Service
Service
Service

Service Manual

Horizontal Frequency
30-83 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

Revision List

Version	Release Date	Revision History	TPV Model Name
A00	Jul.5.2011	Initial release	HDBGT22MAYSCDN
			HDBGT22LAY3ADN
			HDBGT22FAYUHDN
			HDBGT22BAYK2DN
			HDBGT22TAY1RDN
A01	Nov.08.2011	Add new model	HDBGT22AAYUNDN
A02	Nov.21.2011	Add new models	HDBGT22EAYACDN
			HDBGT22EAY6ADN
			HDBGT22QAYA6DN
			HDBGT22KAYE6DN

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all AOC Company Equipment. The service procedures recommended by AOC 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. AOC 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, AOC has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by AOC 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, AOC Company will be referred to as AOC.

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 AOC.
AOC 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 radiation 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.)

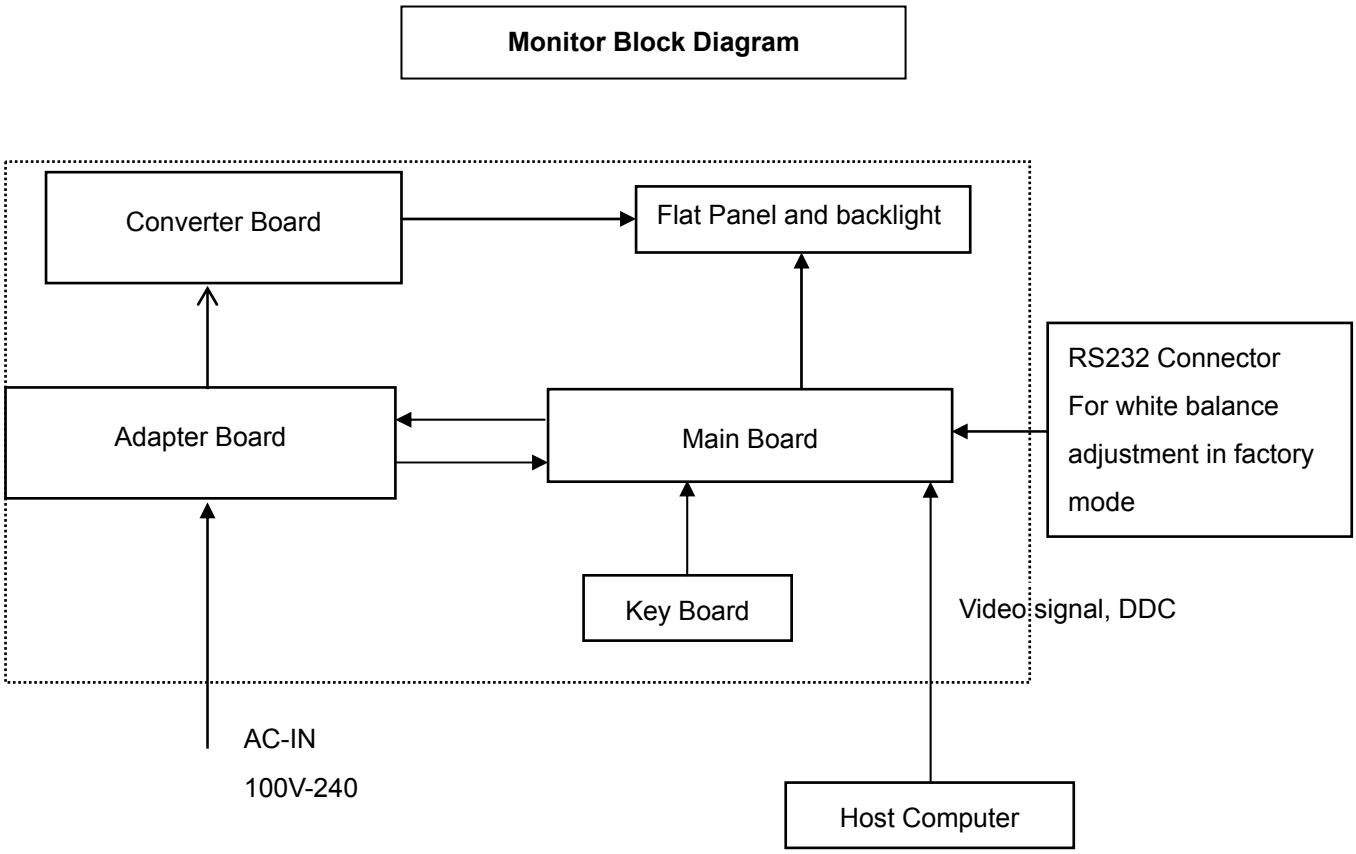
1. Monitor Specifications

Panel	Model name	e2352Phz	
	Driving system	TFT Color LED	
	Viewable Image Size	58.4cm diagonal	
	Pixel pitch	0.265 mm(H) x 0. 265 mm(V)	
	Video	R, G, B Analog Interface,DVI,HDMI	
	Separate Sync.	H/V TTL	
	Display Color	16.7M Colors	
	Dot Clock	148.5 MHz	
Resolution	Horizontal scan range	30 kHz - 83 kHz	
	Horizontal scan Size(Maximum)	509.76 mm	
	Vertical scan range	50 Hz - 76 Hz	
	Vertical scan Size(Maximum)	286.74 mm	
	Optimal preset resolution	1920 x 1080 (60 Hz)	
	Plug & Play	VESA DDC2B/C1	
	Input Connector	D-Sub 15 pin, DVI-D,HDMI	
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, Positive & DVI-D Digital Interface,HDMI	
	Power Source	100-240V~, 50/60Hz	
	Power Consumption	Active < 40 W (Typical)	
		Standby < 0.6 W	
	Off timer	0~24 hrs	
Physical Characteristics	Connector Type	Conector mini D-Sub de 15 pinos e DVI-D ,HDMI	
	Signal Cable Type	Detachable	
	Dimensions & Weight	Height (with base)	398.7 mm
		Width	547.8 mm
		Depth	190.0 mm
		Weight (monitor only)	3.25 kg
Environmental	Temperature	Operating	0° to 40°
		Non-Operating	-25°to 55°
	Humidity	Operating	10% to 85% (non-condensing)
		Non-Operating	5% to 93% (non-condensing)
	Altitude	Operating	0~ 3658m (0~ 12000 ft)
		Non-Operating	0~ 12192m (0~ 40000 ft)

2. LCD Monitor Description

The LCD monitor will contain a main board, an adapter board, a converter board and a key board which house the flat panel control logic, brightness control logic and DDC.

The power part will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.

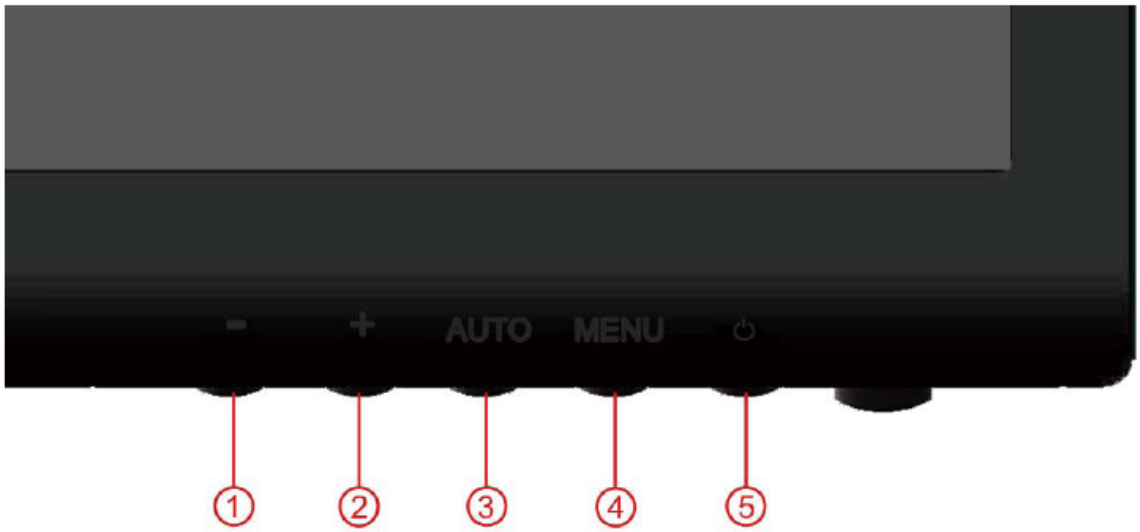


3. Operating Instructions

3.1 General Instructions

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

3.2 Control Buttons



1	3D/-
2	Volume/+
3	Source/Auto/Exit
4	Menu/Enter
5	Power

Power

Press the Power button to turn on/off the monitor.

3D/-

Press this hotkey continuously to select 2D/3D functions when the on-screen display (OSD) is unavailable.

Volume/+

When there is no OSD, press Volume adjust volume.

Auto / Exit / Source hot key

When there is no OSD, press Auto/Source button continuously about 2 second to do auto configure. When the OSD is closed, press Source button will be Source hot key function. Press Source button continuously to select the input source showed in the message bar, press Menu/Enter button to change to the source selected.

3.3 OSD Menu

1) Press the **MENU-button** to activate the OSD window.

2) Press **- or +** to navigate through the functions. Once the desired function is highlighted, press the **MENU-button** to activate it. Press **- or +** to navigate through the sub-menu functions. Once the desired function is highlighted, press **MENU-button** to activate it.

3) Press **- or +** to change the settings of the selected function. Press **AUTO** to exit. If you want to adjust any other function, repeat steps 2-3.

4) OSD Lock Function: To lock the OSD, press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on. To un-lock the OSD - press and hold the **MENU button** while the monitor is off and then press **power button** to turn the monitor on.

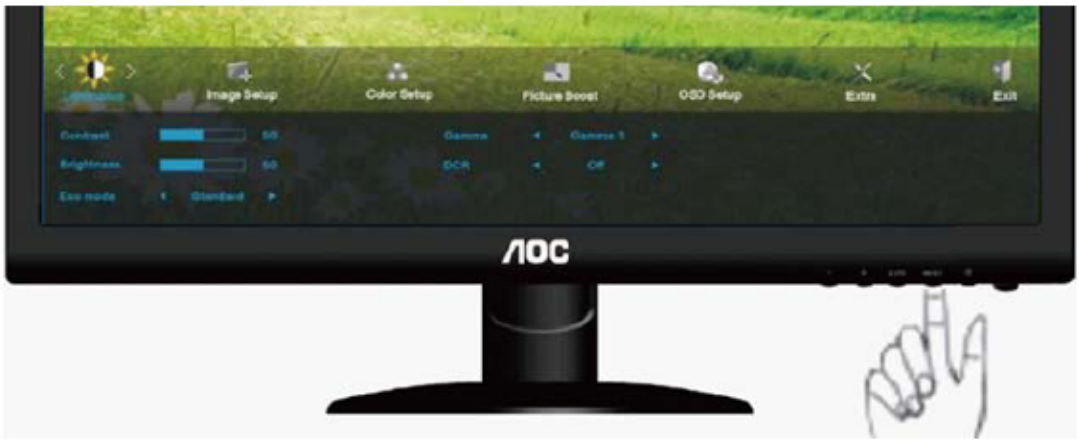
Notes:

1) If the product has only one signal input, the item of "Input Select" is disable to adjust.

2) If the product screen size is 4:3 or input signal resolution is wide format, the item of "Image Ratio" is disable to adjust.

3) One of DCR, Color Boost, and Picture Boost functions is active, the other two function is turned off accordingly.

Luminance



1. Press **MENU** (Menu) to display menu.

2. Press **-** or **+** to select (Luminance), and press **MENU** to enter.

3. Press **-** or **+** to select submenu, and press **MENU** to enter.

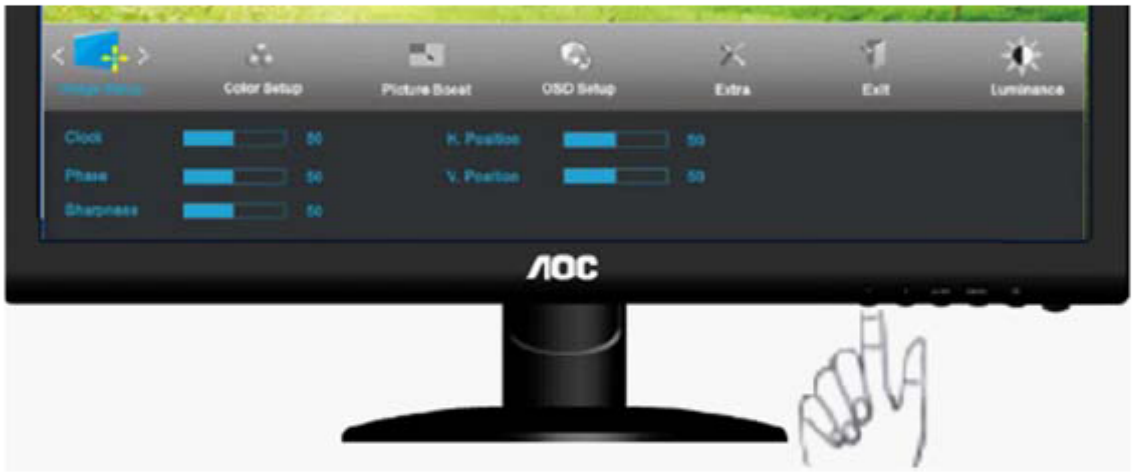
4. Press **-** or **+** to adjust.

5. Press **AUTO** to exit.

	Brightness	0-100		Backlight Adjustment
	Contrast	0-100		Contrast from Digital-register.
	Eco mode	Standard		Standard Mode
		Text		Text Mode
		Internet		Internet Mode
		Game		Game Mode
		Movie		Movie Mode
		Sports		Sports Mode
	Gamma	Gamma1		Adjust to Gamma1
		Gamma2		Adjust to Gamma 2
		Gamma3		Adjust to Gamma 3
	DCR	Off		Disable dynamic contrast ratio
		On		Enable dynamic contrast ratio

Image Setup

1. Press **MENU** (Menu) to display menu.



2. Press **-** or **+** to select  (Image Setup), and press **MENU** to enter.

3. Press **-** or **+** to select submenu, and press **MENU** to enter.

4. Press **-** or **+** to adjust.

5. Press **AUTO** to exit.

	Clock	0-100	Adjust picture Clock to reduce Vertical-Line noise.
	Phase	0-100	Adjust Picture Phase to reduce Horizontal-Line noise
	Sharpness	0-100	Adjust picture sharpness
	H.Position	0-100	Adjust the horizontal position of the picture.
	V.Position	0-100	Adjust the vertical position of the picture.

Color Setup

1. Press **MENU** (Menu) to display menu.

2. Press **-** or **+** to select  (Color Setup), and press **MENU** to enter.

3. Press **-** or **+** to select submenu, and press **MENU** to enter.

4. Press **-** or **+** to adjust.

5. Press **AUTO** to exit.

	Color setup.	Warm		Recall Warm Color Temperature from EEPROM.
		Normal		Recall Normal Color Temperature from EEPROM.
		Cool		Recall Cool Color Temperature from EEPROM.
		sRGB		Recall SRGB Color Temperature from EEPROM.
		User	Red	Red Gain from Digital-register
			Green	Green Gain Digital-register.
			Blue	Blue Gain from Digital-register
	DCB Mode	Full Enhance	on or off	Disable or Enable Full Enhance Mode
		Nature Skin	on or off	Disable or Enable Nature Skin Mode
		Green Field	on or off	Disable or Enable Green Field Mode
		Sky-blue	on or off	Disable or Enable Sky-blue Mode
		AutoDetect	on or off	Disable or Enable AutoDetect Mode
	DCB Demo		On or off	Disable or Enable Demo

Picture Boost

1. Press **MENU** (Menu) to display menu.

2. Press **-** or **+** to select  (Picture Boost), and press **MENU** to enter.

3. Press **-** or **+** to select submenu, and press **MENU** to enter.

4. Press **-** or **+** to adjust.

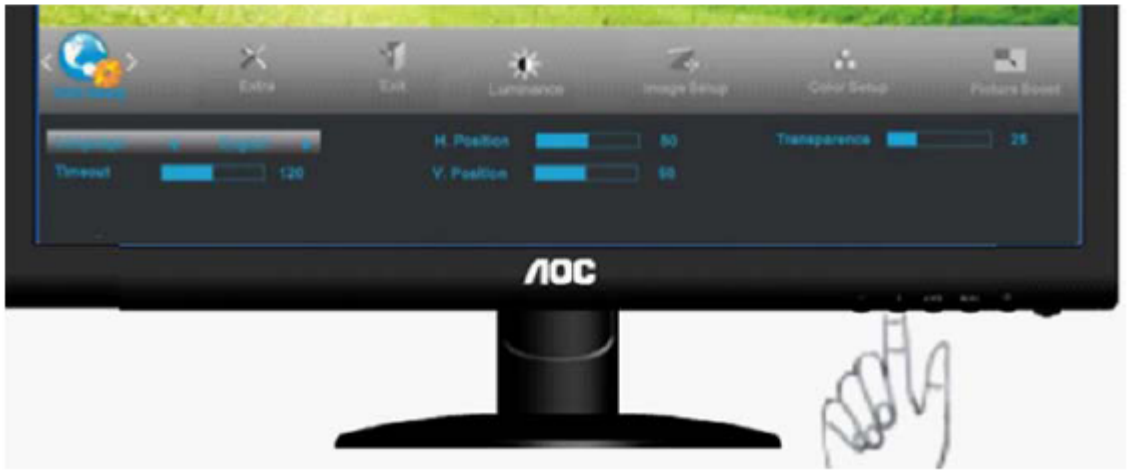
5. Press **AUTO** to exit.

	Frame Size	14-100	Adjust Frame Size
	Brightness	0-100	Adjust Frame Brightness
	Contrast	0-100	Adjust Frame Contrast
	H. position	0-100	Adjust Frame horizontal Position
	V.position	0-100	Adjust Frame vertical Position
	Bright Frame	on or off	Disable or Enable Bright Frame

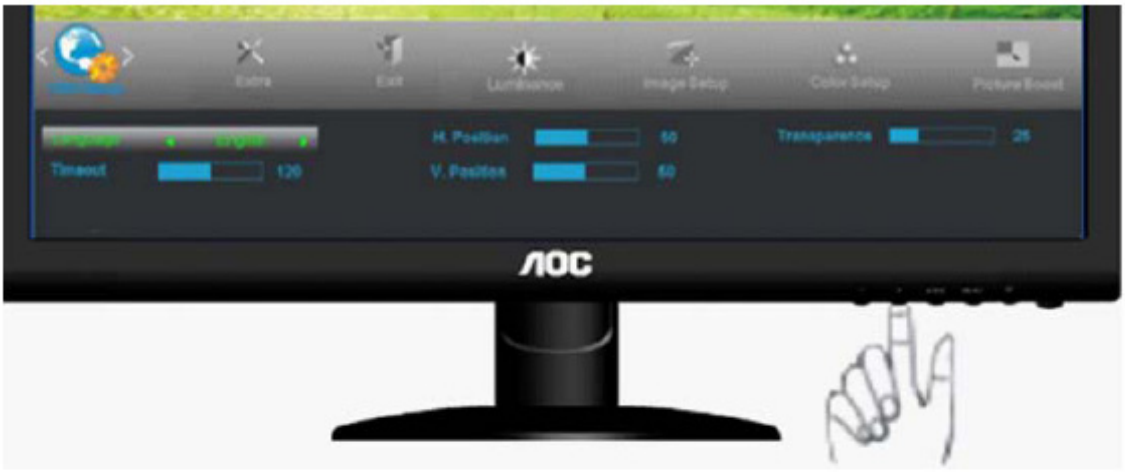
OSD Setup

1. Press **MENU** (Menu) to display menu.

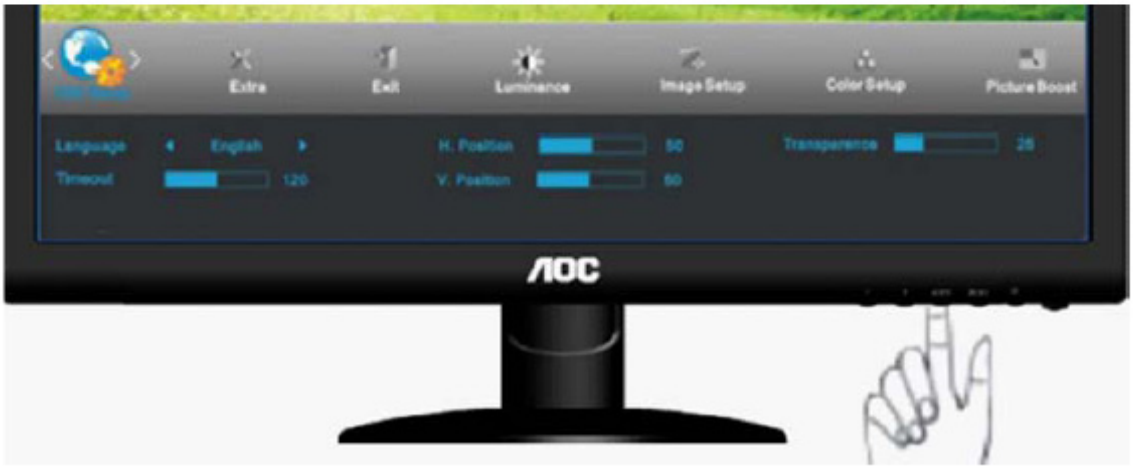
2. Press **-** or **+** to select  (OSD Setup), and press **MENU** to enter.



