Service
Service
Service

SDM-E96D

Service Manual

Horizontal Frequency
28-80 kHz

TABLE OF CONTENTS

SAFETY NOTICE

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

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

SONY

Revision List

Revision	Date	Revision History	TPV Model
A00	Apr.-19-06	First Version Release	T981KACDBS4SNP

SONY

Important Safety Notice

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

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

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

WARNING

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

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

FOR PRODUCTS CONTAINING LASER:
DANGER-Invisible laser radiations when open AVOID DIRECT EXPOSURE TO BEAM.
CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
CAUTION -The use of optical instruments with this product will increase eye hazard.

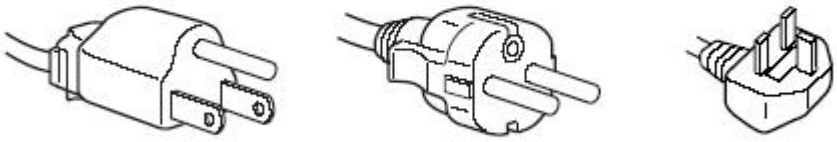
TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.
Take care during handling the LCD module with backlight unit
-Must mount the module using mounting holes arranged in four corners.
-Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
-Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
-Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
-Make certain that treatment person’s body is grounded through wristband.
-Do not leave the module in high temperature and in areas of high humidity for a long time.
-Avoid contact with water as it may a short circuit within the module.
-If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

1. 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.

Place this unit on a flat surface. Do not place it on an uneven surface like the edge of a desk. If a part of this unit sticks out from such surface, it may fall or cause damaged and injury.

SONY

Handing 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.

Installation on a wall or a mounting arm

If you intend to install the display on a wall or a mounting arm, be sure to consult qualified personnel.

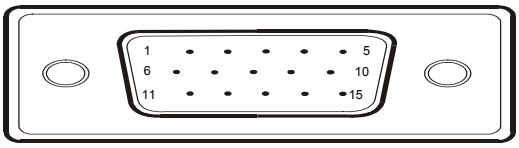
2. Specification

2.1 Product Specification

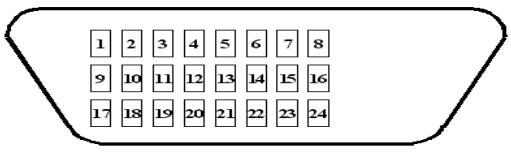
LCD Panel	Driving system	TFT LCD
	Size	19.0"
	Type	M190EN04-V5C
	Pixel pitch	0.294mm(H) x 0.294mm(V)
	Viewing angle	140(H) 135(V)
	Luminance	270 cd/m^2 (typ)
	Pixel Arrangement	R.G.B Vertical Stripe
	Contrast Ratio	550:1 (typ)
	Response time	8ms (typ)
	Display colors	16.2 million Colors
	Max dimension	Horizontal: 376.32mm Vertical: 301.06mm
Input signals	R G B Analog	0.7Vp-p, 75, positive
	SYNC signal	TTL level, 2.2 KΩ
	Digital RGB signal	TMDS
	Horizontal frequency	28kHz–80kHz (Analog), 28KHz-64KHz(Digital)
	Vertical rate	56-75Hz (Analog), 60Hz(Digital)
	Recommend resolution	1280 x 1024
Power consumption	Normal operation	≤44W
	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%
	Altitude	0-4000m
Dimensions (width / height / depth)		420x433.1x193.2mm

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			
			

Digital connectors

NO.	Description	NO.	Description
1.	TMDS Data 2-	13.	No Connect
2.	TMDS Data 2+	14.	+5V
3.	TMDS Data 2 Shield	15.	Sense of connection PC
4.	No Connect	16.	Hot Plug Detect
5.	No Connect	17.	TMDS Data 0-
6.	DDC Clock	18.	TMDS Data 0+
7.	DDC Data	19.	TMDS Data 0 Shield
8.	No Connect	20.	No Connect
9.	TMDS Data1-	21.	No Connect
10.	TMDS Data 1+	22.	TMDS Clock Shield
11.	TMDS Data 1 Shield	23.	TMDS Clock +
12.	No Connect	24.	TMDS Clock -
VGA Connector layout			
			

SONY

2.3 Factory Preset Mode

Resolution	Frequency (KHz)	Vertical (Hz)	Clock (MHZ)
720 × 400	31.500	70.156	28.350
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	35.162	59.901	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
832 × 624	49.725	74.553	57.285
1024 × 768	48.363	60.004	65.000
1024 × 768	53.946	66.110	71.640
1024 × 768	56.476	70.069	75.000
1024 × 768	60.023	75.029	78.750
1024 × 768	60.241	74.927	80.000
1152 × 864	67.500	75.000	108.000
1152 × 870	68.681	75.062	100.000
1152 × 900	61.795	65.950	92.940
1152 × 900	71.732	76.068	105.590
1280 × 960	60.000	60.000	108.000
1280 × 1024	63.981	60.020	108.00
1280 × 1024	79.976	75.025	135.00

SONY

2.4 Panel Specification

2.4.1 General Specification

ITEMS	Unit	SPECIFICATIONS
Screen Diagonal	[mm]	480 (19.0")
Active Area	[mm]	376.32 (H) x 301.06 (V)
Pixels H x V		1280(x3) x 1024
Pixel Pitch	[mm]	0.294 (per one triad) x 0.294
Pixel Arrangement		R.G.B. Vertical Stripe
Display Mode		Normally White
White Luminance (Center)	[cd/m^2]	270 (center, Typ) @ 7mA
Contrast Ratio		550 : 1 (Typ)
Optical Response Time	[msec]	8 ms(Typ, on/off)
Color Saturation		72% NTSC
Nominal Input Voltage VDD	[Volt]	+5.0 V
Power Consumption (VDD line + CCFL line)	[Watt]	28W(Typ) (w/o Inverter, All black pattern)
Weight	[Grams]	2700 (Max)
Physical Size	[mm]	396 (H) x 324 (V) x 18 (D) (Typ)
Electrical Interface		Dual channel LVDS
Support Color		16.2M colors (RGB 6-bit data+FRC data)
Temperature Range Operating Storage (Shipping)	 [°C] [°C]	 0 to +50 -20 to +60
TCO'03 compliance		TCO'03 compliance
Surface Treatment		Hard-coating (3H), Non-Glare treatment
RoHS		RoHS Compliance

2.4.2 Optical Characteristics

Item	Unit	Conditions	Min.	Typ.	Max.
Viewing Angle	[degree] [degree]	Horizontal (Right) CR = 10 (Left)	65 65	70 70	- -
	[degree] [degree]	Vertical (Up) CR = 10 (Down)	70 55	75 60	- -
Contrast ratio		Normal Direction	350	550	
Response Time	[msec]	Raising Time	-	5.6	8.4
	[msec]	Falling Time	-	2.4	3.6
	[msec]	Rising + Falling	-	8	12
Color / Chromaticity Coordinates (CIE)		Red x	0.604	0.634	0.664
		Red y	0.324	0.354	0.384
		Green x	0.257	0.287	0.317
		Green y	0.591	0.621	0.651
		Blue x	0.108	0.138	0.168
		Blue y	0.047	0.077	0.107
Color Coordinates (CIE) White		White x	0.283	0.313	0.343
		White y	0.299	0.329	0.359
White Luminance at CCFL 7.0mA (central point)	[cd/m^2]		215	270	-
Luminance Uniformity	[%]		70	75	-
Crosstalk (in75Hz)	[%]				1.5
Flicker	DB				-20

SONY

2.4.3 Electrical Characteristics

TFT-LCD

Symbol	Parameter	Min	Typ	Max	Units
VDD	Logic/LCD Drive Voltage	4.5	5	5.5	[Volt]
IDD	VDD current	-	1500	1900	[mA]
Irush	LCD Inrush Current	-	-	2.5	[A]
PDD	VDD Power		7.5	9.75	[Watt]
VDDrp	Allowable Logic/LCD Drive Ripple Voltage			100	[mV] p-p
VDDns	Allowable Logic/LCD Drive Ripple Voltage			100	[mV] p-p

Backlight

Symbol	Parameter	Min.	Typ.	Max.	Unit
ISCFL	CCFL standard current	6.5	7.0	7.5	[mA] rms
IRCFL	CCFL operation range	3.0	7.0	7.5	[mA] rms
FCFL	CCFL Frequency	40	50	60	[KHz]
ViCFL (0°C)	CCFL Ignition Voltage **(End of the lamp wire connector)**	1700	-		[Volt] rms
ViCF (25°C)	CCFL Ignition Voltage **(End of the lamp wire connector)**	1500	-		[Volt] rms
VCFL	CCFL Operation Voltage		700 @7mA	860 @6.5mA	[Volt] rms
PCFL	CCFL Power consumption (for reference)	-	19.6	22	[Watt]
LTCFL	CCFL life Time	40,000	50,000	-	[Hour]

SONY

3.OSD Operation

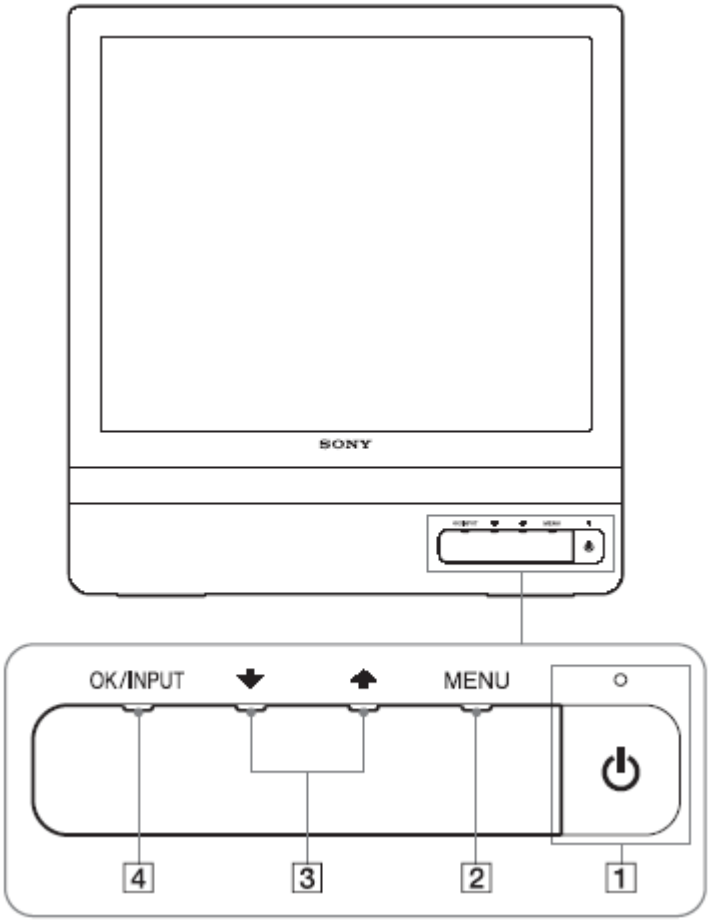
3.1 Generalization

Press the power button to turn the monitor on or off. The control buttons are located at the lower right part 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

Front of the display



1 ⏻ **Power Switch and indicator:** To turn the display on or off, press the Power Switch. 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.

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

3 ⬇/⬆ **Button:** These buttons are used to select the menu items make adjustments.

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

SONY

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		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		Input Sensing	Automatically detects an input signal to an input terminal, and changes the input automatically before the monitor goes into the power saving mode.
9		Language	Chance 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

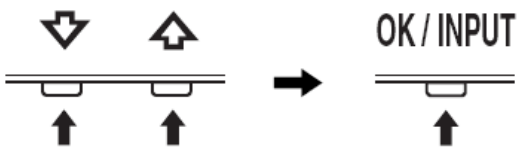
3.4 Navigating The Menu

1. Display the main menu.

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

2. Select the menu you to adjust

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

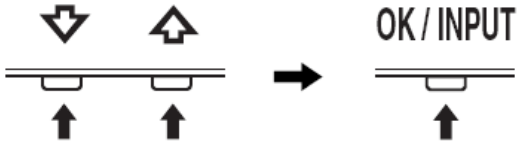


3. Adjust the menu

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

SONY

setting is stored, then the display returns to the previous menu.

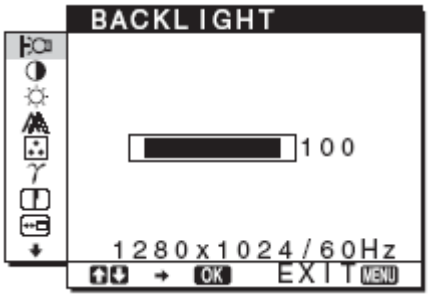


4. Close the menu

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

3.5 Adjustment Steps Of Main Menu

1. Adjusting the backlight (BACKLIGHT)



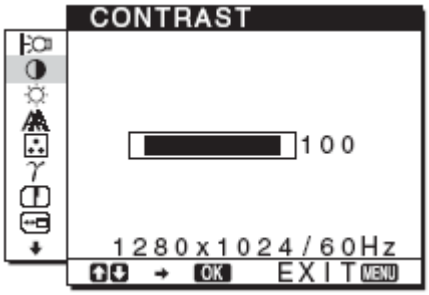
If the screen is too bright, adjust the backlight and make the screen easier to see.

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.**

2. Adjusting the contrast (CONTRAST)



SONY

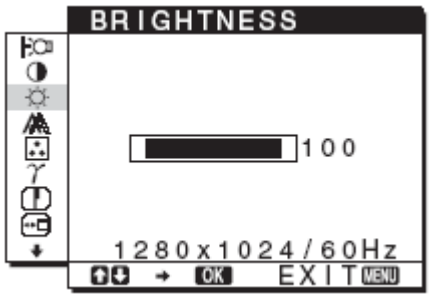
Note
While COLOR is set to sRGB, you cannot adjust CONTRAST, BRIGHTNESS or GAMMA.

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.**

3.Adjusting the black level of an image (BRIGHTNESS)



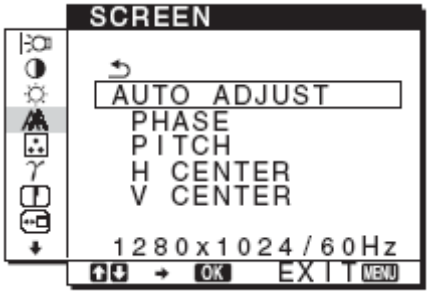
Note
While COLOR is set to sRGB, you cannot adjust CONTRAST, BRIGHTNESS or GAMMA.

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.**

4.Adjusting the picture's sharpness and centering (SCREEN)



■ Automatic picture quality adjustment function

When the monitor receives an input signal, it automatically adjusts the picture's position and sharpness (phase/pitch), and ensures that a clear picture appears on the screen (page 15).

SONY

■ Make further automatic adjustments to the picture quality for the current input signal (AUTO ADJUST)

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 ADJUST and press the OK button.
The AUTO ADJUST menu appears on the screen.

4 Press the ↓/↑ buttons to select OFF or ON and press the OK button.

- OFF:When OFF is selected and the OK button is pressed, AUTO ADJUST makes the appropriate adjustments and its values are stored in the memory.
  Note
  AUTO ADJUST works automatically when the received resolution is different from the stored one in the monitor.
- ON: When the monitor is turned on or the input signal is changed, AUTO ADJUST makes the automatic adjustments.

5 Press the ↓/↑ buttons to select ⮌ and press the OK button.
Return to the menu screen.

SONY

■ Adjust the picture's sharpness manually (PHASE/PITCH)

You can adjust the picture's sharpness as follows. This adjustment is effective when the computer is connected to the monitor's HD15 input connector (analog RGB).

1 Set the resolution to 1280 × 1024 on the computer.

2 Load the CD-ROM.

3 Start the CD-ROM, and display the test pattern.

For Windows User

When Auto run operates:

Click Display Adjustment tool (Utility).
Click "Adjust" and confirm the resolution and then click "Next".
Test pattern for PITCH and PHASE appears in order.

When Auto run fails to operate:

1 Open "My Computer" and right click the CD-ROM icon. Go to "Explorer" and open the CD-ROM icon.
2 Open [Utility] and then select [Windows].
3 Start [Win_Utility.exe].

Test pattern appears.

For Macintosh User

1 Open [Utility] and then select [Mac].
2 Start [Mac_Utility.exe].

Test pattern appears.

4 Press the MENU button.

The main menu appears on the screen.

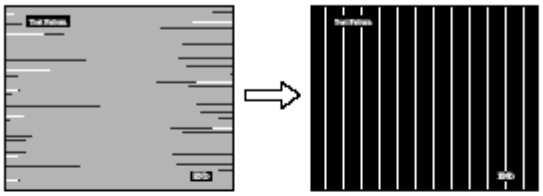
5 Press the ↓/↑ buttons to select (SCREEN) and press the OK button.

The SCREEN menu appears on the screen.

6 Press the ↓/↑ buttons to select PHASE and press the OK button.

The PHASE adjustment menu appears on the screen.

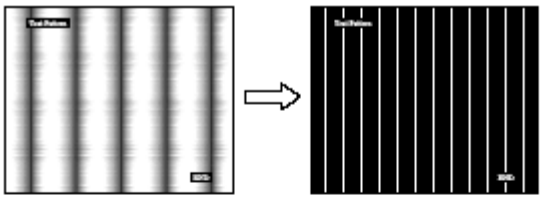
7 **Press the ↓/↑ buttons until the horizontal stripes are at a minimum.**
Adjust so that the horizontal stripes are at a minimum.



8 **Press the OK button.**
The main menu appears on the screen.
If vertical stripes are observed over the entire screen, adjust the pitch using the following procedures.

9 **Press the ↓/↑ buttons to select PITCH and press the OK button.**
The PITCH adjustment menu appears on the screen.

10 **Press the ↓/↑ buttons until the vertical stripes disappear.**
Adjust so that the vertical stripes disappear.



11 **Click [END] on the screen to turn off the test pattern.**

■ Adjust the picture's position manually (H CENTER /V CENTER)

If the picture is not in the center of the screen, adjust the picture's centering as follows.

1 **Set the resolution to 1280 × 1024 on the computer.**

2 **Load the CD-ROM.**

SONY

3 **Start the CD-ROM, and display the test pattern.**
For Windows User
When Auto run operates:
Click Display Adjustment tool (Utility).
Click "Adjust" and confirm the resolution and then click "Next".
Test pattern for H CENTER and V CENTER appears in order.
When Auto run fails to operate:
1 Open "My Computer" and right click the CD-ROM icon. Go to "Explorer" and open the CD-ROM icon.
2 Open [Utility] and then select [Windows].
3 Start [Win_Utility.exe].
Test pattern appears.
For Macintosh User
1 Open [Utility] and then select [Mac].
2 Start [Mac_Utility.exe].
Test pattern appears.

4 **Press the MENU button.**
The main menu appears on the screen.

