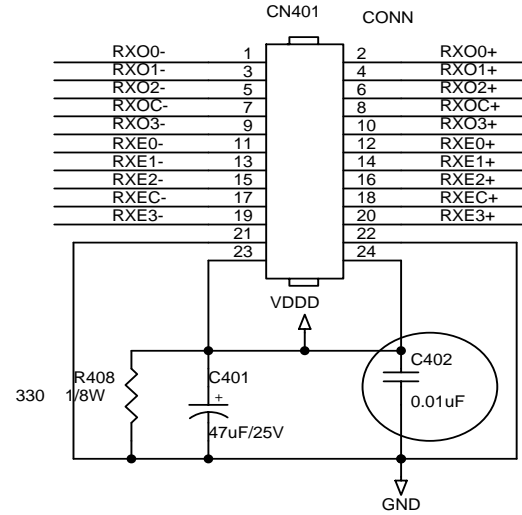
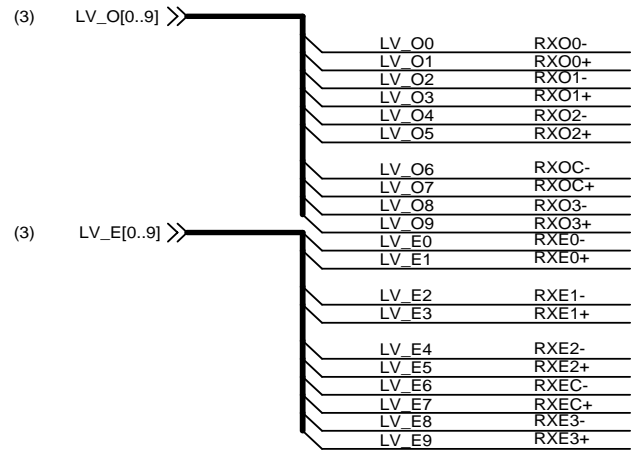
Symbol	Part No for TPV	Description
	AIK780KS6SMTP	KEY BOARD FOR SMT
	95G 900 66 GP	GND WIRE
DP101	11G6065 1 GP	LED HOLDER
DP101	81G 41B OG 1 GP	LED
JP101	95G8014 14 22 GP	HARNESS 14P-13P 285MM
SW101	77G 602 1 CJ GP	TACT SW1TCH
SW102	77G 602 1 CJ GP	TACT SW1TCH
SW103	77G 602 1 CJ GP	TACT SW1TCH
SW104	77G 602 1 CJ GP	TACT SW1TCH
SW105	77G 602 1 CJ GP	TACT SW1TCH
SW106	77G 602 1 CJ GP	TACT SW1TCH
	715G1442 1 GP	PCB BOARD
R101	61L0603101 GP	CHIPR 100 OHM +-5% 1/10
R102	61L0603101 GP	CHIPR 100 OHM +-5% 1/10
ZD101	93G 39S 34 T	UDZS5.6B
ZD102	93G 39S 34 T	UDZS5.6B
ZD103	93G 39S 34 T	UDZS5.6B
ZD104	93G 39S 34 T	UDZS5.6B
ZD105	93G 39S 34 T	UDZS5.6B
ZD106	93G 39S 34 T	UDZS5.6B
ZD107	93G 39S 34 T	UDZS5.6B
ZD108	93G 39S 34 T	UDZS5.6B
ZD109	93G 39S 34 T	UDZS5.6B
ZD110	93G 39S 34 T	UDZS5.6B
ZD111	93G 39S 34 T	UDZS5.6B
ZD112	93G 39S 34 T	UDZS5.6B