3. Press **-** or **+** to select submenu, and press **MENU** to enter.



4. Press **-** or **+** to adjust.

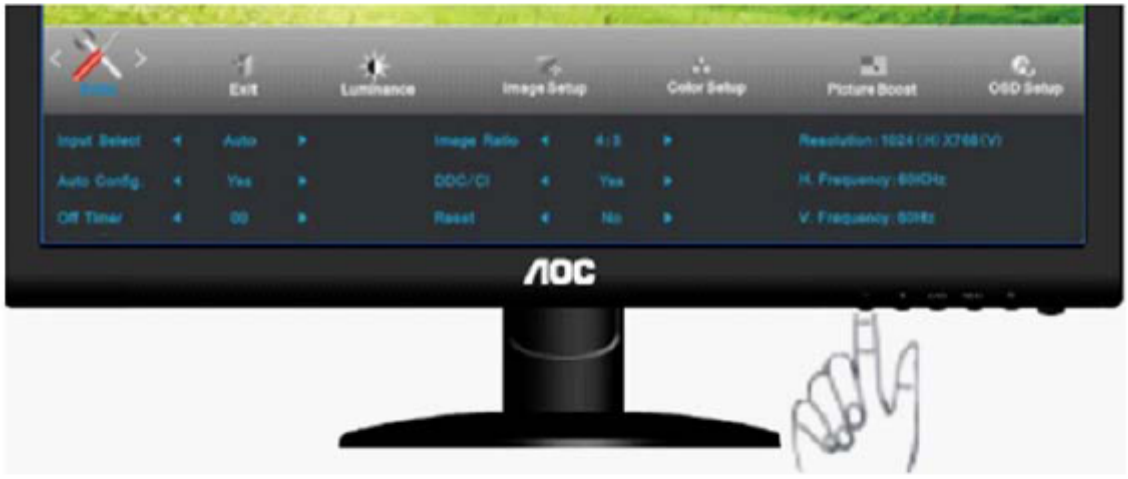


5. Press **AUTO** to exit.

	H.Position	0-100	Adjust the horizontal position of OSD
	V.Position	0-100	Adjust the vertical position of OSD
	Timeout	5-120	Adjust the OSD Timeout
	Transparence	0-100	Adjust the transparence of OSD
	Language		Select the OSD language

Extra

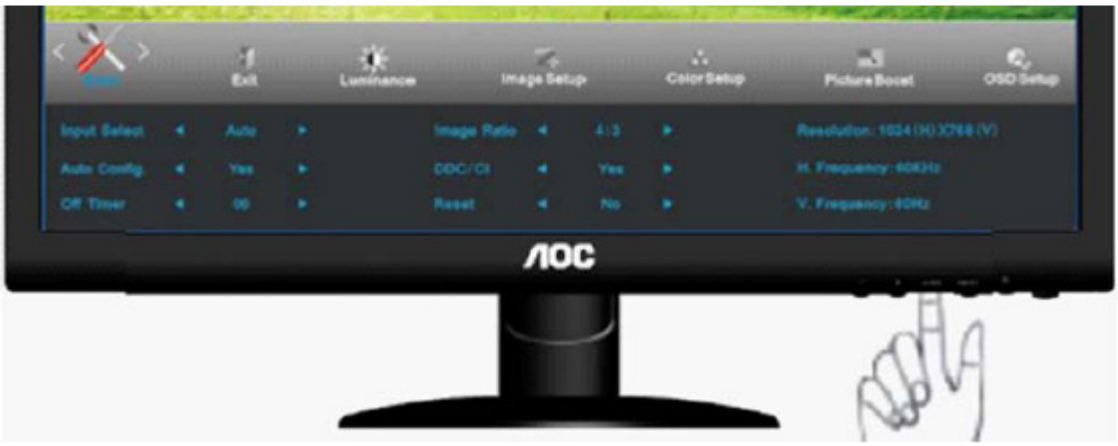
1. Press **MENU** (Menu) to display menu.



2. Press **-** or **+** to select  (Extra), and press **MENU** to enter.

3. Press **-** or **+** to select submenu, and press **MENU** to enter.

4. Press **-** or **+** to adjust.



5. Press **AUTO** to exit.

	Input Select	Auto	Select to Auto Detect input signal
		Analog	Select Analog Signal Source as Input
		DVI	Select DVI Source as Input
		HDMI	Select HDMI Source as Input
	Auto Config	yes or no	Auto adjust the picture to default
	Image Ratio	wide or 4:3	Select wide or 4:3 format for display
	DDC-CI	yes or no	Turn ON/OFF DDC-CI Support
	Off Timer	0~24hours	Select timing to turn off the monitor.
	Information		Show the information of the main image and sub-image source

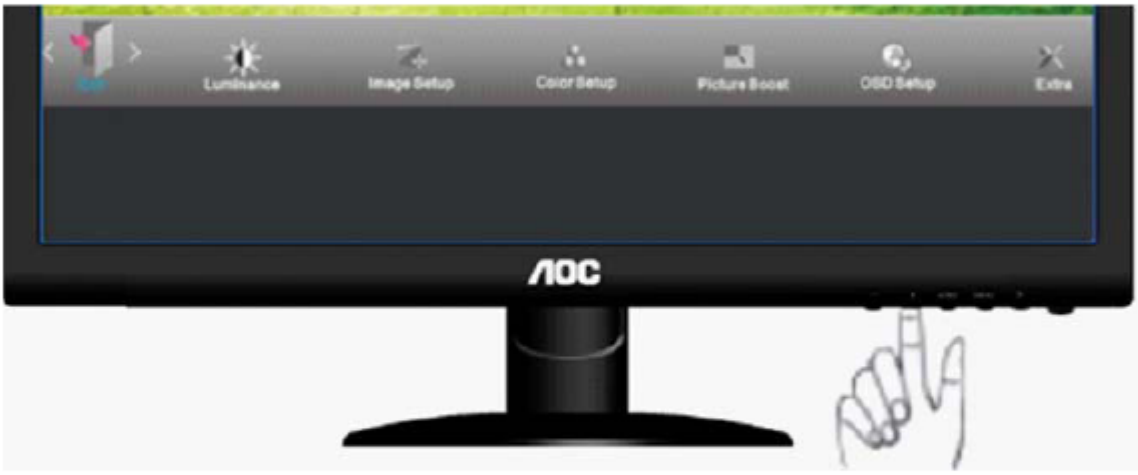
1. VGA/DVI mode: Press the Menu key to enter the OSD menu and select the 2D/3D menu. 2D, 3D (SBS), 3D(T/B) modes are available for switchover.

2. HDMI input mode under 2D: Press the Menu key to enter the OSD menu and select the 2D/3D/ menu. Auto (2D), 3D (SBS) and 3D (T/B) modes are available for switchover.

3. HDMI input mode under 3D: Press the Menu key to enter the OSD menu and select the 2D/3D/ menu. Auto (3D), 3D (SBS) and 3D (T/B) modes are available for switchover.

Exit

1. Press **MENU** (Menu) to display menu.



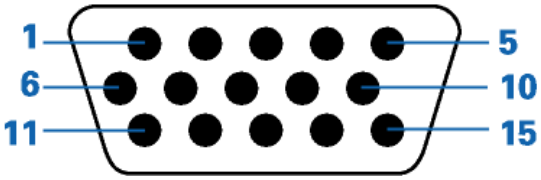
2. Press **-** or **+** to select  (Exit), and press **MENU** to enter.

3. Press **AUTO** to exit.

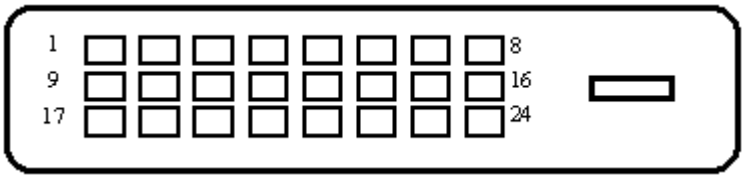
	Exit		Exit the main OSD

4. Input/Output Specification

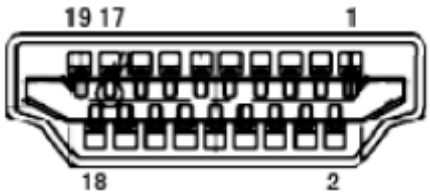
4.1 Input Signal Connector



Pin Number	15-Pin Side of the Signal Cable
1	Video-Red
2	Video-Green
3	Video-Blue
4	Ground
5	Detect Cable
6	GND-R
7	GND-G
8	GND-B
9	+5V
10	Ground
11	Ground
12	DDC-Serial data
13	H-sync
14	V-sync
15	DDC-Serial clock



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1.	TMDS Data 2-	9.	TMDS Data 1-	17.	TMDS Data 0-
2.	TMDS Data 2+	10.	TMDS Data 1+	18.	TMDS Data 0+
3.	TMDS Data 2/4 Shield	11.	TMDS Data 1/3 Shield	19.	TMDS Data 0/5 Shield
4.	TMDS Data 4- / N.C.	12.	TMDS Data 3- / N.C.	20.	TMDS Data 5- / N.C.
5.	TMDS Data 4+ / N.C.	13.	TMDS Data 3+ / N.C.	21.	TMDS Data 5+ / N.C.
6.	DDC Clock	14.	+5V Power	22.	TMDS Clock Shield
7.	DDC Data	15.	DVI Cable Detect	23.	TMDS Clock +
8.	N.C.	16.	Hot Plug Detect	24.	TMDS Clock -



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	TMDS Data 2+	9	TMDS Data 0	17	DDC/CEC Ground
2	TMDS Data 2 Shield	10	TMDS Clock +	18	+5V Power
3	TMDS Data 2	11	TMDS Clock Shield	19	Hot Plug Detect
4	TMDS Data 1+	12	TMDS Clock		
5	TMDS Data 1Shield	13	CEC		
6	TMDS Data 1	14	Reserved (N.C. on device		
7	TMDS Data 0+	15	SCL		
8	TMDS Data 0 Shield	16	SDA		

4.2 Factory Preset Display Modes

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY(kHz)	VERTICAL FREQUENCY(Hz)
VGA	640x480@60Hz	31.469	59.94
VGA	640x480@72Hz	37.861	72.809
VGA	640x480@75Hz	37.5	75
SVGA	800x600@56Hz	35.156	56.25
SVGA	800x600@60Hz	37.879	60.317
SVGA	800x600@72Hz	48.077	72.188
SVGA	800x600@75Hz	46.875	75
XGA	1024x768@60Hz	48.363	60.004
XGA	1024x768@70Hz	56.476	70.069
XGA	1024x768@75Hz	60.023	75.029
SXGA	1280x1024@60Hz	63.981	60.02
SXGA	1280x1024@75Hz	79.976	75.025
WXGA+	1440x900@60Hz	55.935	59.887
WXGA+	1440x900@60Hz	55.469	59.901
WSXGA	1680x1050@60Hz	65.29	59.954
HD	1920 x1080@60Hz	67.5	60
***	1280x720@60Hz	45	60
***	1280x960@60HZ	60	60
IBM-MODE DOS	720x400@70Hz	31.469	70.087
MAC MODE VGA	640x480@67Hz	35	66.667
MAC MODE VGA	832x624@75Hz	49.725	74.551

Preset table for the HDMI 3D mode

3D Format	Resolution	Refresh Rate
Frame Packing	1080p	24Hz
Frame Packing	720p	50/60Hz
Side-by-Side(Half)	1080p	50/60Hz
Side-by-Side(Half)	1080i	50/60Hz
Side-by-Side(Half)	720p	50/60Hz
Top-and-Bottom	1080p	50/60Hz
Top-and-Bottom	1080p	24Hz
Top-and-Bottom	720p	50/60Hz

For HDMI INPUT, switch over to 1920*1080/24/25/30HZ if the font on the display unit screen is not clear.

4.3 Panel Specification

4.3.1 General Features

LM230WF8-TLA1 is a Color Active Matrix Liquid Crystal Display Light Emitting Diode (White LED) backlight system without LED driver. The matrix employs a-Si Thin Film Transistor as the active element. It is a transmissive type display operating in the normally white mode. It has a 23 inch diagonally measured active display area with FHD resolution (1080 vertical by 1920 horizontal pixel array) Each pixel is divided into Red, Green and Blue sub-pixels or dots which are arranged in vertical stripes. Gray scale or the brightness of the sub-pixel color is determined with a 8-bit gray scale signal for each dot, thus, presenting a palette of more than 16,7M colors with Advanced-FRC(Frame Rate Control). It has been designed to apply the interface method that enables low power, high speed, low EMI. FPD Link or compatible must be used as a LVDS(Low Voltage Differential Signaling) chip. It is intended to support applications where thin thickness, wide viewing angle, low power are critical factors and graphic displays are important. In combination with the vertical arrangement of the sub-pixels, the LM230WF8-TLA1 characteristics provide an excellent flat panel display for office automation products such as monitors.

4.3.2 Display Characteristics

Active screen size	23 inches(58.42cm) diagonal(Aspect ratio 16:9)
Outline Dimension	533.2(H) x 312.0(V) x 10.7(D) mm (Typ.)
Pixel Pitch	0.265mm x 0.265mm
Pixel Format	1920 horizontal By 1080 vertical Pixels. RGB stripe arrangement
Interface	LVDS 2Port
Color depth	16.7M colors
Luminance, white	250 cd/m² (Center 1Point, typ)
Viewing Angle (CR>10)	R/L 170(Typ.), U/D 160(Typ.)
3D Viewing Angle(3DCT<10)	U/D 12 (Typ.)
Power Consumption	Total 27.12 W (Typ.), (6.0 W@V_{LCD}, 21.12 W@W/O_Driver)
Weight	1,700 g (Typ.)
Display operating mode	Transmissive mode, normally White
Surface treatments	Anti Glare

4.3.3 Electrical Characteristics

Parameter	Symbol	Values			Unit
		Min	Typ	Max	
MODULE :					
Power Supply Input Voltage	V_{LCD}	4.5	5.0	5.5	Vdc
Permissive Power Input Ripple	V_{LCD}	-	-	0.4	V
Power Supply Input Current	$I_{LCD-MOSAIC}$	-	1200	1380	mA
	$I_{LCD-BLACK}$	-	1400	1600	mA
Power Consumption	P_{LCD}	-	6.0	6.90	Watt
Inrush current	I_{RUSH}	-	-	3.5	A

Parameter	Symbol	Condition	Values			Unit
			Min.	Typ.	Max.	
LED :						
LED String Current	Is_peak		-	110	120	mA
LED String Voltage	Vs		45	48	51	V
Power Consumption	P_{Bar}		19.80	21.12	22.44	Watt
LED Life Time	LED_LT		30,000	-	-	Hrs

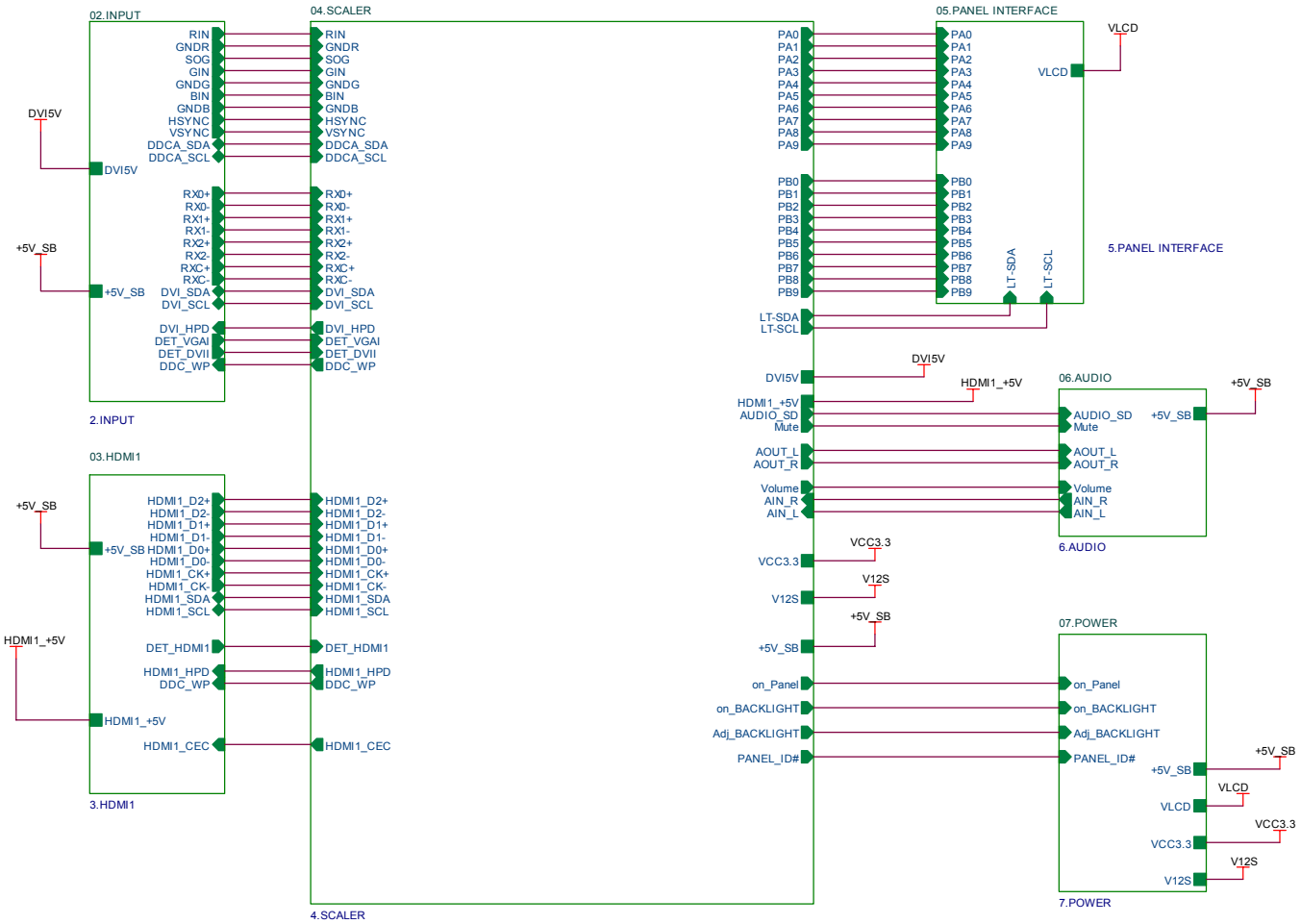
4.3.4 Optical Characteristics

Ta= 25°C, V_{LCD}=5.0V, f_V=60Hz f_{CLK}=119MHz, I_{BL} = 110mA

Parameter		Symbol	Values			Units
			Min	Typ	Max	
Contrast Ratio		CR	700	1000	-	
Surface Luminance, white		L_{WH}	200	250	-	cd/m²
Luminance Variation		δ_{WHITE} 9P	75			%
Response Time	Rise Time	Tr_R	-	1.3	2.6	ms
	Decay Time	Tr_D	-	3.7	7.4	ms
Color Coordinates [CIE1931]	RED	Rx	Typ -0.03	0.636	Typ +0.03	
		Ry		0.333		
	GREEN	Gx		0.303		
		Gy		0.626		
	BLUE	Bx		0.153		
		By		0.070		
	WHITE	Wx		0.313		
		Wy		0.329		
Viewing Angle (CR>5)						
	x axis, right(ϕ=0°)	θr	75	88		Degree
	x axis, left (ϕ=180°)	θl	75	88		
	y axis, up (ϕ=90°)	θu	70	85		
	y axis, down (ϕ=270°)	θd	70	85		
Viewing Angle (CR>10)						
	x axis, right(ϕ=0°)	θr	70	85		Degree
	x axis, left (ϕ=180°)	θl	70	85		
	y axis, up (ϕ=90°)	θu	60	75		
	y axis, down (ϕ=270°)	θd	70	85		
3D Viewing Angle (3DCT < 10%)				**12**		Degree
Crosstalk					1.5	%
3D Crosstalk (min.)				**1.8**		%

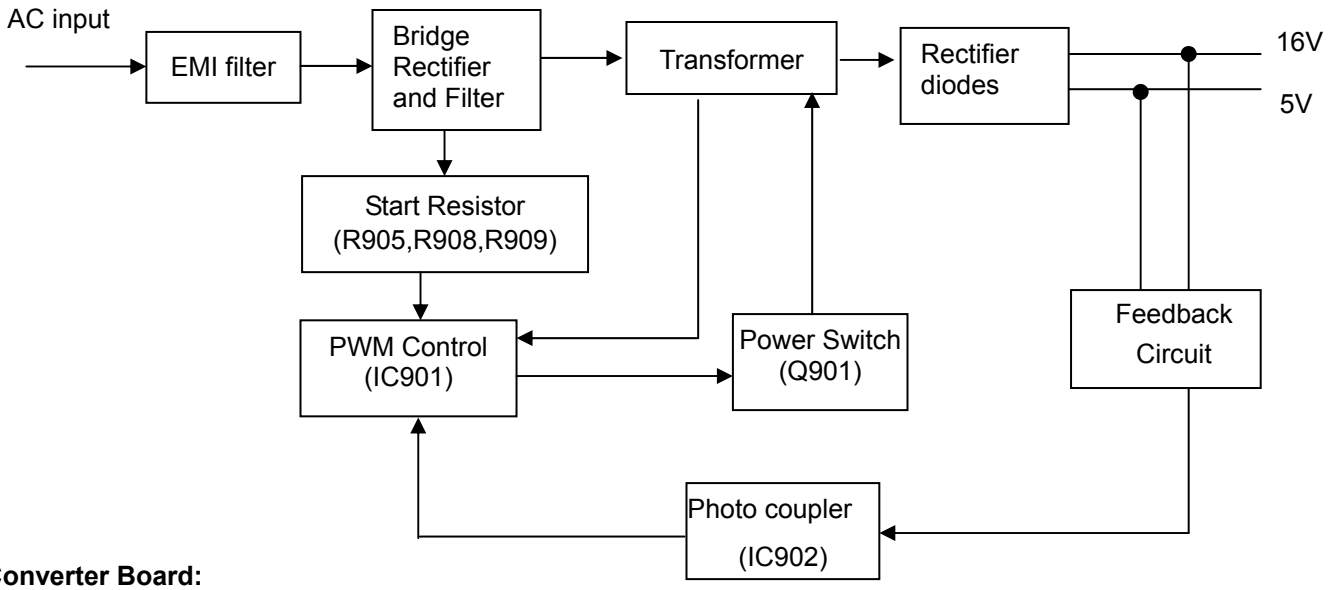
5. Block Diagram

5.1 Main Board

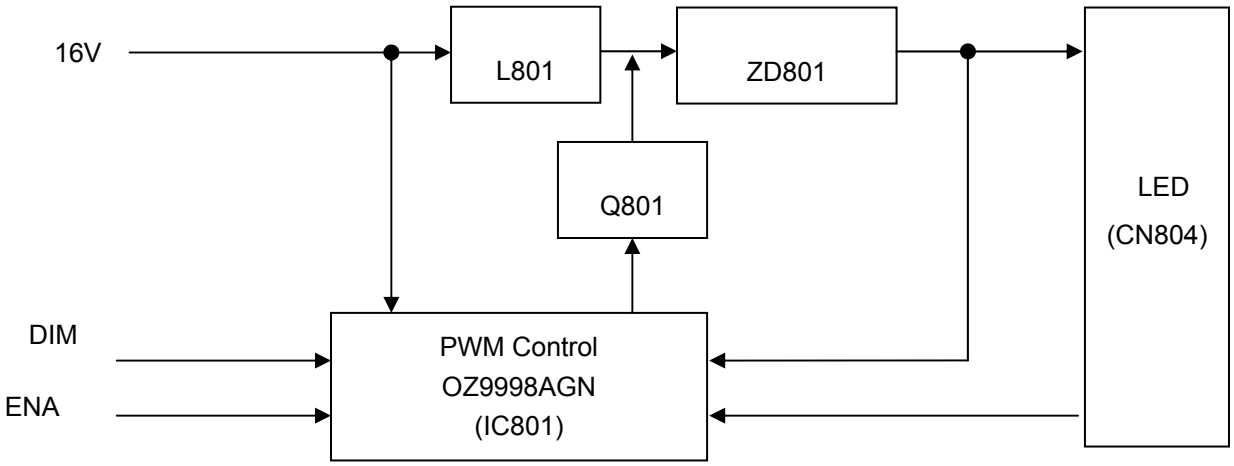


5.2 Power Board

Adapter Board:



