

Service  
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# Service Manual

Horizontal Frequency

64-83 KHz

## Table of Contents

Description	Page	Description	Page
Table of Contents.....	1	5.Block Diagram.....	24
Revision List.....	2	6.Schematic.....	25
Important Safety Notice.....	3	6.1.Main Board.....	25
1.Monitor Specification.....	4	6.2.Key Board.....	31
2.LCD Monitor Description.....	5	7.PCB Layout.....	32
3.Operation Instruction.....	6	7.1.Main Board.....	32
3.1.General Instructions.....	6	7.2.Key Board.....	34
3.2.Hot Keys.....	6	8.Maintainability.....	35
3.3.OSD Setting.....	7	8.1.Equipments and Tools Requirement.....	35
4.Input/Output Specification.....	20	8.2.Trouble Shooting.....	36
4.1.Input Signal Connector.....	20	9.White-Balance, Luminance Adjustment.....	40
4.2.Factory Preset Display Modes.....	21	10.Monitor Exploded View.....	42
4.3.Panel Specification.....	22	11.BOM List.....	44

## 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 TRANSFORMER FOR THIS UNIT WHEN SERVICING

## Revision List

<b>Version</b>	<b>Release Date</b>	<b>Revision History</b>	<b>L&amp;T Model Name</b>
A00	May-12-2011	Initial Release	HDAJNZ2CB7GGDNF.LF
			HDAJNZ2MB75ADNF.LF
			HDAJNZ2MB75ADNF.LF
A01	May-17-2011	Add new model	HDAJNZ2MB75ADNF.LF
A02	May-20-2011	Add new models	HDAJNZ2LB71GDNF.LF
			HDAJNZ2TB71RDNF.LF
			HDAJNZ2FB7UMDNF.LF
			HDAJNZ2MB7RODNF.LF
A03	Nov-7-2011	Add new models	HDAJNZ2CB78ADNF.LF
			HDAJNZ2EB77ADNF.LF
A04	Feb-13-2012	Add new models	HDAJNZ2AB7PGDNF.LF
A05	Feb-26-2012	Add new models	HDAJNZ2CB7SUDNF.LF
A06	JUN-24-2012	Add new model	HDAJNZ2QB7A6CNF.LF
A07	AUG-03-2012	Add new model	HDCJNZ2TB71RDNF.LF
A08	SEP-18-2012	Add new model	HDCJNZ2MB7RODNF.LF

## **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.

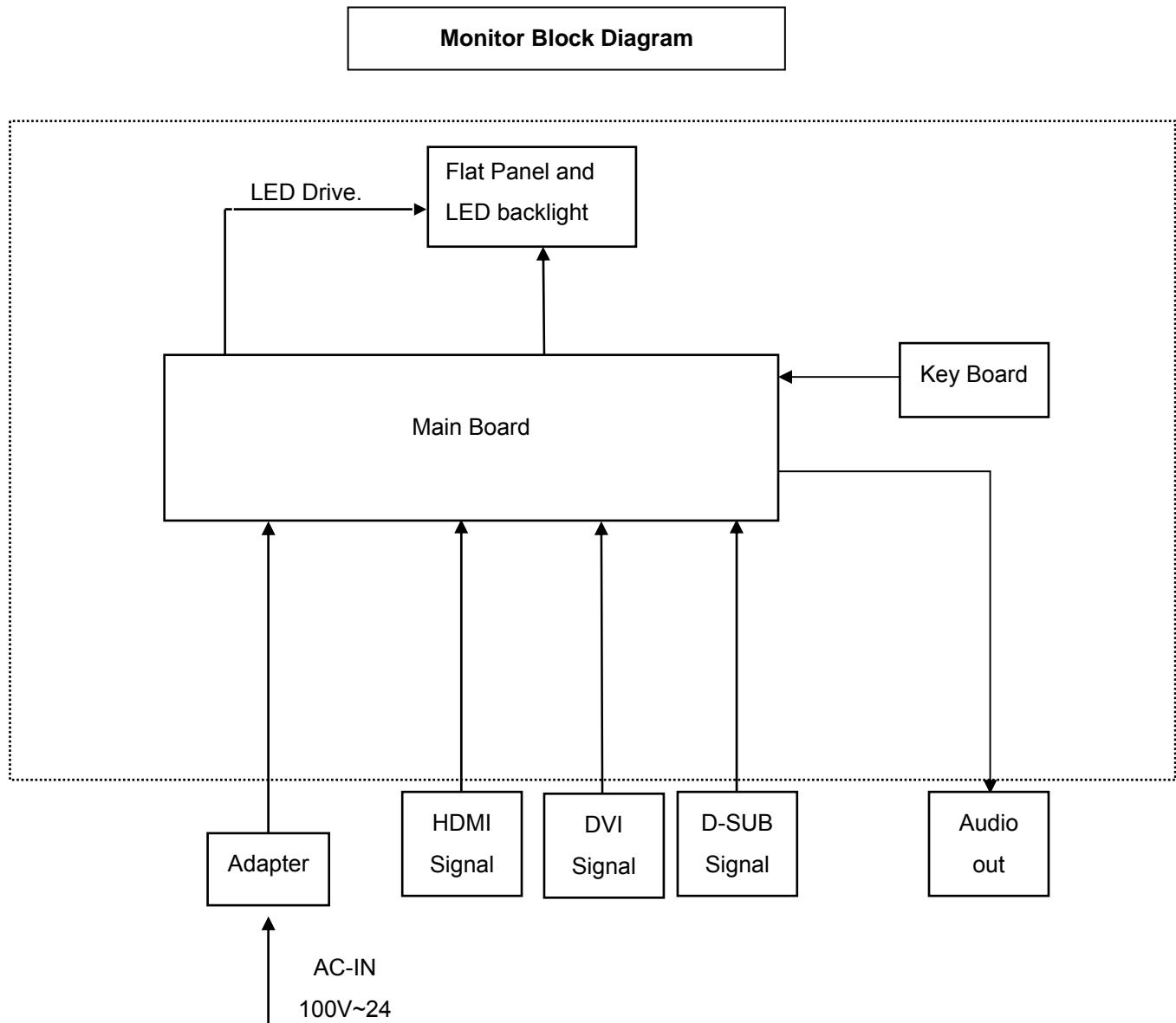
-If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

## 1. Monitor Specifications

Panel	Model number	e2351Fh
	Driving system	TFT Color LCD
	Viewable Image Size	584.2mm diagonal
	Pixel pitch	0.0883*RGB mm(H) x 0.265mm(V)
	Video	R, G, B Analog Interface
	Separate Sync.	H/V TTL
	Display Color	16.7M Colors
	Dot Clock	144MHz
Resolution	Horizontal scan range	64 kHz – 83 kHz
	Horizontal scan Size(Maximum)	535.7mm
	Vertical scan range	50 Hz - 76 Hz
	Vertical scan Size(Maximum)	311.2 mm
	Optimal preset resolution	1920x1080 (60 Hz)
	Highest preset resolution	1920x1080 (60 Hz)
	Plug & Play	VESA DDC2B
	Input Connector	VGA/DVI/HDMI
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, Positive
	Power Source	100~240VAC, 50/60Hz
	Power Consumption	36W
		Standby < 0.5 W
Physical Characteristics	Connector Type	VGA/DVI/HDMI
	Signal Cable Type	Detachable
	Dimensions & Weight:	
	Height (with base)	425.5mm
	Width	550mm
	Depth	194mm
	Weight (monitor only)	2.478kg
Environmental	Temperature:	
	Operating	0°C to 40°C
	Non-Operating	-25°C to 55°C
	Humidity:	
	Operating	10% to 85% (non-condensing)
	Non-Operating	5% to 93% (non-condensing)
	Altitude:	
	Operating	0~ 3,658m (0~ 12,000 ft )
	Non-Operating	0~ 12,192m (0~ 40,000 ft )

## 2. LCD Monitor Description

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

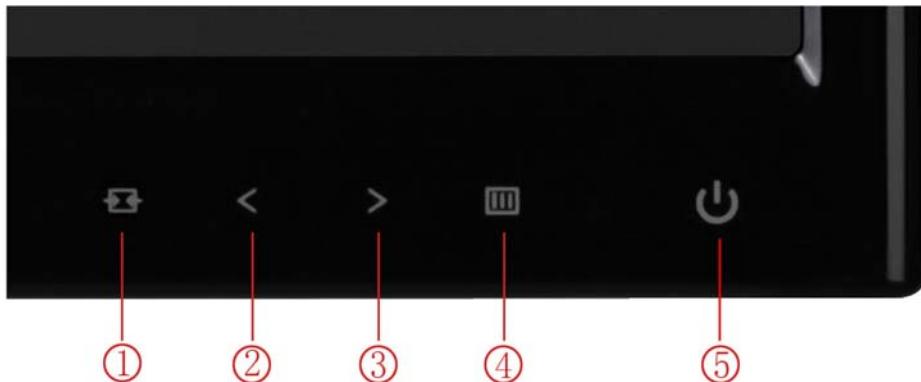


### 3. Operating Instructions

#### 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 Hotkeys



1	Source/Auto/Exit
2	ECO/-
3	4:3/Wide/+
4	Menu/Enter
5	Power

##### Power

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

##### Menu/Enter

Press to display the OSD or confirm the selection

##### Eco (DCR)-

Press the Eco key continuously to select the Eco mode of brightness and DCR on when there is no OSD. (Eco mode hot key may not be available in all models).

##### 4:3 or Wide/+

When there is no OSD, press > continuously to change 4:3 or wide image ratio. (If the product screen size is 4:3 or input signal resolution is wide format, the hot key is disabled to adjust.)

##### Source/Auto / Exit

##### Auto / Exit

When the OSD is closed, press Auto/Source/Exit button continuously about 2 second to do auto configure (only for the models with dual or more inputs).

When the OSD is closed, press Auto/Source/Exit button will be Source hot key function (Only for the models with dual or more inputs).

### 3.3 OSD Setting

Basic and simple instruction on the control keys.



- 1) Press the **III MENU-button** to activate the OSD window.
- 2) Press **< or >** to navigate through the functions. Once the desired function is highlighted, press the **III MENU-button** to activate sub-menu . Once the desired function is highlighted, press **III 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 **III 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 **III 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) to display menu

2



Press or to select (Luminance), and press to enter

3



Press or to select submenu, and press to enter.

4



Press < or > to adjust

5



Press to exit.

	Brightness	0-100		Backlight Adjustment	
	Contrast	0-100		Contrast from Digital-register.	
	Eco mode	Standard	<input checked="" type="checkbox"/>	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) to display menu

2



Press or to select (Image Setup), and press to enter.

3



Press or to select submenu, and press to enter.

4



Press or to adjust.

5



Press  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) to display menu.

2



Press < or > to select  (Color Setup), and press  to enter.

3



Press < or > to select submenu, and press  to enter.

4



Press < or > to adjust.

5



Press  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) to display menu.

2



Press  or  to select  (Picture Boost), and press  to enter.

3



Press < or > to select submenu, and press [III] to enter.

4



Press < or > to adjust.

5



Press [ ] to exit.

	Frame Size	14-100	Adjust Frame Size
	Brightness	0-100	Adjust Frame Brightness
	Contras	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) to display menu.

2



Press or to select (OSD Setup), and press to enter.

3



Press or to select submenu, and press to enter.

4



Press < or > to adjust.

5



Press 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
	Transparency	0-100	Adjust the transparency of OSD
	Language		Select the OSD language

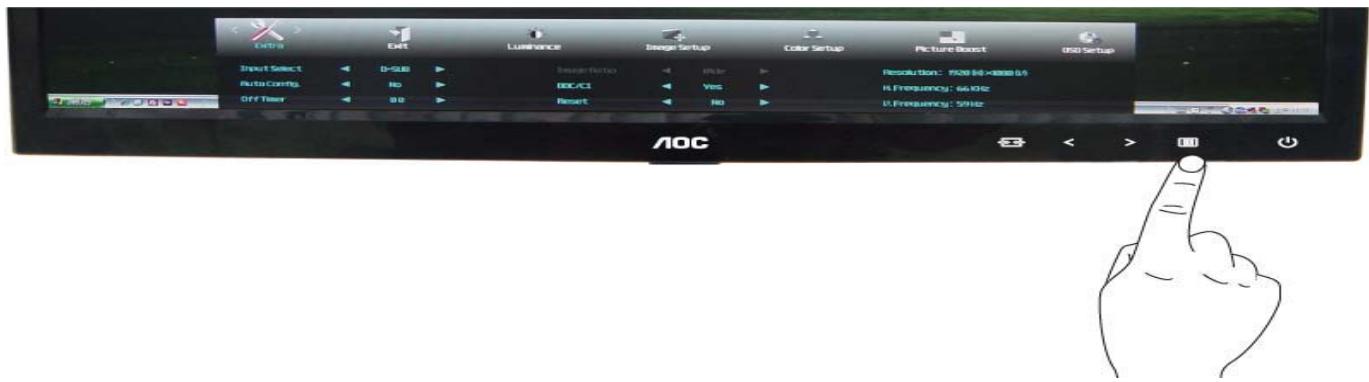
## Extra

1



Press (Menu) to display menu.

2



Press < or > to select



(Extra), and press [III] to enter.

3



Press < or > to select submenu, and press [III] to enter.

4



Press < or > to adjust.

5



Press [→←] to exit.

	Input Select	Analog	Select Analog Signal Source as Input
	Auto Config	yes or no	Auto adjust the picture to default
	Off timer	0-24hrs	Select DC off time
	Image Ratio	wide or 4:3 Select wide	Select wide or 4:3 format for display
	DDC-CI	yes or no	Turn ON/OFF DDC-CI Support
	Reset	yes or no	Reset the menu to default
	Information		Show the information of the main image and sub-image source

## Exit

1



Press  (Menu) to display menu.