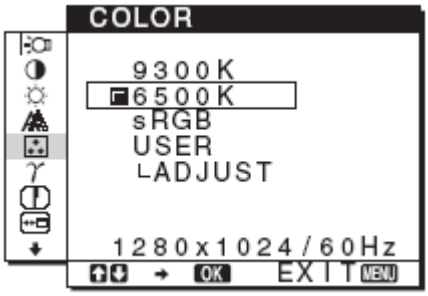
5 **Press the ↓/↑ buttons to select (SCREEN) and press the OK button.**
The SCREEN menu appears on the screen.

6 **Press the ↓/↑ buttons to select H CENTER or V CENTER and press the OK button.**
The H CENTER adjustment menu or V CENTER adjustment menu appears on the screen.

7 **Press the ↓/↑ buttons to center the test pattern on the screen.**

8 **Click [END] on the screen to turn off the test pattern.**

5. Adjusting the color temperature (COLOR)



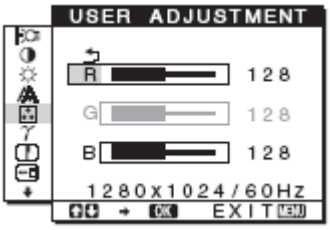
1 **Press the MENU button.**
The main menu appears on the screen.

2 **Press the ↓/↑ buttons to select (COLOR) and press the OK button.**
The COLOR menu appears on the screen.

3 **Press the ↓/↑ buttons to select the desired color temperature and press the OK button.**

SONY

6. Fine tuning the color temperature (USER ADJUSTMENT)

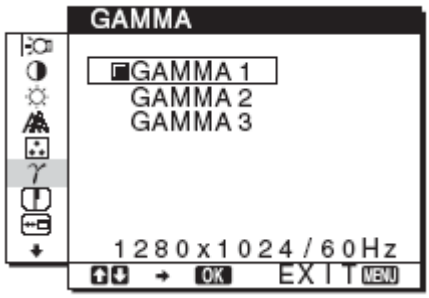


1 Press the ↓/↑ buttons to select ADJUST and press the OK button.
The USER ADJUSTMENT menu appears on the screen.

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.

7. Changing the gamma setting (GAMMA)



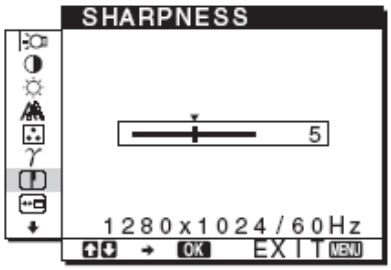
1 Press the MENU button.
The main menu appears on the screen.

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.

SONY

8. Adjusting the sharpness (SHARPNESS)

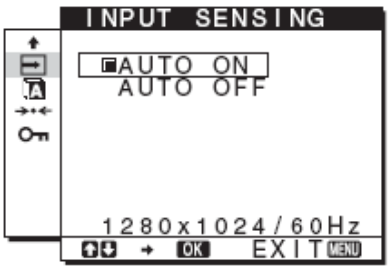


1 Press the MENU button.
The main menu appears on the screen.

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.

9. Changing the input automatically (INPUT SENSING)



1 Press the MENU button.
The main menu appears on the screen.

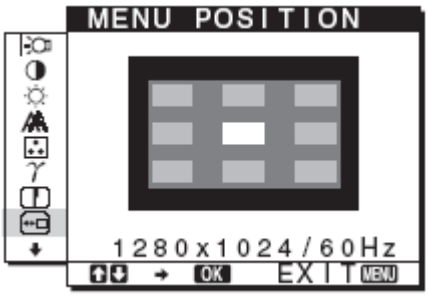
2 Press the ↓/↑ buttons to select (INPUT SENSING) and press the OK button.
The INPUT SENSING menu appears on the screen.

3 Press the ↓/↑ buttons to select the desired mode and press the OK button.

- AUTO ON: When the selected input terminal has no input signal, or when you select an input terminal by the INPUT button on the monitor and the terminal has no input signal, the on-screen message appears (page 16) and the monitor checks the input signal to another input terminal automatically to change the input.
  When the input is changed, the selected input terminal is displayed on the left upper of the screen.
  When there is no input signal, the monitor goes into the power saving mode automatically.
- AUTO OFF: The input is not changed automatically. Press the INPUT button to change the input.

SONY

10. Changing the menu's position (MENU POSITION)



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.**
There are three positions each for the top, center and bottom of the screen.

11. Selecting the on-screen menu language (LANGUAGE)

1 **Press the MENU button.**
The main menu appears on the screen.

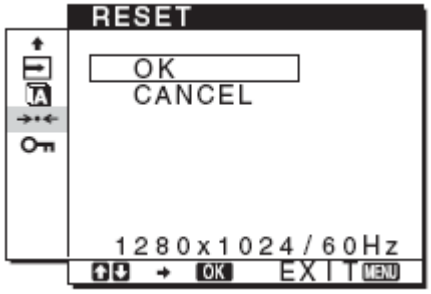
2 **Keep pressing the ↓ button until the icon of the desired option item appears.**

3 **Press the ↓/↑ buttons to select (LANGUAGE) and press the OK button.**
The LANGUAGE menu appears on the screen.

4 **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

SONY

12. Additional settings



■ Resetting the adjustment data to the defaults

You can reset the adjustments to the default settings.

1 Press the ↓/↑ buttons to select ⇢⇠ (RESET) and press the OK button.
The RESET menu appears on the screen.

2 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.

■ Locking the menus and controls

You can lock the control of buttons to prevent accidental adjustments or resetting.

1 Press the ↓/↑ buttons to select (MENU LOCK) and press the OK button.
The MENU LOCK menu appears on the screen.

2 Press the ↓/↑ buttons to select ON or OFF and press the OK button.
- ON: Only the ⏻ (power) switch will operate. If you attempt any other operation, the (MENU LOCK) icon appears on the screen.
- OFF:Set (MENU LOCK) to OFF. If you set the (MENU LOCK) item to ON, only this menu item can be selected.

SONY

3.6 Adjustment Of Service OSD

1. Procedures of entering into service mode.

1) Plug the AC cable firstly.

2) Press "down" key and Power key simultaneity

3) Press "MENU" key to enter the service menu.

4) Press the “DOWN” or “UP” key to select the icon “S” and press “OK” key to enter into the service OSD.

5) Press the "MENU" key to exit OSD.

6) Turn off the power and then turn it on again. The monitor then enters the normal mode. To enter the service again, repeat the procedure described above.

Note

W/B readjustment is required after the panel, board and microcomputer are replaced. However, be sure to perform aging for more than 30 minutes for RGB reset before W/B adjustment.

2. Setup

1) Prepare timing and pattern data for a signal generator according to the Sony timing specifications.

2) Connect a monitor video cable to the signal generator.

3) Put Color Analyzer (ex. CA-210) 50cm away from the monitor, specify it vertically in the center of the display, and adjust the focus to the optimum level using an eyepiece.

4) Put the monitor and Color Analyzer (ex. CA-210) in a light-shielded room.

5) Set up [SERVICE MODE] of the monitor.

3. Operation

Data is manually set to improve the productivity. The brightness, contrast, and backlight are set to 50, 90 and 100 respectively. After that, the default data of the color temperature to be adjusted is set.

4. Warm up time

Warm up for 30 minutes before performing any adjustment.

5. Adjustment for White Balance

a. Display five white block and black block pattern VGA/60Hz(Input level 0.73V).

b. Set up [SERVICE MODE].

c. Click "WHITE BALANCE" and then select "AUTO".

d. Prepare timing and full white pattern.

6. 9300K color adjustment

a. Set up [SERVICE MODE].

b. Select "9300K" in "COLOR TEMP" and enter.

c. Use a 100% IRE white video field in the SXGA mode.

d. Adjust "R，G，B " value with 9300K as spec, 9300K:x=283+-15 y=298+-15 Y=200+-20

e. Press "MENU" key to exit adjust mode.

7. 6500K color adjustment

a. Set up [SERVICE MODE].

b. Select "6500K" in "COLOR TEMP" and enter.

c. Use a 100% IRE white video field in the SXGA mode.

d. Adjust "R，G，B " value with 6500K as spec, 6500K:x=313+-15 y=329+-15 Y=220+-20

e. Press "MENU" key to exit adjust mode.

8. SRGB color adjustment

a. Set up [SERVICE MODE].

b. Select "SRGB" in "COLOR TEMP" and enter.

c. Use a 100% IRE white video field in the SXGA mode.

d. Adjust "R，G，B " value with SRGB as spec, SRGB: x=313+-15 y=329+-15 Y=180+-20

e. Press "MENU" key to exit adjust mode.

9. Service OSD

The service OSD menu contains additional menus as described below.

1) COLOR TEMP: Adjust R/G/B Color values of contrast and brightness in 9300k, 6500k,User color mode.
2) INITIAL EEPROM: Initialize white balance default value.
3) CLR ETI: ETI counter shall be reset to 0H by activating this function.
4) AGING: Enable to set the monitor in the Aging mode or exit from the mode. Select aging mode. (On/off)
5) WHITE BALANCE: Auto.
6) DEFAULT TIMING: select the resolution timing of the signal. Menu is 1152 X 864(VESA standard timing) 1152 x 870 (MAC computer timing).
7) MODULE: Panel type.

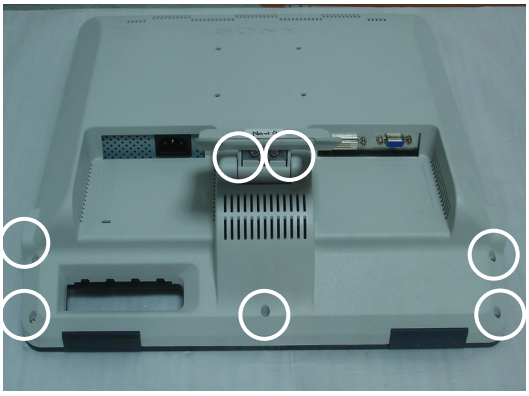
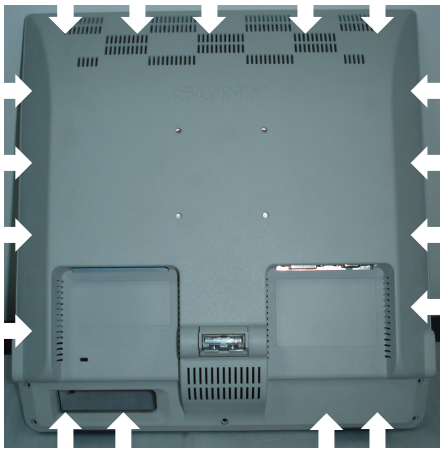
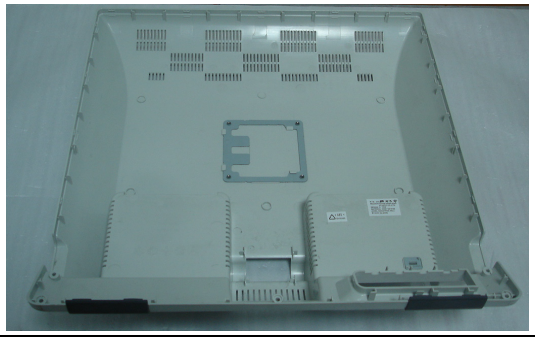
4. Disassembly Flow Chart

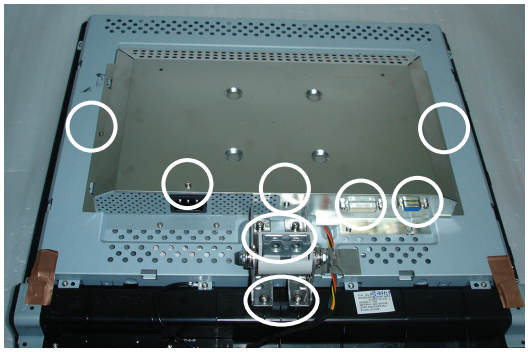
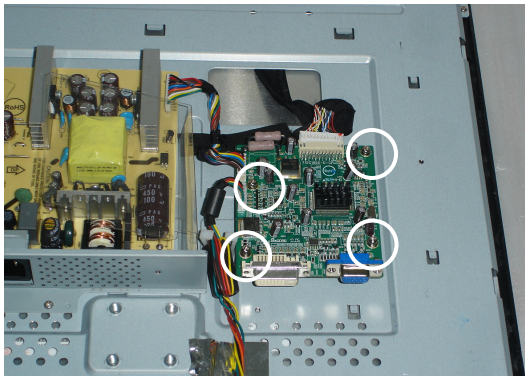
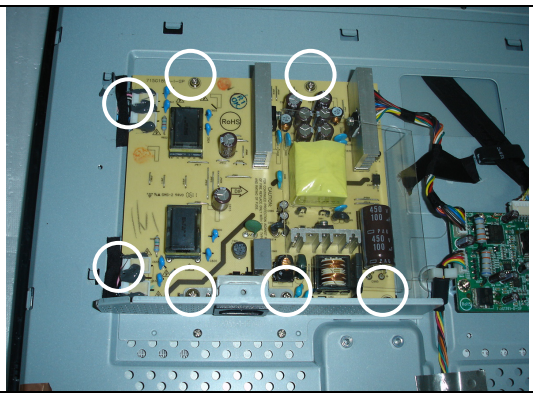
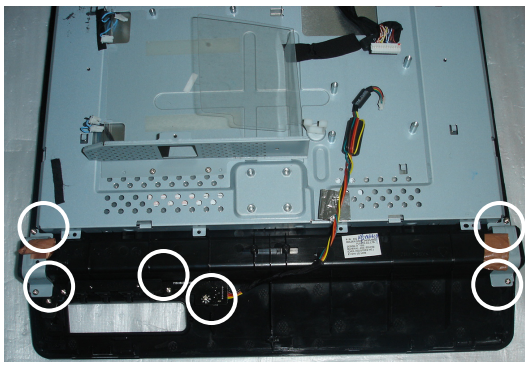
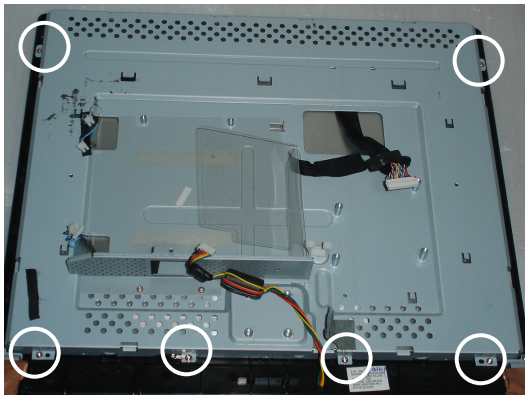
4.1 Disassembly Steps

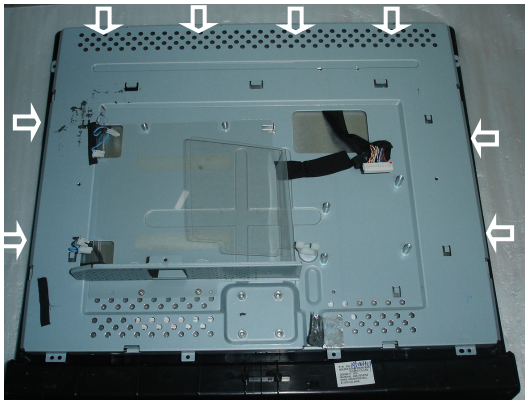
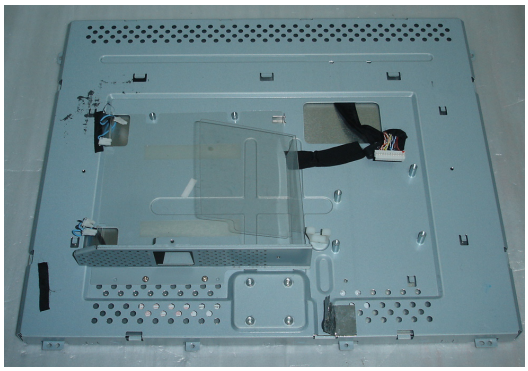
Notices

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.

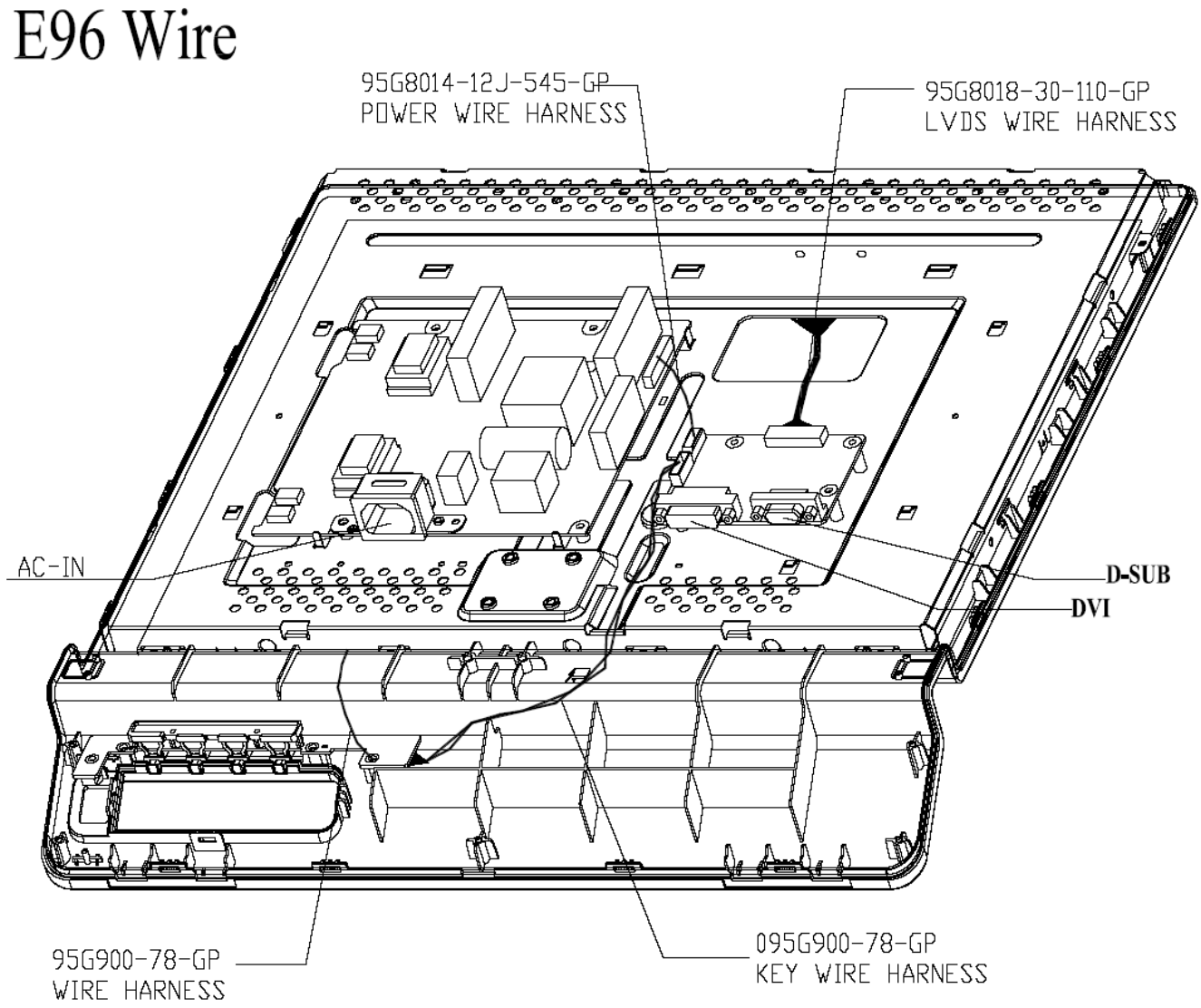
Flow Chart

Step	Figure	Description
Prepare		Put the monitor on a clean soft cloth with panel facing to the table, and then remove the seven screws.
Remove the rear cover		Pay attention to the hooks marked by arrowheads, and then open it with a thin card till the bezel and rear cover separated.
		The rear cover