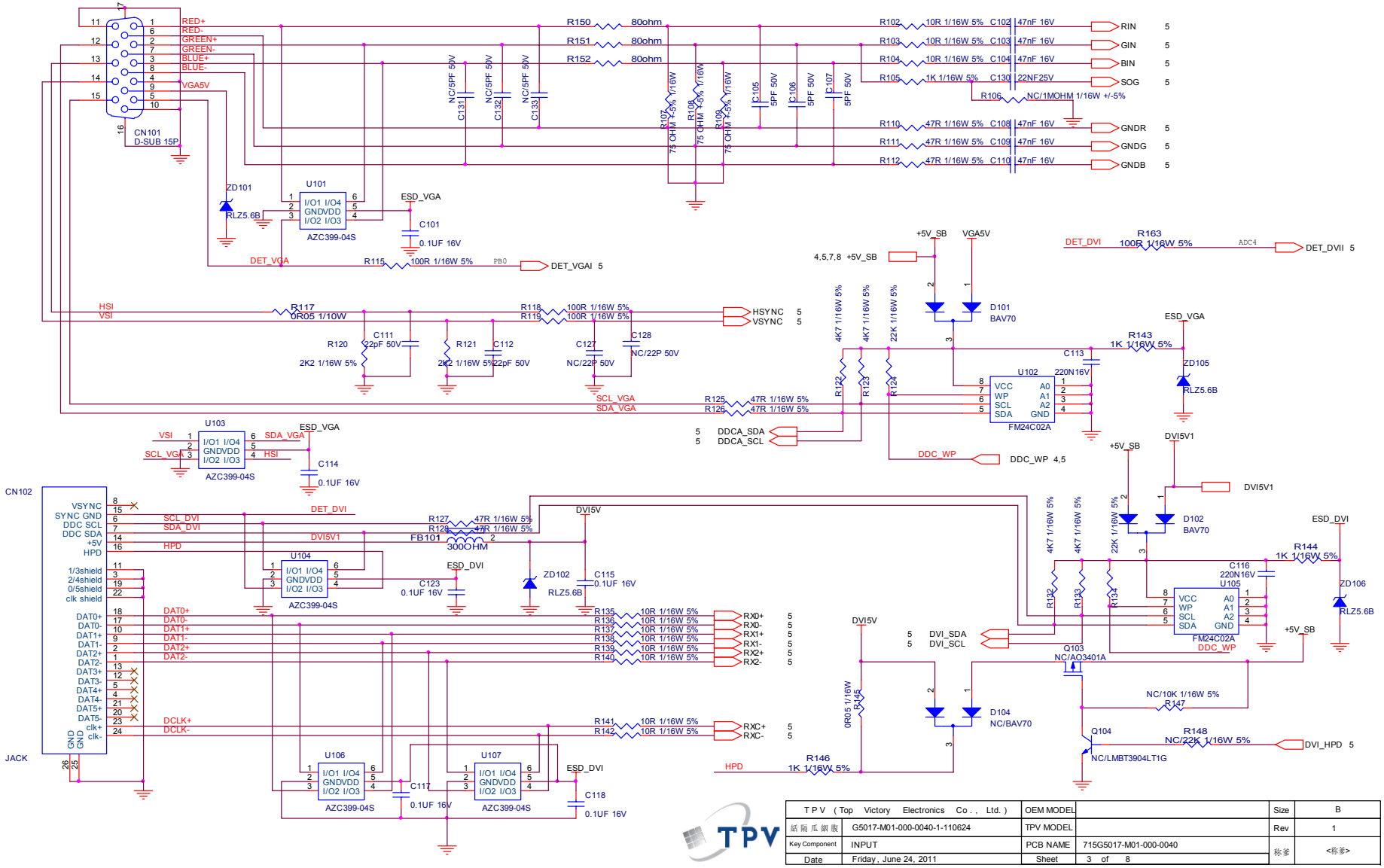
Converter Board:

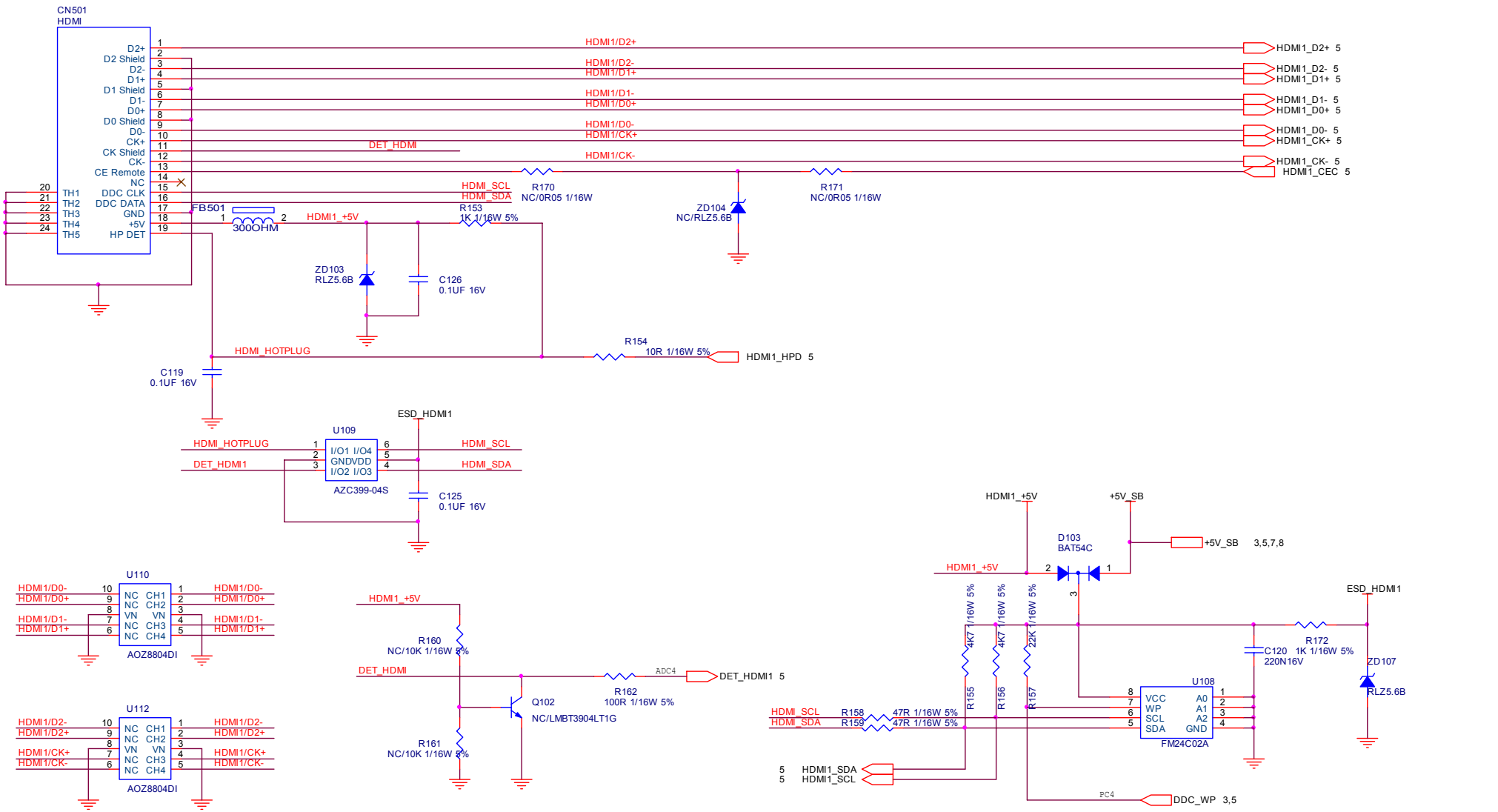


6. Schematic

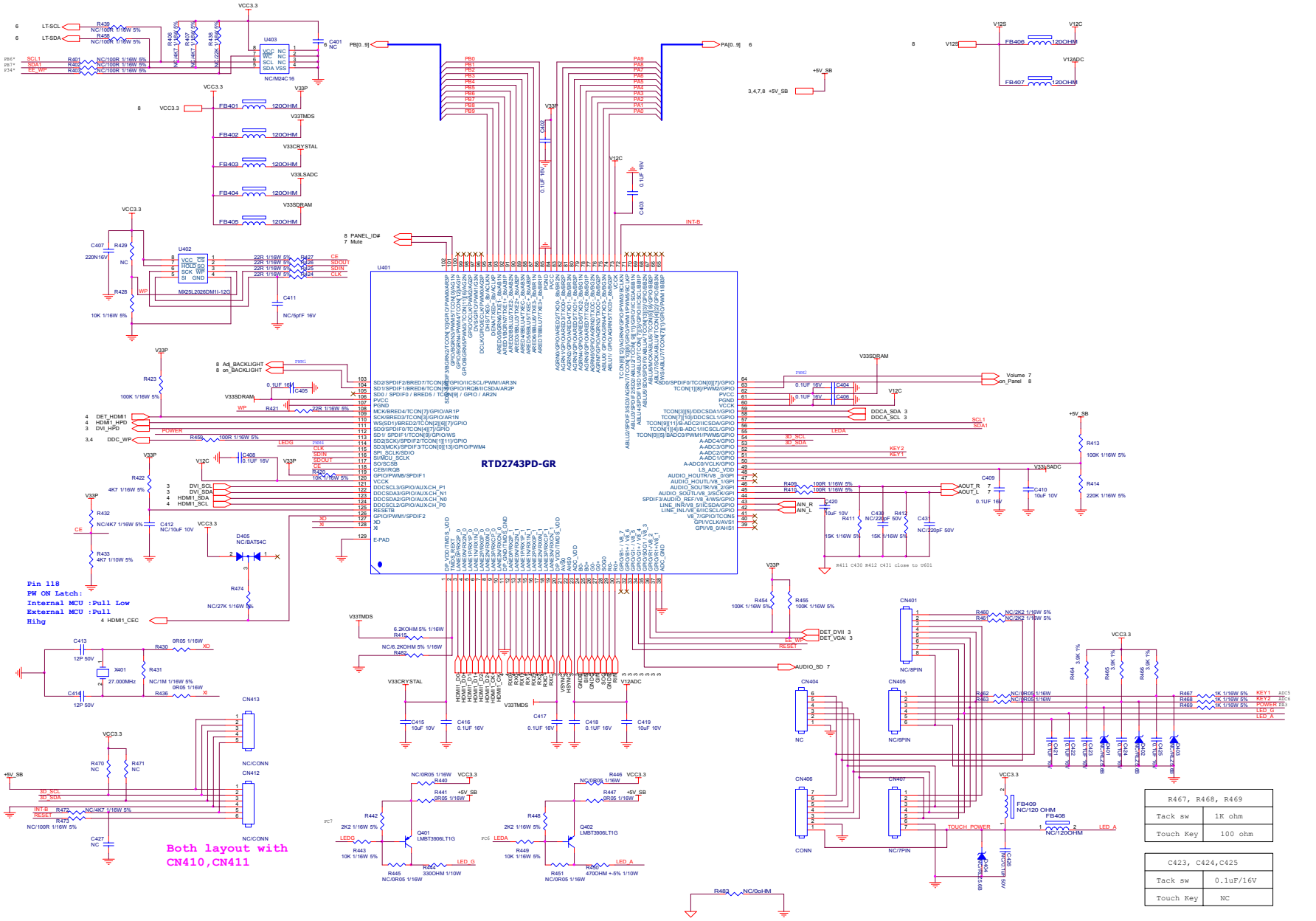
6.1 Main Board

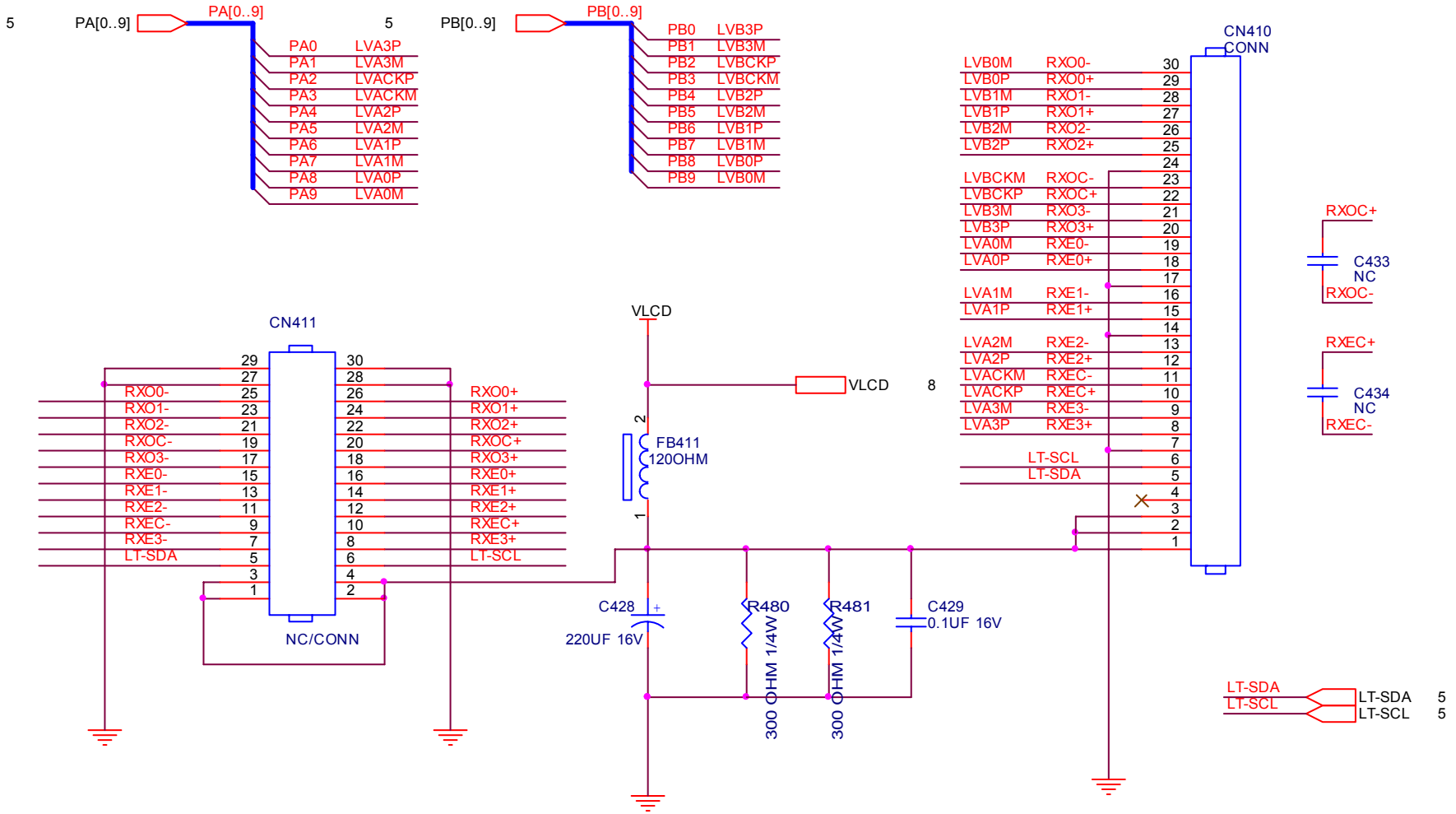
715G5017M01000004L



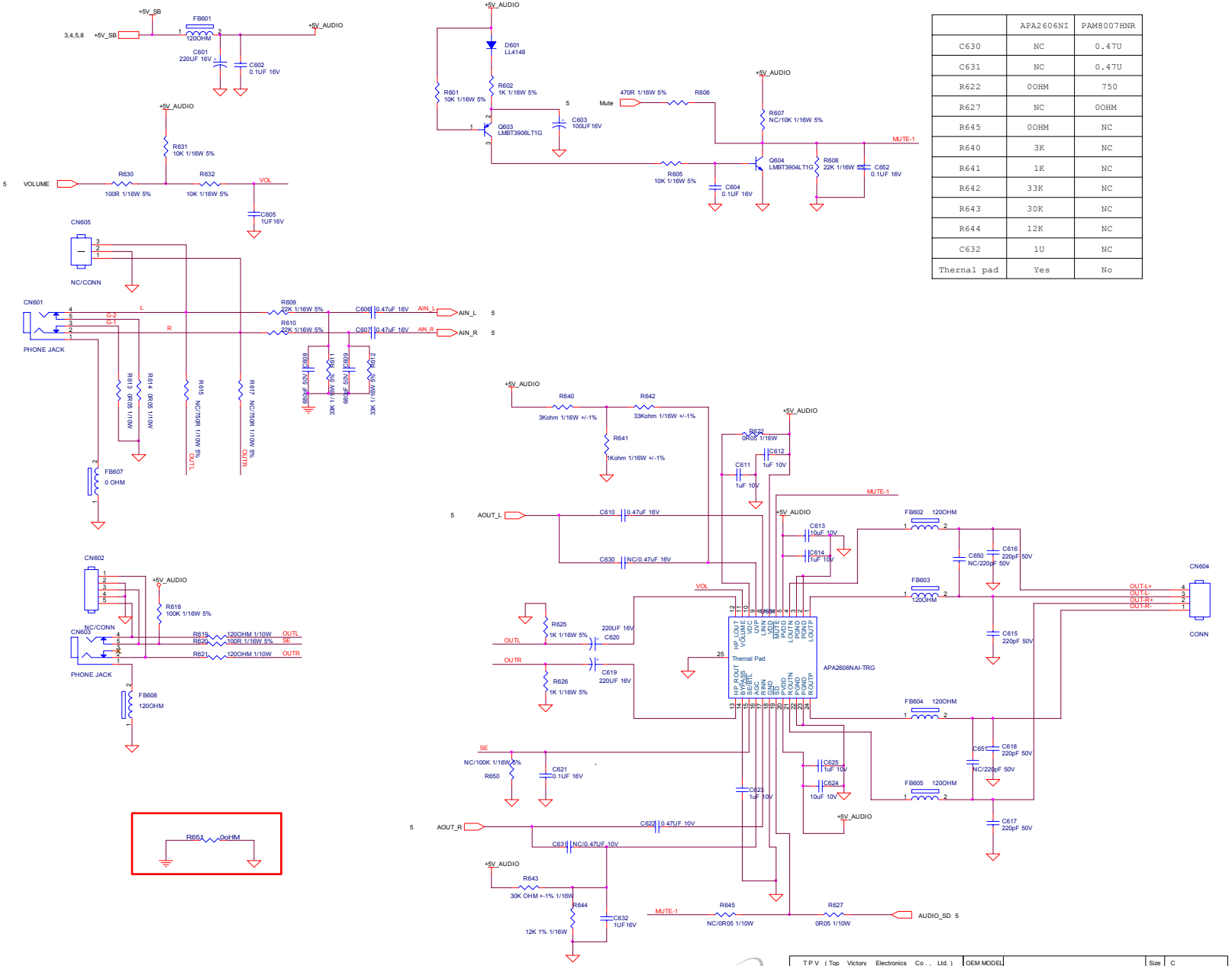


TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
紜 隔 瓜 綢 腹	G5017-M01-000-0040-1-110624	TPV MODEL		Rev	1
Key Component	HDMI	PCB NAME	715G5017-M01-000-0040	称爹	<称爹>
Date	Friday, June 24, 2011	Sheet	4 of 8		


RTD2743PD-GR
U401
U402
U403
M25L2026DM1I-12G
NC/M24C16
Pin 118
PW ON Latch :
Internal MCU :Pull Low
External MCU :Pull
Hihg
Both layout with
CN410,CN411
R467, R468, R469
Tack sw
1K ohm
Touch Key
100 ohm
C423, C424,C425
Tack sw
0.1uF/16V
Touch Key
NC
TPV
T P V (Top Victory Electronics Co., Ltd.)
G5017-M01-000-0040-1-110624
SCALER
Friday, June 24, 2011
715G5017-M01-000-0040
OEM MODEL
TPV MODEL
PCB NAME
Sheet 5 of 8
Size
Custom
Rev
1

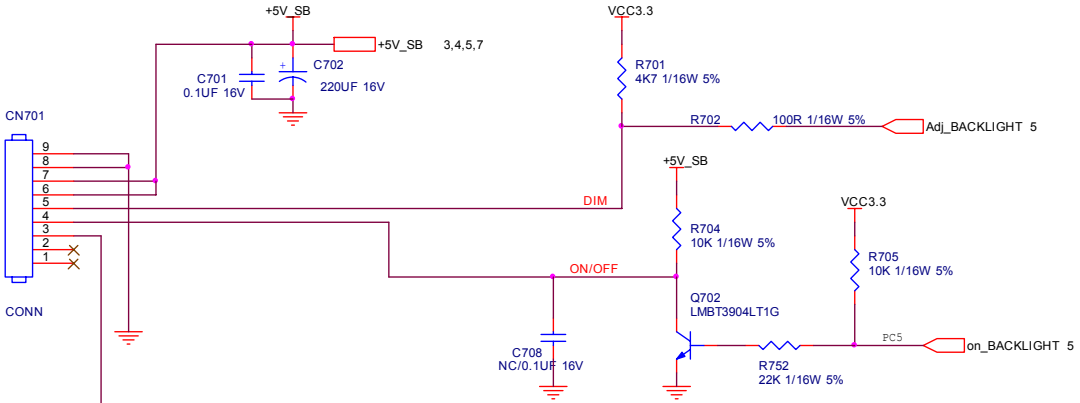


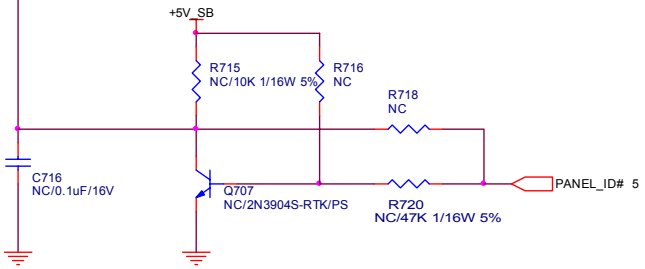
T P V （Top Victory Electronics Co.， Ltd.）		OEM MODEL		Size	A
結 隔 瓜 綑 腹	G5017-M01-000-0040-1-110624	TPV MODEL		Rev	1
Key Component	PANEL INTERFACE	PCB NAME	715G5017-M01-000-0040	称爹	<称爹>
Date	Friday, June 24, 2011	Sheet	6 of 8		