2



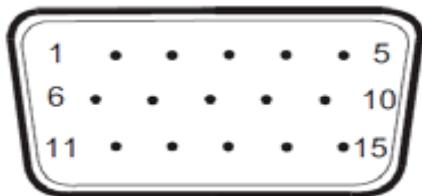
Press  or  to select  (Exit), and press  to exit.

	Exit		Exit the main OSD
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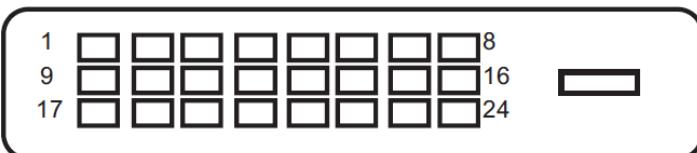
## 4. Input/Output Specification

### 4.1 D-SUB CONNECTORS and DVI CONNECTORS

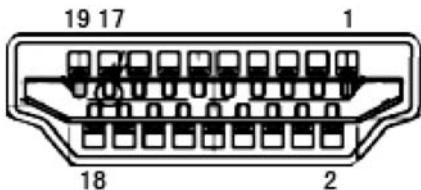
#### Pin Assignments



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



Pin Number	24-Pin Color Display Signal Cable	Pin Number	24-Pin Color Display Signal Cable
1	TMDS data 2-	13	TMDS data 3+
2	TMDS data 2+	14	+5V Power
3	TMDS data 2/4 Shield	15	Ground (对于 +5V )
4	TMDS data 4-	16	Hot Plug Detect
5	TMDS data 4+	17	TMDS data 0-
6	DDC Clock	18	TMDS data 0+
7	DDC data	19	TMDS data 0/5 Shield
8	N.C.	20	TMDS data 5-
9	TMDS data 1-	21	TMDS data 5+
10	TMDS data 1+	22	TMDS Clock Shield
11	TMDS data 1/3 Shield	23	TMDS Clock +
12	TMDS data 3-	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

STAND	RESOLUTION	HORIZONTAL FREQUENCY(kHZ)	VERTICAL FREQUENCY(Hz)
VGA	640x480@60Hz	31.469	59.940
	640x480@72Hz	37.861	72.809
	640x480@75Hz	37.500	75.000
SVGA	800x600@56Hz	35.156	56.250
	800x600@60Hz	37.879	60.317
	800x600@72Hz	48.077	72.188
	800x600@75Hz	46.875	75.000
XGA	1024x768@60Hz	48.363	60.004
	1024x768@70Hz	56.476	70.069
	1024x768@75Hz	60.023	75.029
SXGA	1280x1024@60Hz	63.981	60.020
	1280x1024@75Hz	79.976	75.025
WXGA+	1440x900@60Hz	55.935	59.887
	1440x900@60Hz	55.469	59.901
WSXGA	1680x1050@60Hz	65.290	59.954
	1680x1050@60Hz	64.674	59.883
WUXGA	1920x1080@60HZ	67.500	59.934
	1280x720@60Hz	45.000	60.000
	1280x960@60HZ	60.000	60.000
IBM-MODE DOS	720x400@70Hz	31.469	70.087
MAC MODE VGA	640x480@67Hz	35.000	66.667
	832x624@75Hz	49.725	74.551

## 4.3 Panel Specification

### 4.3.1 General Features

BM230WF5-TJC1 is a Color Active Matrix Liquid Crystal Display with an integral Light Emitting Diode (LED) backlight system. 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 23.0 inch diagonally measured active display area with Full HD 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 BM230WF5-TJC1 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
Outline Dimension	536.5 (H) x 312.0 (V) x 8.4 (D) mm(Typ.)
Pixel Pitch	0.0883*RGB(H)mm x 0.265(V)mm
Pixel Format	1920 horiz. By 1080 vert. Pixels RGB stripes arrangement
Interface	LVDS 2Port
Color depth	16.7M colors
Luminance, white	250 cd/m <sup>2</sup> ( Center 1Point, typ)
Viewing Angle (CR>10)	R/L 170(Typ.), U/D 160(Typ.)
Power Consumption	Total 19.8 W(Typ.), (6.0 W@V <sub>LCD</sub> , 13.8 W@W/O Driver)
Weight	1480 g (Typ.)
Display operating mode	Transmissive mode, Normally White
Surface treatments	Hard coating (3H), Anti-glare treatment of the front polarizer
Color Gamut	72%(Typ.) CIE 1931

#### 4.3.3 Electrical Characteristics

T<sub>a</sub> = 25°C

Parameter	Symbol	Values			Unit
		Min	Typ	Max	
<b>MODULE :</b>					
Power Supply Input Voltage	V <sub>LCD</sub>	4.5	5.0	5.5	Vdc
Permissive Power Input Ripple	V <sub>LCD</sub>	-	-	0.3	V
Power Supply Input Current	I <sub>LCD-MOSAIC(60Hz)</sub>	-	1200	1560	mA
	I <sub>LCD-BLACK(60Hz)</sub>	-	1400	1820	mA
	I <sub>LCD-BLACK(75Hz)</sub>		-	2260	mA
Power Consumption	P <sub>LCD</sub>	-	6.0	7.8	Watt
Inrush current	I <sub>RUSH</sub>	-	-	3.5	A

#### LED bar Electrical characteristics

Parameter	Symbol	Condition	Values			Unit
			Min.	Typ.	Max.	
<b>LED :</b>						
LED String Current	I <sub>s</sub>		-	120	125	mA
LED String Voltage	V <sub>s</sub>		54.0	57.6	61.2	V
Power Consumption	P <sub>Bar</sub>		-	13.8	14.7	Watt
LED Life Time	LED_LT		30,000	-	-	Hrs

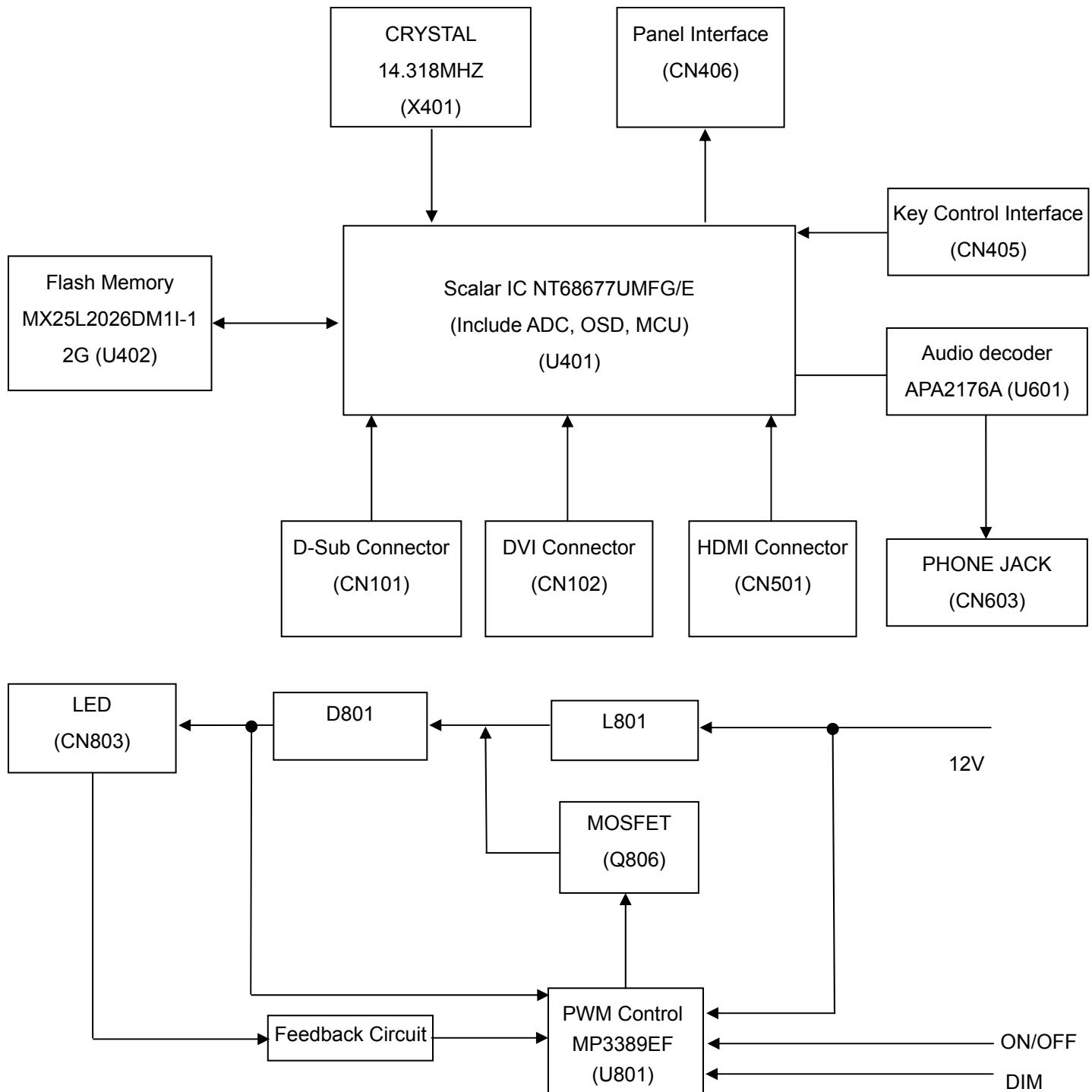
#### 4.3.4 Optical Characteristics

(Ta= 25°C, V<sub>LCD</sub>=5.0V, fv=60Hz, D<sub>CLK</sub>= 77.0MHz, Is=60mA)

Parameter	Symbol	Values			Units
		Min	Typ	Max	
Contrast Ratio	CR	700	1000	-	
Surface Luminance, white	L <sub>WH</sub>	200	250	-	cd/m <sup>2</sup>
Luminance Variation	δ <sub>WHITE</sub>	9P	75	-	%
Response Time	Rise Time	Tr <sub>R</sub>	-	1.3	2.6 ms
	Decay Time	Tr <sub>D</sub>	-	3.7	7.4 ms
Color Coordinates [CIE1931]	RED	Rx	Typ -0.03	0.638	Typ +0.03
		Ry		0.331	
	GREEN	Gx		0.310	
		Gy		0.624	
	BLUE	Bx		0.155	
		By		0.066	
	WHITE	Wx		0.313	
		Wy		0.329	
Viewing Angle (CR>5)					
	x axis, right(?=0°)	θr	75	88	Degree
	x axis, left (?=180°)	θl	75	88	
	y axis, up (?=90°)	θu	70	85	
	y axis, down (?=270°)	θd	70	85	
Viewing Angle (CR>10)					
	x axis, right(?=0°)	θr	70	85	Degree
	x axis, left (?=180°)	θl	70	85	
	y axis, up (?=90°)	θu	60	75	
	y axis, down (?=270°)	θd	70	85	
Crosstalk					1.5 %
Luminance uniformity - Angular dependence (TCO'03)		LR	-	-	1.7
Color grayscale linearity		Δu'v'		0.018	