Remove the shield		Remove the fifteen screws, then remove the shield
Take apart the main board and power board		Remove the four screws on the main board and disconnect the three interfaces.
		Remove the five screws on the power board and disconnect the four interfaces.
Take apart the key board		Remove the eight screws
Remove the bezel		Remove the six screws

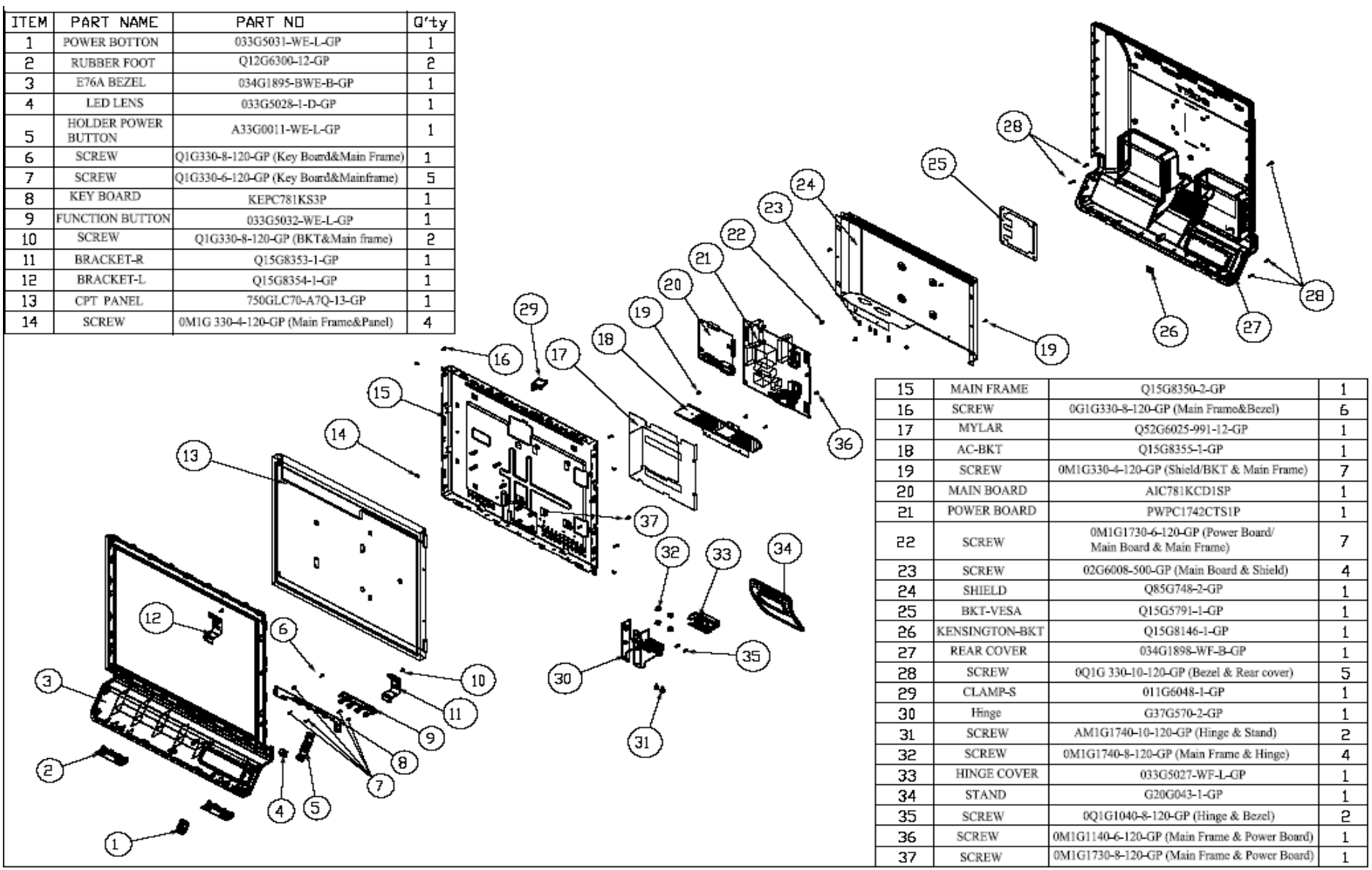
		Pay attention to the hooks marked by arrowheads
The panel		Only the panel

4.2 Wiring Diagram



4.3 Monitor Exploded View

ITEM	PART NAME	PART NO	Q'ty
1	POWER BOTTON	033G5031-WE-L-GP	1
2	RUBBER FOOT	Q12G6300-12-GP	2
3	E76A BEZEL	034G1895-BWE-B-GP	1
4	LED LENS	033G5028-1-D-GP	1
5	HOLDER POWER BUTTON	A33G0011-WE-L-GP	1
6	SCREW	Q1G330-8-120-GP (Key Board&Main Frame)	1
7	SCREW	Q1G330-6-120-GP (Key Board&Mainframe)	5
8	KEY BOARD	KEPC781KS3P	1
9	FUNCTION BUTTON	033G5032-WE-L-GP	1
10	SCREW	Q1G330-8-120-GP (BKT&Main frame)	2
11	BRACKET-R	Q15G8353-1-GP	1
12	BRACKET-L	Q15G8354-1-GP	1
13	CPT PANEL	750GLC70-A7Q-13-GP	1
14	SCREW	0M1G 330-4-120-GP (Main Frame&Panel)	4

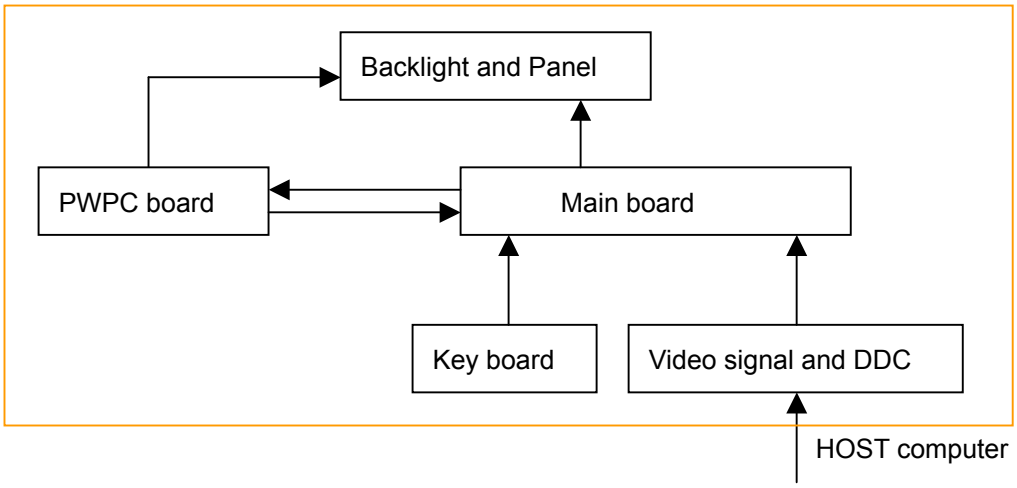


15	MAIN FRAME	Q15G8350-2-GP	1
16	SCREW	0G1G330-8-120-GP (Main Frame&Bezel)	6
17	MYLAR	Q52G6025-991-12-GP	1
18	AC-BKT	Q15G8355-1-GP	1
19	SCREW	0M1G330-4-120-GP (Shield/BKT & Main Frame)	7
20	MAIN BOARD	AIC781KCD1SP	1
21	POWER BOARD	PWPC1742CTS1P	1
22	SCREW	0M1G1730-6-120-GP (Power Board/ Main Board & Main Frame)	7
23	SCREW	02G6008-500-GP (Main Board & Shield)	4
24	SHIELD	Q85G748-2-GP	1
25	BKT-VESA	Q15G5791-1-GP	1
26	KENSINGTON-BKT	Q15G8146-1-GP	1
27	REAR COVER	034G1898-WF-B-GP	1
28	SCREW	0Q1G 330-10-120-GP (Bezel & Rear cover)	5
29	CLAMP-S	011G6048-1-GP	1
30	Hinge	G37G570-2-GP	1
31	SCREW	AM1G1740-10-120-GP (Hinge & Stand)	2
32	SCREW	0M1G1740-8-120-GP (Main Frame & Hinge)	4
33	HINGE COVER	033G5027-WF-L-GP	1
34	STAND	G20G043-1-GP	1
35	SCREW	0Q1G1040-8-120-GP (Hinge & Bezel)	2
36	SCREW	0M1G1140-6-120-GP (Main Frame & Power Board)	1
37	SCREW	0M1G1730-8-120-GP (Main Frame & Power Board)	1

SONY

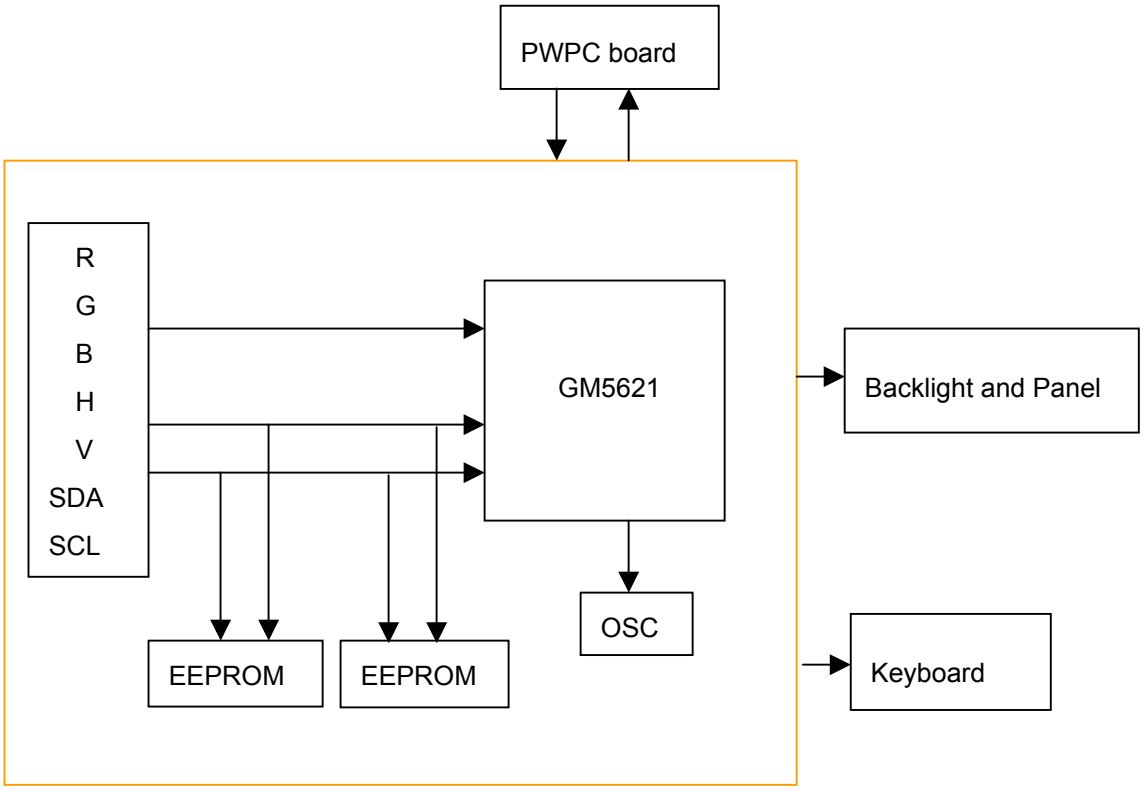
5. Circuit Block Diagram

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



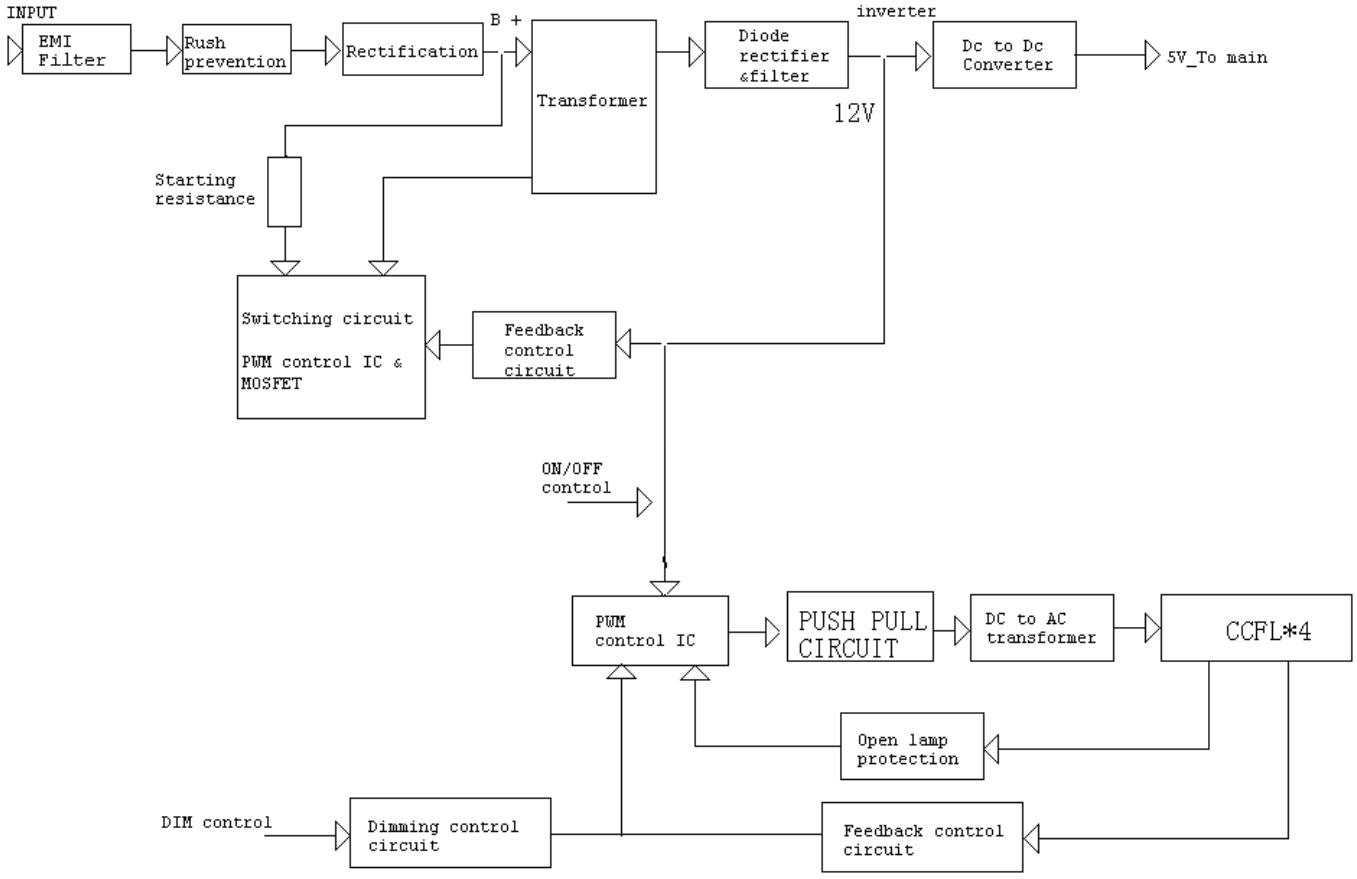
5.1 Main Board

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



5.2 PWPC Board

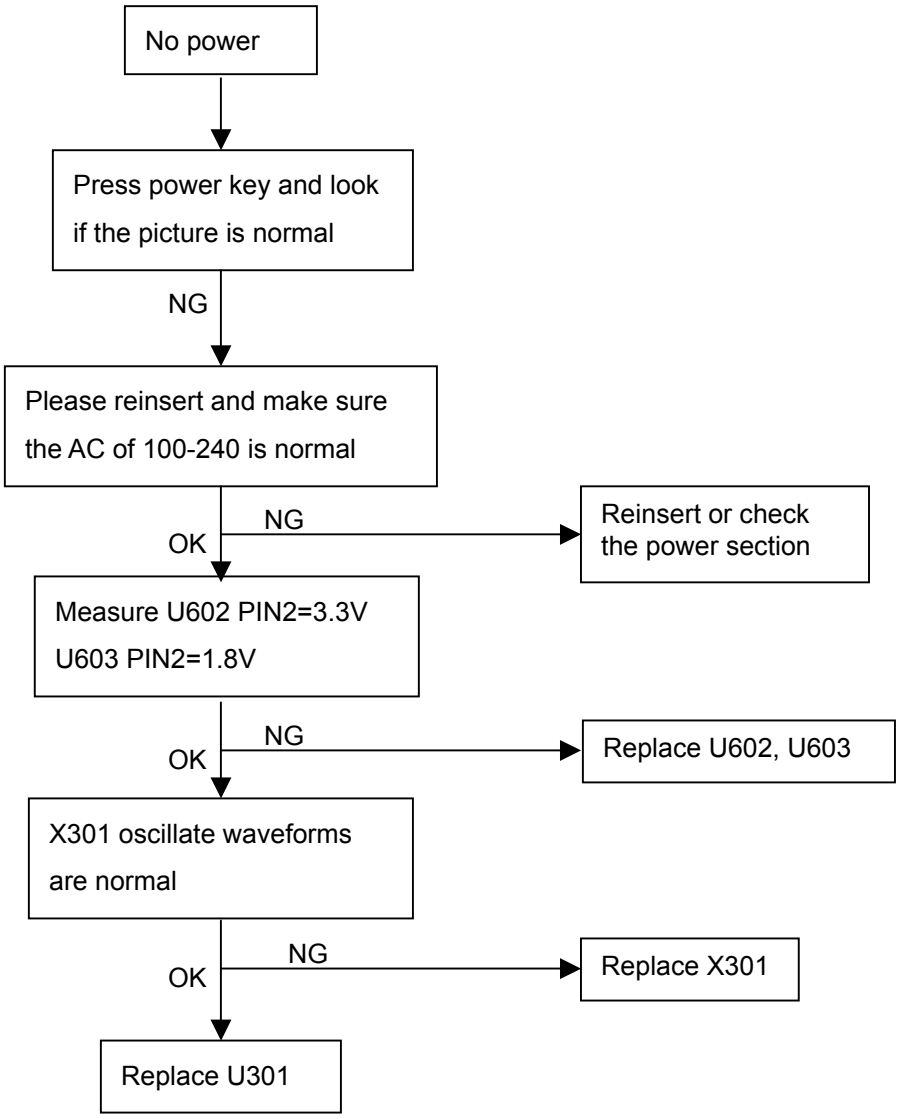
PWPC board combines to adapter and inverter, this design has the merits in predigesting constructions, reducing cost and improving product's capability.