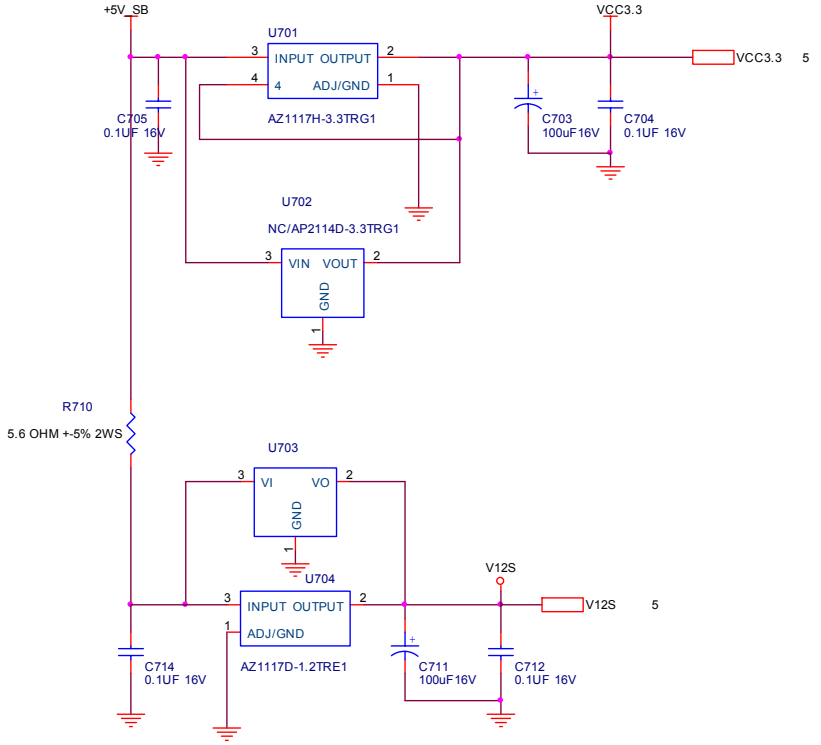


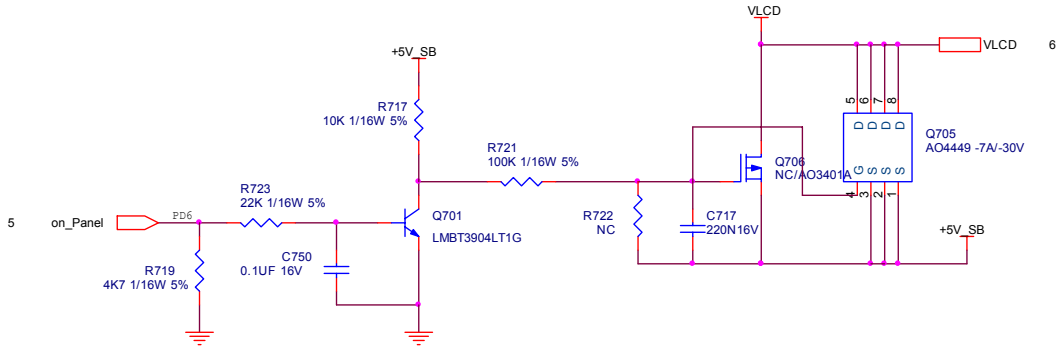
	APA2606NI	PAM8007HNR
C630	NC	0.47U
C631	NC	0.47U
R622	0OHM	750
R627	NC	0OHM
R645	0OHM	NC
R640	3K	NC
R641	1K	NC
R642	33K	NC
R643	30K	NC
R644	12K	NC
C632	1U	NC
Thermal pad	Yes	No

TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size C
拓展瓜圳股	TPV MODEL	G5017-M01-000-0040-1-110624	Rev 1
Key Component	PCB NAME	AUDIO	715G5017-M01-000-0040
Date	Friday, June 24, 2011	Sheet	7 of 8





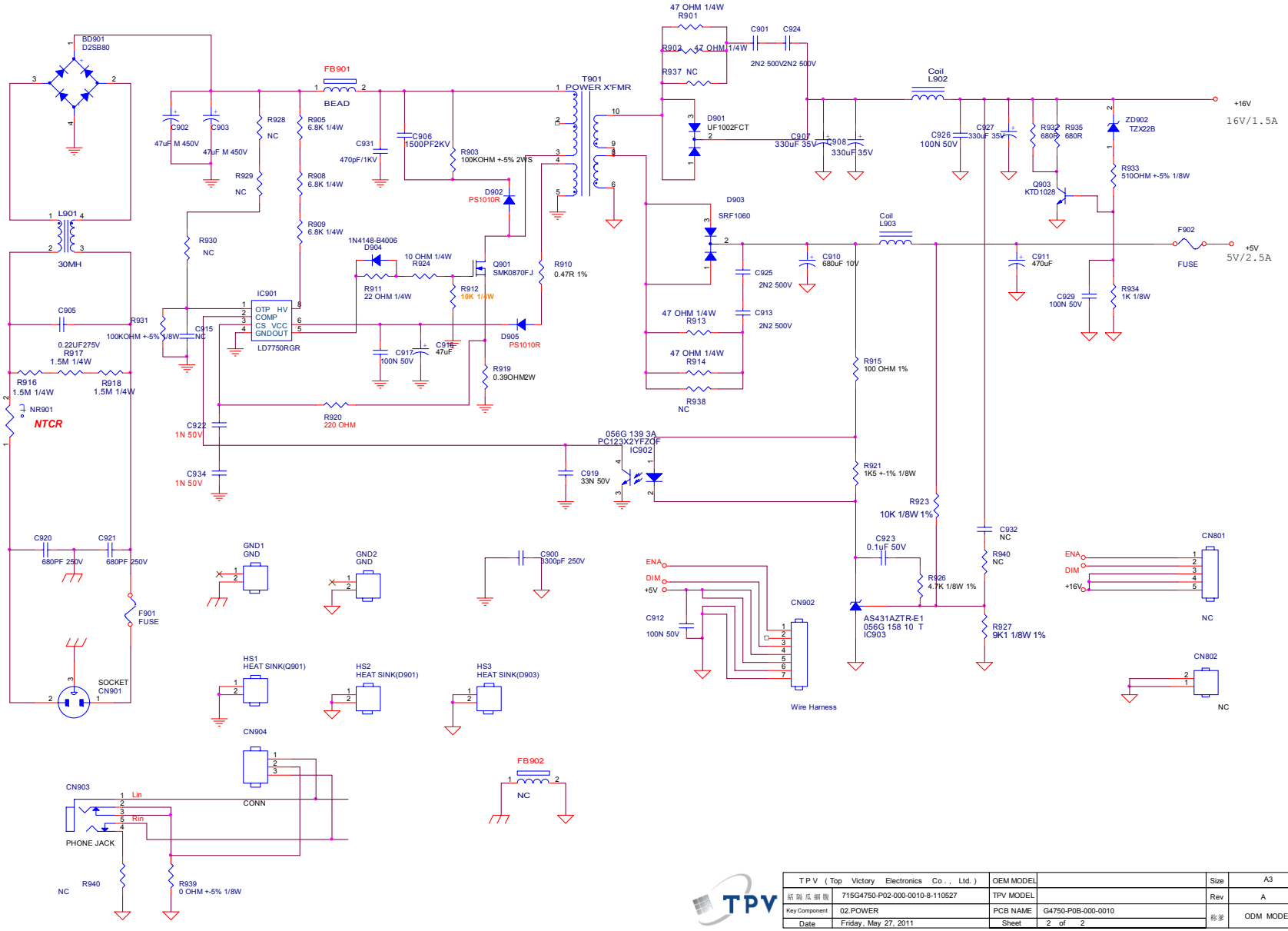




T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結 隔 瓜 網 腹	G5017-M01-000-0040-1-110624	TPV MODEL		Rev	1
Key Component	POWER	PCB NAME	715G5017-M01-000-0040	称爹	<称爹>
Date	Friday, June 24, 2011	Sheet	8 of 8		

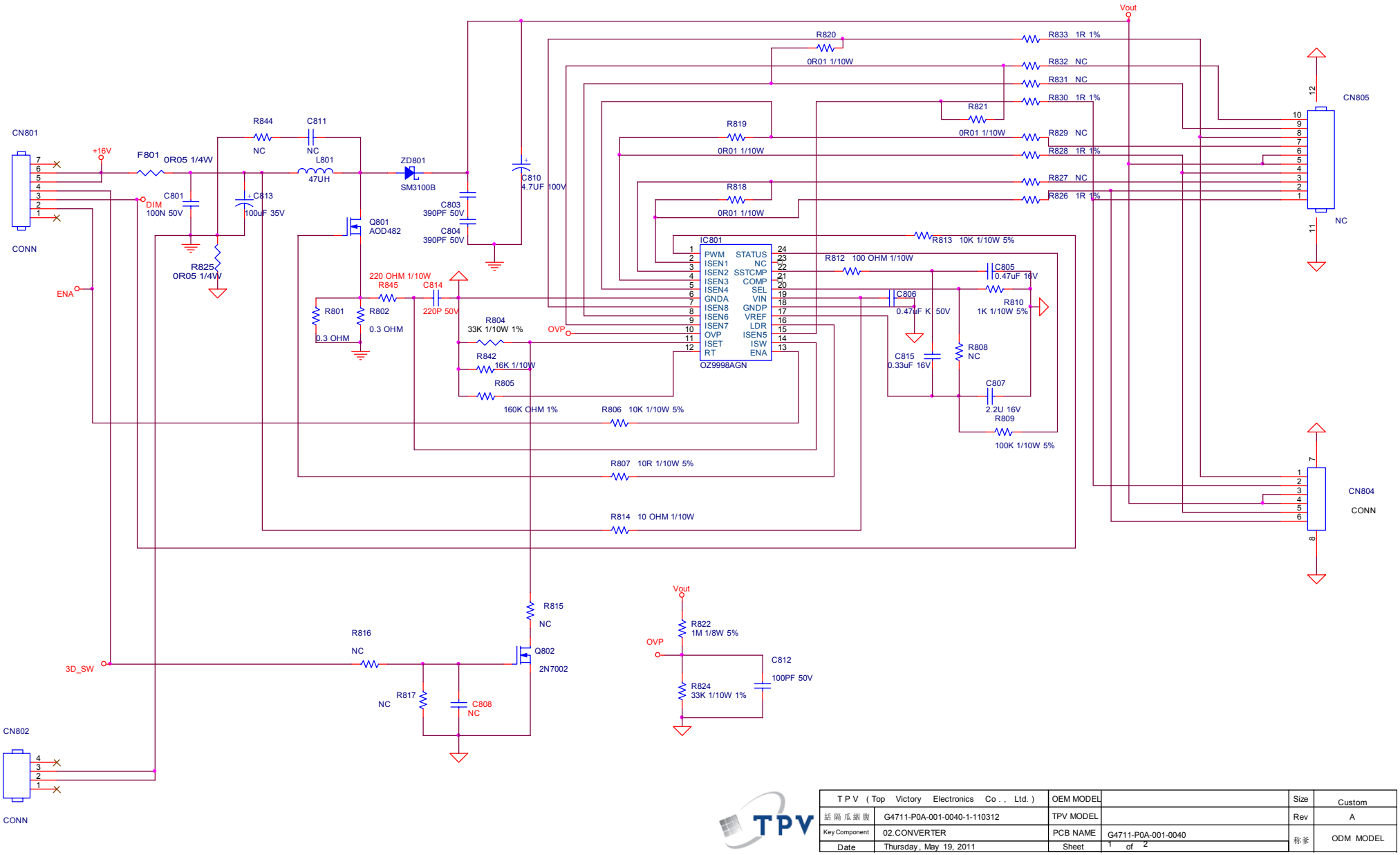
6.2 Power Board

Adapter Board: 715G4750P02000001S



T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	A3
結 陽 瓜 銀 服	715G4750-P02-000-0010-8-110527	TPV MODEL		Rev	A
Key Component	02.POWER	PCB NAME	G4750-P0B-000-0010	称 多	ODM MODEL
Date	Friday, May 27, 2011	Sheet	2 of 2		

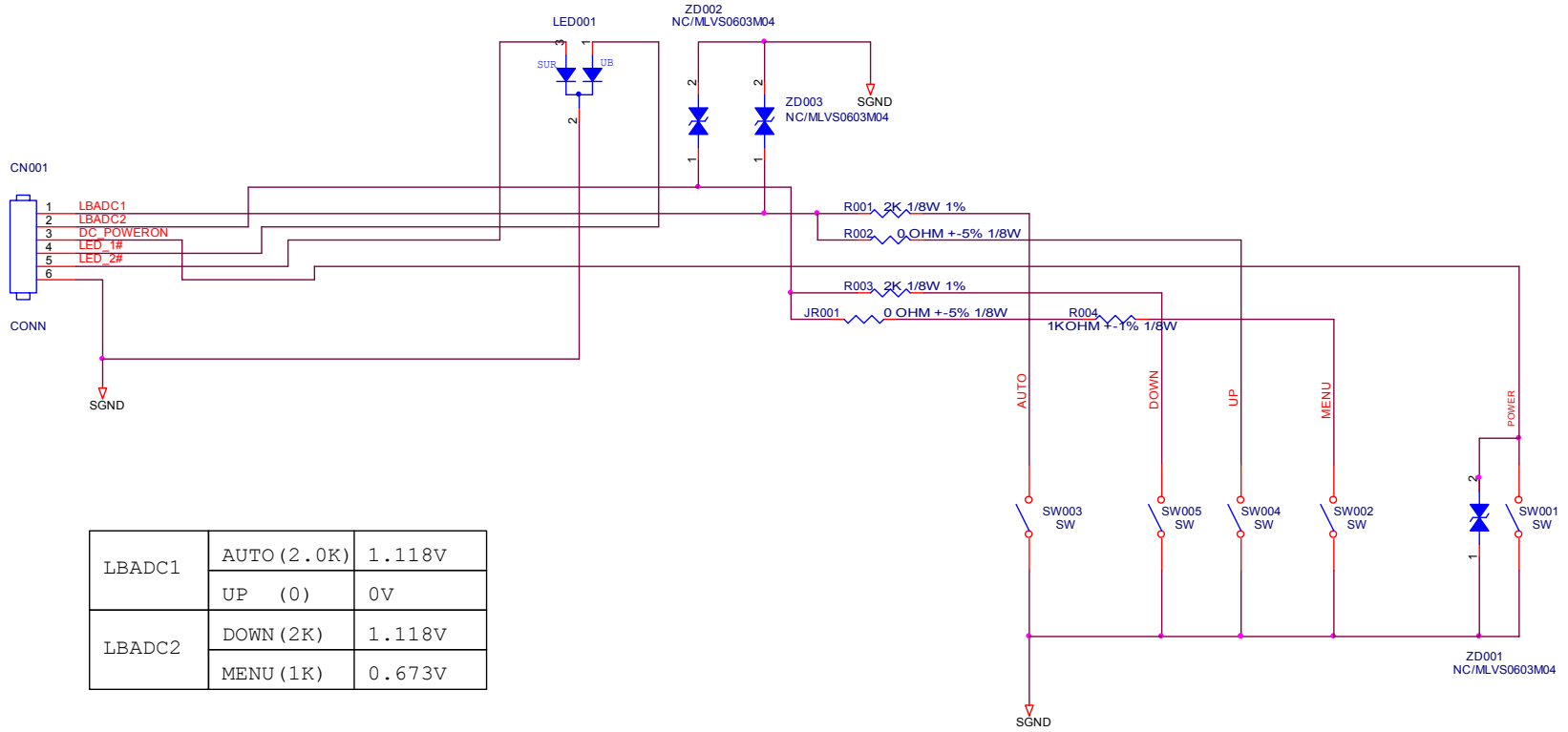
Converter Board: 715G4711P01001004S



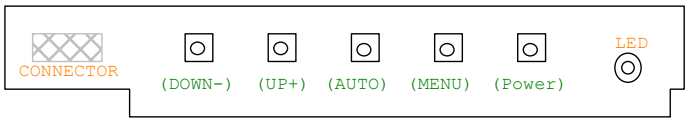
T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	Custom
話 隔 瓜 銅 腹	G4711-P0A-001-0040-1-110312	TPV MODEL		Rev	A
Key Component	02.CONVERTER	PCB NAME	G4711-P0A-001-0040	称 爹	ODM MODEL
Date	Thursday , May 19, 2011	Sheet	1 of 2		

6.3 Key Board

715G4851K01000001S



LBADC1	AUTO(2.0K)	1.118V
	UP (0)	0V
LBADC2	DOWN(2K)	1.118V
	MENU(1K)	0.673V

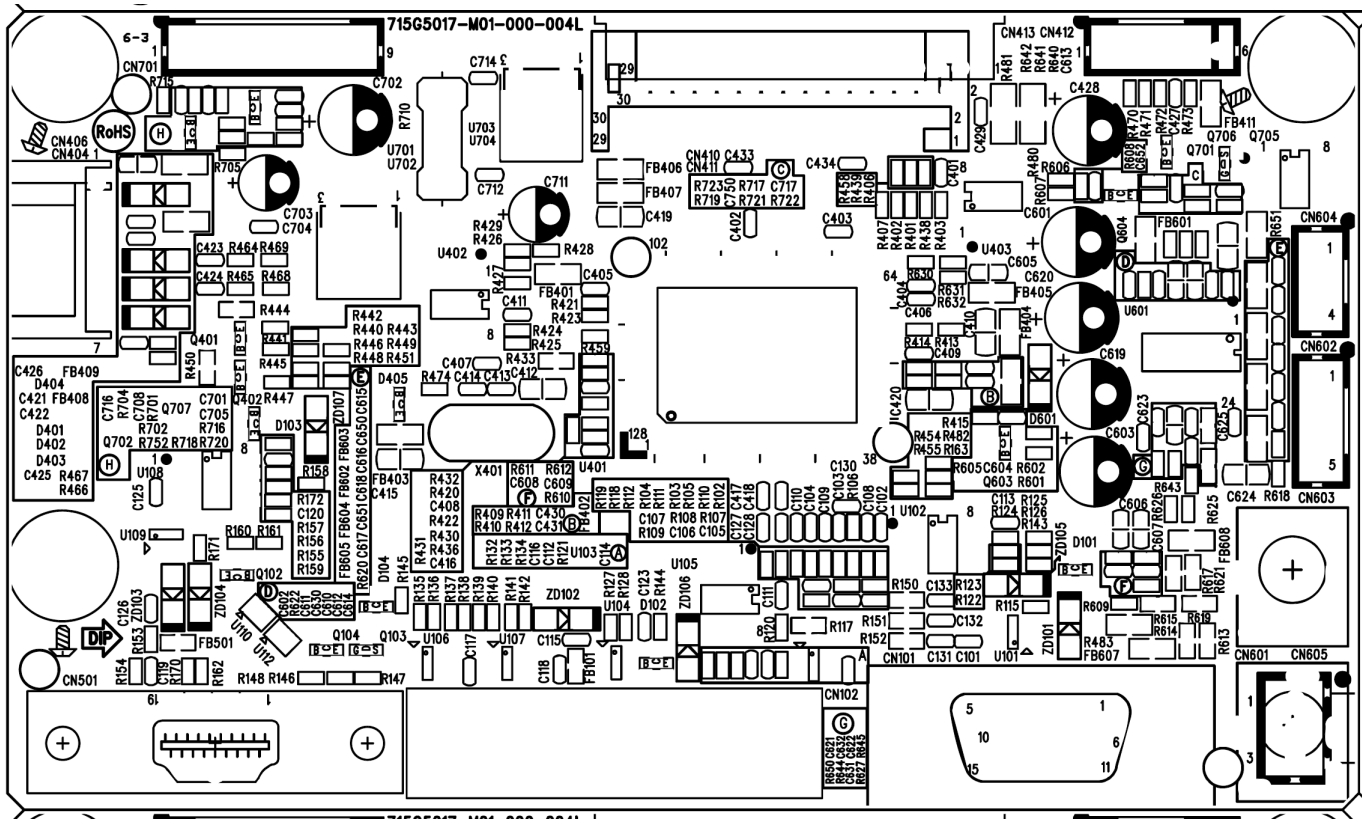


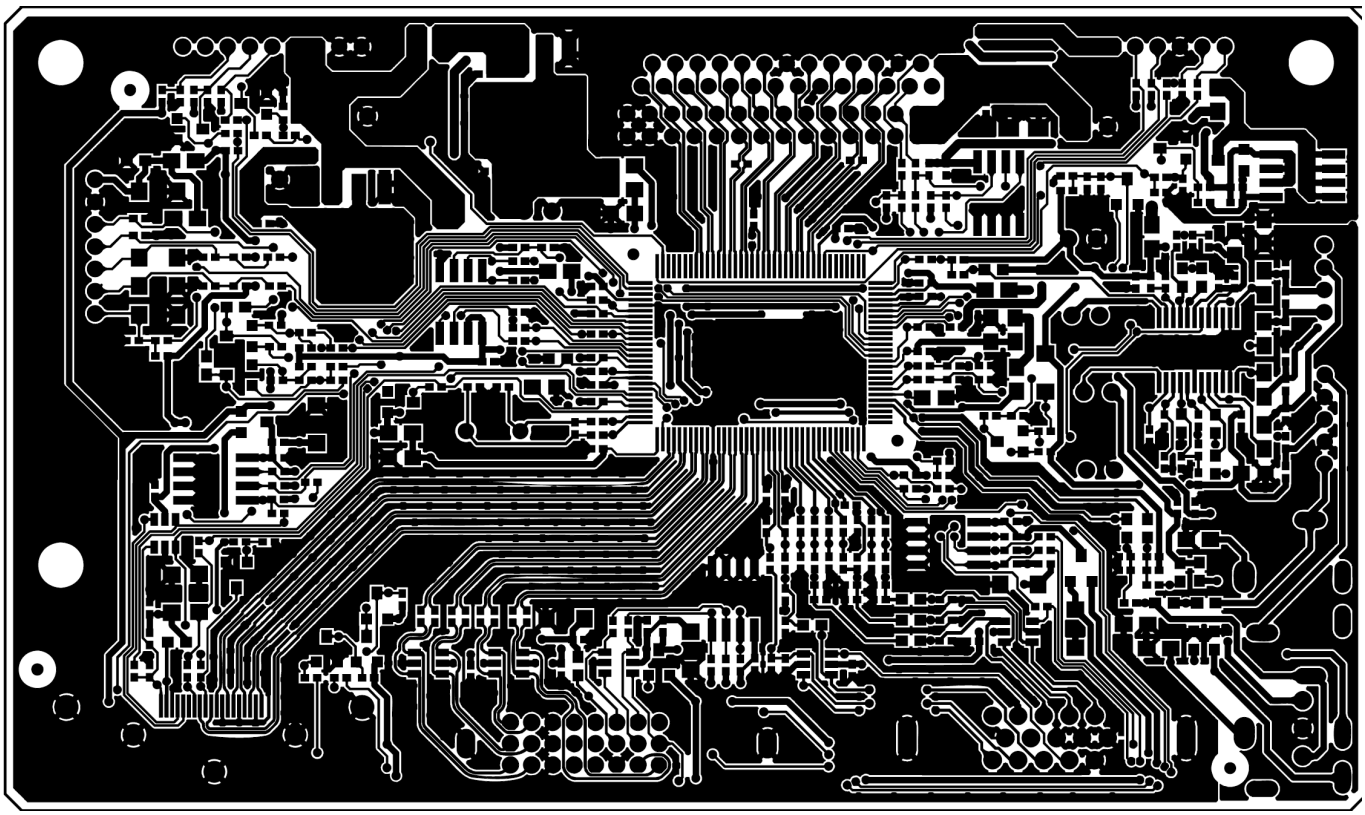
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜綢腹	KEPC G4851-K0E-000-0010-1-20110322	TPV MODEL		Rev	E
Key Component	2.0.key	PCB NAME	715G4851-K0E-000-0010	称爹	<称爹>
Date	Wednesday, April 27, 2011	Sheet	2 of 2		