## 5. Block Diagram

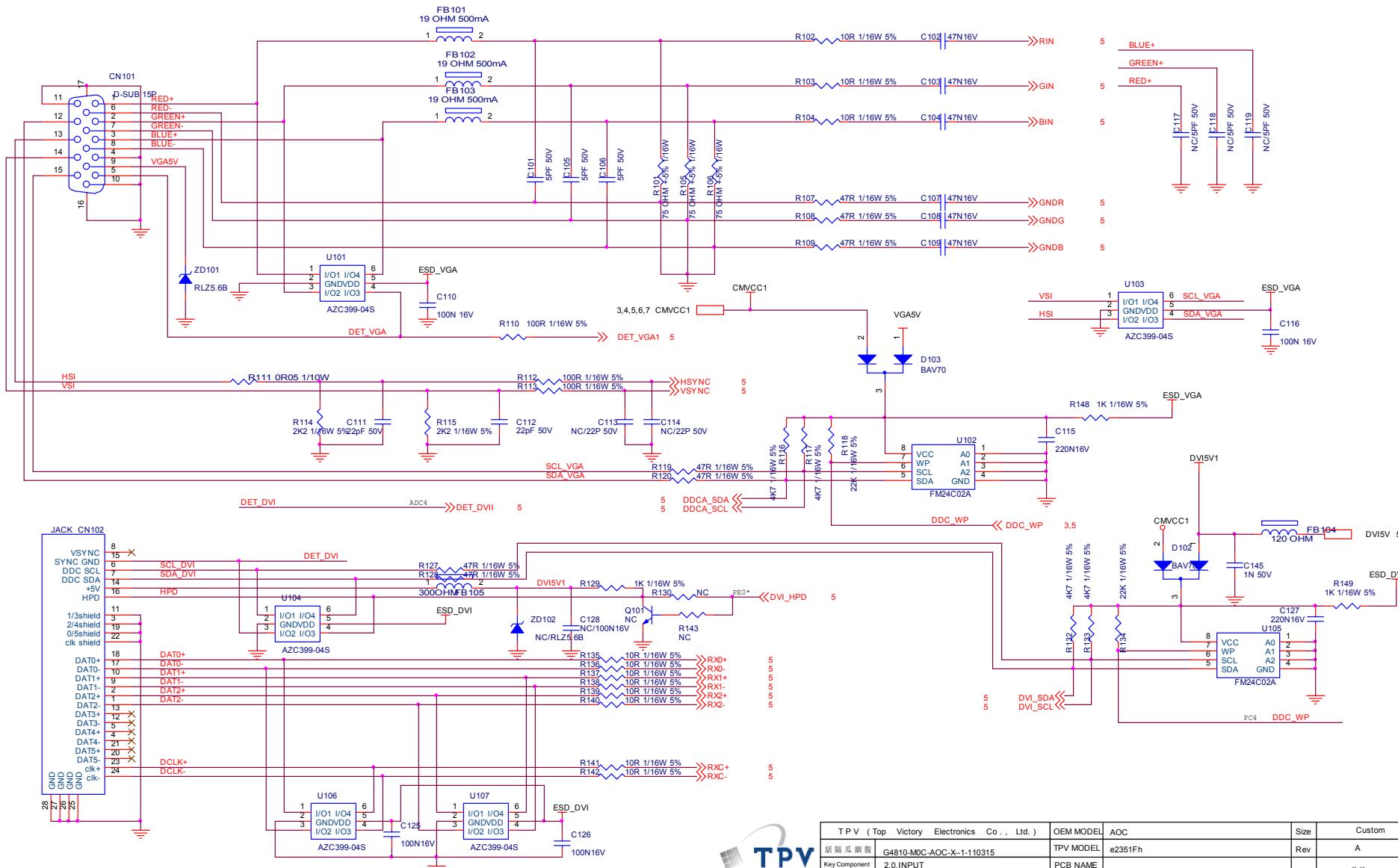
### 5.1 Main Board



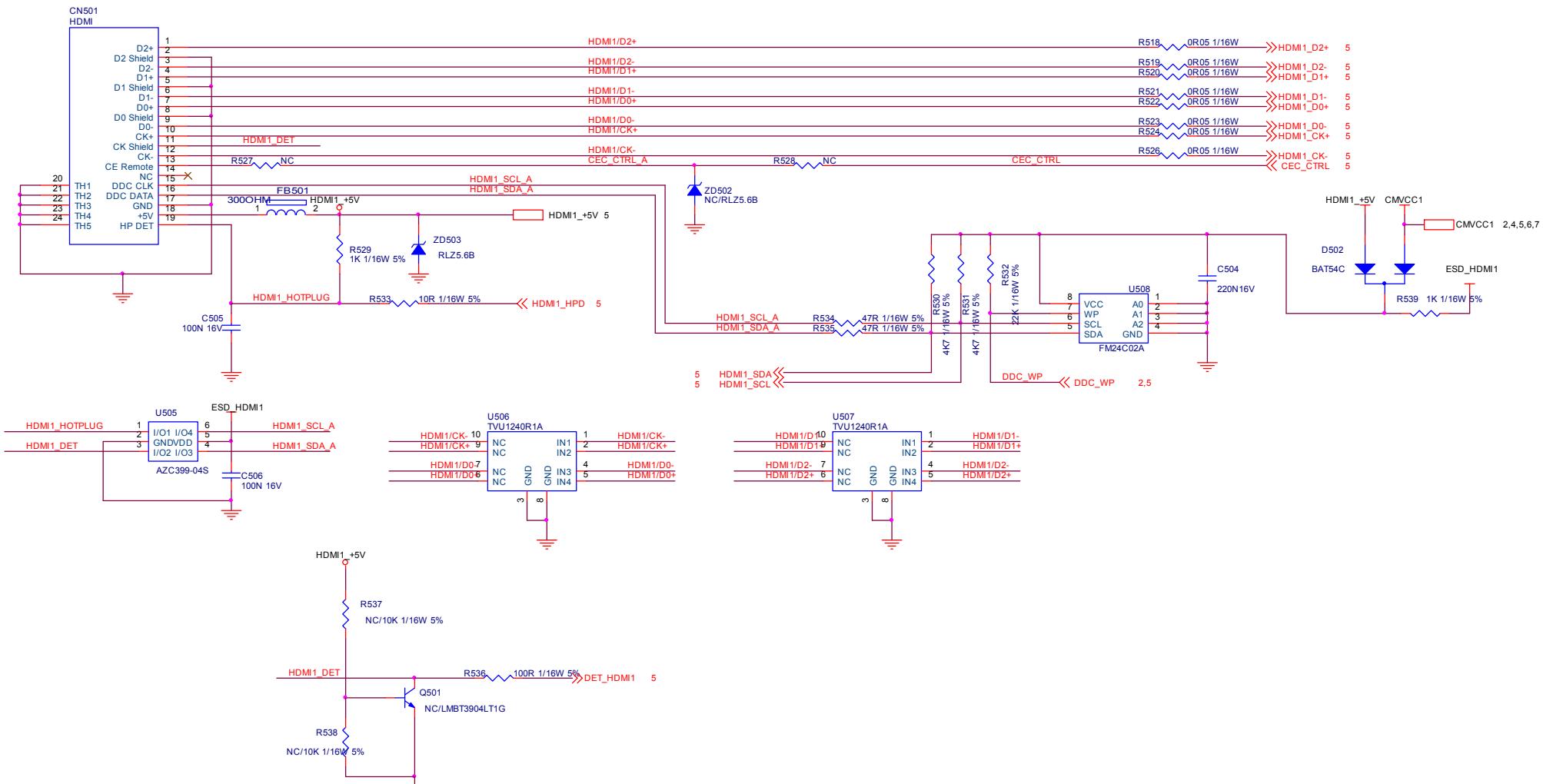
## 6. Schematic

### 6.1 Main Board

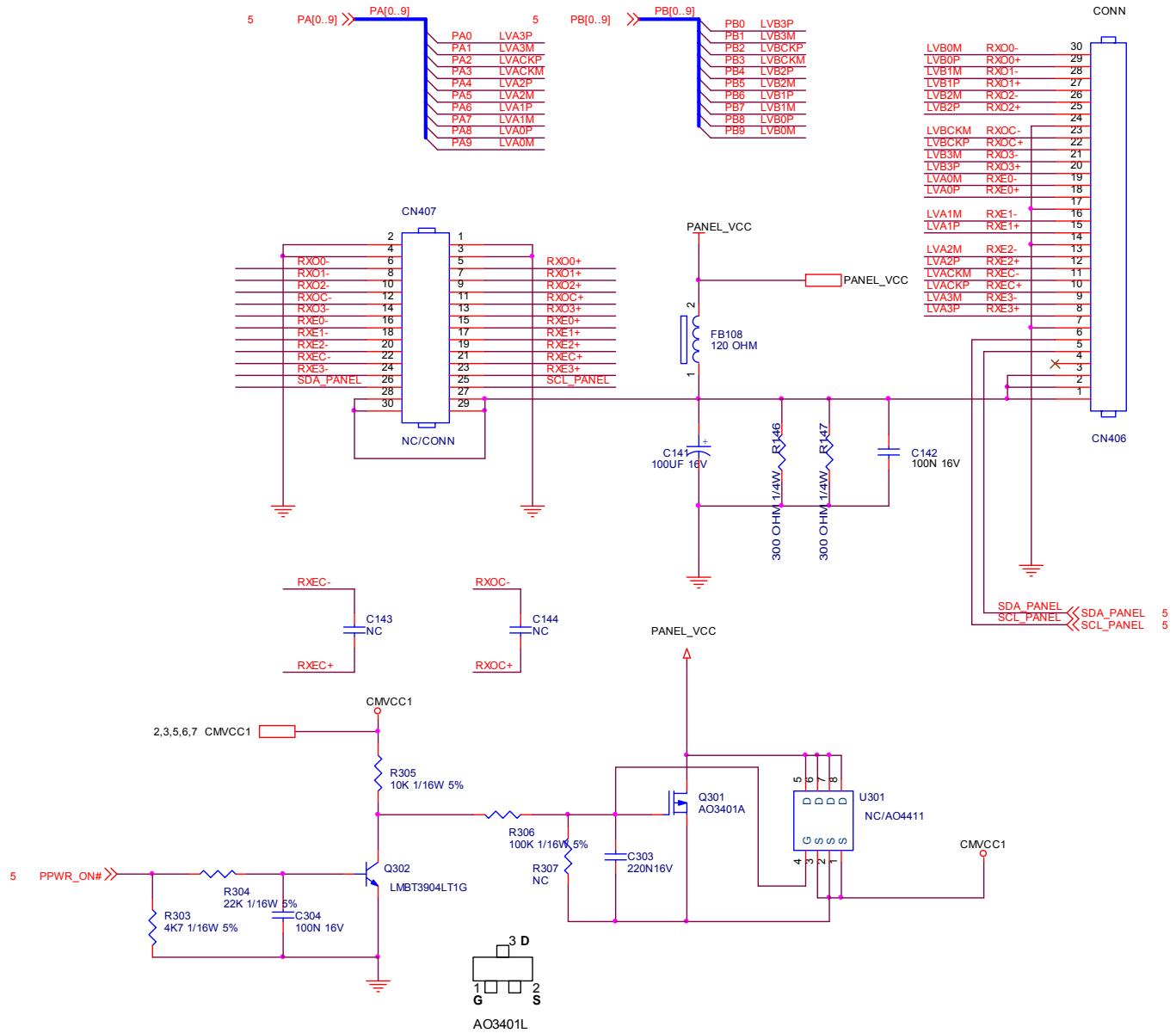
715G4810M0E000004L



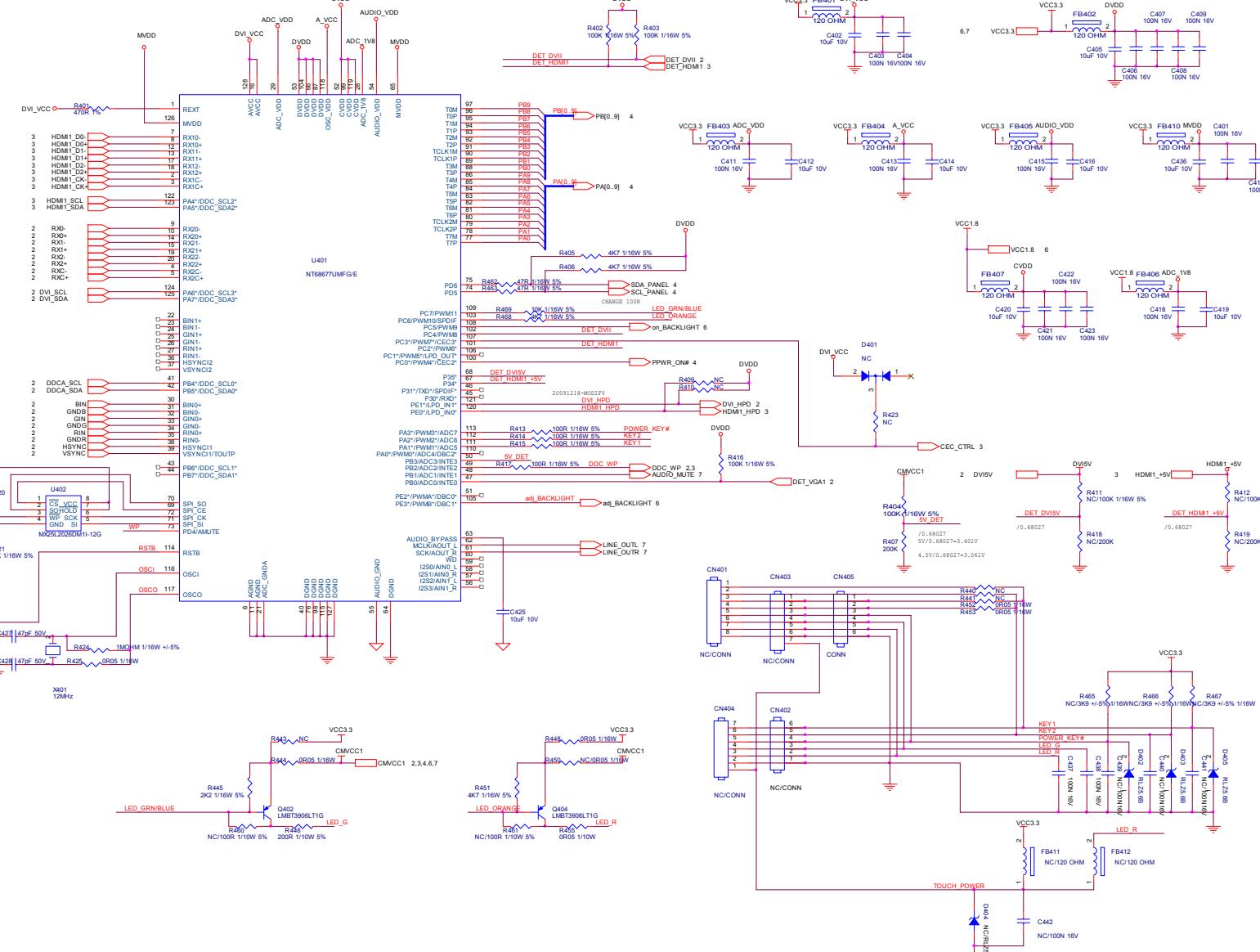
TP V (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC	Size	Custom
蓝魔瓜 钢膜	TPV MODEL	e2351fh	Rev	A
G4810-M0C-AOC-X-110315	PCB NAME			
Key Component 2.0.INPUT	Date	Monday, April 18, 2011	Sheet	2 of 8



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC	Size	Custom
拓爾瓜網版	G4810-M0C-AOC-X-1-110315	TPV MODEL	e2351fh	Rev A
Key Component	3.0HDMI	PCB NAME		称多
Date	Monday, April 18, 2011	Sheet	3 of 8	<称多>