6. Trouble Shooting

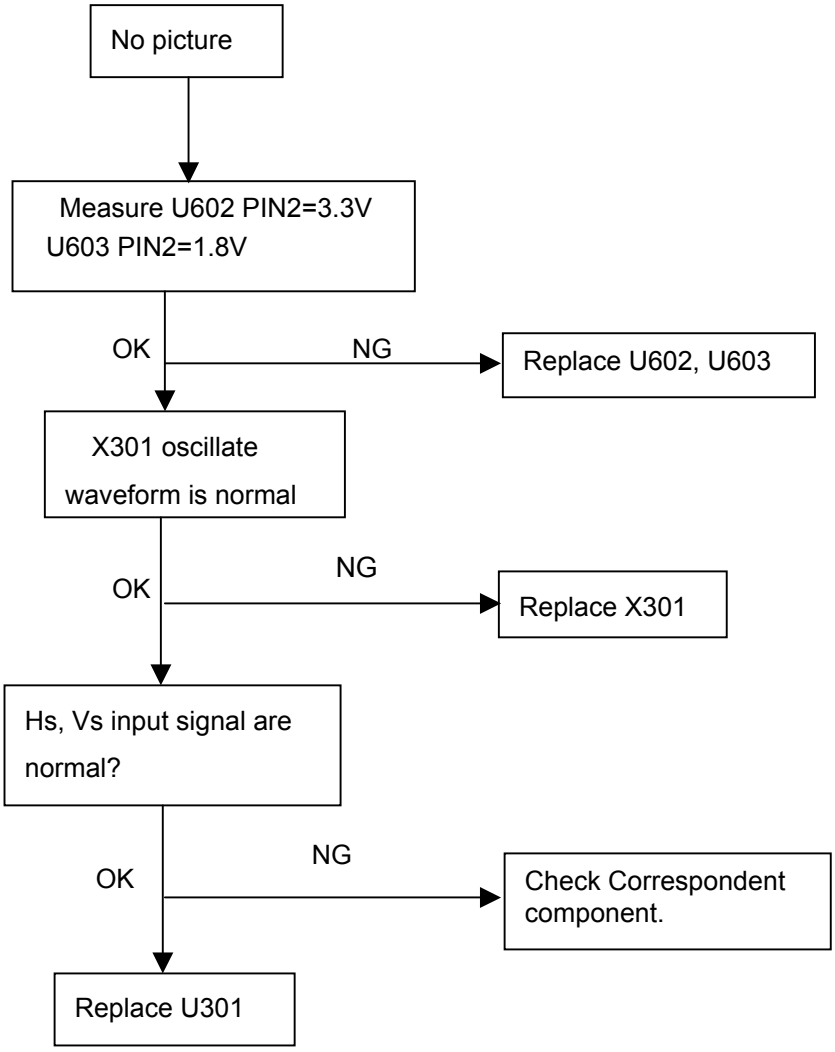
6.1 Main Board

No power



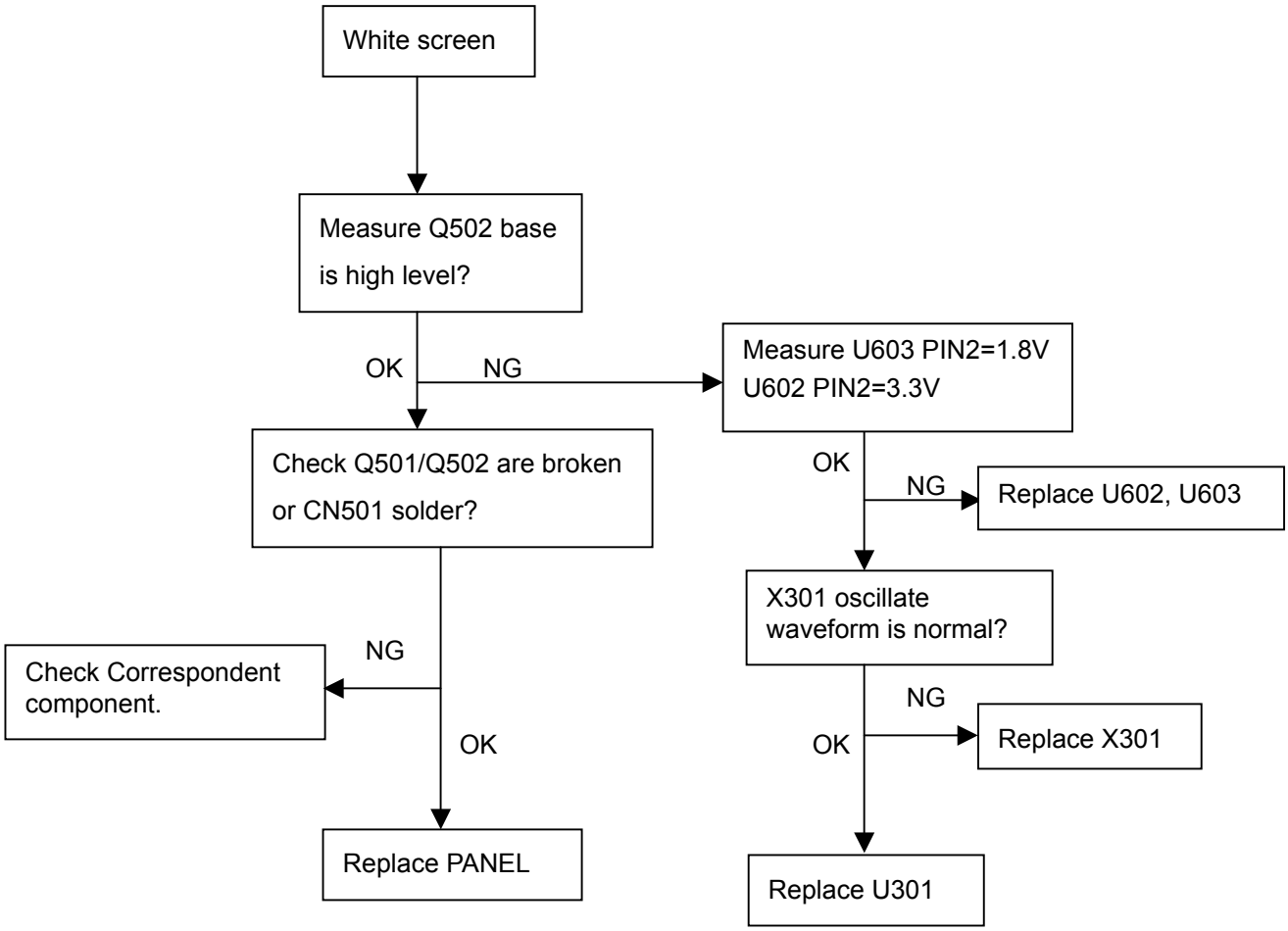
SONY

No picture (LED orange)