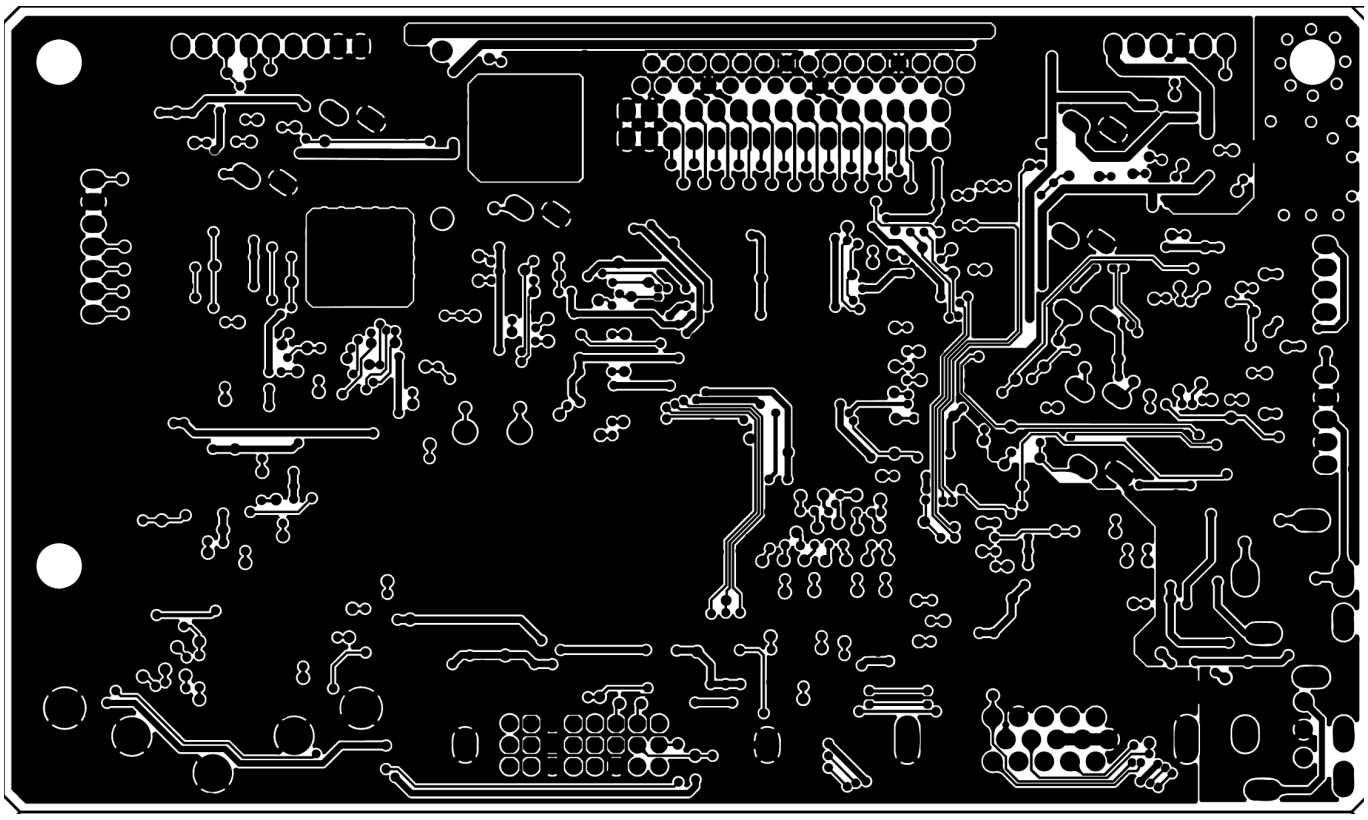
7. PCB Layout

7.1 Main Board

715G5017M01000004L

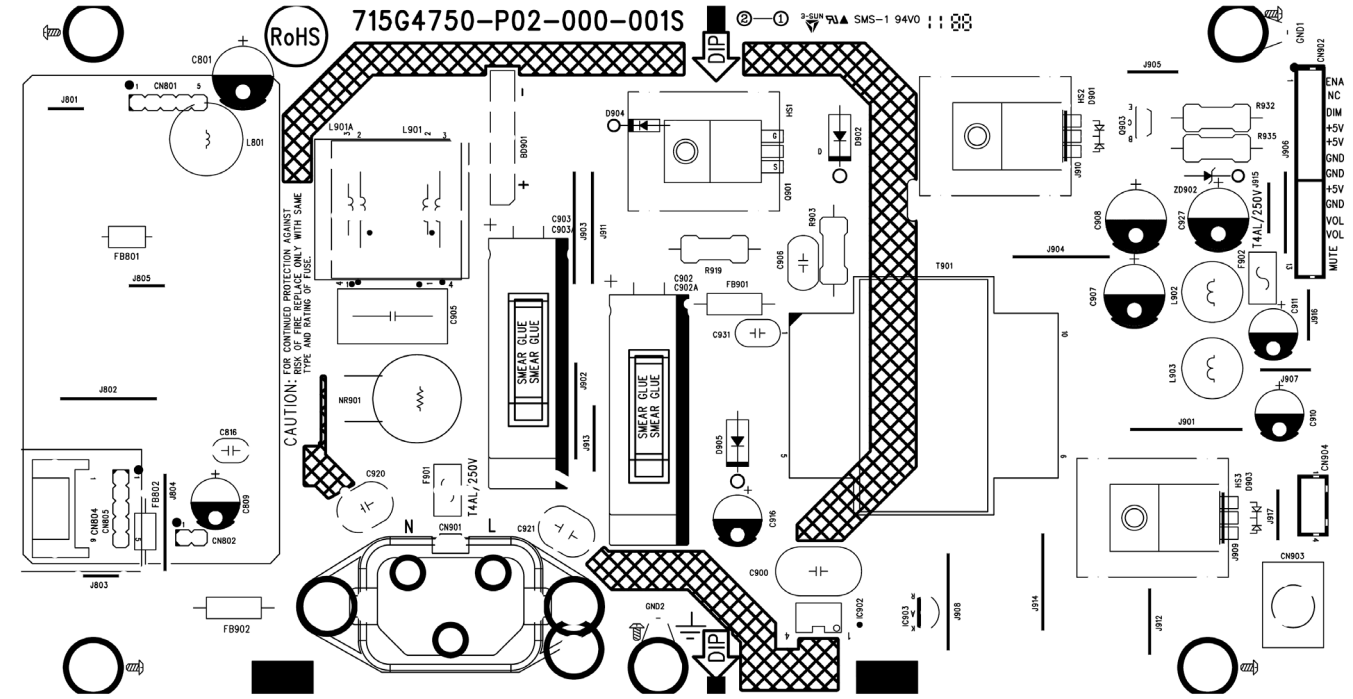


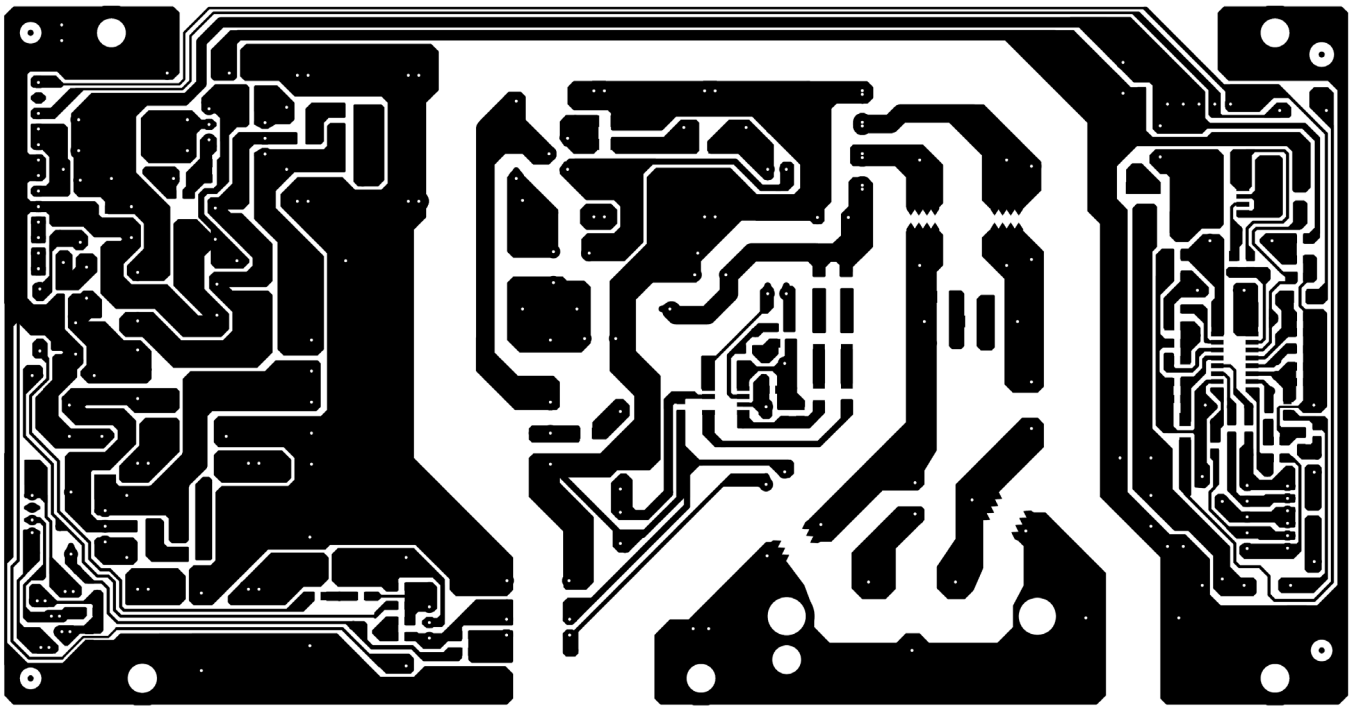


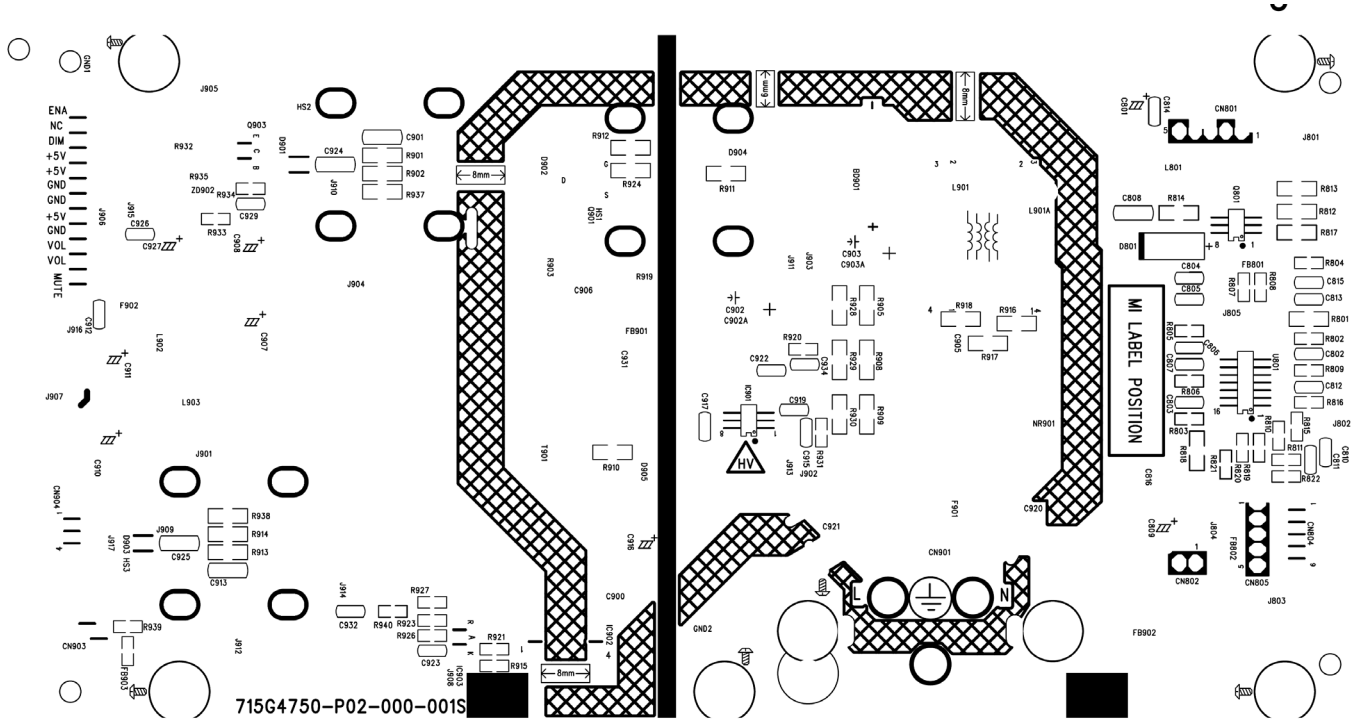


7.2 Power Board

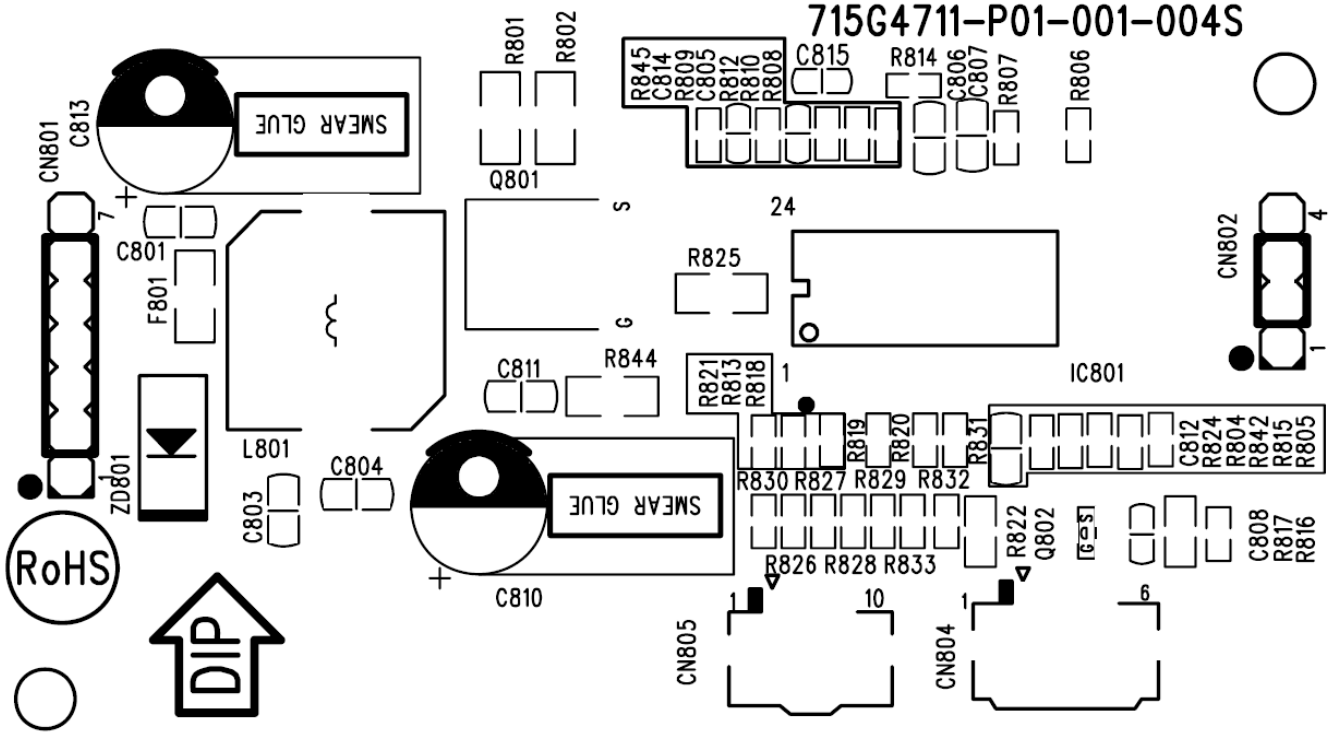
Adapter Board: 715G4750P02000001S

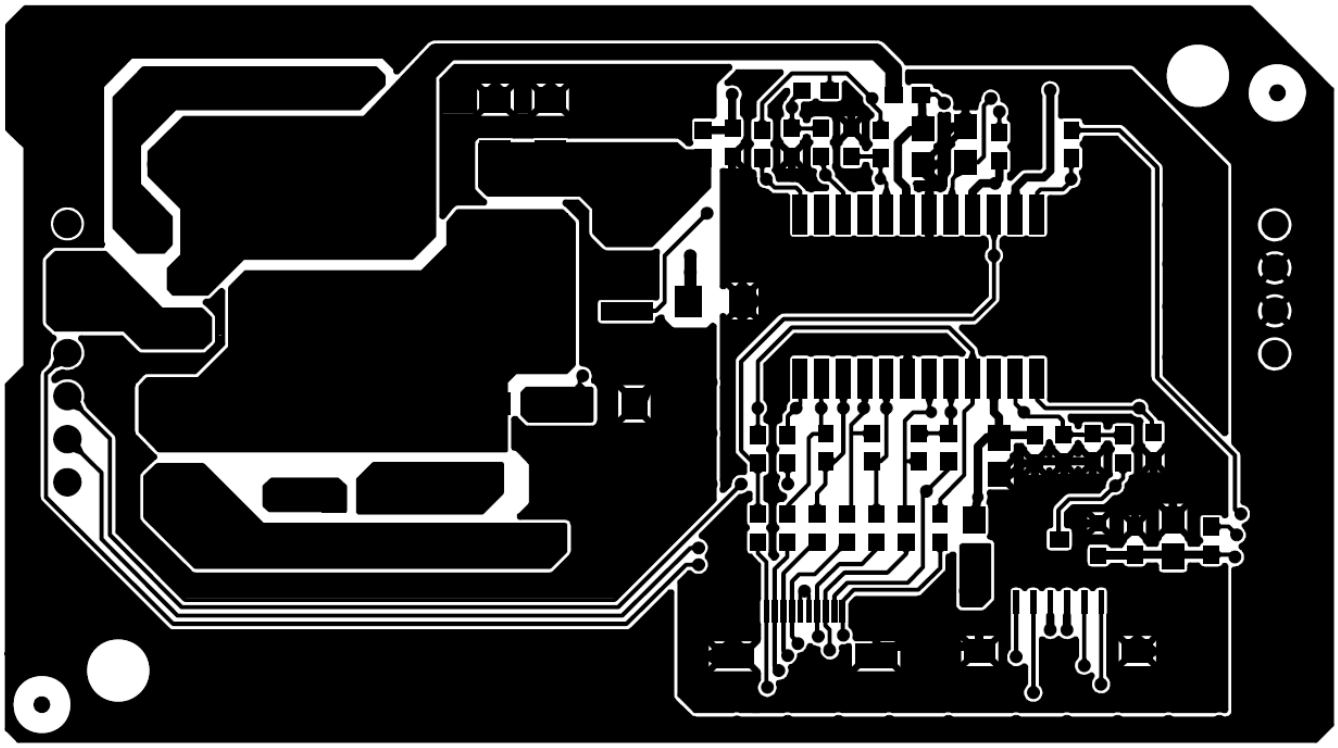


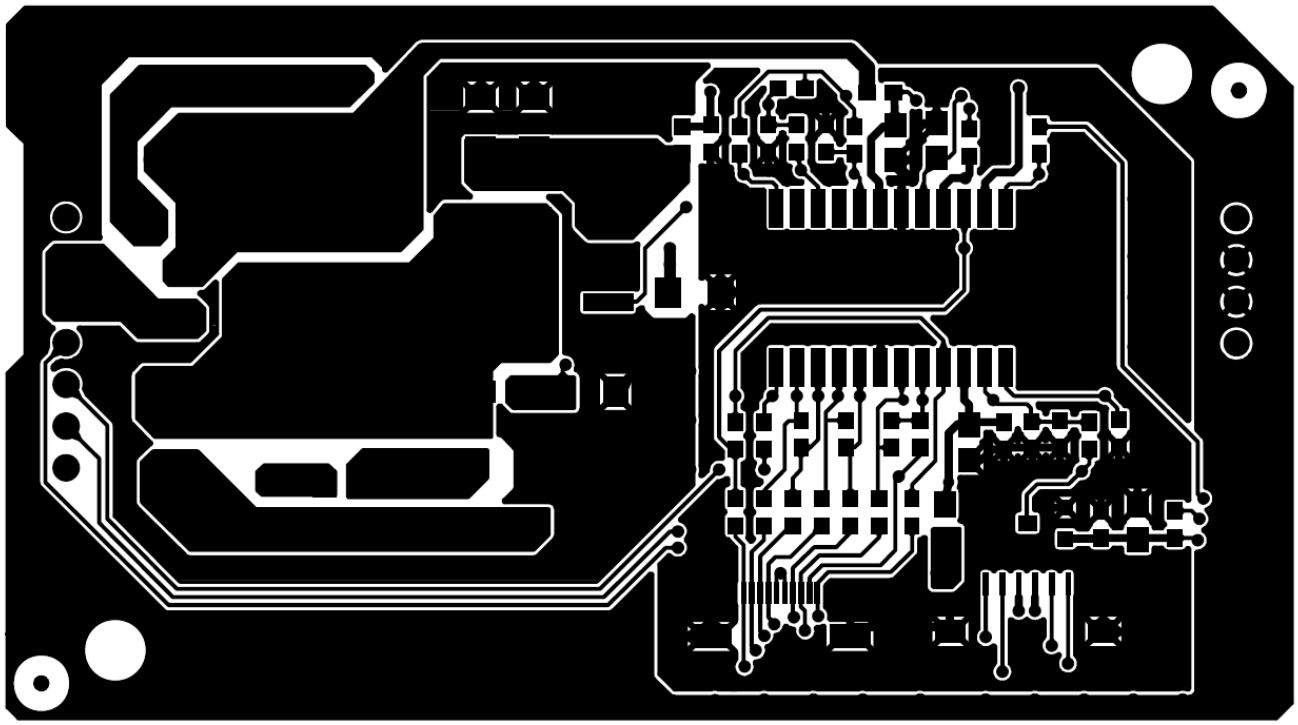




Converter Board: 715G4711P01001004S

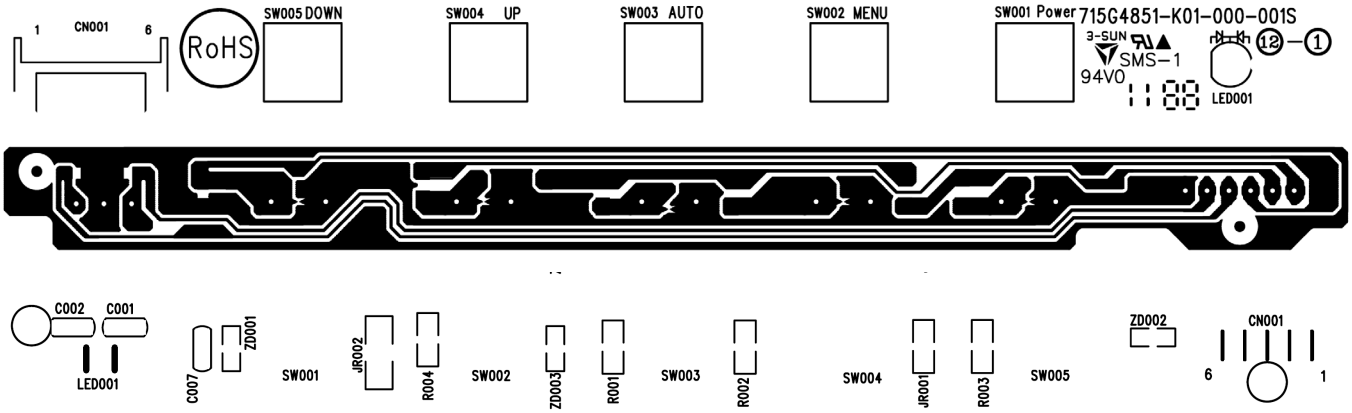






7.3 Key Board

715G4851K01000001S



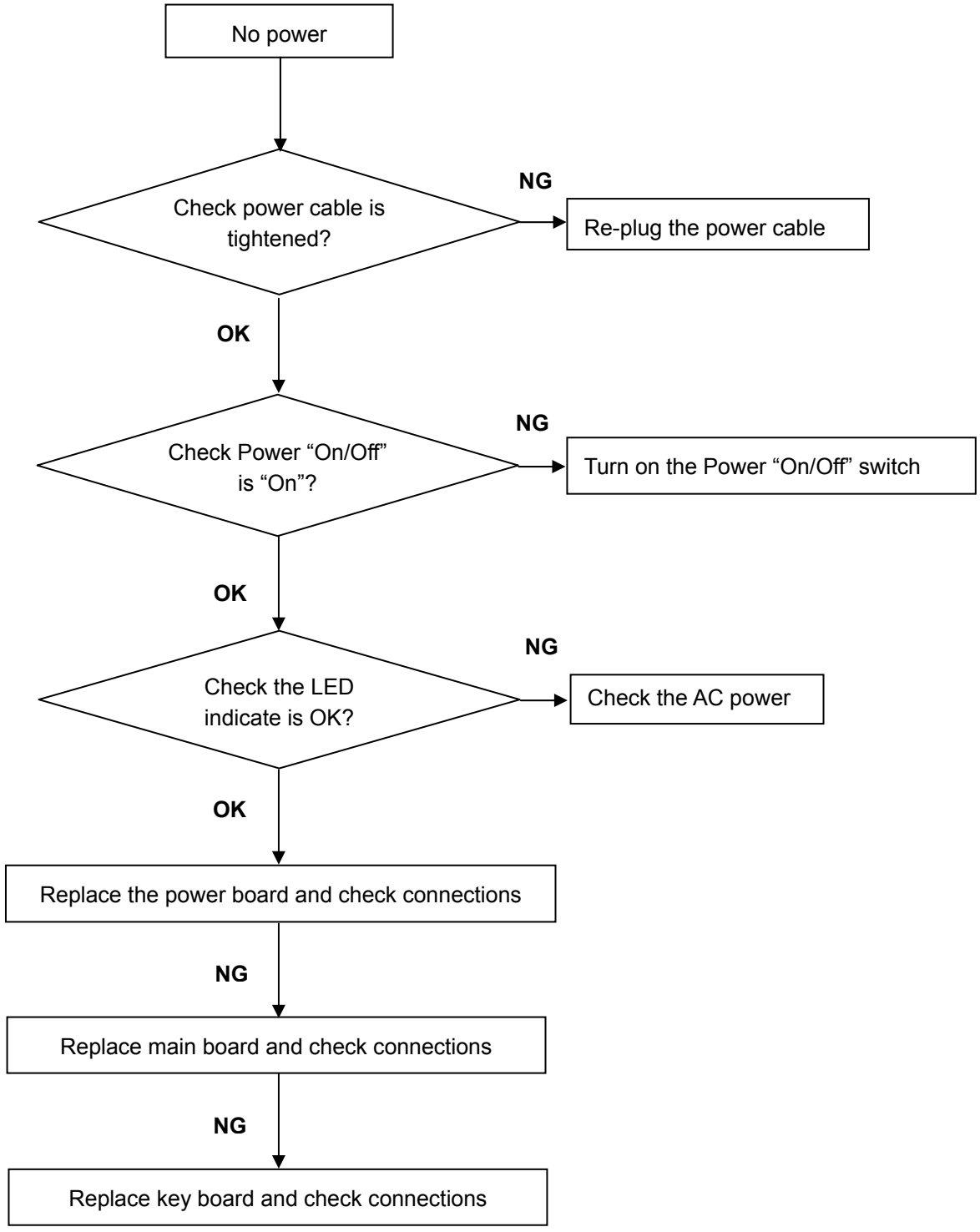
8. Maintainability

8.1 Equipments and Tools Requirement

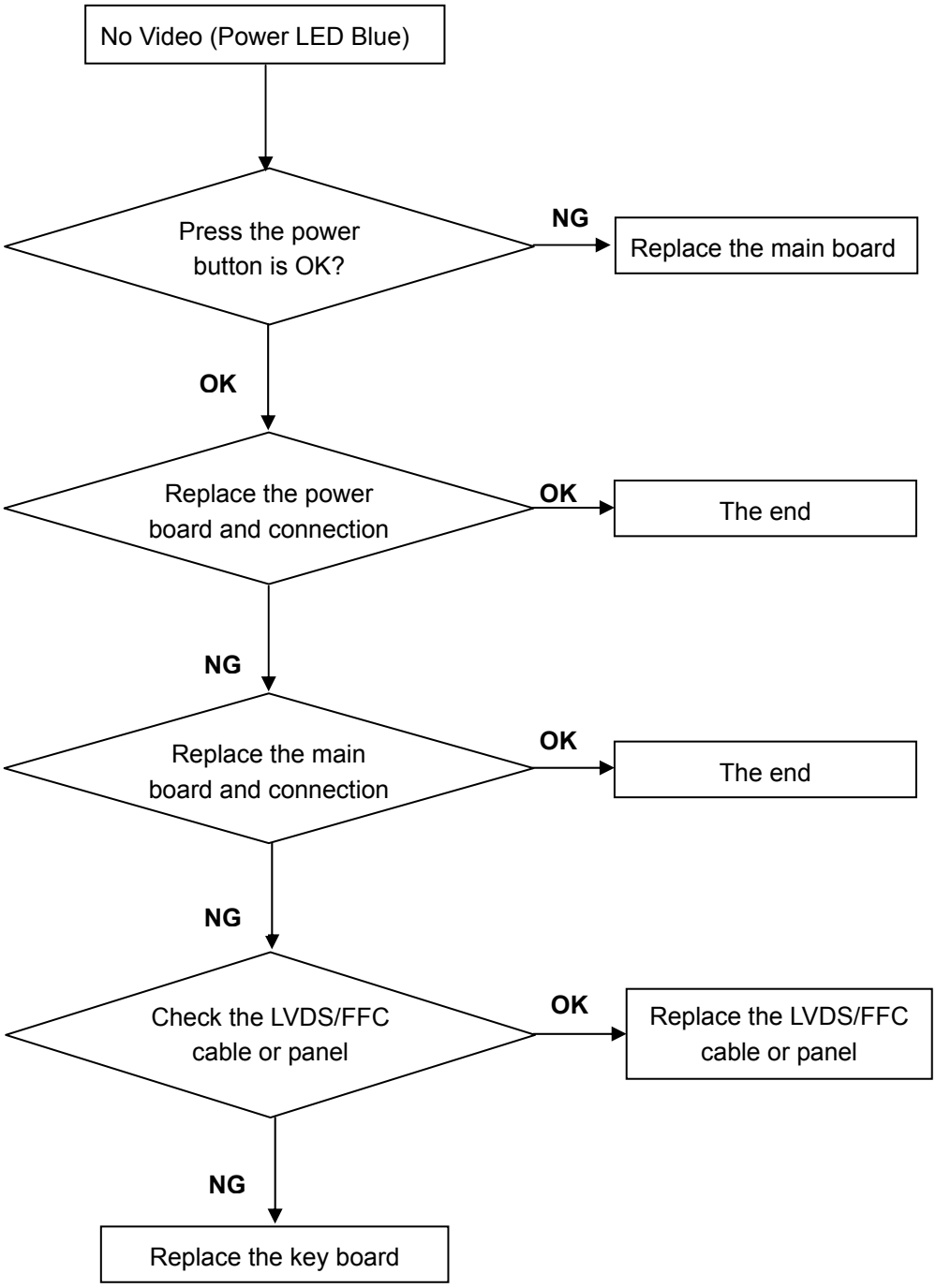
1. Voltmeter.
2. Oscilloscope.
3. Pattern Generator.
4. DDC Tool with an IBM Compatible Computer.
5. Alignment Tool.
6. LCD Color Analyzer.
7. Service Manual.
8. User Manual.

8.2 Trouble Shooting

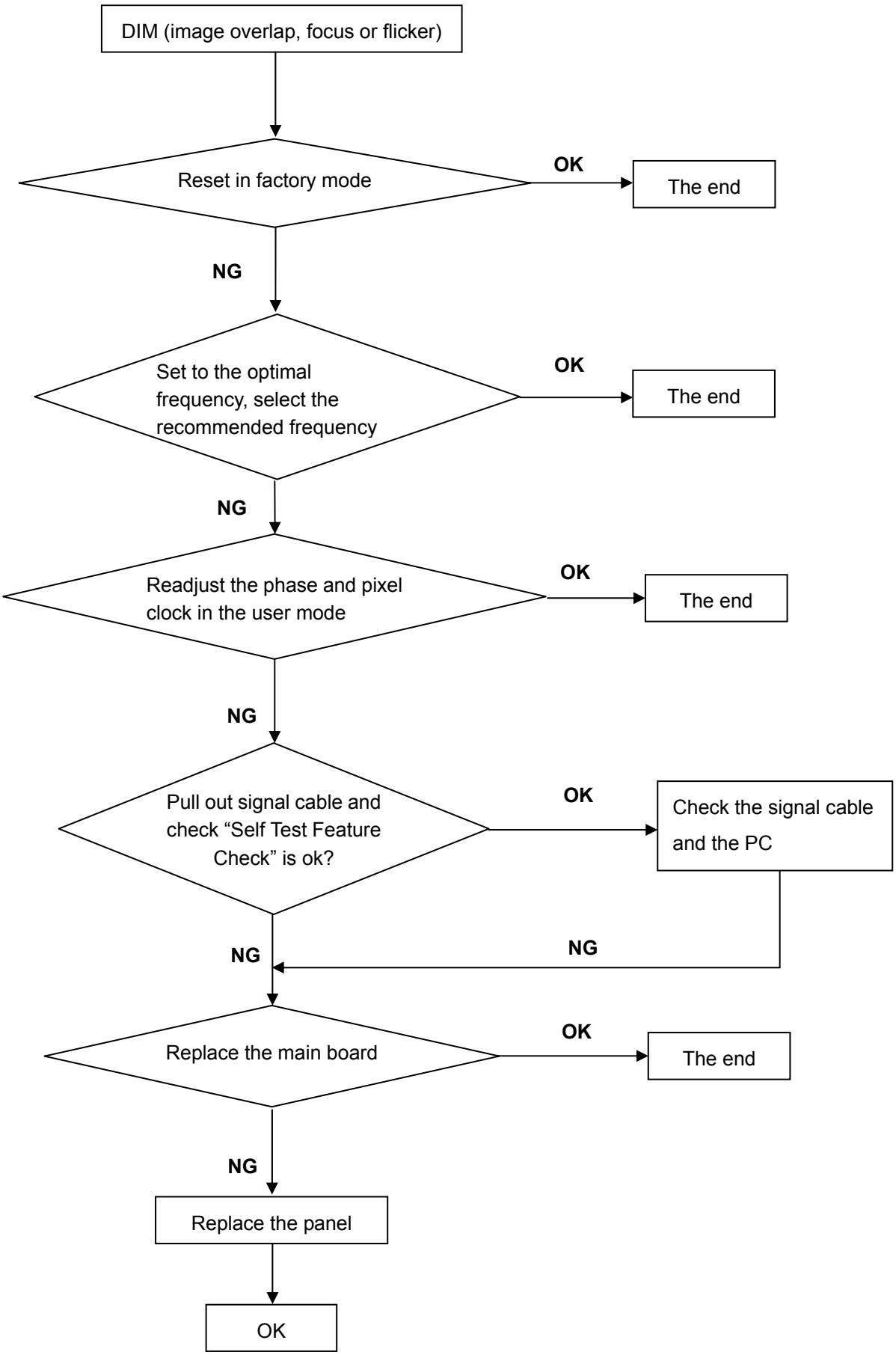
1. No Power



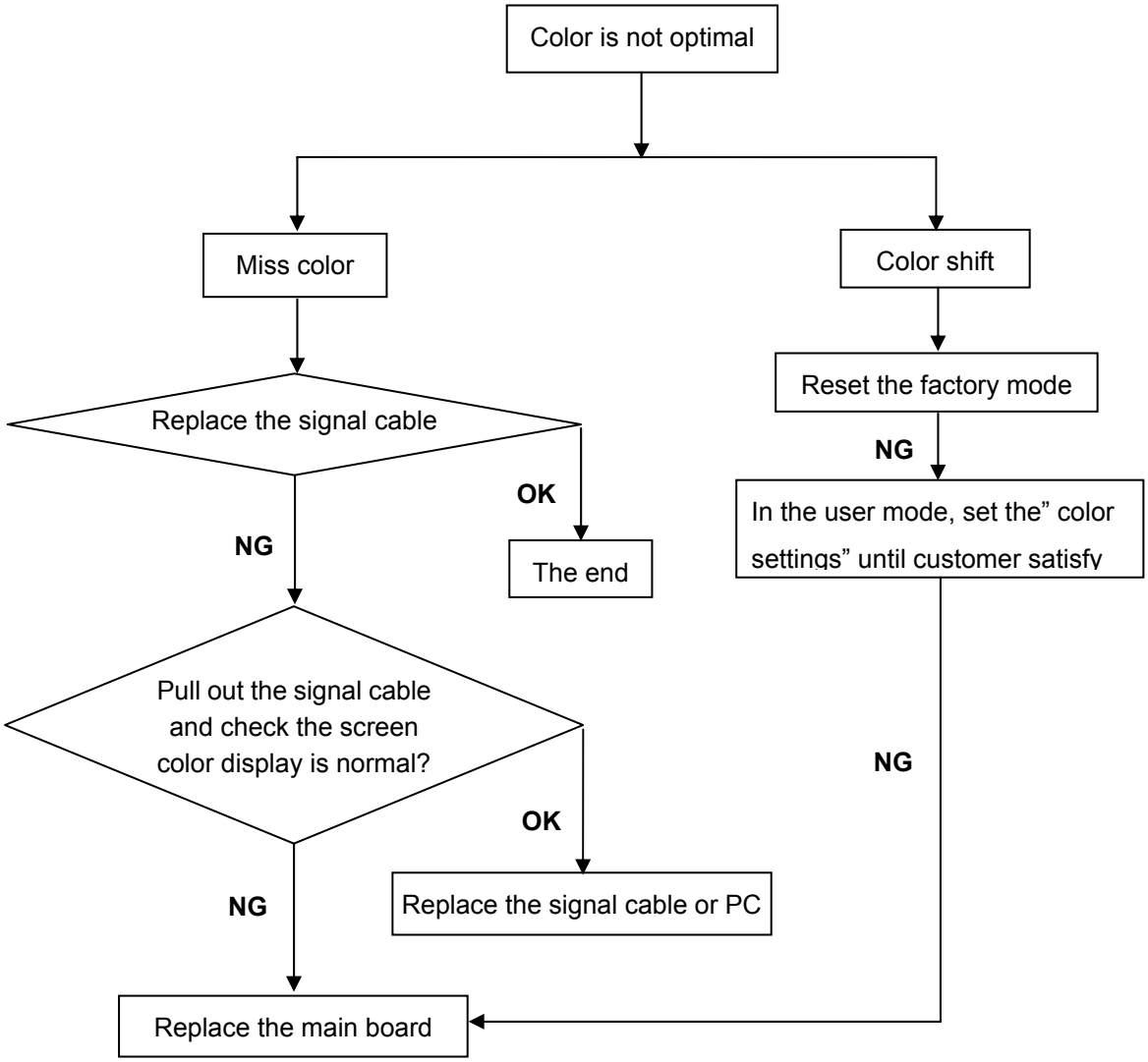
2. No Video (Power LED Blue)



3. DIM


DIM (image overlap, focus or flicker)
Reset in factory mode
OK
The end
NG
Set to the optimal frequency, select the recommended frequency
OK
The end
NG
Readjust the phase and pixel clock in the user mode
OK
The end
NG
Pull out signal cable and check “Self Test Feature Check” is ok?
OK
Check the signal cable and the PC
NG
NG
Replace the main board
OK
The end
NG
Replace the panel
OK

4. Color is not optimal



9. White- Balance, Luminance Adjustment

Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment.

How to setting MEM channel you can reference to chroma 7120 user guide or simpl use “SC” key and “NEXT” Key to modify xyY value and use “ID” key to modify the TEXT description Following is the procedure to do white-balance adjust .

2. Setting the color temp. you want

A. MEM.CHANNEL 3 Warm (6500K):

Warm color temp. parameter is x = 313 ±20, y = 329 ±20, Y>180

B. MEM.CHANNEL 4 Normal (7300K):

Normal color temp. parameter is x = 301 ±20, y = 317 ±20, Y>170

C. MEM.CHANNEL 9 Cool (9300K):