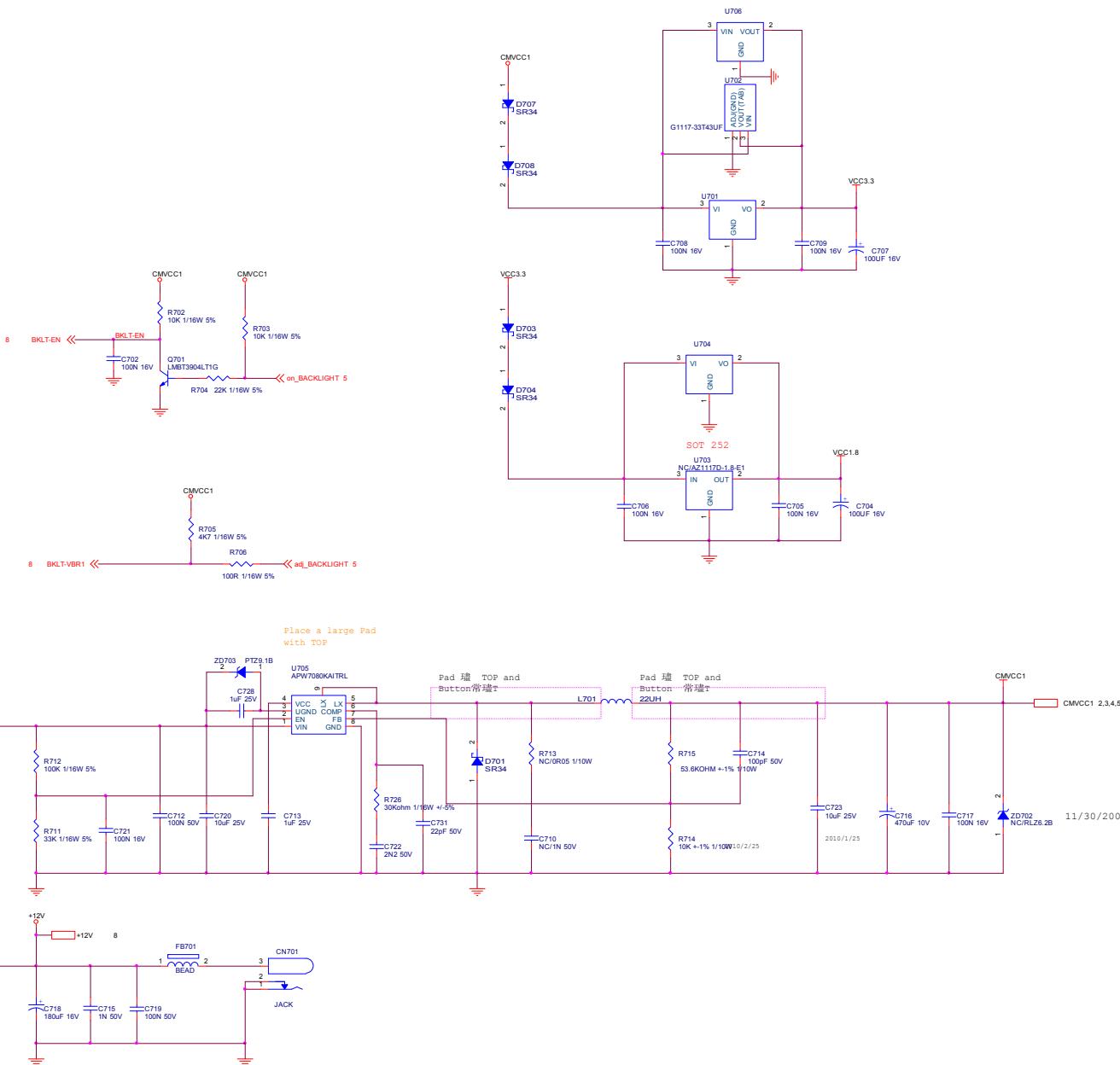
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC	Size	B
話筒瓜網膜 G4810-M0C-AOC-X-1-110315	TPV MODEL	e2351Fh	Rev	A
Key Component 4.0.OUTPUT	PCB NAME			
Date Saturday, June 25, 2011	Sheet	4 of 8	称爹	<称爹>



TPV (Top Victory Electronics Co . Ltd.)	OEM MODEL	AOC	Size	C
IE IE IE IE	G4810-M0C-AOC-X-1-110315	TPV MODEL e2351Fh	Rev	A
Key Component	5.0 SCALER	PCB NAME		
Date	Monday, April 18, 2011	Sheet	5 of 8	<= >

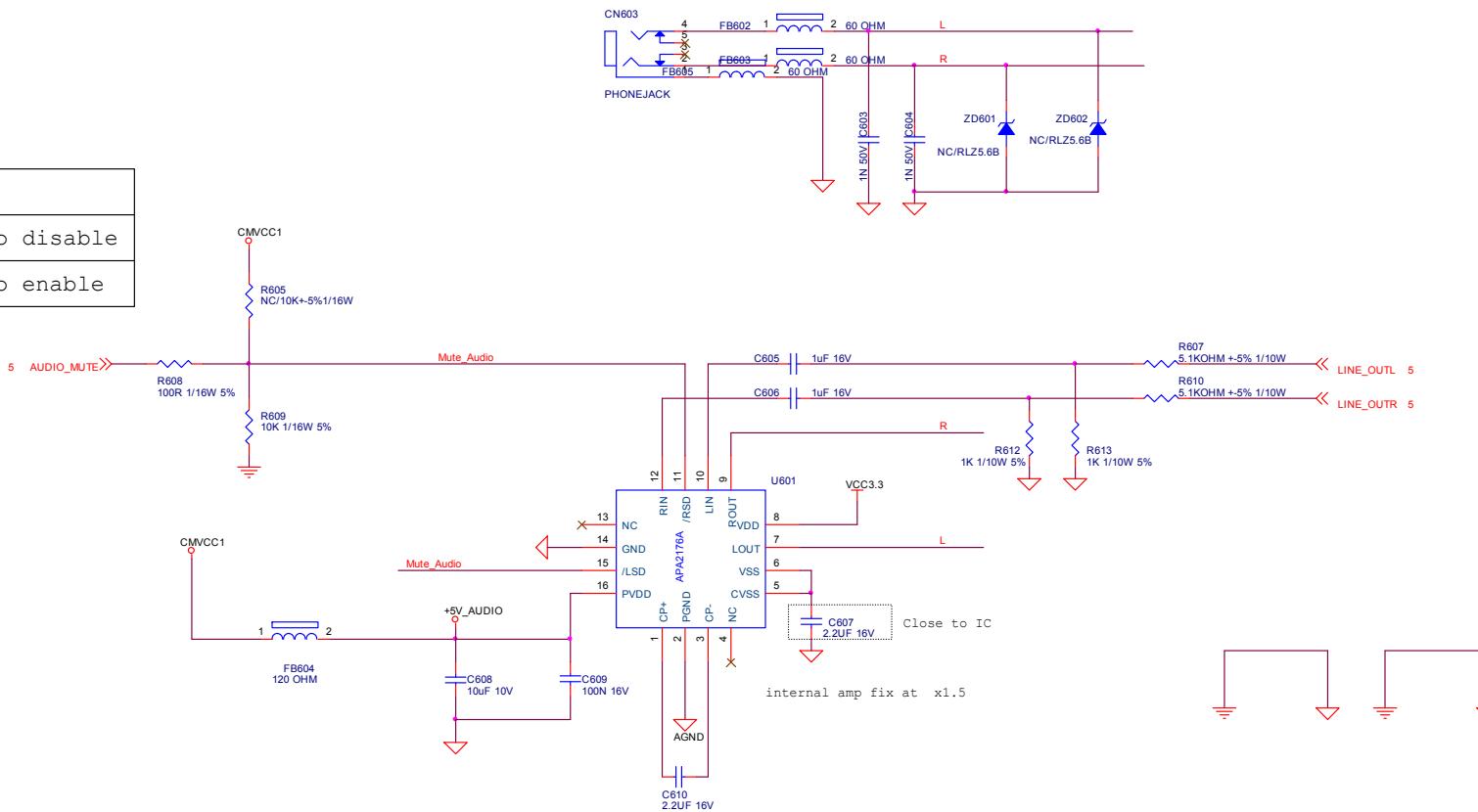


Aug-08-24 change value 5 to 4.7K



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC	Size	C
拓普威电子	G4810-MDC-AOC-X-1-110315	TPV MODEL	e2351f	A
Key Component	6.0 POWER	PCB NAME		
Date	Monday , April 18, 2011	Sheet	6 of 8	<共8>

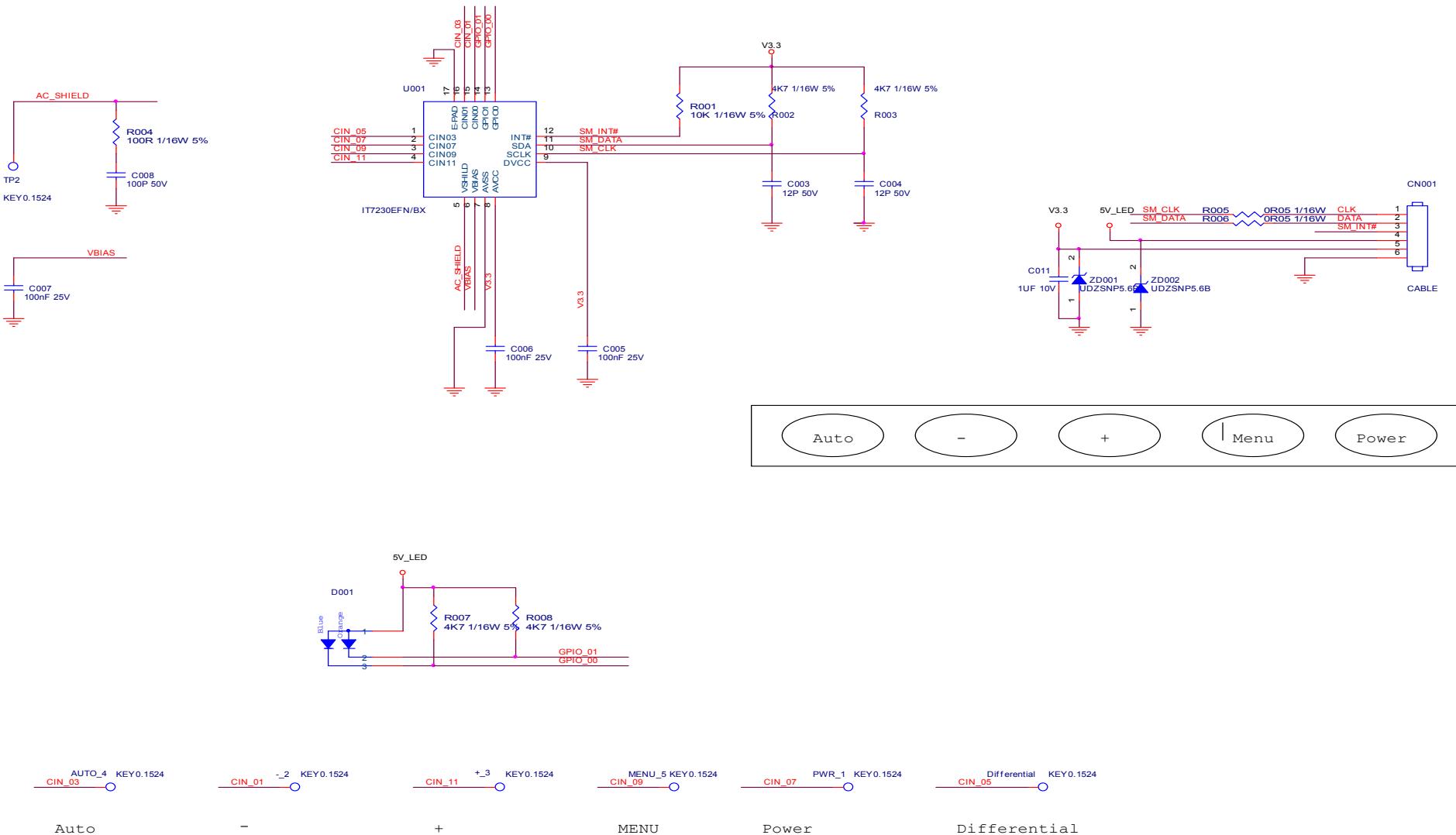
MUTE	
LOW	Audio disable
HI	Audio enable



TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC	Size	Custom
结陶瓜钢版 G4810-M0C-AOC-X-1-110315	TPV MODEL e2351Fh		Rev	A
Key Component 7.0.AUDIO	PCB NAME		称多	<称多>
Date Monday, April 18, 2011	Sheet	7 of 8		