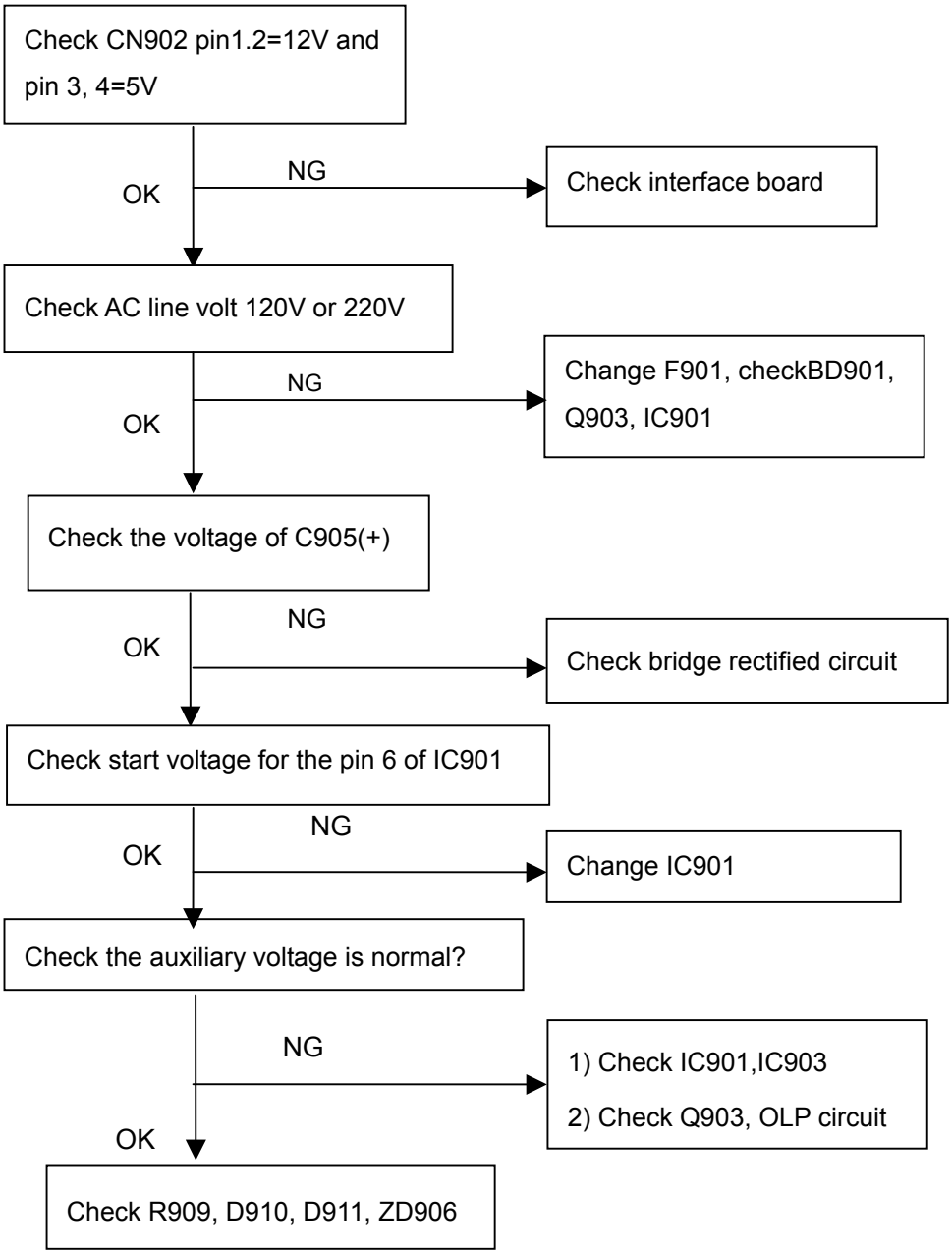
SONY

White screen

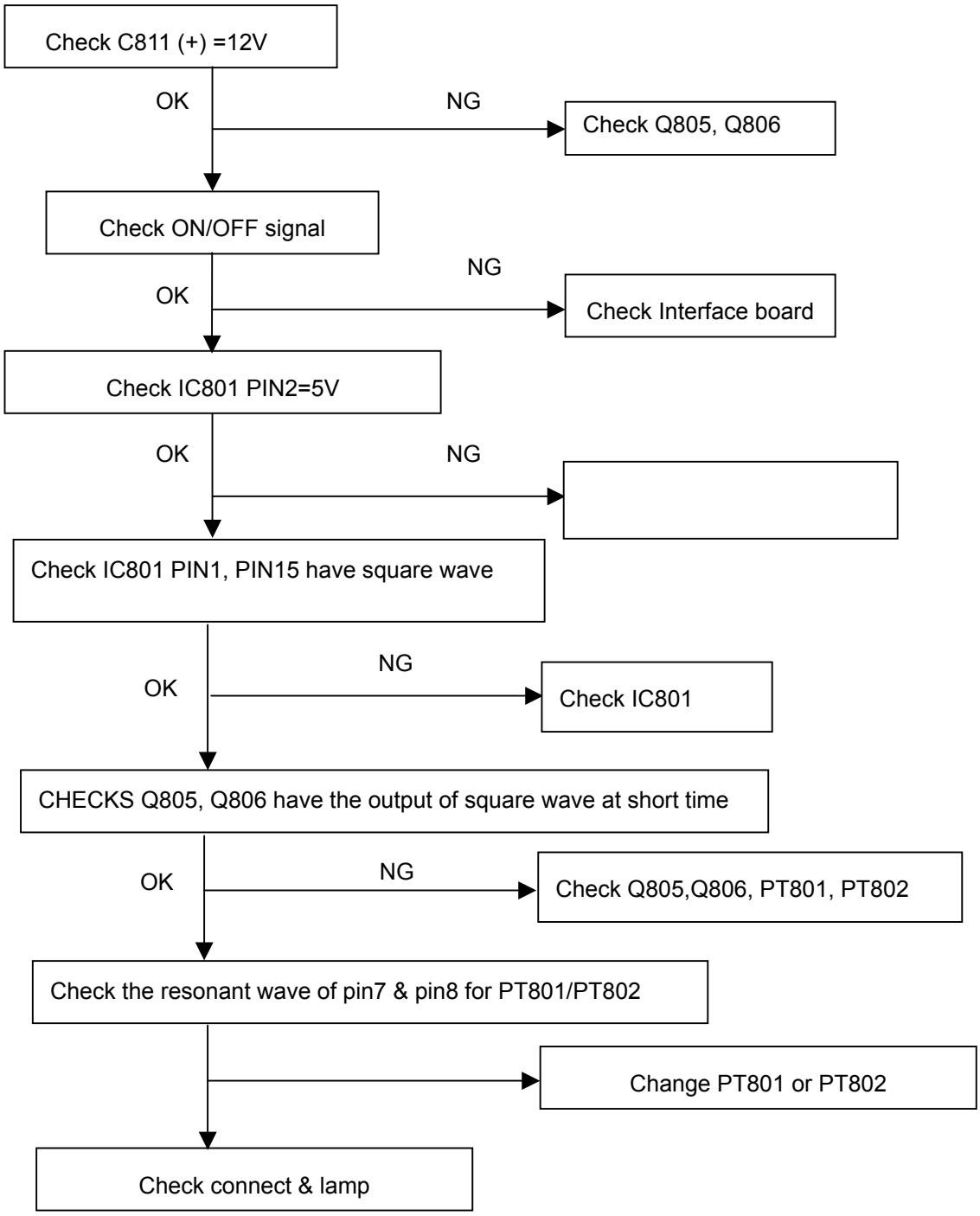


6.2 PWPC Board

No Power



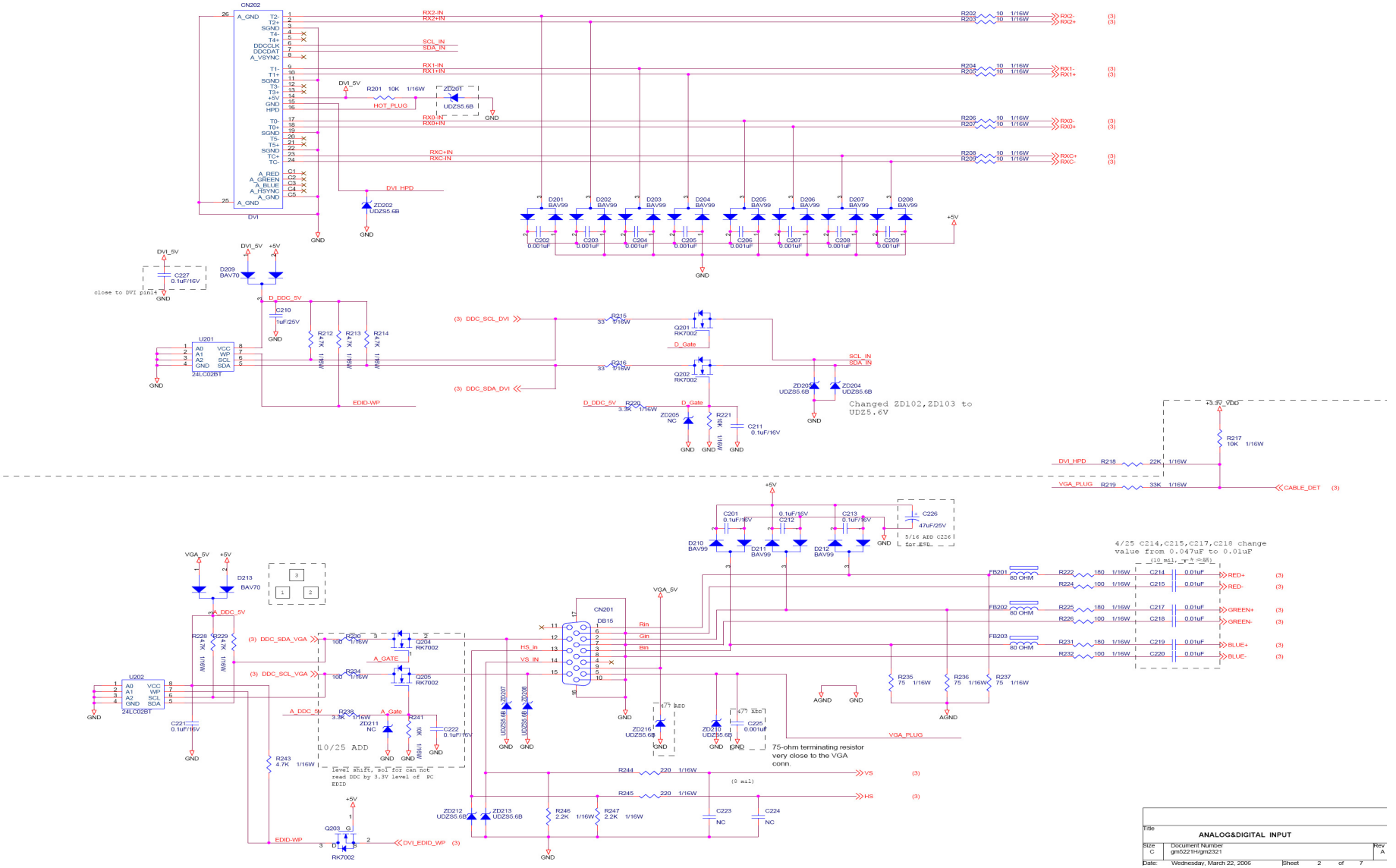
No Backlight



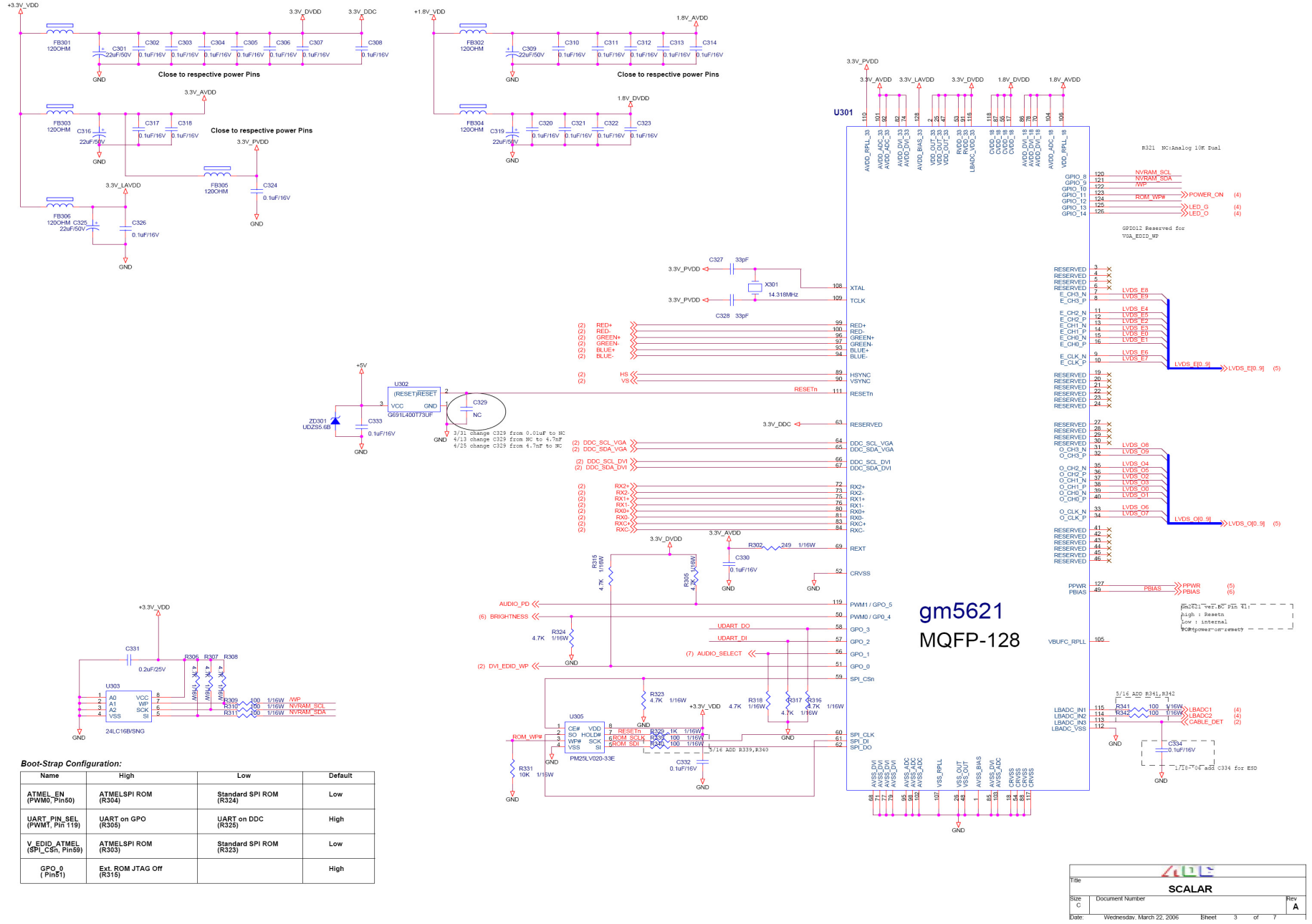
SONY

7.Schematic

7.1 Main Board

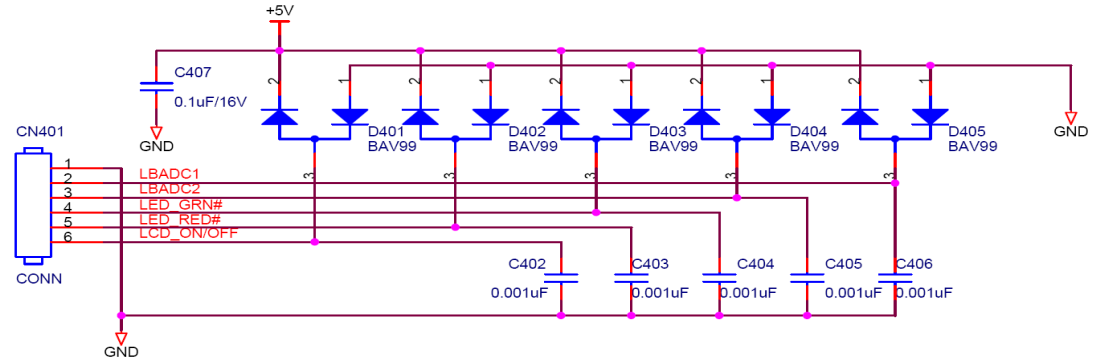


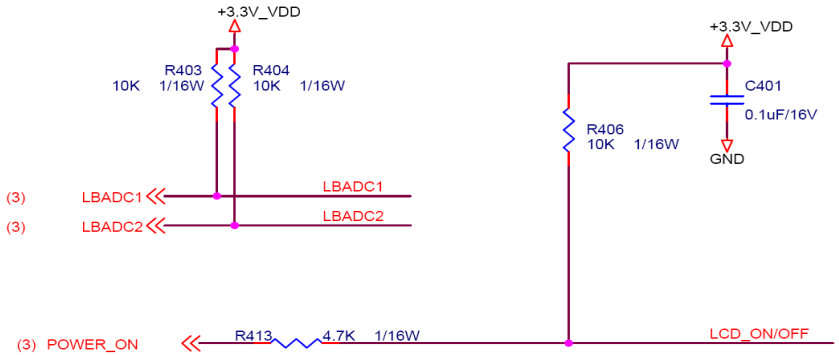
SONY

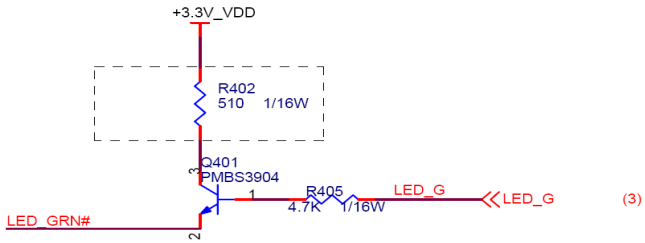


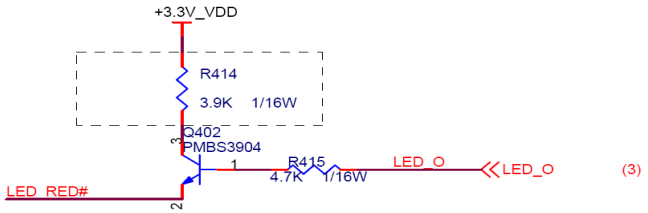
Name	High	Low	Default
ATMEL_EN (PWM0, Pin50)	ATMELSPI ROM (R304)	Standard SPI ROM (R324)	Low
UART_PIN_SEL (PWM1, Pin 119)	UART on GPO (R305)	UART on DDC (R325)	High
V_EDID_ATMEL (SPI_CSn, Pin59)	ATMELSPI ROM (R303)	Standard SPI ROM (R323)	Low
GPO_0 (Pin51)	Ext. ROM JTAG Off (R315)		High

SONY



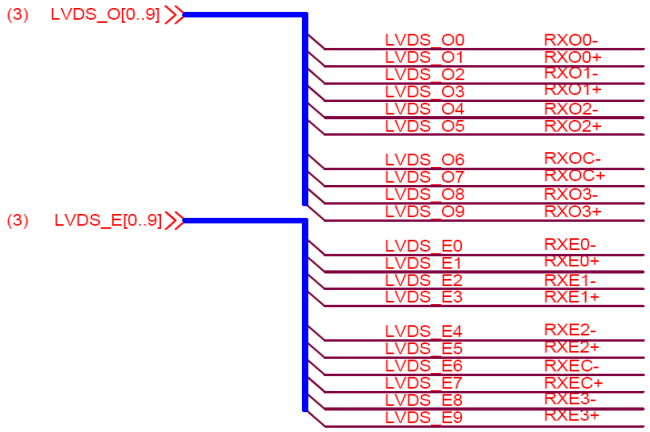


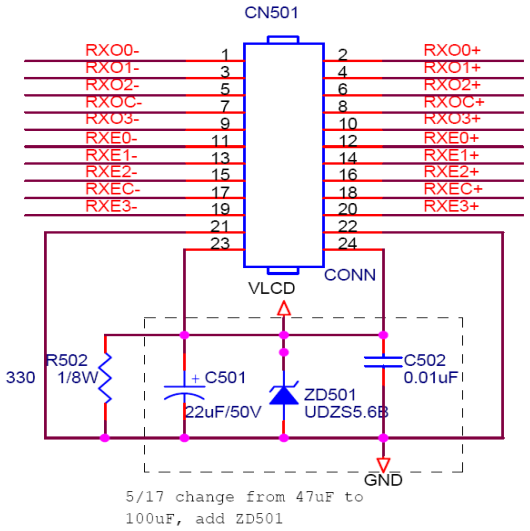


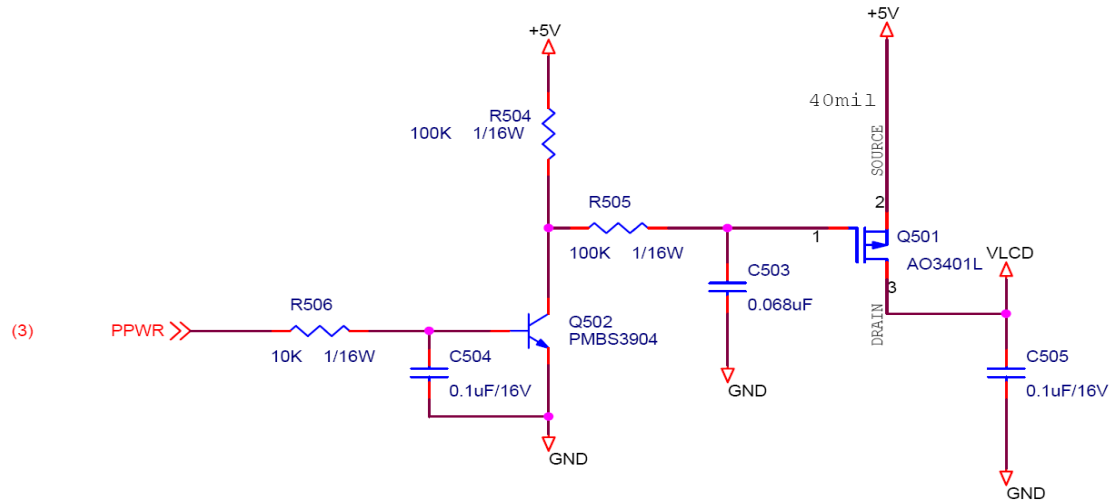



```
LBADC2   KEY_ECO-->2.25V
         KEY_MENU-->2.46V
         KEY_UP-->2.71V
LBADC1
         KEY_OK-->2.25V
         KEY_DOWN-->2.46V
         LCD_ON/OFF -->2.71V
         LCD_ON  + KEY_OK   -->1.98 V
```

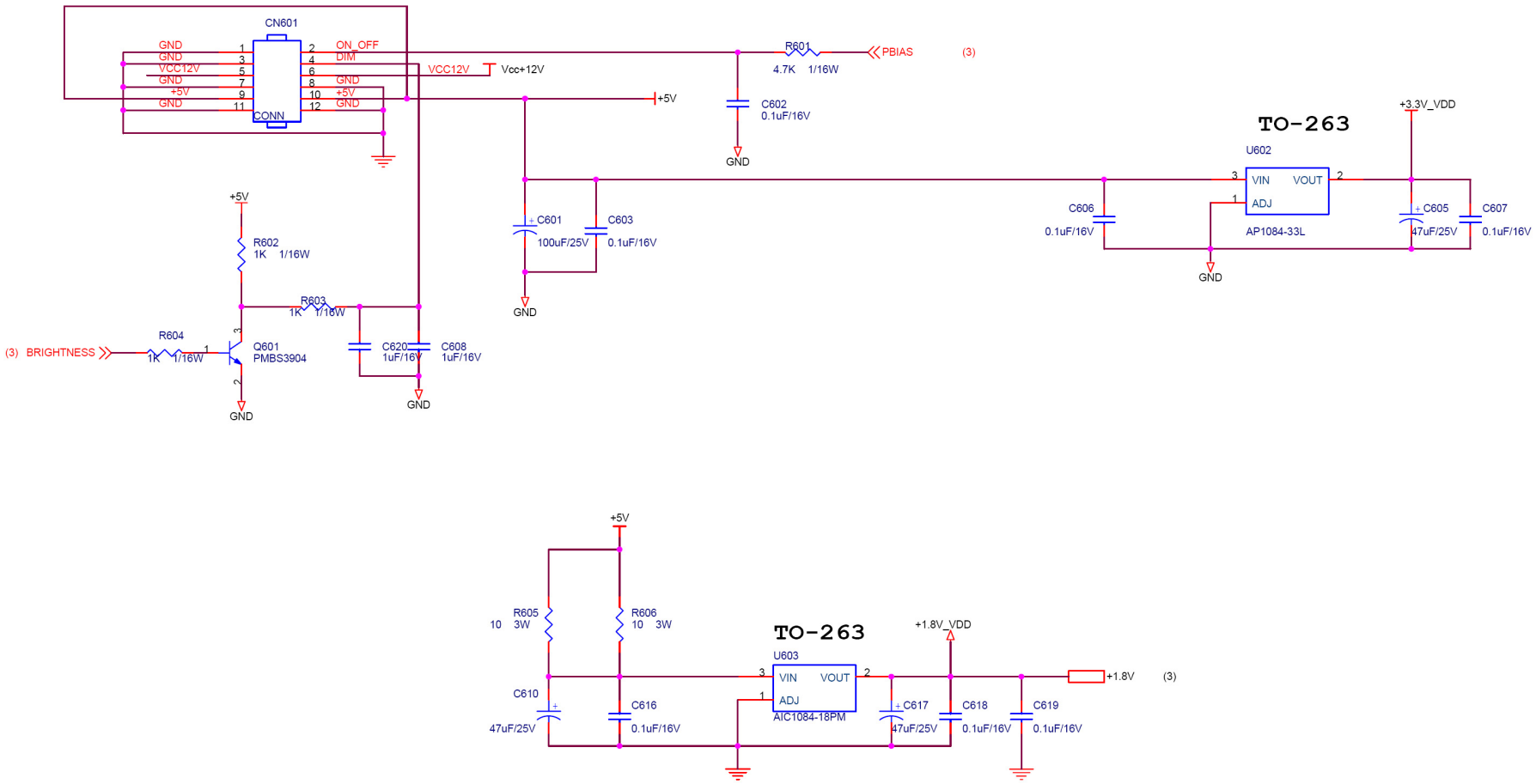

SONY


(3) LVDS_O[0..9]
(3) LVDS_E[0..9]
LVDS_O0 RXO0-
LVDS_O1 RXO0+
LVDS_O2 RXO1-
LVDS_O3 RXO1+
LVDS_O4 RXO2-
LVDS_O5 RXO2+
LVDS_O6 RXOC-
LVDS_O7 RXOC+
LVDS_O8 RXO3-
LVDS_O9 RXO3+
LVDS_E0 RXE0-
LVDS_E1 RXE0+
LVDS_E2 RXE1-
LVDS_E3 RXE1+
LVDS_E4 RXE2-
LVDS_E5 RXE2+
LVDS_E6 RXEC-
LVDS_E7 RXEC+
LVDS_E8 RXE3-
LVDS_E9 RXE3+


CN501
RXO0- 1
RXO1- 3
RXO2- 5
RXOC- 7
RXO3- 9
RXE0- 11
RXE1- 13
RXE2- 15
RXEC- 17
RXE3- 19
21
23
2 RXO0+
4 RXO1+
6 RXO2+
8 RXOC+
10 RXO3+
12 RXE0+
14 RXE1+
16 RXE2+
18 RXEC+
20 RXE3+
22
24
CONN
VLCD
330
R502
1/8W
C501
22uF/50V
ZD501
UDZS5.6B
C502
0.01uF
GND
5/17 change from 47uF to
100uF, add ZD501


+5V
R504
100K 1/16W
R505
100K 1/16W
C503
0.068uF
GND
+5V
40mil
SOURCE
2
1
Q501
AO3401L
3
DRAIN
VLCD
C505
0.1uF/16V
GND
(3) PPWR
R506
10K 1/16W
C504
0.1uF/16V
Q502
PMBS3904
GND

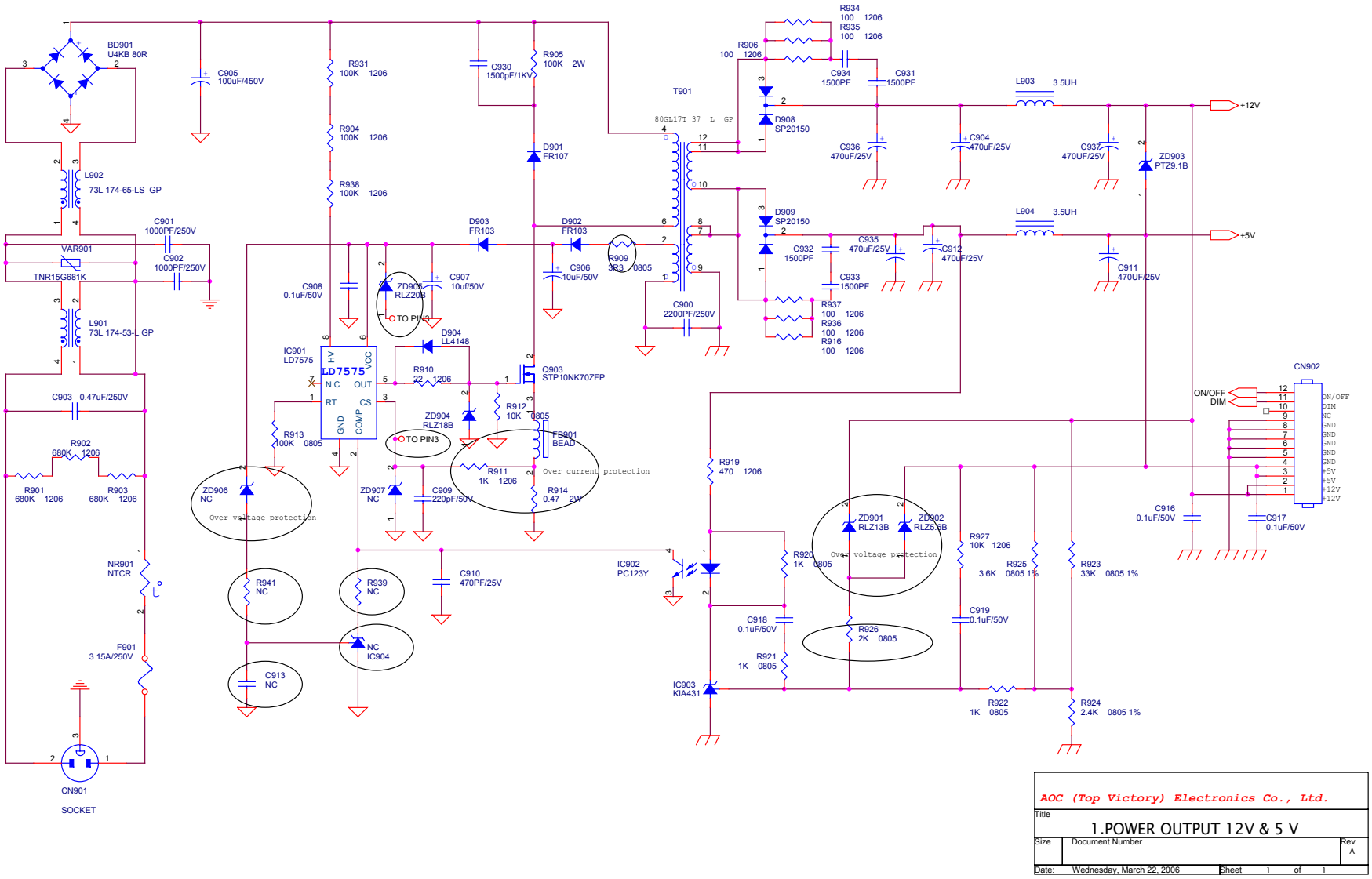
SONY



Title	POWER	
Size B	Document Number	Rev A
Date: Wednesday, March 22, 2006	Sheet 6 of 7	