Cool color temp. parameter is x = 283 ±20, y = 297 ±20, Y>150

D. MEM.CHANNEL 10 (sRGB color):

sRGB color temp. parameter is x = 313 ±20, y = 329 ±20, Y>180

3. Enter into the factory mode

Press the “MENU” button, pull out the power cord, and then plug the power cord. You will enter into the factory mode.

4. Gain adjustment:

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

A. Adjust Warm (6500K) color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 3 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 313 ±20, y = 329 ±20, Y>180
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

B. Adjust Normal (7300K) color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 4 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 301 ±20, y = 317 ±20, Y>170
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

C. Adjust Cool (9300K) color-temperature

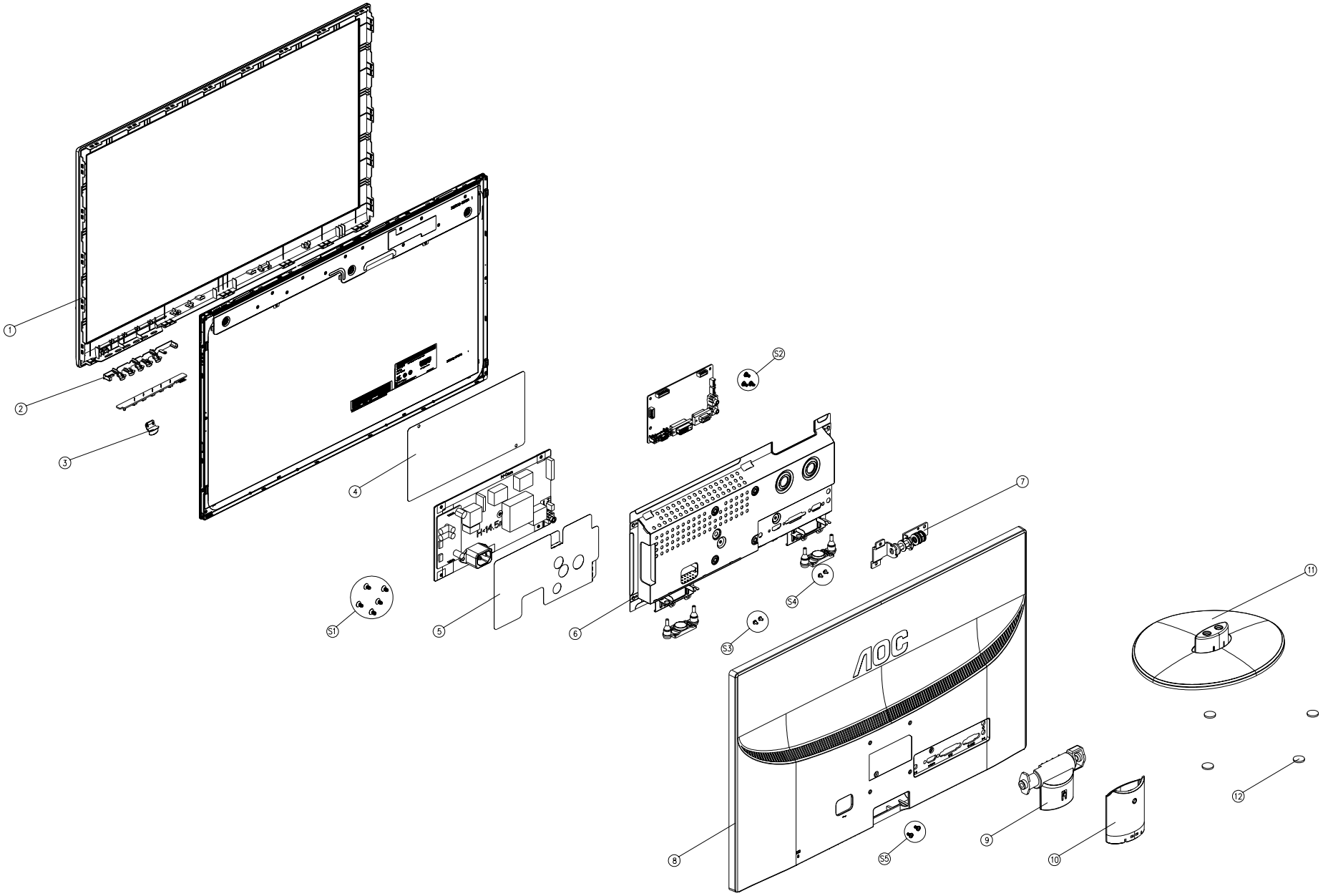
1. Switch the Chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM. Channel to Channel 9 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 283 ±20, y = 297 ±20, Y>150
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reached the value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

D. Adjust sRGB color-temperature

1. Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM.channel to Channel 10 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show x = 313 ±20, y = 329 ±20, Y>180
4. Adjust the RED on factory window until chroma 7120 indicator reached the value R=100
5. Adjust the GREEN on factory window until chroma 7120 indicator reachedthe value G=100
6. Adjust the BLUE on factory window until chroma 7120 indicator reached the value B=100
7. Repeat above procedure (item 4, 5, 6) until chroma 7120 RGB value meet the tolerance =100±2

E. Turn the Power-button off to quit from factory mode.

10. Monitor Exploded View



No.	Description
1	BEZEL L23W-U52
2	KEY
3	LENS
4	INSULATING SHEET
5	INSULATING SHEET
6	MAIN_FRAME
7	HINGE 23
8	REAR COVER L23W-U52
9	STAND TOP
10	STAND COVER
11	BASE L23W-S1
12	FOOT