## 6.2 Key Board

715G4842K0E000004F

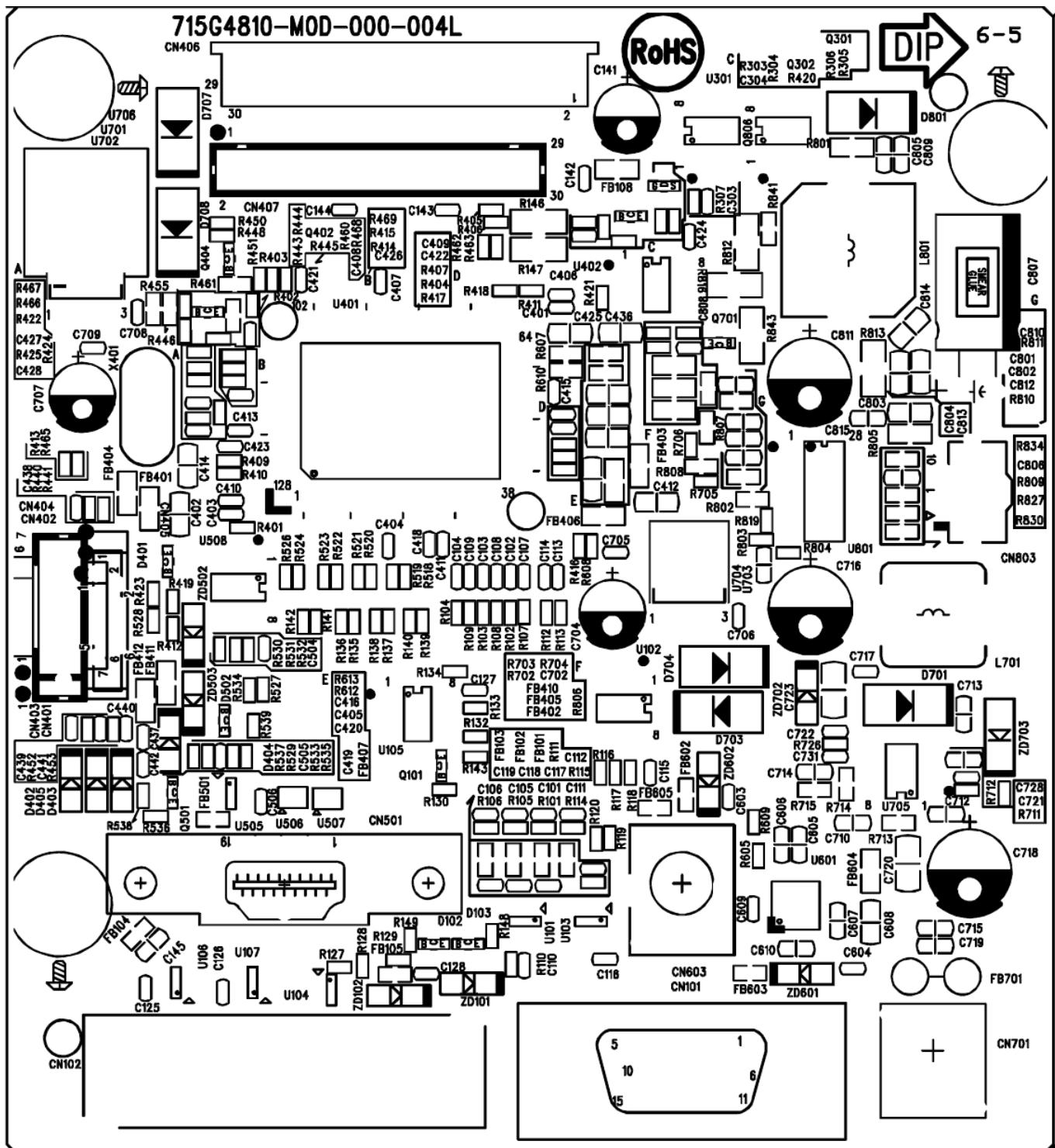


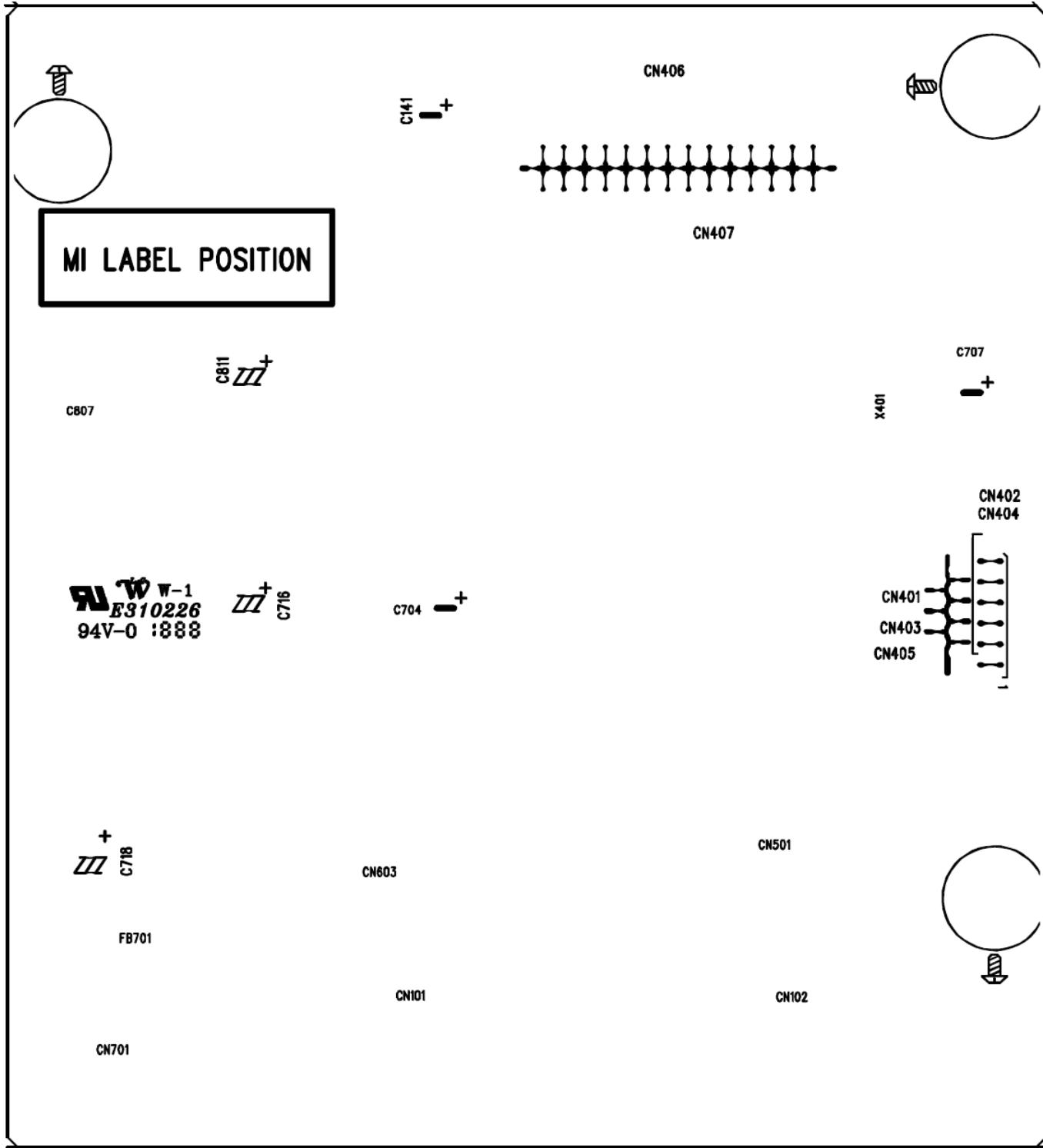
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC e943Fw	Size	A3
715G4164-K0C-000-0040_20100420.DSN	TPV MODEL	e943Fw	Rev	C
Key Component	PCB NAME	715G4164-K0C		
Date	Sheet	2 of 2	称重	<称重>

## 7. PCB Layout

### 7.1 Main Board

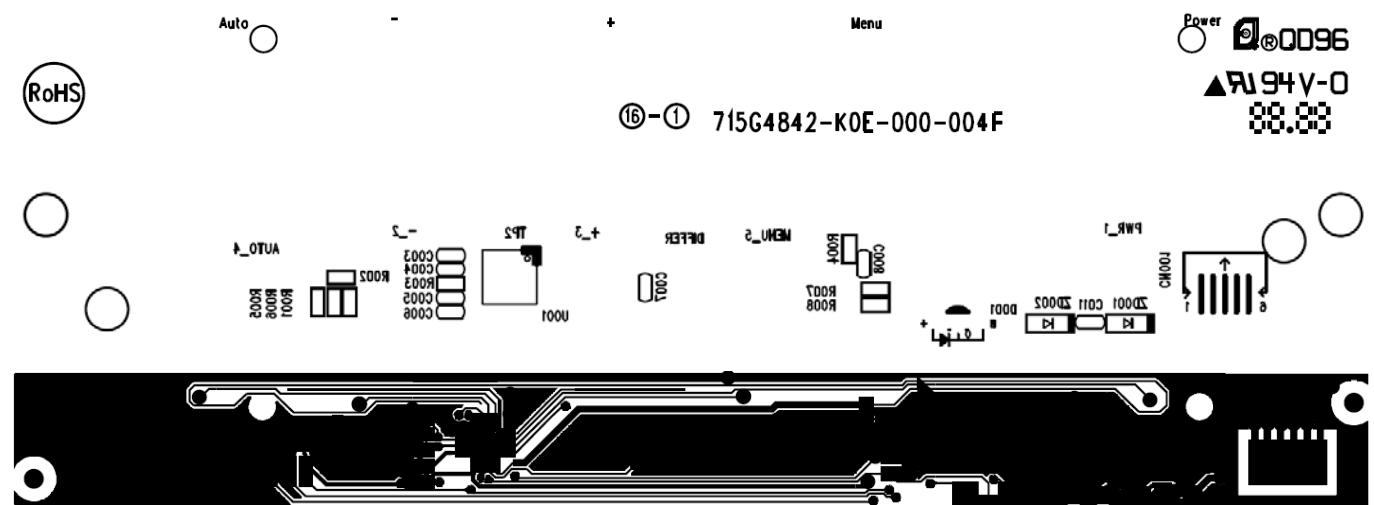
715G4810M0E000004L





### 7.3 Key Board

715G4842K0E000004F



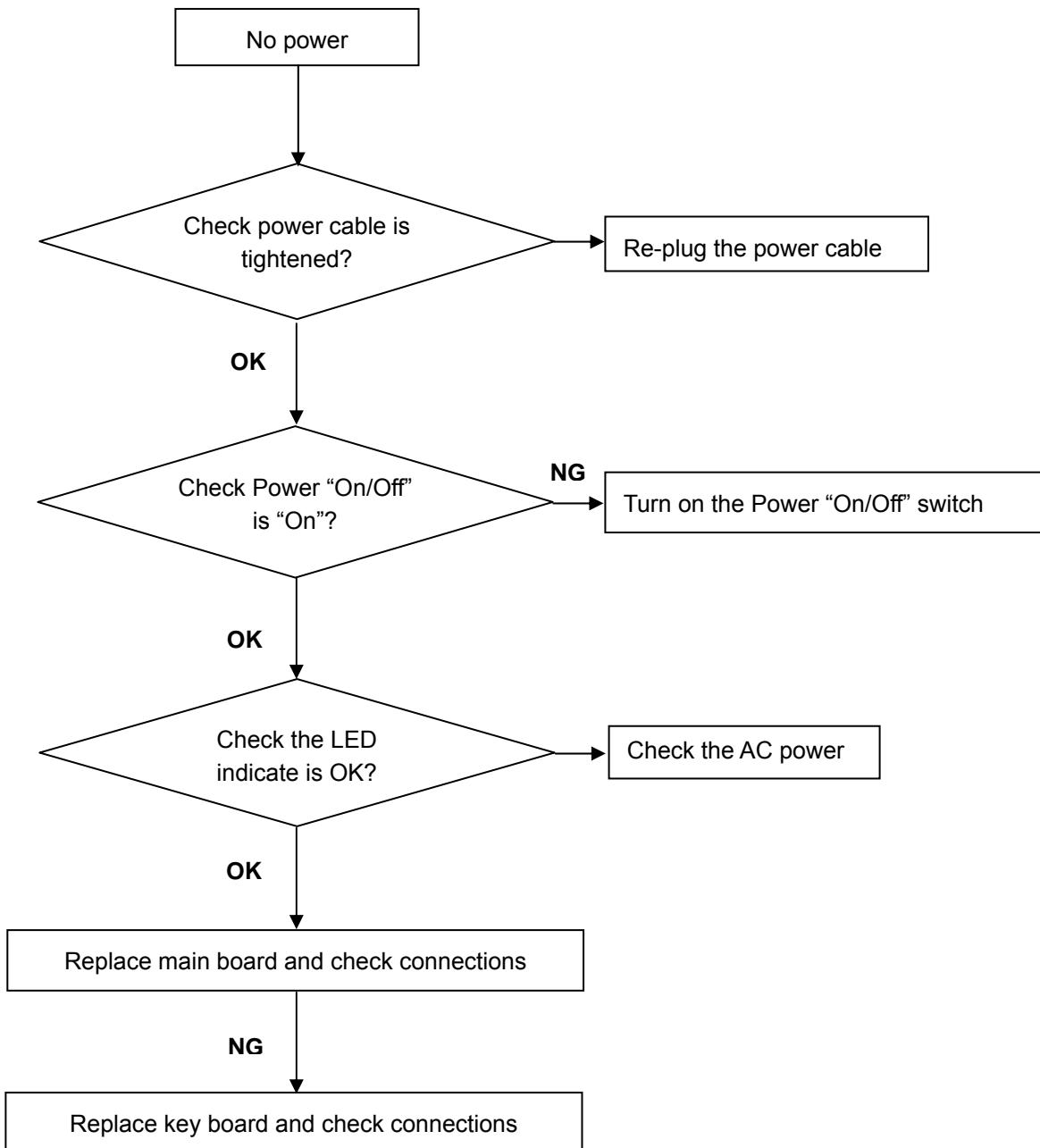
## **8. Maintainability**

### **8.1 Equipments and Tools Requirement**

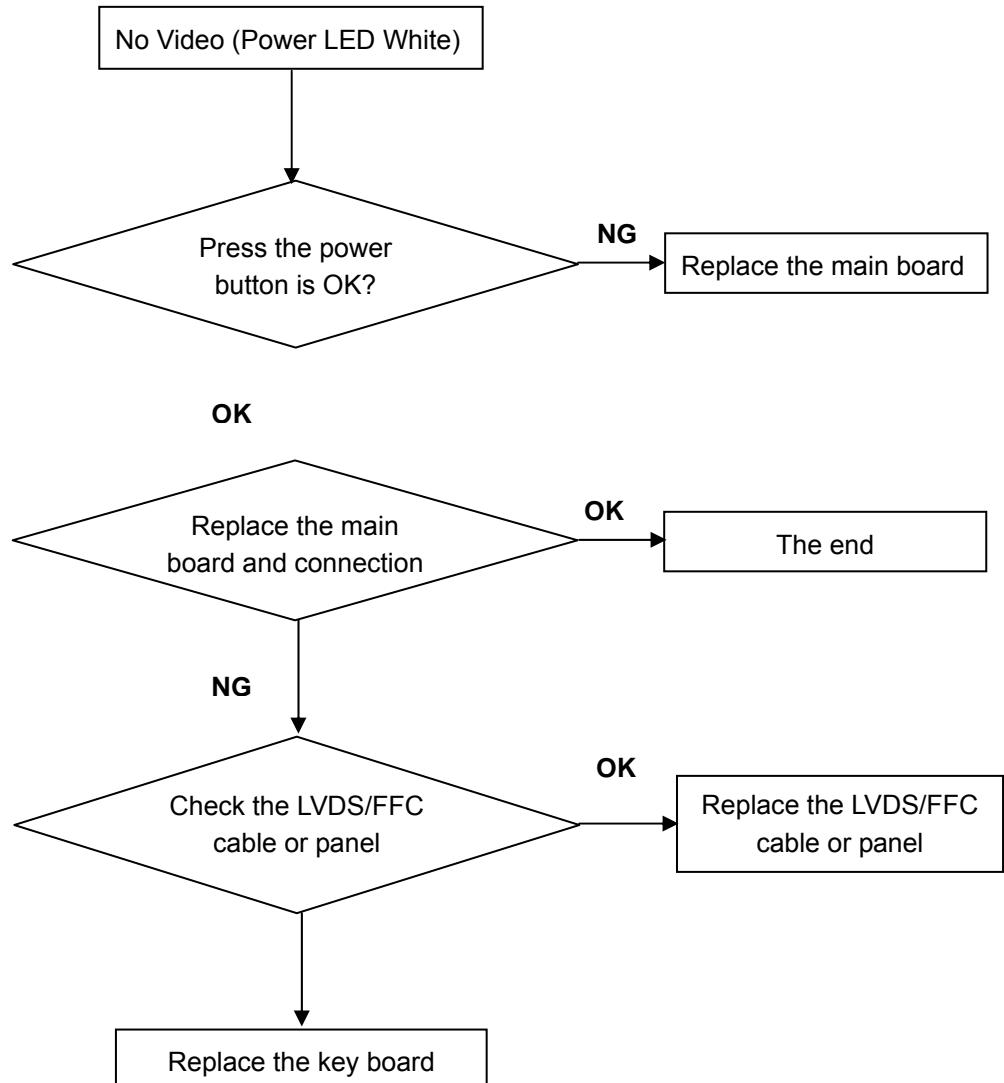
1. Voltmeter.
2. Oscilloscope.
3. Pattern Generator.
4. DDC Tool with an IBM Compatible Computer.
5. Alignment Tool.
6. LCD Color Analyzer.
7. Service Manual.
8. User Manual.