SONY

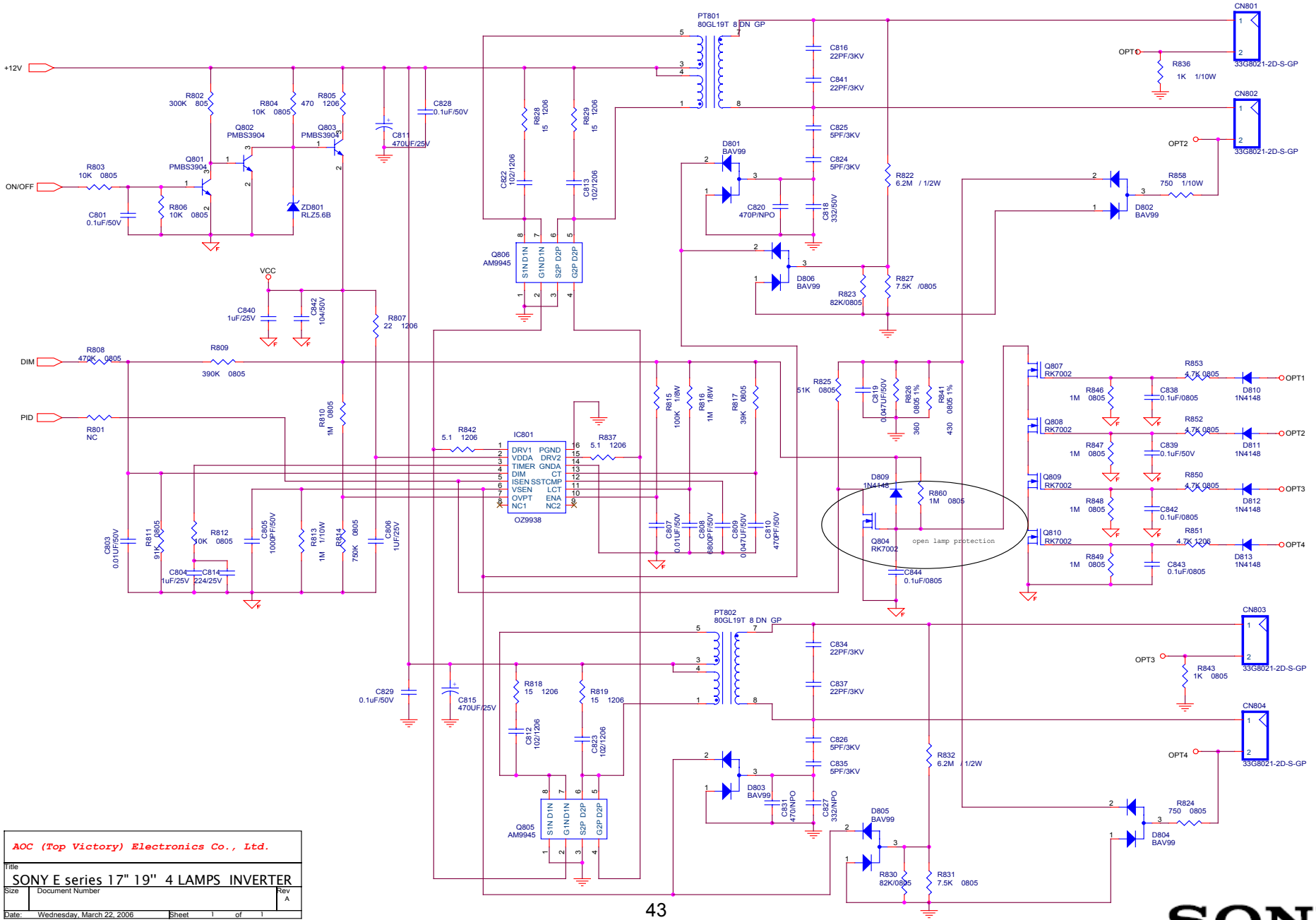
7.2 PWPC Board



AOC (Top Victory) Electronics Co., Ltd.

Title	1.POWER OUTPUT 12V & 5 V	
Size	Document Number	Rev A
Date: Wednesday, March 22, 2006	Sheet 1 of 1	

SONY

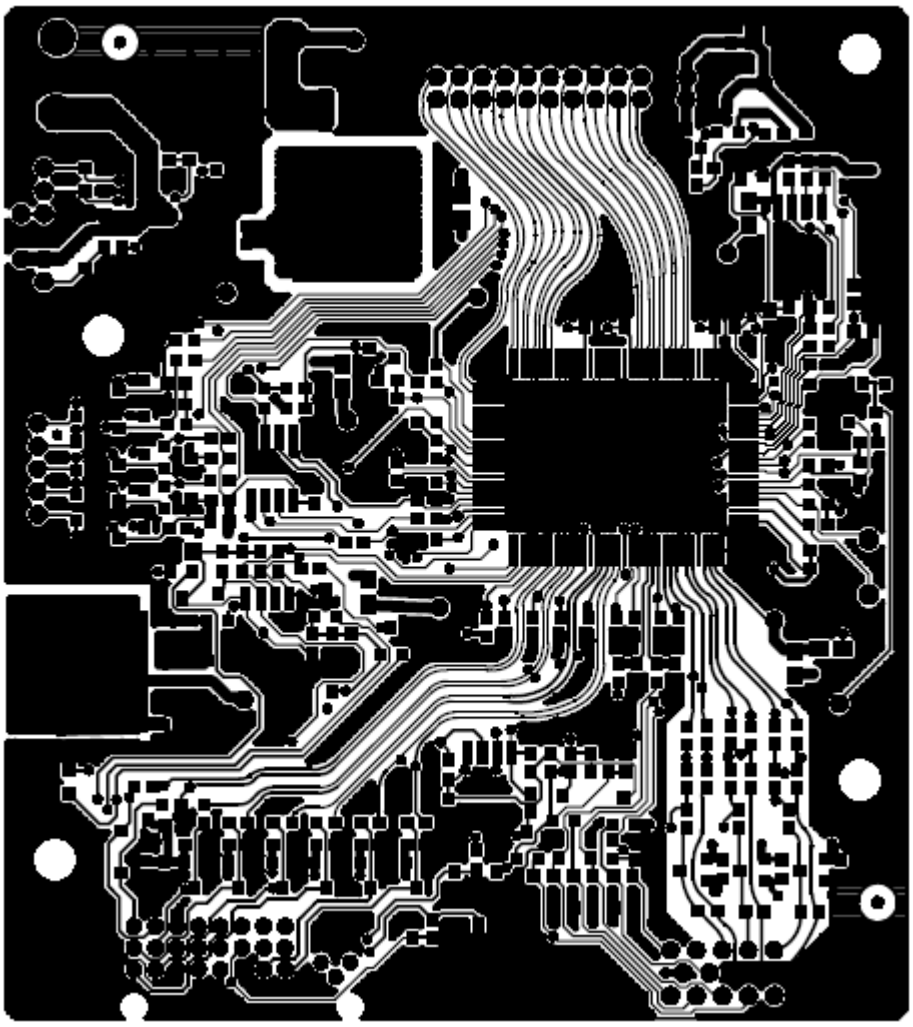


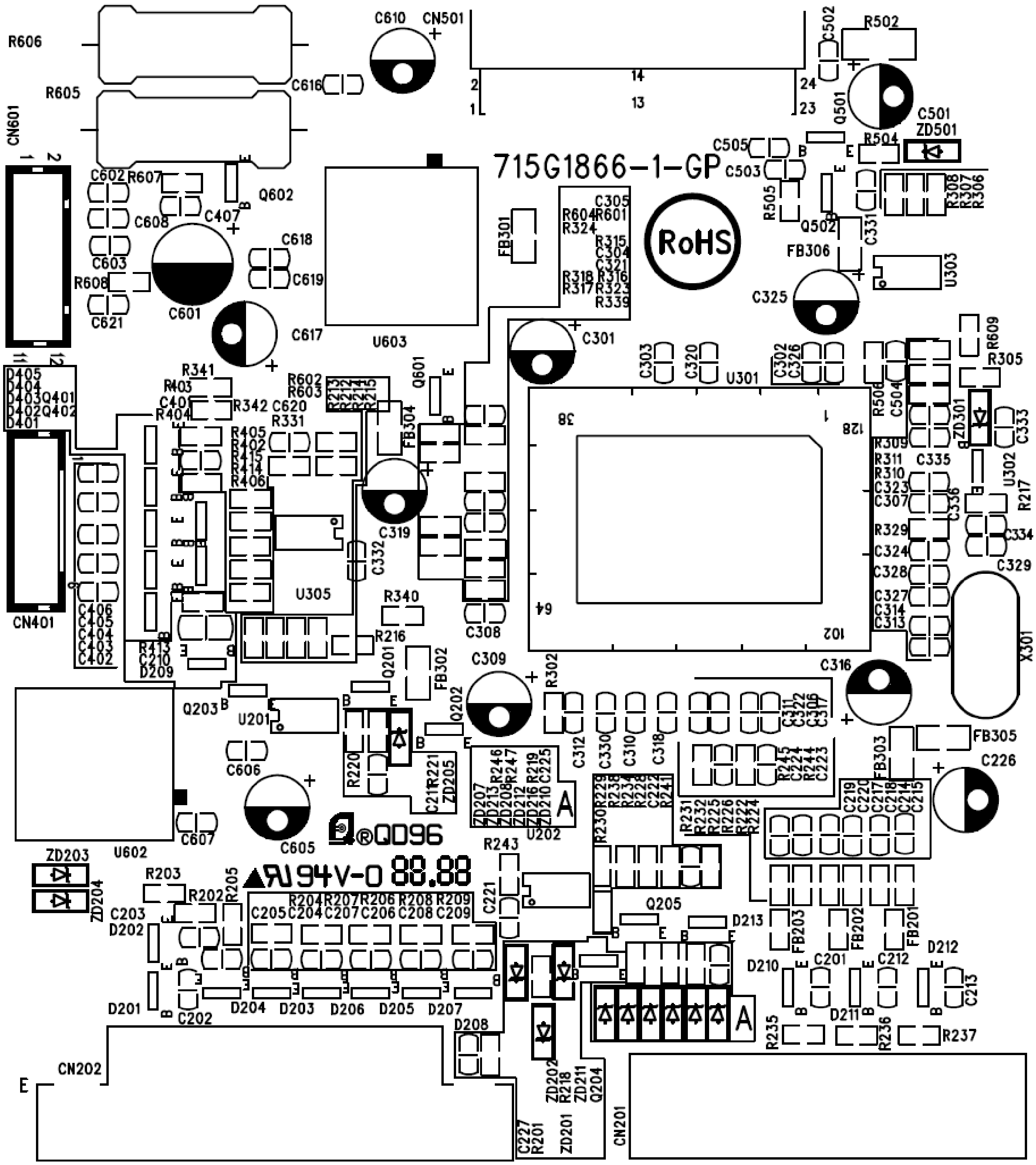
AOC (Top Victory) Electronics Co., Ltd.		
Title: SONY E series 17" 19" 4 LAMPS INVERTER		
Size	Document Number	Rev A
Date: Wednesday, March 22, 2006	Sheet 1 of 1	

SONY

8. PCB Layout

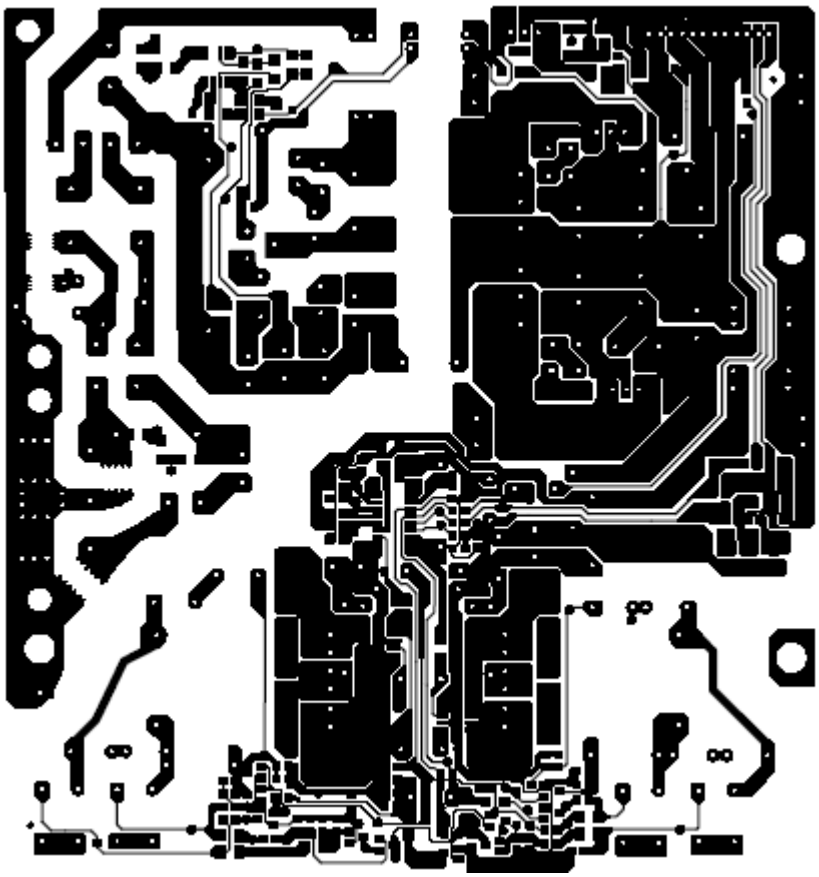
8.1 Main Board



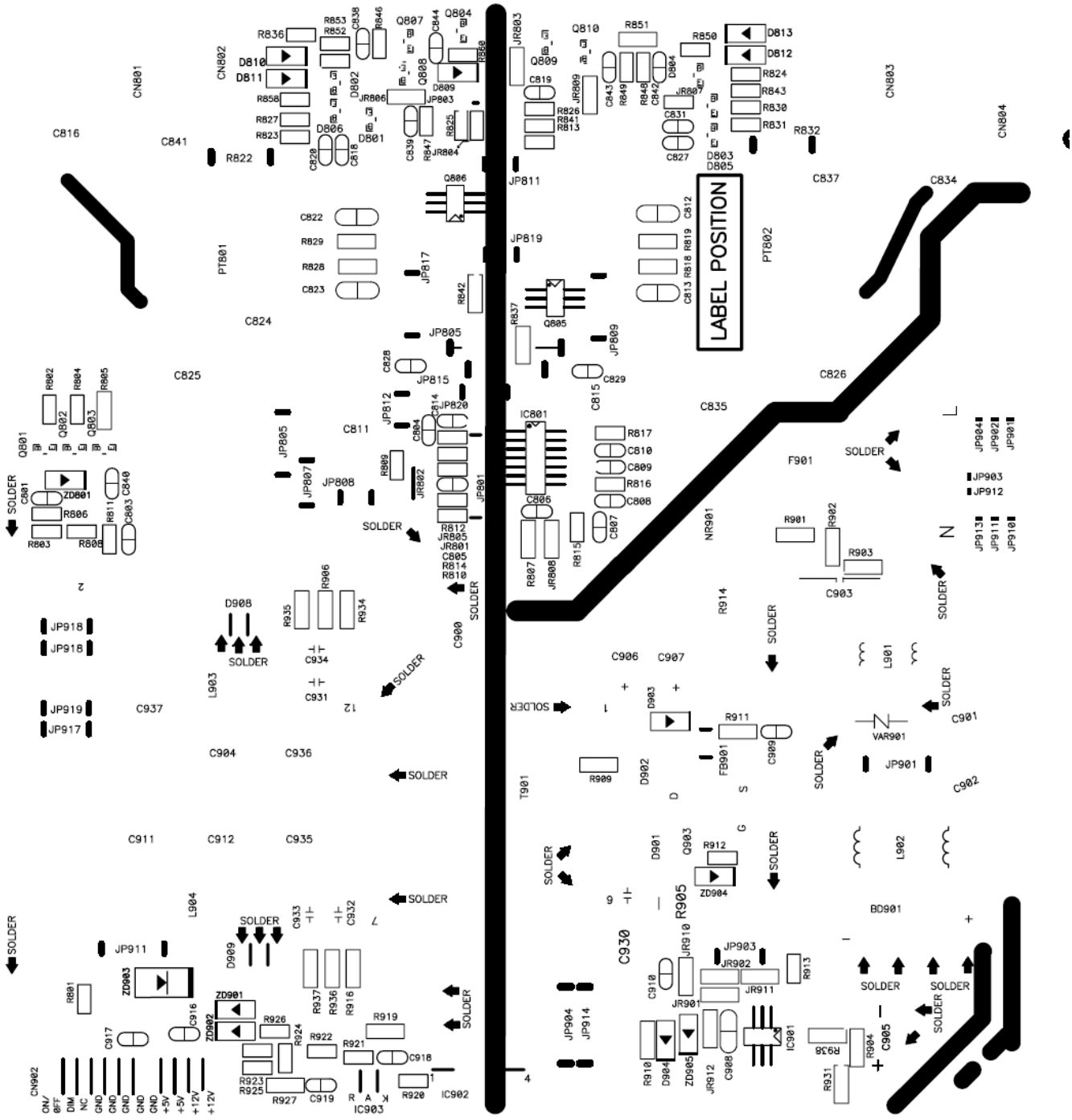

715G1866-1-GP
RoHS
R606
R605
CN601
C610
CN501
C616
C502
R502
Q501
C501
ZD501
C505
C503
R504
R505
Q502
C331
R308
R307
R306
FB306
U303
C325
C602
R607
Q602
C608
C407
C603
C618
R608
C619
C601
C621
C617
U603
FB301
C305
R604
R601
R324
R315
C304
C321
R318
R316
R317
R323
R339
C301
C303
C320
U301
C302
C326
R609
R305
R506
C504
ZD301
C333
D405
D404
D403
Q401
D402
Q402
D401
R341
R403
C401
R404
R342
C620
R602
R603
R213
R212
R214
R215
Q601
FB304
R331
R405
R402
R415
R414
R406
C319
C332
U305
R340
C308
R216
Q201
FB302
C309
R302
C316
X301
CN401
C406
C405
C404
C403
C402
R413
C210
D209
R309
R311
C335
R310
C323
C307
U302
R217
C336
R329
C334
C324
C329
C328
C327
C314
C313
Q203
U201
Q202
C312
C330
C310
C318
C311
C322
C306
C317
FB305
FB303
C226
C606
R220
R221
C211
ZD205
R246
R247
R219
C225
R245
C224
C244
C223
C605
ZD207
ZD213
ZD208
ZD212
ZD216
ZD210
U202
R229
R238
R234
R228
C222
R241
R230
R231
R232
R225
R226
R222
R224
C219
C220
C217
C218
C214
C215
U602
C607
QD96
94V-0
R243
ZD203
R203
R202
R205
ZD204
C203
D202
R204
R207
R206
R208
R209
C205
C204
C207
C206
C208
C209
C221
Q205
D213
FB203
FB202
FB201
D212
D210
C201
C212
C213
D211
D201
C202
D204
D203
D206
D205
D207
D208
R235
R236
R237
CN202
ZD202
R218
ZD211
Q204
C227
R201
ZD201
CN201