No.	Part No.	Description
S1	0D1G1030 8120	SCREW(FOR POWER BOARD/MAIN_FRAME)
S2	0D1G1030 8120	SCREW(FOR MAIN BOARD/MAIN_FRAME)
S3	0Q1G 940 10120	SCREW(FOR HINGE/REAR COVER)
S4	0Q1G 140 14120	SCREW(FOR HINGE/STAND TOP)
S5	0M1G 930 8 47 CR3	SCREW(FOR REAR COVER/MAIN_FRAME)

11. BOM List

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

HDBGT22MAYSCDN

Location	Part No.	Description	Remark
	017G 3DG501 R	3D GLASSES DZ1006	
	017G 3DG502 R	3D GLASSES DC1008	
	052G 1150 C	INSULATING TAPE	
	052G 2191 A	PAPER TAPE	
	052G6019 1	INSULATING TAPE	
SP01	078G025A 3 YB	SPEAKER 4 OHM 2.5W 40X20 380 200	
E08909	089G 184GAA500	HDMI CABLE 1.8M	
E08909	089G 184HAA500	HDMI CABLE 1800MM	2nd Source
E08902	089G 725GAADBD	D-SUB CABLE 1500MM	2nd Source
E08902	089G 725LAADBD	D-SUB CABLE 1500MM	
E08903	089G1745GAA AC	DVI CABLE	
E08903	089G1745LAA AC	DVI CABLE	2nd Source
E08901	089G410A15N CX	AC POWER CORD 1500MM	2nd Source
E08901	089G410A15N IS	AC POWER CORD 1500	
	095G176W 6H21	FFC CABLE 6PIN 215MM P1.0	
	708GD106 CP	AOC 40(1900)	
	Q45G 77 4	PE FILM	
	Q50G 4 10	TIE (Y1900221)	
	Q52G 1185 99	BIG CARTON TAPE FOR AOC	
	750GBG230F8A11N000	LCD LM230WF8-TLA1 KR LGD	
	756GQBCB AA012 00	MAIN BOARD-CBPCBT2A1Q1	
SMTCB-U402	100GARGD002YT1	MCU ASS'Y-056G2233501	
	801GQBEE086	L23W-U52-S1 E2352VHZ ASS'Y	
	052G 1209 A	TASMA ALUMINIOWA	
	052G 1211 B	CONDUCTIVE TAPE 85MM *40MM *0.09MM	
	0D1G1030 8120	SCREW	
	0Q1G 140 14120	SCREW	
	0Q1G 940 10120	SCREW 4X10 BPTTRHNI	
	A15G1653201101	MAIN_FRAME	
	A37G0259011	HINGE 23	
	Q12G6600 6	FOOT	
	Q52G1801MNT062	INSULATING SHEET	
	Q52G1801MNT063	INSULATING SHEET	
	802GQB34031	L23W-U52-S1 E2352VHZ ASS'Y	
	0M1G 930 8 47 CR3	SCREW 3X8	
	A34G2604ABJ 2B0200	REAR COVER L23W-U52	

	803GQA44237	L23W-U52-S1 E2352VZ EPS ASS'Y	
	Q44GD106101	CUSHION EPS	
	Q44GD106201	CUSHION EPS	
	A34G2603AEDB1B0130	BEZEL L23W-U52	
	A34G2605AED 1B0130	BASE L23W-S1	
	A34G2606AED 1B0200	STAND TOP	
	A34G2607AED 1B0100	STAND COVER	
	J33G8B77 2 1C0100	LENS	
	J33G8B78AED 1L0100	KEY	
	Q40G000362437A	SRS+WIN7+SILVER EPEAT+EPA 65X12MM	
	Q40G000461534A	POP LABEL FOR E2352PHZ	
	Q41G78S161565A	E2352PHZ QSG	
	Q44GD106615 2A	23 LCD CARTON	
	Q45G 88609198	3002BAG	
ECN410	S95G179T30PW03	FFC CABLE P1.0 30P 250MM	
	089F80002503PG	1.0*30*2.5/12-250-3-0.65*0.05	
	033F303FH10BK3	F1010HA-30P-BK	
	033F303FJSHK30	1.0S-19-30A	
	044F3231SMJ001 HF	TAPE 30*11.5*0.1 HF	
	044F3231 167C4	5760 EVA (30*10*0.8MM)	
E08904	089G 17356G554	AUDIO CABLE 1800MM	
E08904	089G 17356X554	AUDIO CABLE 1800MM	2nd Source
	Q36G 600517	CLOTH	
	Q41G78D1615 9A	WARRANTY CARD	
	Q45G2010M0201A	P.E. BAG (INSTR. BOOK)	
	Q70G23C161511A	E2352PHZ CD MANUAL	
	040G 58162435A	PN LABEL FOR MANUAL PE BAG	
	Q26G 800504 2B	BARCODE LABEL FOR 3	
	Q40G 23N61518A	RATING LABEL	
	Q40G000161515A	CARTON LABEL	
	040G 45762412B	CBPC LABEL	
CN604	033G3802 4B Y	WAFER 2.0MM 4P	
CN604	033G3802 4B Y L	CONNECTOR 4P 2.0	2nd Source
CN406	033G3802 7B YH	CONN.7P 2.0 DIP	
CN406	033G3802 7B YH L	CONNECTOR 7P 2.0	2nd Source
CN701	033G3802 9B Y	CONNECTOR 9P 2.0	
CN410	033G801930F CH L	FFC CONN 1.0MM 30P R/A 34MM 6MM	
R710	061G152M569 64 SY	RST MOFR 5.6 OHM +-5% 2WS FUTABA	
CN101	088G 35315FVCL	D-SUB CONN V/T 15P BLUE H=10.4	
CN102	088G 35424F VC	DVI CONN 24P V/T WITH SCREW	

CN603	088G302G5B2VCL	PHONE JACK V/T 5P BLACK H=10.3	
CN603	088G302G5B2VYG	PHONE JACK V/T 5P BLACK H=10.3	2nd Source
CN601	088G302G5G1VCL	PHONE JACK V/T 5P GREEN H=10.3	
CN601	088G302G5G1VYG	PHONE JACK V/T 5P GREEN H=10.3	2nd Source
X401	093G 2264B	NXS27.000AC30F-KAB10 HC-49/US	
C703	067G 3051013PB	EC 105C 100UF M 16V 5*11MM	
C711	067G 3051013PB	EC 105C 100UF M 16V 5*11MM	
C601	067G 3052213PB	CAP 105¡ÃC 220UF	
C619	067G 3052213PB	CAP 105¡ÃC 220UF	
C620	067G 3052213PB	CAP 105¡ÃC 220UF	
C702	067G 3052213PB	CAP 105¡ÃC 220UF	
U401	056G 562421	SCALER RTD2743PD-GR LQFP-128	
U704	056G 563145	IC AZ1117D-1.2TRE1 1A/1.2V TO252-2	
U701	056G 563514	IC AZ1117H-3.3TRG1 1A/3.3V SOT223	
U601	056G 616112	AUDIO APA2606NAI-TRG 2.8W SSOP-24P	
U110	056G 662 21	IC AOZ8804DI DFN-10	
U112	056G 662 21	IC AOZ8804DI DFN-10	
U103	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U104	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U106	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U107	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U101	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U109	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	
U102	056G1133531	EEPROM FM24C02A-SO-T-G 2K SOP-8	
U105	056G1133531	EEPROM FM24C02A-SO-T-G 2K SOP-8	
U108	056G1133531	EEPROM FM24C02A-SO-T-G 2K SOP-8	
U402	056G2233501	FLASH MX25L2026DM1I-12G 2MB SOP-8	
Q702	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q604	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q701	057G 417 4	PMBS3904/PHILIPS-SMT(04)	
Q401	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q402	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q603	057G 417 6	PMBS3906/PHILIPS-SMT(06)	
Q401	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q402	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q603	057G 417517	TRA LMBT3906LT1G -200MA/-40V SOT-23 LRC	
Q604	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
Q701	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
Q702	057G 417518	TRA LMBT3904LT1G 200MA/40V SOT-23 LRC	
R436	061G0402000 JI	RST 0402 0.05R MAX 1/16W	

R441	061G0402000 JI	RST 0402 0.05R MAX 1/16W	
R447	061G0402000 JI	RST 0402 0.05R MAX 1/16W	
R622	061G0402000 JI	RST 0402 0.05R MAX 1/16W	
R430	061G0402000 JI	RST 0402 0.05R MAX 1/16W	
R145	061G0402000 JI	RST 0402 0.05R MAX 1/16W	
R622	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R447	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R441	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R436	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R430	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R145	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R154	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R142	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R141	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R140	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R139	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R138	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R137	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R136	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R135	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R104	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R103	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R102	061G0402100 JI	TEST ONLY RST 0402 10R 5% 1/16W TA-I	
R136	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R137	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R138	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R139	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R154	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R142	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R141	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R140	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R135	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R104	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R103	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R102	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R641	061G04021001FI	RST 0402 1K 1% 1/16W TA-I	
R641	061G04021001FT	RST CHIP R 1KOHM 1/16W +/-1%	
R162	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R163	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R409	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	

R410	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R459	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R630	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R702	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R119	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R118	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R115	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R702	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R630	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R459	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R410	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R409	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R163	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R162	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R119	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R118	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R115	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R626	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R625	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R602	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R469	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R468	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R467	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R172	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R153	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R146	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R144	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R143	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R105	061G0402102 JI	RST 0402 1K 5% 1/16W TA-I	
R153	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R172	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R467	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R468	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R469	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R602	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R625	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R626	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R146	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R144	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R143	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	

R105	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R632	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R704	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R705	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R717	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R631	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R605	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R601	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R449	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R443	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R428	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R420	061G0402103 JI	TEST ONLY RST 0402 10K 5% 1/16W TA-I	
R717	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R705	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R704	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R632	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R631	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R605	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R601	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R449	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R443	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R428	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R420	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R454	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R455	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R618	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R721	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R423	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R413	061G0402104 JI	TEST ONLY RST 0402 100K 5% 1/16W TA-I	
R721	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R618	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R455	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R454	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R423	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R413	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R644	061G04021202FI	RST 0402 12K 1% 1/16W TA-I	
R644	061G04021202FT	RST 0402 12K 1% 1/16W	
R412	061G0402153 JI	RST 0402 15K 5% 1/16W	
R411	061G0402153 JI	RST 0402 15K 5% 1/16W	
R411	061G0402153 JT	RST CHIP 15K 1/16W 5% TZAI YUAN	

R412	061G0402153 JT	RST CHIP 15K 1/16W 5% TZAI YUAN	
R421	061G0402220 JI	RST 0402 22R 5% 1/16W TA-I	
R424	061G0402220 JI	RST 0402 22R 5% 1/16W TA-I	
R425	061G0402220 JI	RST 0402 22R 5% 1/16W TA-I	
R426	061G0402220 JI	RST 0402 22R 5% 1/16W TA-I	
R427	061G0402220 JI	RST 0402 22R 5% 1/16W TA-I	
R427	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	
R426	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	
R425	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	
R424	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	
R421	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	
R120	061G0402222 JI	TEST ONLY RST 0402 2.2K 5% 1/16W TA-I	
R121	061G0402222 JI	TEST ONLY RST 0402 2.2K 5% 1/16W TA-I	
R442	061G0402222 JI	TEST ONLY RST 0402 2.2K 5% 1/16W TA-I	
R448	061G0402222 JI	TEST ONLY RST 0402 2.2K 5% 1/16W TA-I	
R448	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R442	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R121	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R120	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R752	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R723	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R610	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R609	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R608	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R157	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R134	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R124	061G0402223 JI	TEST ONLY RST 0402 22K 5% 1/16W TA-I	
R752	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R723	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R610	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R609	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R608	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R157	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R134	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R124	061G0402223 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R414	061G0402224 JF	RST CHIPR 220KOHM +-5% 1/16W FENGHUA	
R414	061G0402224 JT	RST CHIP 220K 1/16W 5% TZAI YUAN	
R640	061G04023001FI	RST 0402 3K 1% 1/16W	
R640	061G04023001FT	RST CHIP R 3KOHM 1/16W +/-1%	
R643	061G04023002FI	TEST ONLY RST CHIP 30K 1/16W 1% TA-I	

R643	061G04023002FT	RST 0402 30K 1% 1/16W	
R642	061G04023302FT	RST CHIP R 33KOHM 1/16W +/-1%	
R612	061G0402333 JI	RST 0402 33K 5% 1/16W	
R611	061G0402333 JI	RST 0402 33K 5% 1/16W	
R611	061G0402333 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R612	061G0402333 JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R466	061G04023901FI	TEST ONLY RST 0402 3.9K 1% 1/16W TA-I	
R465	061G04023901FI	TEST ONLY RST 0402 3.9K 1% 1/16W TA-I	
R464	061G04023901FI	TEST ONLY RST 0402 3.9K 1% 1/16W TA-I	
R464	061G04023901FT	RST 0402 3.9K 1% 1/16W TZAI YUAN	
R465	061G04023901FT	RST 0402 3.9K 1% 1/16W TZAI YUAN	
R466	061G04023901FT	RST 0402 3.9K 1% 1/16W TZAI YUAN	
R127	061G0402470 JI	RST 0402 47R 5% 1/16W	
R128	061G0402470 JI	RST 0402 47R 5% 1/16W	
R158	061G0402470 JI	RST 0402 47R 5% 1/16W	
R159	061G0402470 JI	RST 0402 47R 5% 1/16W	
R126	061G0402470 JI	RST 0402 47R 5% 1/16W	
R125	061G0402470 JI	RST 0402 47R 5% 1/16W	
R112	061G0402470 JI	RST 0402 47R 5% 1/16W	
R111	061G0402470 JI	RST 0402 47R 5% 1/16W	
R110	061G0402470 JI	RST 0402 47R 5% 1/16W	
R159	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R158	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R128	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R127	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R126	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R125	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R112	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R111	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R110	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R606	061G0402471 JI	TEST ONLY RST 0402 470R 5% 1/16W TA-I	
R606	061G0402471 JT	RST CHIP 470R 1/16W 5% TZAI YUAN	
R719	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R701	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R422	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R156	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R155	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R133	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R132	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R123	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	

R122	061G0402472 JI	TEST ONLY RST CHIP 4.7K 5% 1/16W TA-I	
R156	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R422	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R701	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R719	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R155	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R133	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R132	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R123	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R122	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R415	061G0402622 JI	RST 0402 6.2K 5% 1/16W	
R415	061G0402622 JT	RST CHIP 6.2KOHM 5% 1/16W TZAI YUAN	
R107	061G0402750 JI	TEST ONLY RST 0402 75R 5% 1/16W TA-I	
R108	061G0402750 JI	TEST ONLY RST 0402 75R 5% 1/16W TA-I	
R109	061G0402750 JI	TEST ONLY RST 0402 75R 5% 1/16W TA-I	
R107	061G0402750 JT	RST 0402 75R 5% 1/16W	
R108	061G0402750 JT	RST 0402 75R 5% 1/16W	
R109	061G0402750 JT	RST 0402 75R 5% 1/16W	
R613	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R614	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R152	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R151	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R150	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R117	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R614	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R613	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R152	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R151	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R150	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R117	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R444	061G0603331 JI	RST 0603 330R 5% 1/10W	
R444	061G0603331 JT	RST 0603 330R 5% 1/10W	
R450	061G0603471 JI	TEST ONLY RST 0603 470R 5% 1/16W TA-I	
R450	061G0603471 JT	RST CHIPR 470OHM +-5% 1/10W TZAI YUAN	
R433	061G0603472 JI	RST 0603 4.7K 5% 1/10W TA-I	
R433	061G0603472 JT	RST CHIP 4K7 1/10W 5% TZAI YUAN	
R480	061G1206301 JI	RST 300 OHM 5% 1/4W TA-I	
R481	061G1206301 JI	RST 300 OHM 5% 1/4W TA-I	
R480	061G1206301 JT	RST CHIPR 300 OHM +-5% 1/4W TZAI YUAN	
R481	061G1206301 JT	RST CHIPR 300 OHM +-5% 1/4W TZAI YUAN	

C416	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C417	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C418	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C421	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C422	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C423	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C424	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C425	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C429	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C602	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C604	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C621	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C652	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C701	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C704	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C750	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C714	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C712	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C705	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C409	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C101	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C114	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C115	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C117	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C118	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C119	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C123	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C125	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C126	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C402	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C403	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C404	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C405	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C406	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C408	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	
C429	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C425	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C424	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C423	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C422	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	

C421	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C418	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C417	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C416	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C602	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C604	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C621	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C652	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C701	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C704	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C705	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C712	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C714	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C750	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C409	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C101	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C114	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C115	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C117	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C118	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C119	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C123	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C125	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C126	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C402	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C403	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C404	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C405	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C406	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C408	065G040210412K	T	CAP CHIP 0402 100NF 16V X7R	
C625	065G0402105A5K	M	CAP 0402 1UF 10% 10V X5R	
C623	065G0402105A5K	M	CAP 0402 1UF 10% 10V X5R	
C614	065G0402105A5K	M	CAP 0402 1UF 10% 10V X5R	
C612	065G0402105A5K	M	CAP 0402 1UF 10% 10V X5R	
C611	065G0402105A5K	M	CAP 0402 1UF 10% 10V X5R	
C611	065G0402105A5K	T	CAP 0402 1UF 10% 10V X5R	
C612	065G0402105A5K	T	CAP 0402 1UF 10% 10V X5R	
C614	065G0402105A5K	T	CAP 0402 1UF 10% 10V X5R	
C623	065G0402105A5K	T	CAP 0402 1UF 10% 10V X5R	
C625	065G0402105A5K	T	CAP 0402 1UF 10% 10V X5R	

C112	065G040222031J T	CAP CHIP 0402 22PF J 50V NPO	
C111	065G040222031J T	CAP CHIP 0402 22PF J 50V NPO	
C112	065G040222031J Y	CAP CHIP 0402 22P 50V NP0 +/-5%	
C111	065G040222031J Y	CAP CHIP 0402 22P 50V NP0 +/-5%	
C618	065G040222131J F	CAP 0402 220PF J 50V NPO	
C617	065G040222131J F	CAP 0402 220PF J 50V NPO	
C616	065G040222131J F	CAP 0402 220PF J 50V NPO	
C615	065G040222131J F	CAP 0402 220PF J 50V NPO	
C615	065G040222131J T	CAP CHIP 0402 220PF 50V NPO	
C616	065G040222131J T	CAP CHIP 0402 220PF 50V NPO	
C617	065G040222131J T	CAP CHIP 0402 220PF 50V NPO	
C618	065G040222131J T	CAP CHIP 0402 220PF 50V NPO	
C130	065G040222322K T	CAP MLCC 0402 22NF K 25V X7R	
C130	065G040222322K Y	CAP 0402 22NF 10% 25V X7R	
C116	065G040222415K M	CAP 0402 220NF 10% 16V X5R	
C120	065G040222415K M	CAP 0402 220NF 10% 16V X5R	
C407	065G040222415K M	CAP 0402 220NF 10% 16V X5R	
C717	065G040222415K M	CAP 0402 220NF 10% 16V X5R	
C113	065G040222415K M	CAP 0402 220NF 10% 16V X5R	
C113	065G040222415K T	CAP CHIP 0402 220NF K 16V X5R	
C116	065G040222415K T	CAP CHIP 0402 220NF K 16V X5R	
C120	065G040222415K T	CAP CHIP 0402 220NF K 16V X5R	
C407	065G040222415K T	CAP CHIP 0402 220NF K 16V X5R	
C717	065G040222415K T	CAP CHIP 0402 220NF K 16V X5R	
C110	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C109	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C108	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C104	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C103	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C102	065G040247312K A	CAP 0402 47NF 10% 16V X7R	
C110	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C109	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C108	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C104	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C103	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C102	065G040247312K T	CAP 0402 47NF 10% 16V X7R	
C622	065G0402474A5K T	CAP CHIP 0402 0.47UF 10V K X5R	
C622	065G0402474A5K Y	CAP CHIP 0402 0.47UF K 10V X5R	
C133	065G040250931C T	CAP 0402 5PF 0.25PF 50V NP0	
C131	065G040250931C T	CAP 0402 5PF 0.25PF 50V NP0	

C132	065G040250931C T	CAP 0402 5PF 0.25PF 50V NP0	
C133	065G040250931C Y	CAP 0402 5PF 0.25PF 50V NP0	
C132	065G040250931C Y	CAP 0402 5PF 0.25PF 50V NP0	
C131	065G040250931C Y	CAP 0402 5PF 0.25PF 50V NP0	
C632	065G060310512K M	CAP 0603 1UF 10% 16V X7R	
C605	065G060310512K M	CAP 0603 1UF 10% 16V X7R	
C632	065G060310512K T	CAP 0603 1UF 10% 16V X7R	
C605	065G060310512K T	CAP 0603 1UF 10% 16V X7R	
C606	065G060347412K T	CAP CHIP 0603 0.47UF K 16V X7R	
C607	065G060347412K T	CAP CHIP 0603 0.47UF K 16V X7R	
C610	065G060347412K T	CAP CHIP 0603 0.47UF K 16V X7R	
C606	065G060347412K Y	CAP CHIP 0.47UF 16V +/-10% X7R	
C607	065G060347412K Y	CAP CHIP 0.47UF 16V +/-10% X7R	
C610	065G060347412K Y	CAP CHIP 0.47UF 16V +/-10% X7R	
C419	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C420	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C613	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C624	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C415	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C410	065G0805106A5K M	CAP 0805 10UF 10% 10V X5R	
C624	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
C613	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
C420	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
C419	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
C415	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
C410	065G0805106A5K T	CHIP 10UF 10V X5R 0805	
U402	070GHDCP500HDC	HDCP CODE	
FB603	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB604	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB605	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB608	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB602	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB601	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB411	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB407	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB406	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB405	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB404	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB403	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB402	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	

FB401	071G 56K121 M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB406	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB407	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB411	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB601	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB602	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB603	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB604	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB605	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB608	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB405	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB404	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB403	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB402	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB401	071G 56K121 TA	CHIP BEAD 120R/6000MA HCB2012KF-121T60	
FB101	071G 59G301 TA	CHIP BEAD 300OHM 200MA FCM1608KF-301T02	
FB501	071G 59G301 TA	CHIP BEAD 300OHM 200MA FCM1608KF-301T02	
CN501	088G 34019H VA	HDMI HEADER 19P V/T H:13.0MM	
D103	093G 60505	SCHOTTKY BAT54C 0.2A 30V SOT-23	
D102	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D101	093G 64 42 L	DIODE LBAV70LT1G SOT-23 LRC	
D102	093G 64 42 PP	BAV70 SOT-23	
D101	093G 64 42 PP	BAV70 SOT-23	
D601	093G 64S522SEM	LL4148	
Q705	057G 763 79	FET AO4449 -7A/-30V SOIC-8	
R620	061G0402101 JI	BEST ONLY RST 0402 100R 5% 1/16W TA-I	
R620	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R627	061G0603000 JI	RST 0603 0.05R MAX 1/10W TA-I	
R627	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R619	061G0603121 JI	RST 0603 120R 5% 1/10W	
R621	061G0603121 JI	RST 0603 120R 5% 1/10W	
R619	061G0603121 JT	RST CHIPR 120OHM 1/10W TZAI YUAN	
R621	061G0603121 JT	RST CHIPR 120OHM 1/10W TZAI YUAN	
FB607	061G0805000 JI	RST 0805 MAX0.05R 5% 1/8W TA-I	
FB607	061G0805000 JT	RST 0805 0.05R MAX 1/8W	
R651	061G08050004JT	CHIPR 0805 MAX0R05 4A	
C413	065G040212031J T	CAP CHIP 0402 12PF 50V J NPO	
C414	065G040212031J T	CAP CHIP 0402 12PF 50V J NPO	
C413	065G040212031J Y	CAP CHIP 0402 12P 50V NP0 +/-5%	
C414	065G040212031J Y	CAP CHIP 0402 12P 50V NP0 +/-5%	