## 8.2 Trouble Shooting

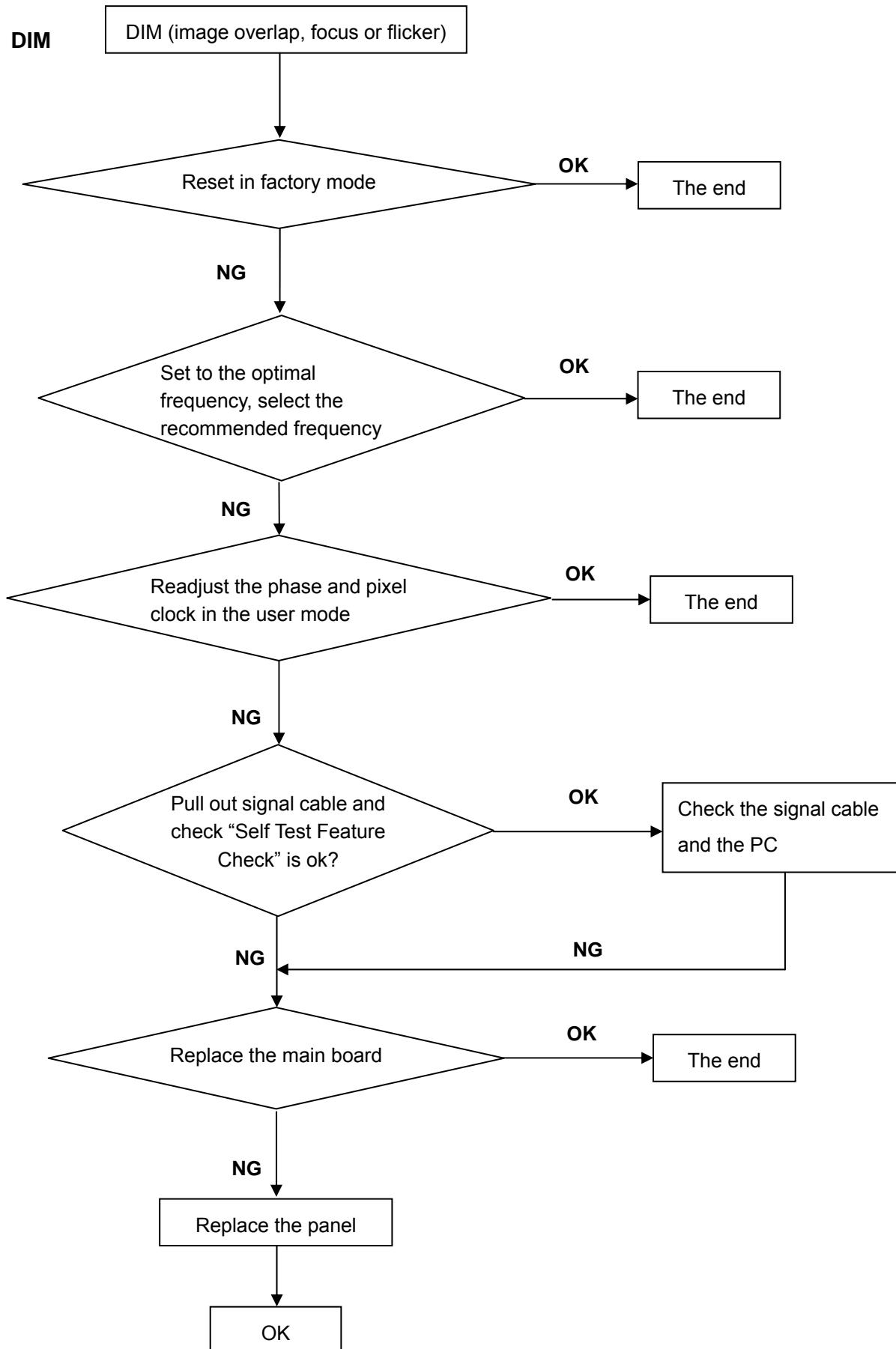
### 1. No Power



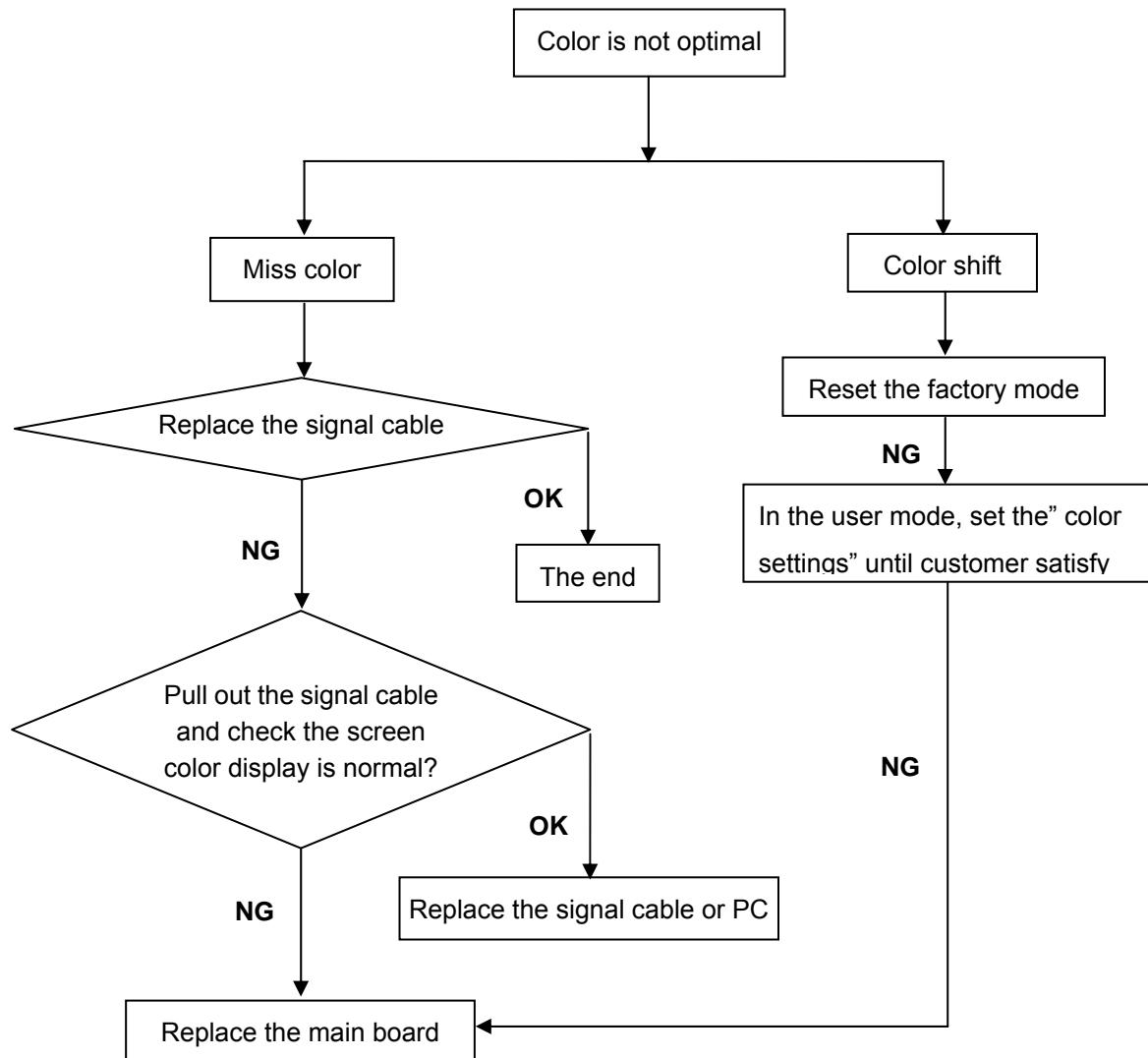
## 2. No Video (Power LED White)



### 3. DIM



#### 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  $x = 313 \pm 30$ ,  $y = 329 \pm 30$

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

Normal color temp. parameter is  $x = 301 \pm 30$ ,  $y = 317 \pm 30$

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

Cool color temp. parameter is  $x = 283 \pm 30$ ,  $y = 297 \pm 30$

#### D. MEM.CHANNEL 10 (sRGB color):

sRGB color temp. parameter is  $x = 313 \pm 30$ ,  $y = 329 \pm 30$

### 3. Enter into the factory mode

Turn off the power, press two direction keys and turn the power on. Then press the “MENU” button. The factory OSD will appear.

### 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  $x = 313 \pm 30$ ,  $y = 329 \pm 30$
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 = $100\pm 2$

#### 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  $x = 301 \pm 30$ ,  $y = 317 \pm 30$
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 = $100\pm 2$

C. Adjust Cool (9300K) color-temperature

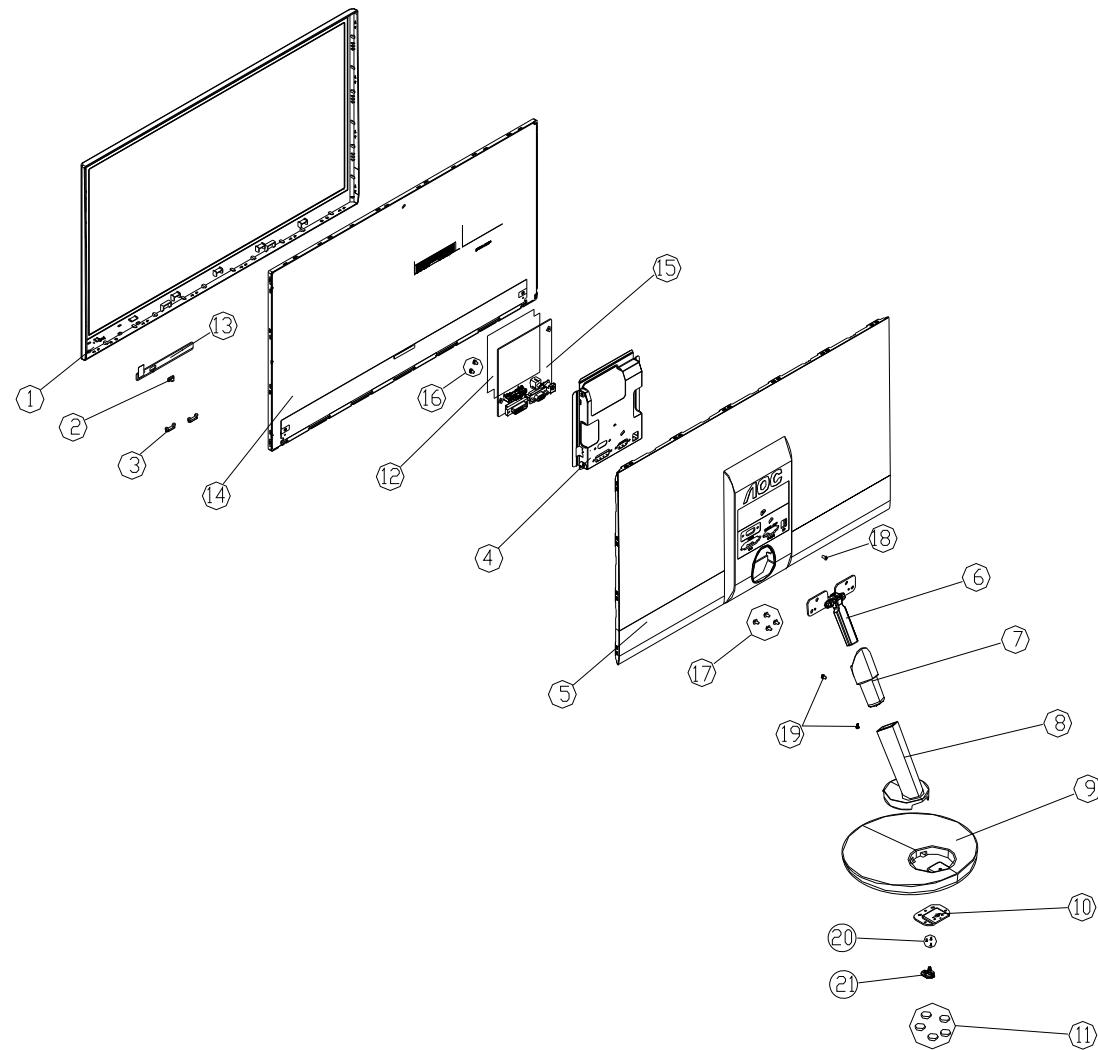
1. Switch the Chroma-7120 to **RGB-Mode** (with press “MODE” button)
2. Switch the MEM. Channel to Channel 9 (with up or down arrow on chroma 7120)
3. The LCD-indicator on chroma 7120 will show  $x = 283 \pm 30$ ,  $y = 297 \pm 30$
4. Adjust the RED on factory window until chroma 7120 indicator reached 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 = $100\pm 2$