SONY

8.2 PWPC Board



SONY


LABEL POSITION
SOLDER
CN801
CN802
CN803
CN804
PT801
PT802
IC801
IC902
IC903
VAR901
BD901
CN902
ON/ OFF
DIM
NC
GND
+5V
+12V

SONY

9.EDID Content

Analog

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
0:	00	FF	FF	FF	FF	FF	FF	00	4D	D9	00	B4	01	01	01	01
16:	11	0F	01	03	0E	26	1E	78	EA	68	75	A2	5A	49	9F	23
32:	13	50	54	AD	CF	00	81	80	81	40	01	01	01	01	01	01
48:	01	01	01	01	01	01	30	2A	00	98	51	00	2A	40	30	70
64:	13	00	78	2D	11	00	00	1E	00	00	00	FD	00	38	4B	1C
80:	51	0E	00	0A	20	20	20	20	20	20	00	00	00	FC	00	53
96:	44	4D	2D	45	39	36	44	0A	20	20	20	20	00	00	00	FF
112:	00	35	30	30	30	30	30	31	0A	20	20	20	20	20	00	14

Digital

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
0:	00	FF	FF	FF	FF	FF	FF	00	4D	D9	00	B5	01	01	01	01
16:	08	10	01	03	80	26	1E	78	EA	68	75	A2	5A	49	9F	23
32:	13	50	54	A1	08	00	81	80	81	40	01	01	01	01	01	01
48:	01	01	01	01	01	01	30	2A	00	98	51	00	2A	40	30	70
64:	13	00	78	2D	11	00	00	1E	00	00	00	FD	00	39	3F	1C
80:	41	0B	00	0A	20	20	20	20	20	20	00	00	00	FC	00	53
96:	44	4D	2D	45	39	36	44	0A	20	20	20	20	00	00	00	FF
112:	00	30	30	30	30	30	30	30	0A	20	20	20	20	20	00	70

10. BOM List

T981KACDBS4SNP

Location	Part No. for TPV model	Description	Quantity
	011G6048 1 GP	CLAMP-S	1
	011G6051 1 GP	TWIST LOCK	1
	011G6064 1 GP	LOCK WASHER	4
	012G6300 12 GP	RUBBER FOOT	2
	015G5791 1 GP	BKT-VESA	1
	015G8350 2 GP	MAIN FRAME	1
	015G8353 1 GP	BRACKET-R	1
	015G8354 1 GP	BRACKET-L	1
	015G8355 1 GP	BKT-AC	1
	020G 043 1 WF GP	STAND	1
	023G3178834 8A GP	LOGO	1
	033G5027 WF L GP	HINGE COVER	1
	034G1896 WF B GP	REAR COVER	1
	040G 457834 5A GP	CARD LABEL	1
	040G 457834 9A GP	CARTON LABEL	1
	040G 45783411A GP	BLACK	2
	040G 45783413A GP	TCO 03	1
	040G 58162435A GP	LABEL FOR PE BAG	1
	045G 76 28V12 GP	PE BAG FOR MANUAL	1
	045G 88607SY1 GP	EPE BAG FOR MONITOR	1
	052G 1185 GP	MIDDLE TAPE FOR CARTON	150
	052G 1186 GP	SMALL TAPE	8
	085G 748 2 GP	SHIELD_MAIN	1
E089A	089G1738GAA 17 GP	SIGNAL CABLE	1
E089A	089G1738LAA 17 GP	SIGNAL CABLE	1
E089B	089G1748GAA 8 GP	DVI CABLE	1
E089B	089G1748LAA 8 GP	DVI CABLE	1
	089G404A18N IS GP	POWER PORD	1
	095G 900 78 GP	WIRE HARNESS	1
E095	095G8018 30110 GP	LVDS CABLE	1
	0M1G 330 4120 GP	SCREW	4
	0M1G 330 4120 GP	SCREW	2
	0M1G 330 4120 GP	SCREW	2
	0M1G 330 4120 GP	SCREW	3

SONY

	0M1G1140 6120 GP	SCREW	1
	0M1G1730 6120 GP	M3*6 SCREW	4
	0M1G1730 6120 GP	M3*6 SCREW	4
	0M1G1740 8120 GP	M4*8 SCREW	4
	0Q1G 330 8120 GP	SCREW 3X8mm	8
	0Q1G 330 10120 GP	SCREW	5
	0Q1G1040 8120 GP	SCREW	2
	705G981KF34001	19" LCD BEZEL ASS'Y	1
	750GLU90N4532N GP	PANEL LCD 19" EN04 V5C SONY AUO	1
	AM1G1740 10120 GP	SCREW	2
	CBPC981KAC1SP	CONVERSION BAORD	1
	KEPC781KS4P	KEY BOARD	1
	PWPC1942AUS5P	POWER BOARD	1
	Q02G7003 1 GP	SCREW	4
	Q07G 8 1 10 GP	COMPOUND PALLET	1
	Q37G 570 2 GP	HINGE	1
	Q40G 19N83419A GP	RATING LABEL	1
	Q40G 19N83422A GP	RATING LABEL	1
	Q44G9002 1 GP	EPS(L)	1
	Q44G9002 2 GP	EPS(R)	1
	Q44G9002834 2A GP	CARTON	1
	Q52G6025 11991 GP	Mylar	1
	041G7800834 2B GP	WARRANTY FOR EUR	1
	041G7800834 3A GP	POWER CORD ATTENTION FLYER	1
	Q41G780083471A GP	QSG AEP	1
	Q41G780083473A GP	Instruction	1
	Q70G160083413A GP	CD MANUAL	1
	015G8146 1 GP	KENSINGTON BKT	1
	033G5028 1 D GP	LENS	1
	033G5029 WF X GP	STAND FOOT	1
	033G5031 QB L GP	POWER BUTTON	1
	033G5032 QB L GP	FUNTION BUTTON	1
	034G1895AQB B GP	BEZEL	1
	0Q1G 330 6120 GP	SCREW	4
	0Q1G 330 6120 GP	SCREW	1
	0Q1G 330 8120 GP	SCREW 3X8mm	1
	A33G0011 QB L GP	HOLDER POWER BUTTON	1

SONY

CN401	033G3802 6 J GP	WAFER	1
CN601	033G8027 12 J GP	WAFER	1
CN501	033G8027 24 HJ GP	WAFER	1
	040G 457624 1B GP	CPU LABEL	1
	040G 45762420A GP	CBPC LABEL 25X6mm	1
C601	067G215L101 4N GP	KY25VB100M-L(6.3*11)	1
C226	067G215L470 4N GP	KY25VB47M-L 5*11	1
C605	067G215L470 4N GP	KY25VB47M-L 5*11	1
C610	067G215L470 4N GP	KY25VB47M-L 5*11	1
C617	067G215L470 4N GP	KY25VB47M-L 5*11	1
C501	067G215Y2207NV GP	KY50VB22M-CC3	1
C319	067G215Y2207NV GP	KY50VB22M-CC3	1
C325	067G215Y2207NV GP	KY50VB22M-CC3	1
C301	067G215Y2207NV GP	KY50VB22M-CC3	1
C309	067G215Y2207NV GP	KY50VB22M-CC3	1
C316	067G215Y2207NV GP	KY50VB22M-CC3	1
CN201	088G 35315FHSW GP	D-SUB	1
CN202	088G 35424F HB GP	DV1 24PIN	1
U301	090G6077 2 GP	HEAT SINK	1
X301	093G 22 53	CRYSTAL 14.318MHzHC-49US	1
	705G 781 61 S8	R605 ASS'Y	1
	705G 781 61 S9	R606 ASS'Y	1
	AIC981KAC1SP	MAIN BOARD FOR AI	1
SW102	077G 602 4 CJ GP	TACT SWITCH	1
SW101	077G 602 4 CJ GP	TACT SWITCH	1
SW104	077G 602 4 CJ GP	TACT SWITCH	1
SW103	077G 602 4 CJ GP	TACT SWITCH	1
SW103	077G 602 4 HJ GP	TACT SWITCH TSHA-2VL	1
SW104	077G 602 4 HJ GP	TACT SWITCH TSHA-2VL	1
SW101	077G 602 4 HJ GP	TACT SWITCH TSHA-2VL	1
SW102	077G 602 4 HJ GP	TACT SWITCH TSHA-2VL	1
JP101	095G8014 6J534 GP	WIRE HARNESS	1
	AIK781KS3SMTP	KEY BOARD FOR AI	1
FOR CN901	015G8033 1 GP	BKT_AC INLET	1
CN801	033G8021 2D S GP	WAFER	1
CN802	033G8021 2D S GP	WAFER	1
CN803	033G8021 2D S GP	WAFER	1

SONY

CN804	033G8021 2D S GP	WAFER	1
CN801	033G8021 2D U GP	WAFER	1
CN802	033G8021 2D U GP	WAFER	1
CN803	033G8021 2D U GP	WAFER	1
CN804	033G8021 2D U GP	WAFER	1
	040G 45762420A GP	CBPC LABEL 25X6mm	1.040
	051G 6 4505 GP	RTV	2
IC902	056G 139 3A	PC123Y22FZOF	1
VAR901	061G 46 12 GP	TNR15G681K	1
NR901	061G 58080 WT GP	8 OHM NCTR	1
C903	063G 10747410S GP	0.47UF +-10% 250VAC	1
C841	065G 3J2206ET GP	22PF J. 3KV.SL	1
C837	065G 3J2206ET GP	22PF J. 3KV.SL	1
C834	065G 3J2206ET GP	22PF J. 3KV.SL	1
C816	065G 3J2206ET GP	22PF J. 3KV.SL	1
C824	065G 3J5096ET GP	5PF 5% SL 3KV	1
C825	065G 3J5096ET GP	5PF 5% SL 3KV	1
C826	065G 3J5096ET GP	5PF 5% SL 3KV	1
C835	065G 3J5096ET GP	5PF 5% SL 3KV	1
C901	065G306M1022BM GP	Y1.CAP.001UF 250VAC MURATA	1
C902	065G306M1022BM GP	Y1.CAP.001UF 250VAC MURATA	1
C900	065G306M2222BM GP	2200PF +-20% 250VAC Y1	1
C905	067G215S10115N GP	EC CAP 450V/100	1
C811	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C815	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C904	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C911	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C912	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C935	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C936	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
C937	067G215V471 4N GP	KY25VB470M-CC3 10*16	1
FB901	071G 55 29 GP	FERRITE BEAD	1
L902	073G 174 65 LS GP	LINE FILTER 7mH LISHIN	1
L904	073G 253 91 T GP	IND CHOKE 3.5uH+-10% TDK	1
L903	073G 253 91 T GP	IND CHOKE 3.5uH+-10% TDK	1
L904	073G 253 91 LS GP	CHOKE BY LI SHIN	1
L903	073G 253 91 LS GP	CHOKE BY LI SHIN	1

L901	073L 174 53 LG GP	CHOKE	1
L901	073L 174 53LSG GP	CHOKE BY LISHIN	1
T901	080GL17T 37 L GP	XFMR FOR POWER LITAI	1
T901	080GL17T 37 T GP	XFMR FOR POWER TDK	1
T901	080GL17T 37 LS GP	XFMR FOR POWER LISHIN	1
PT802	080GL19T 8 DN GP	TRANSFORMER	1
PT801	080GL19T 8 DN GP	TRANSFORMER	1
PT802	080GL19T 8 YS GP	XFMR FOR INVERTER Top nation	1
PT801	080GL19T 8 YS GP	XFMR FOR INVERTER Top nation	1
F901	084G 55 7 GP	FUSE 3.15A 250V	1
BD901	093G 50460 16	U4KB80R	1
CN902	095G801412J545 GP	WIRE HARNESS	1
	0M1G1730 6120 GP	M3*6 SCREW	2
	705G 780 87 27	CN901 ASS'Y	1
	705G 980 57S12	Q903 ASS'Y	1
	705G 980 61S01	R905 ASS'Y	1
	705G 980 61S02	R914 ASS'Y	1
	705G 980 93S12	D908 ASS'Y	1
	705G 980 93S13	D901 ASS'Y	1
	705G 980 93S14	D902 ASS'Y	1
	705G 980 93S15	D909 ASS'Y	1
	PW1942AUS5SMTP	POWER BOARD FOR SMT	1
R605	061G153M100 59 GP	10 OHM 5% 3W	1
	096G 29 1 GP	SHRINK TUBE UL/CSA	14
R606	061G153M100 59 GP	10 OHM 5% 3W	1
	096G 29 1 GP	SHRINK TUBE UL/CSA	14
U301	056G 562 97	GM 5621-LF-AA	1
U602	056G 563 7	AIC1084-33PM	1
U602	056G 563 21	AP1084K33LA	1
U603	056G 563 34	AIC 1084-18PM TO-263	1
U302	056G 643 13	G691L400T73UF SOT-23 GMT	1
U202	056G1133 34	M24C02-WMN6TP	1
U201	056G1133 34	M24C02-WMN6TP	1
U303	056G1133 56	M24C16-WMN6TP	1
U305	056G1133 81	SST25LF020A-33-4C-SAE	1
U305	056G1133 90	IC PM25LV020-33SCE 2MB SOIC-8 PMC	1
U201	056G113334A	24LC02B/SNG SOIC-8PIN	1

U202	056G113334A	24LC02B/SNG SOIC-8PIN	1
U303	056G113356A	24LC16B/SNG SOIC-8PIN	1
U305	056G113365A	SST25UF020-20-4C-SAE	1
Q401	057G 417 4	PMBS3904/PHILIPS-SMT(04)	1
Q402	057G 417 4	PMBS3904/PHILIPS-SMT(04)	1
Q502	057G 417 4	PMBS3904/PHILIPS-SMT(04)	1
Q601	057G 417 4	PMBS3904/PHILIPS-SMT(04)	1
Q202	057G 759 2	RK7002	1
Q203	057G 759 2	RK7002	1
Q204	057G 759 2	RK7002	1
Q205	057G 759 2	RK7002	1
Q201	057G 759 2	RK7002	1
Q501	057G 763 1	A03401 SOT23 BY AOS(A1)	1
R221	061L0603100 2F GP	CHIPR 10K OHM +-1% 1/10W	1
R241	061L0603100 2F GP	CHIPR 10K OHM +-1% 1/10W	1
R339	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R311	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R310	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R309	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R234	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R232	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R230	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R226	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R224	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R342	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R340	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R341	061L0603101 GP	CHIPR 100 OHM +-5% 1/10W	1
R602	061L0603102 GP	CHIPR 1K OHM +-5% 1/10W	1
R603	061L0603102 GP	CHIPR 1K OHM +-5% 1/10W	1
R604	061L0603102 GP	CHIPR 1K OHM +-5% 1/10W	1
R329	061L0603102 GP	CHIPR 1K OHM +-5% 1/10W	1
R217	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1
R201	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1
R331	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1
R403	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1
R404	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1
R406	061L0603103 GP	CHIPR 10K OHM +-5% 1/10W	1

R506	061L0603103	GP	CHIPR 10K OHM +-5% 1/10W	1
R504	061L0603104	GP	CHIPR 100K OHM +-5% 1/10W	1
R505	061L0603104	GP	CHIPR 100K OHM +-5% 1/10W	1
R222	061L0603181	GP	CHIPR 180 OHM +5% 1/16W	1
R225	061L0603181	GP	CHIPR 180 OHM +5% 1/16W	1
R231	061L0603181	GP	CHIPR 180 OHM +5% 1/16W	1
R202	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R203	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R204	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R205	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R206	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R207	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R208	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R209	061L0603220	GP	CHIPR 22 OHM+-5% 1/10W	1
R245	061L0603221	GP	CHIP 220 OHM 1/16W	1
R244	061L0603221	GP	CHIP 220 OHM 1/16W	1
R247	061L0603222	GP	CHIPR 2.2K OHM+-5% 1/10W	1
R246	061L0603222	GP	CHIPR 2.2K OHM+-5% 1/10W	1
R218	061L0603223	GP	CHIP 22KOHM 1/16W	1
R302	061L0603249 0F	GP	CHIP 249 OHM 1/16W	1
R216	061L0603330	GP	CHIPR 33 OHM +-5% 1/10W	1
R215	061L0603330	GP	CHIPR 33 OHM +-5% 1/10W	1
R238	061L0603330 1F	GP	CHIPR 3.3K OHM +-1% 1/10W	1
R220	061L0603330 1F	GP	CHIPR 3.3K OHM +-1% 1/10W	1
R219	061L0603333	GP	CHIP 33KOHM 1/16W	1
R414	061L0603392	GP	CHIP 3.9K OHM 1/10W	1
R213	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R214	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R228	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R229	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R243	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R305	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R306	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R307	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R308	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R315	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1
R316	061L0603472	GP	CHIPR 4.7K OHM +-5% 1/10W	1

R317	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R318	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R323	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R324	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R405	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R413	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R415	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R601	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R212	061L0603472 GP	CHIPR 4.7K OHM +-5% 1/10W	1
R402	061L0603511 GP	CHIPR 510 OHM+-5% 1/10W	1
R237	061L0603750 GP	CHIPR 75 OHM+-5% 1/10W	1
R236	061L0603750 GP	CHIPR 75 OHM+-5% 1/10W	1
R235	061L0603750 GP	CHIPR 75 OHM+-5% 1/10W	1
R502	061L1206331 GP	CHIP 330 OHM 5%	1
C203	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C202	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C208	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C209	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C225	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C402	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C403	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C404	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C405	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C406	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C204	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C205	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C206	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C207	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C502	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C220	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C219	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C218	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C217	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C215	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C214	065G0603103 32 GP	CHIP 0.01UF 50V X7R	1
C618	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C619	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1