C608	065G040268132K 3	CAP CHIP 680PF 50V X7R +/-10%	
C609	065G040268132K 3	CAP CHIP 680PF 50V X7R +/-10%	
C608	065G040268132K Y	CAP 0402 680PF 50V X7R +/-10%	
C609	065G040268132K Y	CAP 0402 680PF 50V X7R +/-10%	
ZD107	093G 39GA01 T	RLZ5.6B	
ZD106	093G 39GA01 T	RLZ5.6B	
ZD105	093G 39GA01 T	RLZ5.6B	
ZD103	093G 39GA01 T	RLZ5.6B	
ZD102	093G 39GA01 T	RLZ5.6B	
ZD101	093G 39GA01 T	RLZ5.6B	
ZD107	093G 39S 24 T	RLZ 5.6B LLDS	
ZD106	093G 39S 24 T	RLZ 5.6B LLDS	
ZD105	093G 39S 24 T	RLZ 5.6B LLDS	
ZD103	093G 39S 24 T	RLZ 5.6B LLDS	
ZD102	093G 39S 24 T	RLZ 5.6B LLDS	
ZD101	093G 39S 24 T	RLZ 5.6B LLDS	
E715	715G5017M01000004K	MAIN PCB FR4 DS 122X72X1.6MM	2nd Source
E715	715G5017M01000004L	MAIN PCB FR4 DS 122X72X1.6MM	
C428	067G 3052213PB	CAP 105¡ÃC 220UF	
C603	067G305S1013HB	EC 100UF 16V 6.3*7MM	
	KEPCBQN1	KEY BOARD G4851-K0E-AOC-X-1-110322	
LED001	081G 12 10 EL	RED/BLUE 209-3SURUBW/C470/A3/T2/F182-150	
CN001	095G820H 6D525	HARNESS 6P(SANW)-7P(A2008) 320MM	
SW001	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW002	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW003	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW004	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
SW005	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	
JR001	061G0805000 JT	RST 0805 0.05R MAX 1/8W	
R002	061G0805000 JT	RST 0805 0.05R MAX 1/8W	
R004	061G08051001FF	RST CHIPR 1KOHM +-1% 1/8W FENGHUA	
R001	061G08052001FY	RST CHIP 2K 1/8W 1%	
R003	061G08052001FY	RST CHIP 2K 1/8W 1%	
JR002	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	
C001	065G060310432K M	CAP 0603 100NF 10% 50V X7R	
C002	065G060310432K M	CAP 0603 100NF 10% 50V X7R	
	715G4851K01000001S	KEY PCB FR1 SS 125X11X1.6MM	
	ADPCB1604QD3	ADAPTER BOARD G4750-P02-000-0010-8-110527	
	040G 45762412B	CBPC LABEL	
GND1	009G6005 1	GROUND TERMINAL	

GND2	009G6005 1	GROUND TERMINAL	
IC902	056G 139 9	IC EL817M(X) PHOTOCOUPLER DIP-4	
IC902	056G 139 3A	PC123Y22FZOF SHARP	
NR901	061G 58100 X	NTCR 10R 20% 5W(10D2-14 MCS)	
NR901	061G 58100MEW	NTCR 10R 20% 4W	
C905	063G107K224 UM	X2 CAP 0.22UF K 275VAC	
C905	063G107K2246S1	X2 CAP 0.22UF K 275VAC	
C921	065G306M1023BW	CAP Y1 1NF 20% 250V Y5U	
C920	065G306M1023BW	CAP Y1 1NF 20% 250V Y5U	
C900	065G306M3322BP	CAP Y1 3.3NF 20% 250V Y5U	
C907	067G215S3316KV	EC 330UF M 35V 10*12MM	
C908	067G215S3316KV	EC 330UF M 35V 10*12MM	
C927	067G215S3316KV	EC 330UF M 35V 10*12MM	
C907	067G215S3316LV	EC 330UF 35V M 10*12.5MM	
C908	067G215S3316LV	EC 330UF 35V M 10*12.5MM	
C927	067G215S3316LV	EC 330UF 35V M 10*12.5MM	
C903	067G215Z56015H	EC 56UF 20% 450V 12.5*40 2000 HR	
C902	067G215Z56015H	EC 56UF 20% 450V 12.5*40 2000 HR	
C902	067G215Z56015K	EC 56UF 20% 450V 12.5*40 2000 HR	
C903	067G215Z56015K	EC 56UF 20% 450V 12.5*40 2000 HR	
L901	073G 174190 H	LINE FILTER 10MH MIN LCL-12010 HA	
L901	073G 174190 X	LINE FILTER 10MH MIN 3TRET20-103M	
L902	073G 253 91 H	IND CHOKE 3.5UH+-10% DADONG	
L903	073G 253 91 H	IND CHOKE 3.5UH+-10% DADONG	
L902	073G 253 91 V	CHOKE COIL 3.5UH+-10%	
L903	073G 253 91 V	CHOKE COIL 3.5UH+-10%	
T901	080GL19P 17 N1	X'FMR 500UH 5% 10UH YUVA-1738 PQ38	
T901	080GL19P 17DN1	X'FMR 500UH 5% 10UH LZ.PJ004.R00 PQ38	
CN901	087G 501 48 S	AC SOCKET 3PIN + 3 HOLE	2nd Source
CN901	087G 501 48 DL	AC SOCKET 3PIN + 3 HOLE	2nd Source
CN901	087G 501 48 HC	AC SOCKET R/A 3P DB-14-04 H=21.6	
BD901	093G 50460 50	BRIDGE GBL08 4A/800V GBL	
CN902	095G 825 7X508	HARNESS 7P(SCN)-9P(A2008) 100MM	
	705GQA57948	Q901 ASS'Y	
Q901	057G 667918	MOSFET SMK0870F	
Q901	057G 667940	MOSFET P1070ATF 10A 700V TO-220F	
	0M1G 930 8120	SCREW 3X8	
HS1	Q90G0195 3	HEAT SINK	
	705GQA93943	D901 ASS'Y	
D901	093G 52 66	DIODE FMX-12SL 10A/200V TO-220	

D901	093G 60943	DIODE SFF1004G ITO-220AB	
D901	093G 60978	RECTIFIER UF1002FCT 10A 200V ITO-220AB	
	0M1G 930 8 47 CR3	SCREW 3X8	
HS2	Q90G0195 1	HEAT SINK	
	705GQB93015	D903 ASS`Y	
D903	093G 60930	SCHOTTKY MBRF2060CT 20A 60V ITO-220AB	
	0M1G 930 8120	SCREW 3X8	
HS3	Q90G0195 1	HEAT SINK	
IC901	056G 379190	AC/DC CONVERTER LD7750RGR SOP-7	
R915	061G08051000FF	RST CHIPR 100 OHM +-1% 1/8W FENGHUA	
R915	061G08051000FY	RST CHIPR 100 OHM +-1% 1/8W YAGEO	
R923	061G08051002FT	RST CHIP 10K 1/8W 1%	
R923	061G08051002FY	RST CHIP 10K 1/8W 1%	
R934	061G0805102 JF	RST CHIPR 1K OHM +-5% 1/8W FENGHUA	
R934	061G0805102 JF	RST CHIPR 1K OHM +-5% 1/8W FENGHUA	
R931	061G0805104 JF	RST CHIPR 100KOHM +-5% 1/8W FENGHUA	
R931	061G0805104 JT	RST CHIPR 100KOHM +- 5% 1/8W TZAI YUAN	
R921	061G08051501FT	RST CHIPR 1K5 +-1% 1/8W TZAI YAUN	
R921	061G08051501FY	RST CHIP 1K5 1/8W 1%	
R920	061G0805221 JI	RST CHIPR 220 OHM +-5% 1/8W 0805	
R920	061G0805221 JT	RST CHIP 220R 1/8W 5% TZAI YUAN	
R926	061G08054701FF	RST CHIPR 4.7KOHM +-1% 1/8W FENGHUA	
R926	061G08054701FT	RST CHIP 4K7 1/8W 1%	
R933	061G0805511 JF	RST CHIPR 510OHM +-5% 1/8W FENGHUA	
R933	061G0805511 JT	RST CHIPR 510OHM +-5% 1/8W TZAI YUAN	
R927	061G08059101FF	RST CHIPR 9.1KOHM +-1% 1/8W FENGHUA	
R927	061G08059101FT	RST CHIP 9K1 1/8W 1%	
R924	061G1206100 JF	RST CHIPR 10 OHM +-5% 1/4W FENGHUA	
R924	061G1206100 JT	RST CHIPR 10 OHM +-5% 1/4W TZAI YUAN	
R912	061G1206103 JF	RST CHIPR 10KOHM +-5% 1/4W FENGHUA	
R912	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	
R916	061G1206155 JF	RST CHIPR 1.5MOHM +-5% 1/4W FENGHUA	
R917	061G1206155 JF	RST CHIPR 1.5MOHM +-5% 1/4W FENGHUA	
R918	061G1206155 JF	RST CHIPR 1.5MOHM +-5% 1/4W FENGHUA	
R918	061G1206155 JT	RST CHIPR 1.5MOHM +-5% 1/4W TZAI YUAN	
R917	061G1206155 JT	RST CHIPR 1.5MOHM +-5% 1/4W TZAI YUAN	
R916	061G1206155 JT	RST CHIPR 1.5MOHM +-5% 1/4W TZAI YUAN	
R911	061G1206220 JF	RST CHIPR 22 OHM +-5% 1/4W FENGHUA	
R911	061G1206220 JT	RST CHIPR 22 OHM +-5% 1/4W TZAI YUAN	
R913	061G1206470 JF	RST CHIPR 47 OHM +-5% 1/4W FENGHUA	

R914	061G1206470 JF	RST CHIPR 47 OHM +-5% 1/4W FENGHUA	
R901	061G1206470 JI	RST 47 OHM 5% 1/4W TA-I	
R902	061G1206470 JI	RST 47 OHM 5% 1/4W TA-I	
R914	061G1206470 JT	RST CHIPR 47 OHM +-5% 1/4W TZAI YUAN	
R913	061G1206470 JT	RST CHIPR 47 OHM +-5% 1/4W TZAI YUAN	
R902	061G1206470 JT	RST CHIPR 47 OHM +-5% 1/4W TZAI YUAN	
R901	061G1206470 JT	RST CHIPR 47 OHM +-5% 1/4W TZAI YUAN	
R910	061G12064707FI	RST 1206 0.47R 1% 1/4W	
R905	061G1206682 JF	RST CHIPR 6.8KOHM +-5% 1/4W FENGHUA	
R908	061G1206682 JF	RST CHIPR 6.8KOHM +-5% 1/4W FENGHUA	
R909	061G1206682 JF	RST CHIPR 6.8KOHM +-5% 1/4W FENGHUA	
R909	061G1206682 JT	RST CHIPR 6.8 KOHM +-5% 1/4W TZAI YUAN	
R908	061G1206682 JT	RST CHIPR 6.8 KOHM +-5% 1/4W TZAI YUAN	
R905	061G1206682 JT	RST CHIPR 6.8 KOHM +-5% 1/4W TZAI YUAN	
C922	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	
C934	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	
C922	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	
C934	065G080510232K Y	CAP CHIP 0805 1N 50V X7R +/-10%	
C926	065G080510432K 3	CAP CHIP 0805 100N 50V X7R +/-10%	
C929	065G080510432K 3	CAP CHIP 0805 100N 50V X7R +/-10%	
C929	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C926	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C923	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C917	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C912	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C912	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C917	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C923	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C926	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C929	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C919	065G080533332K F	CAP 0805 33NF K 50V X7R	
C919	065G080533332K Y	CAP CHIP 0805 33N 50V X7R +/-10%	
C901	065G120622272K F	CAP 1206 2.2NF 10% 500V X7R	
C913	065G120622272K F	CAP 1206 2.2NF 10% 500V X7R	
C924	065G120622272K F	CAP 1206 2.2NF 10% 500V X7R	
C925	065G120622272K F	CAP 1206 2.2NF 10% 500V X7R	
C901	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C913	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C924	065G120622272K Y	CER 1206 2N2 500V X7R 10%	
C925	065G120622272K Y	CER 1206 2N2 500V X7R 10%	

CN901	006G 31500	EYELET	
IC903	056G 158 10 T	LDO IC AZ431AZ-AE1 TO-92 150MA 40V TO-92	
IC903	056G 563354	SHUNT. REG. TL431-A-TA TO-92	
Q903	057G 419 18 T	SMALLTRAN 2SD1207-T-AE 2A 60V MP	
Q903	057G 761 16	TRA KTD1028 KEC	
R903	061G152M10452T HX	RST MOF 100K 5% 2WS	
R903	061G152M10452T SY	RST MOFR 100KOHM +-5% 2WS FUTABA	
R919	061G152M39852T HX	RST MOF 0.39R 5% 2W	
R919	061G152M39852T SY	RST MOF 0.39R 5% 2W	
R935	061G152M68152T HX	RST MOF 680R 5% 2W	
R932	061G152M68152T HX	RST MOF 680R 5% 2W	
R932	061G152M68152T SY	RST MOF 680R 5% 2WS	
R935	061G152M68152T SY	RST MOF 680R 5% 2WS	
C931	065G 1K471 2T6921	CAP CER 470PF 1KV K Y5P	
C906	065G 2K152 2T6213	CAP CER 1.5NF 10% 2KV Y5P	
C906	065G 2K152 2T6921	CAP CER 1500PF K 2KV Y5P	
C910	067G 2046812KT	CS CAP 680UF 10V 8*11 MM	
C910	067G 2046812LT	CAP CS 680UF 20% 10V 8*11.5	
C916	067G215C4706KT	EC 47UF 20% 35V 8*9 EM	
C916	067G215C4706LT	EC 47UF 20% 35V 8*9	
C911	067G215C4713KT	EC 470 20% 16 8*9 EM	
C911	067G215C4713LT	EC 470UF 20% 16V 8*9	
FB901	071G 55 9 T	BEAD 3.5*0.8*6.0MM 110R HF	
F902	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4 B	FUSE 4A 250V	
F901	084G 56 4W	FUSE 4A 250V	
F902	084G 56 4W	FUSE 4A 250V	
ZD902	093G 3916352T	ZD TZX22B	
ZD902	093G 39A6852T	ZENER DIODES MTZJ22B DO-34	
D902	093G 60964	RECTIFIER PS1010R T/B 1A 1000V DO-41	
D905	093G 60964	RECTIFIER PS1010R T/B 1A 1000V DO-41	
D904	093G 6452452T	SWITCHING 1N4148-B4006 0.2A 100V DO-35	
J917	095G 90 23	JUMPER WIRE	
J914	095G 90 23	JUMPER WIRE	
J913	095G 90 23	JUMPER WIRE	
J912	095G 90 23	JUMPER WIRE	
J911	095G 90 23	JUMPER WIRE	
J910	095G 90 23	JUMPER WIRE	
J909	095G 90 23	JUMPER WIRE	
J908	095G 90 23	JUMPER WIRE	

J907	095G 90 23	JUMPER WIRE	
J906	095G 90 23	JUMPER WIRE	
J905	095G 90 23	JUMPER WIRE	
J904	095G 90 23	JUMPER WIRE	
J903	095G 90 23	JUMPER WIRE	
J902	095G 90 23	JUMPER WIRE	
J901	095G 90 23	JUMPER WIRE	
	715G4750P02000001S	PWR PCB FR1 CTI>600 SS 114*226*1.6MM	
	LNPC1D481GAA8	CONVERTER BOARD G4711-P01-001-0040-2-110519	
C813	067G315M1016KV	EC 100UF 20% 35V 8*7	
C810	067G415Z479 9K	EC 4.7UF 20% 100V 8*12	
C810	067G415Z479 9L	EC 4.7UF 20% 100V 8*12	
CN802	311GB254B04AAL	PIN HEADER 2.54MM 4P 2P7.2MM/2P4.0MM	2nd Source
CN802	311GB254B04AAX	PIN HEADER 2.54MM 4P	
CN801	311GB254B07AAL	PIN HEADER 2.54MM 7P 5P7.2MM/2P4.0MM	2nd Source
CN801	311GB254B07AAX	PIN HEADER 2.54MM 7P	
IC801	056G 700 12	LED DRIVER OZ9998AGN-A1-0-TR SOP-24	
Q801	057G 600941	MOSFET AOD482 32A 100V TO-252	
R818	061G0603000 FI	DIS-APPROVED 0.01R MAX 1/10W	
R819	061G0603000 FI	DIS-APPROVED 0.01R MAX 1/10W	
R820	061G0603000 FI	DIS-APPROVED 0.01R MAX 1/10W	
R821	061G0603000 FI	DIS-APPROVED 0.01R MAX 1/10W	
R821	061G0603000 FY	RST CHIPR MAX 0R01 1/10W YAGEO	
R820	061G0603000 FY	RST CHIPR MAX 0R01 1/10W YAGEO	
R819	061G0603000 FY	RST CHIPR MAX 0R01 1/10W YAGEO	
R818	061G0603000 FY	RST CHIPR MAX 0R01 1/10W YAGEO	
R807	061G0603100 JF	RST CHIPR 10 OHM 5% 1/10W FENGHUA	
R814	061G0603100 JF	RST CHIPR 10 OHM 5% 1/10W FENGHUA	
R814	061G0603100 JI	RST 0603 10R 5% 1/16W TA-I	
R807	061G0603100 JT	RST CHIP 10R 1/10W 5% TZAI YUAN	
R826	061G06031008FF	RST CHIP 1R 1% 1/10W FENGHUA	
R828	061G06031008FF	RST CHIP 1R 1% 1/10W FENGHUA	
R830	061G06031008FF	RST CHIP 1R 1% 1/10W FENGHUA	
R833	061G06031008FF	RST CHIP 1R 1% 1/10W FENGHUA	
R833	061G06031008FI	RST 0603 1R 1% 1/10W TA-I	
R830	061G06031008FI	RST 0603 1R 1% 1/10W TA-I	
R828	061G06031008FI	RST 0603 1R 1% 1/10W TA-I	
R826	061G06031008FI	RST 0603 1R 1% 1/10W TA-I	
R812	061G0603101 JF	RST CHIPR 100 OHM +-5% 1/10W FENGHUA	

R812	061G0603101 JI	RST 0603 100R 5% 1/10W TA-I	
R810	061G0603102 JF	RST CHIPR 1K OHM +-5% 1/10W FENGHUA	
R810	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R806	061G0603103 JF	RST CHIPR 10K OHM +-5% 1/10W FENGHUA	
R813	061G0603103 JF	RST CHIPR 10K OHM +-5% 1/10W FENGHUA	
R813	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R806	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R809	061G0603104 JF	RST CHIPR 100KOHM 5% 1/10W FENGHUA	
R809	061G0603104 JT	RST CHIP 100K 1/10W 5% TZAI YUAN	
R842	061G06031602FF	RST CHIPR 16KOHM +-1% 1/10W FENGHUA	
R842	061G06031602FI	RST 0603 16K 1% 1/10W	
R805	061G06031603FF	RST CHIPR 160KOHM 1/10W	
R805	061G06031603FT	RST CHIPR 160KOHM 1/10W	
R845	061G0603221 JF	ST CHIPR 220 OHM +-5% 1/10W FENGHUA	
R845	061G0603221 JI	RST 0603 220R 5% 1/16W TA-I	
R824	061G06033302FF	RST CHIPR 33K OHM +-1% 1/10W FENGHUA	
R804	061G06033302FF	RST CHIPR 33K OHM +-1% 1/10W FENGHUA	
R804	061G06033302FT	RST CHIP 33K 1/10W 1%	
R824	061G06033302FT	RST CHIP 33K 1/10W 1%	
R822	061G0805105 JF	RST CHIPR 1M OHM +- 5% 1/8W FENGHUA	
R822	061G0805105 JT	RST CHIP 1M 1/8W 5% TZAI YUAN	
F801	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	
R825	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	
R825	061G1206000 JI	RST 1206 MAX0R05 5% 1/4W	
F801	061G1206000 JI	RST 1206 MAX0R05 5% 1/4W	
R801	061G1206308 JF	RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA	
R802	061G1206308 JF	RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA	
R801	061G1206308 JI	RST CHIPR 0.3 OHM +-5% 1/4W 1206	
R802	061G1206308 JI	RST CHIPR 0.3 OHM +-5% 1/4W 1206	
C814	065G060322131J 3	CAP CHIP 0603 220PF J 50V NPO	
C814	065G060322131J A	CAP 0603 220PF 5% 50V NP0	
C815	065G060333412K A	CAP 0603 330NF 10% 16V X7R	
C815	065G060333412K F	0603 0.33UF K 16V X7R	
C805	065G060347412K 3	CAP CHIP 0603 0.47UF K 16V X7R	
C805	065G060347412K Y	CAP CHIP 0.47UF 16V +/-10% X7R	
C812	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	
C812	065G080510131J M	CAP CHIP 0805 100PF J 50V NPO	
C801	065G080510432K 3	CAP CHIP 0805 100N 50V X7R +/-10%	
C801	065G080510432K Y	CAP CHIP 0805 100N 50V X7R +/-10%	
C807	065G080522512K 3	CAP CHIP 0805 2U2 16V X7R +/-10%	

C807	065G080522512K M	CAP 0805 2.2UF 10% 16V X7R	
C803	065G080539131J F	CAP CHIP 0805 390PF J 50V NPO	
C804	065G080539131J F	CAP CHIP 0805 390PF J 50V NPO	
C804	065G080539131J Y	CAP CHIP 0805 390P 50V NPO +/-5%	
C803	065G080539131J Y	CAP CHIP 0805 390P 50V NPO +/-5%	
C806	065G080547432K M	CAP 0805 470NF 10% 50V X7R	
C806	065G080547432K T	CAP CHIP 0805 0.47UF K 50V X7R	
L801	073G253S 98 X	SMD CHOKE 47UH 20% 0.064R	
L801	073G253S 98 DN	SMD CHOKE 47UH 20% 0.064R LZ.29470.B2P	
ZD801	093G 60S907 T	SCHOTTKY B3100B 3A 100V SMB	
ZD801	093G 60S942 T	SCHOTTKY SM3100B 3A 100V SMB	
CN804	311GF100C06ADH	FFC CONN 1.0MM 6P	
E715	715G4711P01001004S	PWR PCB FR4 DS 80X45*1.6MM	
E715	715G4711P01001004L	PWR PCB FR4 DS 80X45*1.6MM	2nd Source