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  $x = 313 \pm 30$ ,  $y = 329 \pm 30$
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 = $100\pm 2$

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

## 10. Monitor Exploded View



No.	Description		
1	BEZEL		
2	Power lens		
3	RUBBER FEET		
4	Main frame		
5	Rear cover		
6	Hinge		
7	Stand		
8	Stand cover		
No.	No.	Part No.	Description
9	Base	16	SCREW(MAIN BOARD/MAIN FRAME)
10	Stand plate	16	0D1G1030--8120
11	RUBBER FOOT	17	SCREW(REAR COVER/HINGE)
12	MYLAR	18	0Q1G-140-10120
13	KEY BOARD	19	SCREW(REAR COVER/MAIN FRAME)
14	PANEL	20	0M1G1730--8225-CR3
15	MAIN BOARD	21	SCREW(STAND/HINGE)
			SCREW(STAND PLATE/BASE)
			SCREW(STAND PLATE/HINGE)

## 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](http://cs(tpv.com.cn/hello1.asp) for the latest information.

### HDAJNZ2CB7GGDNF.LF

Location	Part No	Description	Remark
	040G-58162435A	P/N LABEL FOR MANUAL PE BAG	
	052G---2191--A	PAPER TAPE	
	052G6019--1	INSULATING TAPE	
E08904	089G-184GAA500	HDMI CABLE 1800MM GREATLAND	
E08902	089G-725HAA-DB	SINGAL CABLE 1500MM HONGLIN	
	089G-725CAA-DB	SINGAL CABLE 1500MM COMLINK	2nd source
	089G-725GAA-DB	SINGAL CABLE 1500MM GREATLAND	2nd source
E08903	089G1745CAA-AC	DVI CABLE 1500MM COMLINK	
	089G1745HAA-AC	DVI CABLE 1500MM HONGLIN	2nd source
E08901	089G402A15N-CX	POWER CORD 1500MM AMERICA XUEXIANG	
	089G402A15N-IS	POWER CORD 1500MM America I-SHENG	2nd source
	089G402A15N-HL	POWER CORD 1500MM AMERICA HONGLIN	2nd source
	0D1G1030--8120	screw	
	0M1G1730--8225-CR3	screw(Hinge)	
	0M1G3130--5-47-CR3	SCREW M3 x5	
	0Q1G-140-10120	SCREW	
	0Q1G1030--8120	SCREW	
	708GDF01-CP-2A	AOC 40 (1900)	
	Q45G--77--4	PE FILM	
	Q45G--77--5	PE PACKING (Y1900241)	
	Q50G---4-10	TIE (Y1900221)	
	Q52G---1185-99	big carton tape for aoc	
	750GBT230W5C11N000	PANEL BM230WF5-TJC1-8F2-A0	
	2436L-2109C	BM230WF5-TJC1-8F2-A0, Case Top, 2chip	
	3110T-0857A	GALVALUME, T=0.3, BM230WF5-TJA1	
	3110T-0857B	GALVALUME, T=0.3, BM230WF5-TJA1	
	3850L-0088A	ID, YUPO, 78X37	
	4296L-0284B	PMP-P2 100-520U-13, 5U-C60 black A600, 170x7x0.45	
E6060L	6060L-2233B	LM230WF5-TJC1-832, Anti-glare, 30pin	
	6061L-1817A	LM230WH2(TJA1/TJC1)	
	0ILUL-0167B	LS0608M2-C7TS, LUSEM, 720, 6BIT, MINI, C_B, R/TP, 35MM, 4PF, UPILEX, T8	

	6308L-3518A	LTBXNSSNEX5-02300T08, 521.60*297.60, LGC, T, B, X, N, S, S, N, E, X, 5, 02300, Top, 08	
	6308L-3519A	LTXXNSSNEX5-02300B08, 524.60*297.60, LGC, T, X, X, N, S, S, N, E, X, 5, 02300, Bottom, 08	
	6871L-2543B	Source, Single, None-C/SKD, LM230WF5-TJC1, Single Side	
C1,C2,C5,C6,C7,C8	0CH2104H942	0.1uF, Z, 25V, Y5V, 0.9mm, 1608, R/TP	
C70	0CH2153K562	15nF, K, 50V, X7R, 0.9mm, 1608, R/TP	
C44,C51,C53,C71	0CH2473K562	47NF 50V K X7R 1608 R/TP	
C12	0CH2474D572	0.47uF, K, 10V, X5R, 0.95mm, 1608, R/TP	
C41	0CH2A-0006A	4.7U F, 16 Volt, K PER, X5R(JB), 3216 R/TP, T=1.0(MAX)	
C204,C3,C4,C77	0CH2A-0007A	1U F, 10 Volt, K PER, X5R(JB), 1608 R/TP, T=0.9(MAX)	
C32,C33,C73,C74	0CH2A-0011A	10U F, 16 Volt, K PER, X5R(JB), 3216 R/TP, T=0.95(MAX)	
C101,C102,C103,C104,C105,C106,C107,C108,C109,C110,C111,C112,C113,C114,C301,C303,C305,C307,C31,C42,C85,C904	0CH2A-0015A	1uF, K, 25V, X5R, 0.9mm, 1608, R/TP	
C76	0CH2A-0017A	2.2U F, 10 Volt, K PER, X5R(JB), 1608 R/TP, T=0.9(MAX)	
C43,C50,C52	0CH2A-0019A	68N F, 50 Volt, K PER, X7R(JB), 1608 R/TP, T=0.9(MAX)	
C55,C56,C61,C62,C64,C66	0CH2A-0026A	10U F, 25 Volt, K PER, X5R(JB), 3225 R/TP, T=1.0(MAX)	
C901,C903	0CH5680K412	68PF, J, 50V, 1608, R/TP, 0.9mm	
C23	0CH5681K412	680PF 50V J NP0 1608 R/TP	
C801	0CH5820K412	82PF 50V J NP0 1608 R/TP	
D3,D4,D5	0DHZL-0008B	BAV99-7-05-F, DIODES, SOT-23, R/TP	
ZD1	0DHZL-0065A	SDZ5V1D, AUK, SOD-323, R/TP	
D6	0DHZL-0095A	RB050M-30, ROHM, PMDU, R/TP	
F1	0FFST-0009A	F0603FA3000V032TM, AEM, Ceramic, 32V, 3A, UL/CSA, 1.6X0.8X0.8mm, R/TP	
U6	0IDIL-0002A	AP7167-FNG-7, DIODES, ADJUST_3.3V, 1.2A, DFN3030-10, R/TP, 10	

UC1	0ILDL-0001A	LDA5001A, LGD, LVDS, 6/8, 1/2, MINI-LVDS, 6, 1, DRD, GIP, AFRC, DGA, ODIN2, MLF, TR, 68	
U4	0ISGL-0008C	M24C04-RDW, STmicroelectronics, 4K, 5ms, TSSOP, R/TP, 8	
US2	0ISML-0002A	SM4005, Silicon Mitus, TN MNT, Boost+Op-Amp+L/S+D/C+PVcom, QFN (7x7), R/TP, 48 pin	
L1	0LCAA-0069B	TNI8016-100M, DACOWELL, 10UH, M=20%, 2.1A, 0.093, 8.0X11.0X1.8 (1.2MM, IN-BOARD), R/TP	
R203,R205,R215,R2 16,R225,R226,R300, R303,R307,R308,R3 5,R362,R41,R42,R51 ,R6,R7,R802,R803,R 806,R808,R83,R9	0RH0000C622	0 OHM 1/16W 1608 5% D R/TP	
R28	0RH0102C422	10 OHM 1/16W 1608 1% D R/TP	
R901,R903	0RH0221C622	2.2 OHM 1/16W 1608 5% D R/TP	
R211,R212,R213,R2 14	0RH0302C422	30 OHM 1/16W 1608 1% D R/TP	
R221,R222,R223,R2 24,R44,R45,R46,R47	0RH0562C422	56 OHM 1/16W 1608 1% D R/TP	
R11,R12	0RH1000C422	100 OHM 1/16W 1608 1% D R/TP	
R13,R140	0RH1001C422	1K OHM 1/16W 1608 1% D R/TP	
R3,R5	0RH1002C422	10K OHM 1/16W 1608 1% D R/TP	
R910	0RH1003C422	100K OHM 1/16W 1608 1% D R/TP	
R118,R128	0RH1301C422	1.3K OHM 1/16W 1608 1% D R/TP	
R807	0RH1500C422	150 OHM 1/16W 1608 1% D R/TP	
R121,R131	0RH1501C422	1.5K OHM 1/16W 1608 1% D R/TP	
R1,R906	0RH1502C422	15K OHM 1/16W 1608 1% D R/TP	
R113,R63	0RH1601C422	1.6K OHM 1/16W 1608 1% D R/TP	
R62,R909	0RH1602C422	16K OHM 1/16W 1608 1% D R/TP	
R116,R119	0RH1801C422	1.8K OHM 1/16W 1608 1% D R/TP	
R64	0RH2000C422	200 OHM 1/16W 1608 1% D R/TP	
R125,R14,R81	0RH2001C422	2K OHM 1/16W 1608 1% D R/TP	
R129	0RH2400C422	240 OHM 1/16W 1608 1% D R/TP	
R10,R114,R123,R8, R82	0RH2401C422	2.4K OHM 1/16W 1608 1% D R/TP	
R104	0RH2402C422	24K OHM 1/16W 1608 1% D R/TP	
R202	0RH2702C422	27K OHM 1/16W 1608 1% D R/TP	

R126	0RH3001C422	3K OHM 1/16W 1608 1% D R/TP	
R120,R182,R2	0RH3002C422	30K OHM 1/16W 1608 1% D R/TP	
R110	0RH3901C422	3.9K OHM 1/16W 1608 1% D R/TP	
R201	0RH3902C422	39K OHM 1/16W 1608 1% D R/TP	
R109	0RH4701C422	4.7K OHM 1/16W 1608 1% D R/TP	
R43,R60,R908	0RH5101C422	5.1K OHM 1/16W 1608 1% D R/TP	
R101,R73	0RH5102C422	51K OHM 1/16W 1608 1% D R/TP	
R103,R106	0RH5600C422	560 ohm, 1/16W, 1608, 1%, R/TP	
R100,R102,R108	0RH8200C422	820 ohm, 1/16W, 1608, 1%, R/TP	
R111	0RH9100C422	910 OHM 1/16W 1608 1% D R/TP	
R105	0RH9101C422	9.1K OHM 1/16W 1608 1% D R/TP	
R72	0RHAA-0014A	120K ohm, 1/16W, 1608, 1%, R/TP	
AR1,AR2,AR3,AR4	0RHZL10005A	100OHM 5 1/16W 3216 R/TP	
FL6,FL7	6200L-J015A	BLM18PG300SN1D	
CN1	6630L-0157B	FI-XB30SL-HF10, JAE, 30 Pin, 1 mm, Angle, Sn, USER LOCK	
	6870S-1233A	LM230WF5-TJC1, 2L, 0.6, 466 X 39.65, 4, J, Source, 72, Single Side	
	-6091L-1704A	BM230WF5-TJA1	
	3022L-1412A	KOLON, XC210, T=0.123,BM230WF5-TJA1	
	3032L-1097A	KOLON,LE303, T=0.23, Angle = 4?, BM230WF5-TJA1	
	3550B-0919A	AL, T=0.5, BM230WF5-TJA1	
	3850L-0092A	BL, YUPO, 77X14	
	4975L-0465A	BM230WF5-TJA1	
	4974L-0865A	PC,ENTIRE,ETR-1010,V0, BM230WF5-TJA1	
	5022L-0305A	SH140U+5256M, SILICON, Gray, 295.7*2.0*0.25	
	5022L-0307A	SH140U+5256M, SILICON, Gray, 520*2.0*0.25	
	5151L-0217A	BM230WF5-TJA1	
	3034L-0938A	TORAY, TZC25S, T=0.25, 3M, 1363-60,BM230WF5-TJA1	
	3953L-0129A	TORAY, 188E60L, T=0.188, 3M, 1363-60, 478.2*1.8*0.2, BM230WF5-TJA1	
	3953L-0130A	TORAY, 188E60L, T=0.188, 3M, 1363-60, 304.6*1.8*0.2, BM230WF5-TJA1	
	5150L-0594A	PMMA, Flat, 2.0, Printing, BM230WF5-TJA1	
	6916L-0470B	WRL LED, 36(Number Of LED), White LED, BM230WF5-TJA1	
	5153L-0068A	10FH-SM1-GAN-TB(LF)(SN) , JST	