8.Schematic

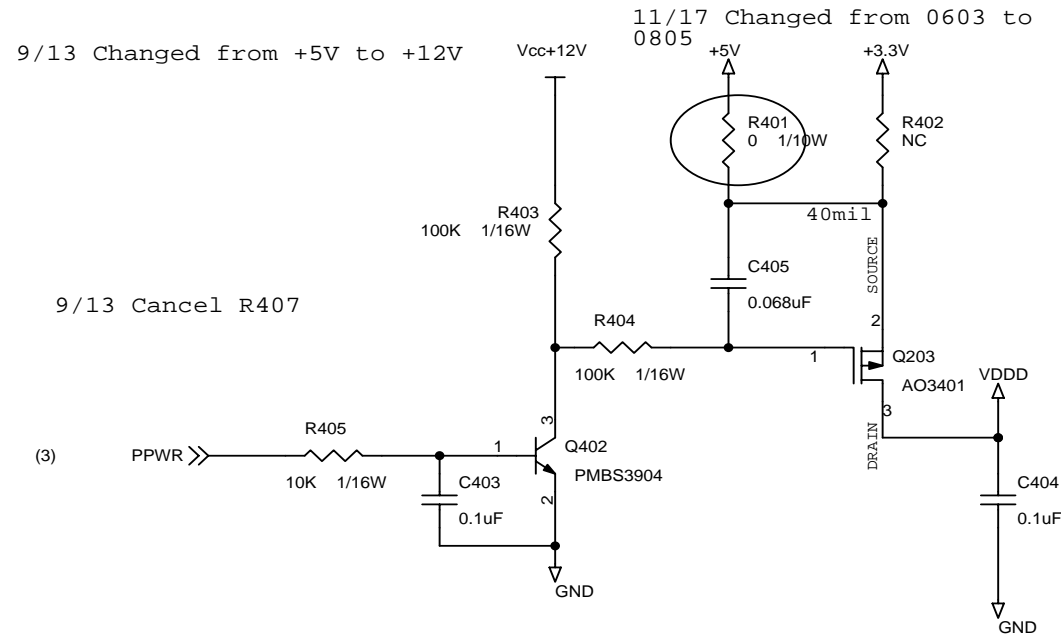
8.1 Main board



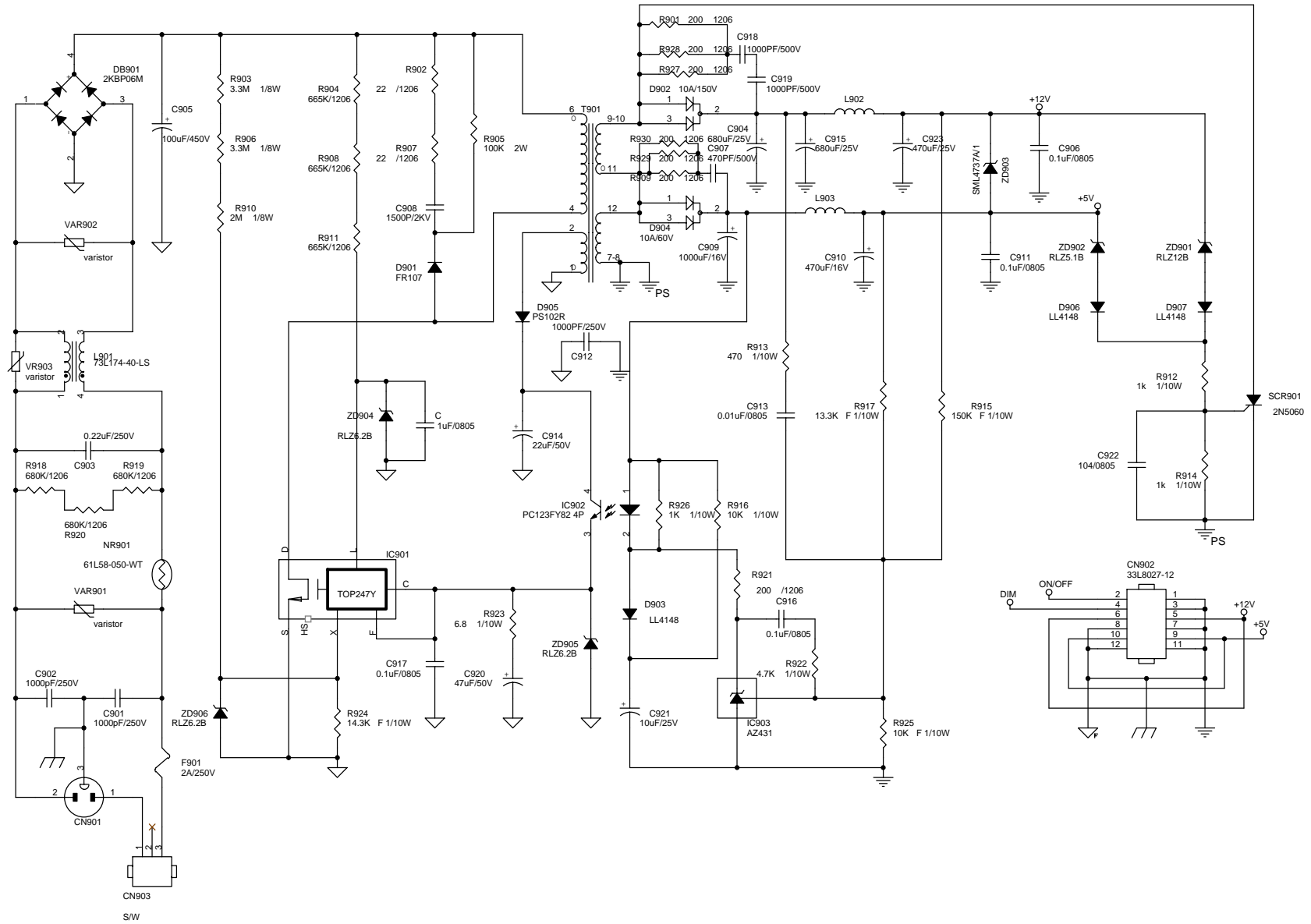
HS75P Sony



9/13 Changed C402 from 0.1uF to 0.01uF



8.2 PWPC board



HS75P Sony