C324	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C323	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C322	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C321	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C320	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C318	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C317	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C314	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C313	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C312	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C311	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C310	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C308	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C616	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C505	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C504	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C407	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C401	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C336	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C335	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C334	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C333	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C332	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C330	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C326	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C602	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C603	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C606	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C607	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C201	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C211	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C212	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C213	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C221	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C222	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C227	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C302	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1

C303	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C304	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C305	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C306	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C307	065G0603104 12 GP	CHIP 0.1UF 16V X7R	1
C620	065G0603105 12 GP	CHIP 1UF 50V X7R	1
C608	065G0603105 12 GP	CHIP 1UF 50V X7R	1
C331	065G0603224 17 GP	CAP 0.22UF 110V	1
C327	065G0603330 31 GP	33PF+-5% 50V NPO	1
C328	065G0603330 31 GP	33PF+-5% 50V NPO	1
C503	065G0603683 32 GP	CHIP 0.068UF 50V X7R	1
C210	065G0805105 22 GP	CHIP 1UF 25V X7R 0805	1
FB301	071G 56K121 M GP	120 OHM 6A	1
FB302	071G 56K121 M GP	120 OHM 6A	1
FB303	071G 56K121 M GP	120 OHM 6A	1
FB304	071G 56K121 M GP	120 OHM 6A	1
FB305	071G 56K121 M GP	120 OHM 6A	1
FB306	071G 56K121 M GP	120 OHM 6A	1
FB201	071G 59C800 GP	CHIP BEAD	1
FB202	071G 59C800 GP	CHIP BEAD	1
FB203	071G 59C800 GP	CHIP BEAD	1
D201	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D202	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D203	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D204	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D205	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D206	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D207	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D208	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D210	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D211	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D212	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D401	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D402	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D403	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D404	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D405	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1

D209	093G 64 42 PP	BAV70 SOT-23	1
D213	093G 64 42 PP	BAV70 SOT-23	1
ZD201	093G 39P599 T	MM3Z5V6B	1
ZD202	093G 39P599 T	MM3Z5V6B	1
ZD203	093G 39P599 T	MM3Z5V6B	1
ZD204	093G 39P599 T	MM3Z5V6B	1
ZD207	093G 39P599 T	MM3Z5V6B	1
ZD208	093G 39P599 T	MM3Z5V6B	1
ZD210	093G 39P599 T	MM3Z5V6B	1
ZD212	093G 39P599 T	MM3Z5V6B	1
ZD213	093G 39P599 T	MM3Z5V6B	1
ZD216	093G 39P599 T	MM3Z5V6B	1
ZD301	093G 39P599 T	MM3Z5V6B	1
ZD501	093G 39P599 T	MM3Z5V6B	1
ZD201	093G 39S 34 T	UDZS5.6B	1
ZD202	093G 39S 34 T	UDZS5.6B	1
ZD203	093G 39S 34 T	UDZS5.6B	1
ZD204	093G 39S 34 T	UDZS5.6B	1
ZD207	093G 39S 34 T	UDZS5.6B	1
ZD208	093G 39S 34 T	UDZS5.6B	1
ZD210	093G 39S 34 T	UDZS5.6B	1
ZD212	093G 39S 34 T	UDZS5.6B	1
ZD213	093G 39S 34 T	UDZS5.6B	1
ZD216	093G 39S 34 T	UDZS5.6B	1
ZD301	093G 39S 34 T	UDZS5.6B	1
ZD501	093G 39S 34 T	UDZS5.6B	1
	715G1866 1 GP	MAIN BOARD	1
R104	061L0603223 GP	CHIP 22KOHM 1/16W	1
R105	061L0603303 GP	CHIP 30K OHM 5% 1/10W	1
R102	061L0603303 GP	CHIP 30K OHM 5% 1/10W	1
R103	061L0603473 GP	CHIP 47K OHM 1/10W	1
C105	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C104	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C103	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C102	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C101	065G0603102 32 GP	1000PF +-10% 50V X7R	1
C110	065G0603104 32 GP	CHIP 0.1UF 50V X7R	1

C109	065G0603104 32 GP	CHIP 0.1UF 50V X7R	1
C108	065G0603104 32 GP	CHIP 0.1UF 50V X7R	1
C107	065G0603104 32 GP	CHIP 0.1UF 50V X7R	1
C106	065G0603104 32 GP	CHIP 0.1UF 50V X7R	1
SW105	077G 606 4 HJ GP	TACT SWITCH CHIP TSSB-2L	1
DP101	081G 14 6A KT GP	LED	1
ZD101	093G 39P599 T	MM3Z5V6B	1
ZD102	093G 39P599 T	MM3Z5V6B	1
ZD103	093G 39P599 T	MM3Z5V6B	1
ZD104	093G 39P599 T	MM3Z5V6B	1
ZD105	093G 39P599 T	MM3Z5V6B	1
ZD104	093G 39S 34 T	UDZS5.6B	1
ZD105	093G 39S 34 T	UDZS5.6B	1
ZD101	093G 39S 34 T	UDZS5.6B	1
ZD102	093G 39S 34 T	UDZS5.6B	1
ZD103	093G 39S 34 T	UDZS5.6B	1
	715G1867 1 GP	KEY BOARD	1
	052G6025 12113 GP	MYLAR	2
CN901	087G 501 27 RF GP	AC SOCKET	1
Q903	057G 667 21	STP10NK70ZFP	1
	090G6064 1 GP	HEAT SINK	1
	AM1G1730 8120 GP	SCREW	1
R905	061G152M10458F GP	100K OHM 5% 2W	1
	096G 29 6 GP	SHRINK TUBE UL/CSA	20
R914	061G152M47858F GP	RST MOFR 0.47OHM +-5% 2WS	1
	096G 29 6 GP	SHRINK TUBE UL/CSA	20
	090G6241 2 GP	HEAT SINK	1
D908	093G 60252	SP20150	1
	AM1G1730 8120 GP	SCREW	1
D901	093G 6026T52T	RECTIFIER DIODE FR107	1
	096G 29 1 GP	SHRINK TUBE UL/CSA	15
D902	093G 6038T52T	FR103	1
	096G 29 1 GP	SHRINK TUBE UL/CSA	15
	090G6241 2 GP	HEAT SINK	1
D909	093G 60252	SP20150	1
	AM1G1730 8120 GP	SCREW	1
IC901	056G 379 61	LD7575PS SOP-8	1

IC801	056G 608 10		0Z9938	1
Q803	057G 417 4		PMBS3904/PHILIPS-SMT(04)	1
Q802	057G 417 4		PMBS3904/PHILIPS-SMT(04)	1
Q801	057G 417 4		PMBS3904/PHILIPS-SMT(04)	1
Q806	057G 600 55		P5506 HVG SO-8	1
Q805	057G 600 55		P5506 HVG SO-8	1
Q807	057G 759 2		RK7002	1
Q808	057G 759 2		RK7002	1
Q809	057G 759 2		RK7002	1
Q810	057G 759 2		RK7002	1
Q804	057G 759 2		RK7002	1
Q805	057G 763 14		AM9945N	1
Q806	057G 763 14		AM9945N	1
JR801	061L0805000	GP	CHIP O OHM 1/8W	1
JR804	061L0805000	GP	CHIP O OHM 1/8W	1
JR805	061L0805000	GP	CHIP O OHM 1/8W	1
JR807	061L0805000	GP	CHIP O OHM 1/8W	1
R836	061L0805102	GP	CHIPR 1K OHM +-5% 1/8W	1
R843	061L0805102	GP	CHIPR 1K OHM +-5% 1/8W	1
R920	061L0805102	GP	CHIPR 1K OHM +-5% 1/8W	1
R921	061L0805102	GP	CHIPR 1K OHM +-5% 1/8W	1
R922	061L0805102	GP	CHIPR 1K OHM +-5% 1/8W	1
R912	061L0805103	GP	CHIPR 10K OHM +-5% 1/8W	1
R812	061L0805103	GP	CHIPR 10K OHM +-5% 1/8W	1
R806	061L0805103	GP	CHIPR 10K OHM +-5% 1/8W	1
R804	061L0805103	GP	CHIPR 10K OHM +-5% 1/8W	1
R803	061L0805103	GP	CHIPR 10K OHM +-5% 1/8W	1
R913	061L0805104	GP	CHIPR 100K OHM+-5% 1/8W	1
R815	061L0805104	GP	CHIPR 100K OHM+-5% 1/8W	1
R860	061L0805105	GP	CHIP IMOHM 0805	1
R849	061L0805105	GP	CHIP IMOHM 0805	1
R848	061L0805105	GP	CHIP IMOHM 0805	1
R847	061L0805105	GP	CHIP IMOHM 0805	1
R846	061L0805105	GP	CHIP IMOHM 0805	1
R816	061L0805105	GP	CHIP IMOHM 0805	1
R813	061L0805105	GP	CHIP IMOHM 0805	1
R810	061L0805105	GP	CHIP IMOHM 0805	1

R926	061L0805202	GP	RST CHIPR 2KOHM +-5% 1/8W	1
R924	061L0805240 1F	GP	CHIPR 2.4KOHM +-1% 1/8W	1
R802	061L0805304	GP	RST CHIPR 300KOHM +-5% 1/8W	1
R923	061L0805330 2F	GP	CHIP 33KOHM 1/8W +-1%	1
R826	061L0805360 0F	GP	RST CHIPR 360OHM +-1% 1/8W	1
R925	061L0805360 1F	GP	CHIP 3.6KOHM 1/8W 1%	1
R817	061L0805393	GP	RST CHIPR 39KOHM +/-5% 1/8W	1
R809	061L0805394	GP	RST CHIPR 390KOHM +-5% 1/8W	1
R841	061L0805430 0F	GP	RST CHIPR 430OHM +-1% 1/8W	1
R850	061L0805472	GP	CHIRP 4.7K OHM +-5% 1/8W	1
R852	061L0805472	GP	CHIRP 4.7K OHM +-5% 1/8W	1
R853	061L0805472	GP	CHIRP 4.7K OHM +-5% 1/8W	1
R808	061L0805474	GP	RST CHIPR 470KOHM +-5% 1/8W	1
R825	061L0805513	GP	CHIP 51 KOHM 0805	1
R858	061L0805751	GP	RST CHIPR 750OHM +-5% 1/8W	1
R824	061L0805751	GP	RST CHIPR 750OHM +-5% 1/8W	1
R827	061L0805752	GP	RST CHIPR 7.5KOHM +/-5% 1/8W	1
R831	061L0805752	GP	RST CHIPR 7.5KOHM +/-5% 1/8W	1
R814	061L0805754	GP	RST CHIPR 750KOHM +-5% 1/8W	1
R830	061L0805823	GP	CHIPR 82K OHM+-5% 1/8W	1
R823	061L0805823	GP	CHIPR 82K OHM+-5% 1/8W	1
R811	061L0805913	GP	CHIP 91K OHM 0805	1
JR803	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR901	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR808	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR809	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR806	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR902	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR910	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR911	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
JR912	061L1206000	GP	CHIPR 0 OHM +-5% 1/4W	1
R937	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1
R936	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1
R935	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1
R934	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1
R916	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1
R906	061L1206101	GP	CHIP 100 OHM 5% 1/4W	1

R911	061L1206102	GP	CHIP 1K OHM 5% 1/4W	1
R927	061L1206103	GP	CHIP 10KOHM 5% 1/4W	1
R938	061L1206104	GP	RST CHIPR 100KOHM +-1% 1/4W	1
R904	061L1206104	GP	RST CHIPR 100KOHM +-1% 1/4W	1
R931	061L1206104	GP	RST CHIPR 100KOHM +-1% 1/4W	1
R819	061L1206150	GP	RST CHIPR 15OHM +-5% 1/4W	1
R818	061L1206150	GP	RST CHIPR 15OHM +-5% 1/4W	1
R828	061L1206150	GP	RST CHIPR 15OHM +-5% 1/4W	1
R829	061L1206150	GP	RST CHIPR 15OHM +-5% 1/4W	1
R807	061L1206220	GP	22 OHM/1206	1
R910	061L1206220	GP	22 OHM/1206	1
R909	061L1206339	GP	RST CHIPR 3.3OHM +-5% 1/4W	1
R805	061L1206471	GP	CHIP 470 OHM 1/8W	1
R919	061L1206471	GP	CHIP 470 OHM 1/8W	1
R851	061L1206472	GP	CHIP 4.7KOHM 5% 1/4W	1
R837	061L1206519	GP	CHIPR 5.1 OHM +-5% 1/4W	1
R842	061L1206519	GP	CHIPR 5.1 OHM +-5% 1/4W	1
R901	061L1206684	GP	CHIPR 680K OHM+-5% 1/4W	1
R903	061L1206684	GP	CHIPR 680K OHM+-5% 1/4W	1
R902	061L1206684	GP	CHIPR 680K OHM+-5% 1/4W	1
C805	065G0805102 31	GP	CHIP 1000PF 50V NPO 0805	1
C803	065G0805103 32	GP	MLCC 0805 10NF K 50V X7R	1
C807	065G0805103 32	GP	MLCC 0805 10NF K 50V X7R	1
C828	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C919	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C838	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C839	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C843	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C844	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C801	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C917	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C918	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C829	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C842	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C916	065G0805104 32	GP	CHIP 0.1UF 50V X7R	1
C804	065G0805105 22	GP	CHIP 1UF 25V X7R 0805	1
C806	065G0805105 22	GP	CHIP 1UF 25V X7R 0805	1

C840	065G0805105 22 GP	CHIP 1UF 25V X7R 0805	1
C909	065G0805221 31 GP	MLCC 0805 220PF J 50V NPO	1
C814	065G0805224 22 GP	CAIP CAP 0.22 uF 25V X7R	1
C827	065G0805332 32 GP	MLCC 0805 3300PF K 50V X7R	1
C818	065G0805332 32 GP	MLCC 0805 3300PF K 50V X7R	1
C810	065G0805471 31 GP	MLCC 0805 470PF J 50V NPO	1
C910	065G0805471 31 GP	MLCC 0805 470PF J 50V NPO	1
C820	065G0805471 31 GP	MLCC 0805 470PF J 50V NPO	1
C831	065G0805471 31 GP	MLCC 0805 470PF J 50V NPO	1
C809	065G0805473 32 GP	MLCC 0805 47NF K 50V X7R	1
C819	065G0805473 32 GP	MLCC 0805 47NF K 50V X7R	1
C808	065G0805682 31 GP	MLCC 0805 6800PF J 50V NPO	1
C823	065G1206102 72 GP	CHIP 1000PF 500V X7R	1
C822	065G1206102 72 GP	CHIP 1000PF 500V X7R	1
C813	065G1206102 72 GP	CHIP 1000PF 500V X7R	1
C812	065G1206102 72 GP	CHIP 1000PF 500V X7R	1
C908	065G1206104 32 GP	CHIP 0.1UF 25V X7R 1206	1
D806	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D805	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D803	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D801	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D804	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D802	093G 64 33	DIO SIG SM BAV99 (PHSE)R	1
D810	093G 6432S	IN4148W	1
D809	093G 6432S	IN4148W	1
D811	093G 6432S	IN4148W	1
D812	093G 6432S	IN4148W	1
D813	093G 6432S	IN4148W	1
D903	093G 6432V	LL4148-GS08	1
D904	093G 6432V	LL4148-GS08	1
ZD905	093G 39S 12 T	RLZ20B LLDS	1
ZD801	093G 39S 24 T	RLZ 5.6B LLDS	1
ZD902	093G 39S 24 T	RLZ 5.6B LLDS	1
ZD903	093G 39S 38 T	PTZ 9.1B	1
ZD901	093G 39S 40 T	RLZ 13B LLDS	1
ZD904	093G 39S 44 T	RLZ18B LLDS	1
	PW1942AUS5AIP	POWER BOARD FOR AI	1

CN901	006G 31500 GP	EYELET	3
T901	006G 31502 GP	1.5MM RIVET	6
PT802	006G 31502 GP	1.5MM RIVET	2
PT801	006G 31502 GP	1.5MM RIVET	2
Q903	006G 31502 GP	1.5MM RIVET	2
FB901	006G 31502 GP	1.5MM RIVET	2
R914	006G 31502 GP	1.5MM RIVET	2
C905	006G 31502 GP	1.5MM RIVET	2
L902	006G 31502 GP	1.5MM RIVET	4
L901	006G 31502 GP	1.5MM RIVET	4
NR901	006G 31502 GP	1.5MM RIVET	2
F901	006G 31502 GP	1.5MM RIVET	2
IC903	056G 158 12	KIA431A-AT/P TO-92	1
R822	061G212Y625 KT GP	MATEL GLAZE 6.2M OHM 3KV 1/2W	1
R832	061G212Y625 KT GP	MATEL GLAZE 6.2M OHM 3KV 1/2W	1
C930	065G 2K152 1T GP	CERAMIC CAP	1
C931	065G 2K152 1T GP	CERAMIC CAP	1
C932	065G 2K152 1T GP	CERAMIC CAP	1
C933	065G 2K152 1T GP	CERAMIC CAP	1
C934	065G 2K152 1T GP	CERAMIC CAP	1
C906	067G 2151007NT GP	KY50VB10M-TP5(5*11)	1
C907	067G 2151007NT GP	KY50VB10M-TP5(5*11)	1
JP905	095G 90 23 GP	TIN COATED	1
JP904	095G 90 23 GP	TIN COATED	1
JP903	095G 90 23 GP	TIN COATED	1
JP902	095G 90 23 GP	TIN COATED	1
JP901	095G 90 23 GP	TIN COATED	1
JP820	095G 90 23 GP	TIN COATED	1
JP819	095G 90 23 GP	TIN COATED	1
JP818	095G 90 23 GP	TIN COATED	1
JP817	095G 90 23 GP	TIN COATED	1
JP815	095G 90 23 GP	TIN COATED	1
JP906	095G 90 23 GP	TIN COATED	1
JR802	095G 90 23 GP	TIN COATED	1
JP920	095G 90 23 GP	TIN COATED	1
JP919	095G 90 23 GP	TIN COATED	1
JP918	095G 90 23 GP	TIN COATED	1

JP917	095G 90 23 GP	TIN COATED	1
JP916	095G 90 23 GP	TIN COATED	1
JP915	095G 90 23 GP	TIN COATED	1
JP914	095G 90 23 GP	TIN COATED	1
JP913	095G 90 23 GP	TIN COATED	1
JP911	095G 90 23 GP	TIN COATED	1
JP910	095G 90 23 GP	TIN COATED	1
JP907	095G 90 23 GP	TIN COATED	1
JP812	095G 90 23 GP	TIN COATED	1
JP801	095G 90 23 GP	TIN COATED	1
JP803	095G 90 23 GP	TIN COATED	1
JP805	095G 90 23 GP	TIN COATED	1
JP807	095G 90 23 GP	TIN COATED	1
JP808	095G 90 23 GP	TIN COATED	1
JP809	095G 90 23 GP	TIN COATED	1
JP811	095G 90 23 GP	TIN COATED	1
	715G1899 1 GP	POWER BOARD	1