	6915L-0284B	WRL LED,Top View,2ea(LED Chip Q'TY per PKG), 7020PKG,	
	6920L-0084A	299.5*4.2*1.2, 2ea(Number Of Chain), 1L(Number Of Layer), 36ea(Number Of LED), AL	
	7250L-1482A	TP-15,(0.25T), 298.6*3.6*0.25	
	7250L-0864A	NITTO, NITTO 5000NS, Clear, 30*3*0.16	
	7250L-1408A	ZH350 25x16x0.1	
	7250L-1488B	Conductive Tape, STN1026W(P),15*25,T=0.11	
	756GFBCB-AA005--00	MCU ASS'Y	
U402	056G2233501	IC FLASH MX25L2026DM1I-12G 2Mb SOP-8 MXIC	
SMTCA-U402	100GANJD001FT1	AOC E2351 VH	
	A15G1636301	Main-frame	
	A15G1648101	PIATE	
	A33G1203AED-1B0100	stand-top	
	A33G1204--1-1C0100	Power lens	
	A34G2581AED-1B0100	Stand-cover	
	A34G2597AEDB1B0130	BEZEL	
	A34G2598AED-2B0100	rear cover	
	A34G2618AED-1B0130	BASE	
	A37G0252011	HINGE	
	ADPCA1236YA2	ADAPTER BOARD	
	CBPCANZA1A1	COVERSION BOARD	
CN406	033G801930F-CH--JS	WAFER 30P 1.0MM JINGSHI	
C716	067G204V471-2L	CS CAP 470uF	
	067G204V471-2K	CS CAP 470uF 10V 8*8 mm	2nd source
C807	067G415R479-9L	EC 4.7UF 20% 100V RZW 8*12	
	067G415R479-9K	EC 4.7UF 20% 100V ED 8*12	2nd source
FB701	071G--5526A--H	CORE 6.0X3.5X3.5 127 25% 3.5X6.0	
	071G--5526A--S	CORE 6.0X3.5X3.5 127 25%	2nd source
CN101	088G-35315FVCL	D-SUB CONN WITH SCREW 15P BLUE CL	
	088G-35315FVXH	D-SUB CONN WITH SCREW 15P BLUE XIANHE	2nd source
CN102	088G354GOF1VXH	DVI CONN WITH SCREW 24P WHITE XIANHE	
	088G-35424F-VC	DVI CONN WITH SCREW 24P WHITE CL	2nd source
X401	093G--2251B--J	CRYSTAL 12MHZ NXS12.000AC30F-KAB10	
CN405	311GF100A06AAJ	FFC CONN 6P 1.0MM JINGSHI	

	709G4810-QM001	COMSUPTIVE ASS""Y	
	055G--23524--A	WELDING FULX WITHOUT Pb 无锡助焊剂	
	Q55G-100625	TIN STICK_LOW ARGENTUM	
C718	F67G204V181-3L	180uF +-20% 16V 105 °C 2000H 8*8	
	067G204V181-3K	CS CAP 180uF 16V 8*8 mm	2nd source
C141,C704,C707	F67G305M1013GV	100uF +-20% 16V 105 °C 2000H 6.3*7	
CN603	F88G-302-53-HC	PHONE JACK 5P BLACK HONGCHANG	
	088G-30253C	PHONE JACK 5P BLACK CL	2nd source
CN701	F88G-304-11-YG	DC JACK 3P BLACK YCG	
	088G-304-11--C	DC JACK 3P BLACK CL	2nd source
U401	056G-562392	IC SCALER NT68677UMFG/E QFP-128 Novatek	
U704	056G-563113	IC G1117-18T63UF 1A/1.8V SOT-223 GMT	
U702	056G-563512	IC G1117-33T43UF TO-252 GMT	
U705	056G-563513	IC LDO APW7080KAITRG SOP-8P ANPEC	
U506,U507	056G-662-35	IC ESD PROTECT TVU1240R1A NPAQ	
U101,U103,U104,U1 06,U107,U505	056G-662-48	IC ESD PROTECT AZC399-04S SOT23-6L AMAZING	
U801	056G-700--5	IC LED driver MP3389EF TSSOP28 MPS	
U102,U105,U508	056G1133531	IC EEPROM FM24C02A-SO-T-G 2K SOP-8 FUDAN	
U402	056G2233501	IC FLASH MX25L2026DM1I-12G 2Mb SOP-8 MXIC	
U601	056T-616516	IC APA2176AQBITRL TQFN3X3-16 ANPEC	
Q402,Q404	057G-417517	TRA LMBT3906LT1G -200mA-40V SOT-23 LRC	
Q302,Q701	057G-417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q806	057G-763-92	FET P8008HV 4A/80V SOP-8 NIKO-SEM	
Q301	057G-763940	MOSFET AO3401A SOT-23 AOS	
R425,R444,R448,R4 52,R453,R518,R519, R520,R521,R522,R5 23,R524,R526	061G0402000-JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R102,R103,R104,R1 35,R136,R137,R138, R139,R140,R141,R1 42,R533	061G0402100-JT	RST CHIP 10R 1/16W 5% TZAI YUAN	
R110,R112,R113,R4 13,R414,R415,R417, R536,R608,R706	061G0402101-JT	RST CHIP 100R 1/16W 5% TZAI YUAN	

R129,R148,R149,R5 29,R539	061G0402102-JT	RST CHIP 1K 1/16W 5% TZAI YUAN	
R305,R421,R422,R4 68,R469,R609,R702, R703	061G0402103-JT	RST CHIP 10K 1/16W 5% TZAI YUAN	
R306,R402,R403,R4 04,R411,R416,R712, R804	061G0402104-JT	RST CHIP 100K 1/16W 5% TZAI YUAN	
R424	061G0402105-JT	RST CHIP R 1Mohm 1/16W +/-5% TZAI YUAN	
R114,R115,R445	061G0402222-JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	
R118,R134,R304,R5 32,R704	061G0402223-JT	RST CHIP 22K 1/16W 5% TZAI YUAN	
R407,R418	061G0402224-JT	RST CHIP 220K 1/16W 5% TZAI YUAN	
R726	061G0402303-JT	RST CHIP R 30Kohm 1/16W +/-5%	
R803,R819	061G04023092FF	CHIPR 30.9KOHM +/-1% 1/16W FENGHUA	
R711	061G0402333-JT	RST CHIP 33K 1/16W 5% TZAI YUAN	
R107,R108,R109,R1 19,R120,R127,R128, R462,R463,R534,R5 35	061G0402470-JT	RST CHIP 47R 1/16W 5% TZAI YUAN	
R401	061G04024700FI	RST 0402 470R 1% 1/16W	
R116,R117,R132,R1 33,R303,R405,R406, R451,R530,R531,R7 05	061G0402472-JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
R101,R105,R106	061G0402750-JT	RST CHIPR 75 OHM +/-5% 1/16W TZAI YUAN	
R111,R455	061G0603000-JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	
R841	061G0603100-JT	RST CHIP 10R 1/10W 5% TZAI YUAN	
R714	061G06031002FF	RST CHIPR 10KOHM +/-1% 1/10W FENGHUA	
R612,R613,R806,R8 08	061G0603102-JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R827,R830	061G0603109-JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R811	061G0603151-JT	RST CHIP 150R 1/10W 5% TZAI YUAN	
R446	061G0603201-JT	RST CHIP 200R 1/10W 5%	
R807,R810	061G0603203-JT	RST CHIP 20K 1/10W 5% TZAI YUAN	
R802	061G06032703FF	RST CHIPR 270KOHM +/-1% 1/10W FENGHUA	
R834	061G06033902FF	RST CHIPR 39KOHM +/-1% 1/10W	

		FENGHUA	
R607,R610	061G0603512-JT	RST CHIPR 5.1KOHM +-5% 1/10W TZAI YUAN	
R715	061G06035362FF	RST CHIPR 53.6KOHM +-1% 1/10W	
R809	061G06036201FF	RST CHIPR 6.2KOHM +-1% 1/10W FENGHUA	
R801	061G0805100-JT	RST CHIP 10R 1/8W 5% TZAI YUAN	
R805	061G0805304-JT	RST CHIP 300K 1/8W 5% TZAI YUAN	
R813	061G12060004JT	RST CHIP MAX 0R05 1/4W TZAI YUAN	
R812,R816	061G12062007FF	RST CHIPR 0.2 OHM +-1% 1/4W FENGHUA	
	061G12062007FT	RST CIPR 0.2 OHM -1% 1/4W TZAIYUAN	2nd source
R146,R147	061G1206301-JT	RST CHIPR 300 OHM 1/4W TZAI YUAN	
R843	061G1206681-JT	RST CHIPR 680 OHM +-5% 1/4W	
C603,C604	065G040210232K---Y	MLCC 0402 1000pF +-10% 50V X7R YAGEO	
C110,C116,C142,C304,C401,C403,C404,C406,C407,C408,C409,C410,C411,C413,C415,C418,C421,C422,C423,C426,C437,C438,C505,C506,C609,C702,C705,C706,C708,C709,C717,C721	065G040210412K---A	MLCC 0402 0.1uF +-10% 16V X7R SAMSUNG	
	065G040210412K---T	MLCC 0402 0.1uF -10% 16V X7R TAIYO YUDEN	2nd source
C125,C126	065G040210412K---T	MLCC 0402 0.1uF +-10% 16V X7R TAIYO YUDEN	
C111,C112,C731	065G040222031J---T	MLCC 0402 22pF +-5% 50V NPO TAIYO YUDEN	
C722	065G040222232K---Y	MLCC 0402 2.2nF +-10% 50V X7R YAGEO	
C115,C127,C303,C424,C504	065G040222415K---T	MLCC 0402 0.22uF +-10% 16V X5R TAIYO YUDEN	
C427,C428	065G040247031J---Y	MLCC 0402 47pF +-5% 50V NPO YAGEO	
C102,C103,C104,C107,C108,C109	065G040247312K---T	MLCC 0402 47nF +-10% 16V X7R TAIYO YUDEN	
C101,C105,C106	065G040250931C---Y	MLCC 0402 5pF +-0.25pF 50V NPO YAGEO	
C714,C806,C815	065G060310131J---M	MLCC 0603 100pF +-5% 50V NPO MURATA	
C805,C809	065G060310231J---A	MLCC 0603 1000pF +-5% 50V NPO SAMSUNG	
C145,C715	065G060310232K---Y	MLCC 0603 1000pF +-10% 50V X7R YAGEO	

C712,C719,C810,C812	065G060310432K---Y	MLCC 0603 0.1uF +-10% 50V X7R YAGEO	
C605,C606	065G060310512K---A	MLCC 0603 1uF +-10% 16V X7R SAMSUNG	
	065G060310512K---T	MLCC 0603 1uF -10% 16V X7R TAIYO YUDEN	2nd source
C713,C728	065G060310525K---T	MLCC 0603 1uF +-10% 25V X5R TAIYO YUDEN	
C607,C610	065G060322515K---T	MLCC 0603 2.2uF +-10% 16V X5R TAIYO YUDEN	
C801	065G060347412K---A	MLCC 0603 0.47uF +-10% 16V X7R SAMSUNG	
	065G060347412K---T	MLCC 0603 0.47uF -10% 16V X7R TAIYO YUDEN	2nd source
C802	065G060368332K---Y	MLCC 0603 68nF +-10% 50V X7R YAGEO	
C402,C405,C412,C414,C416,C419,C420,C425,C436,C608	065G0805106A5K---A	MLCC 0805 10uF +-10% 10V X5R SAMSUNG	
	065G0805106A5K---T	MLCC 0805 10uF -10% 10V X5R TAIYO YUDEN	2nd source
C813,C814	065G080522232K---Y	MLCC 0805 2200pF +-10% 50V X7R YAGEO	
C803,C804	065G080547432K---M	MLCC 0805 0.47uF +-10% 50V X7R MURATA	
C720,C723	065G120610625K---A	MLCC 1206 10uF +-10% 25V X5R SAMSUNG	
	065G120610625K---T	MLCC 1206 10uF -10% 25V X5R TAIYO YUDEN	2nd source
U402	070GHDCP500HDC	HDCP CODE	
FB108,FB401,FB402,FB403,FB404,FB405,FB406,FB407,FB410,FB604	071G-56K121	CHIP BEAD	
FB104	071G-59C121--B	FCM1608C-121T03 SMD	
FB602,FB603,FB605	071G-59C600	CHIP BEAD 60 OHM 0603 FCM1608CF-600T06	
FB105,FB501	071G-59G301-TA	CHIP BEAD 300OHM 200mA FCM1608KF-301T02	
FB101,FB102,FB103	071G-59K190-TA	CHIP BEAD 19 OHM 500mA FCB1608KF-190T05	
L801	073G253S-98-DN	SMD CHOKE 47uH 20% 3A 64R	
L701	073G253S521--H	SMD CHOKE 22uH 20% 3.3A HF	
CN501	088G-34019H-VT	HDMI HEADER 19P TECONN	

	088G-34019H-VA	HDMI HEADER 19P VAST	2nd source
D502	093G--60518SEM	DIODE BAT54C-HAF 300mA/30V SOT-23	
D102,D103	093G--64-42--P	BAV70 SOT23 BY PAN JIT	
D402,D403,D405,ZD101,ZD503	093G-39GA01--T	RLZ5.6B	
ZD703	093G-39GA52--T	DIDOE ZM-PTZ9.1BST	
D801	093G-60S509--T	SCHOTTKY BR310 T/R 3A 100V SMB	
D701,D703,D704,D707,D708	093G3004--2	SR34 PAN JIT	
CN803	311GF050B10ADH	FFC CONN 10P 0.5MM HR	
	033G801910Y--H	WAFER 10P 1.0MM GAOLIN	2nd source
	709G4810-QS001	COMSUPTIVE ASS""Y	
E715	715G4810M0E000004L	Main PCB FR-4 94V-0 DS 100x110mm*1.6mm 6 联板 威尔高	
	715G4810M0E000004I	Main PCB FR-4 94V-0 DS 100x110mm*1.6mm 6 联板 兴达	2nd source
	715G4810M0E000004K	Main PCB FR-4 94V-0 DS 100x110mm*1.6mm 6 联板 景旺	2nd source
	F12G6300001	RUBBER	
	F12G6600001	RUBBER FEET	
	F40G-22E61510C	ID Label for e951	
	F40G0003615-3A	LABEL POP(Silver EPEAT+EPA+Win7)	
	F40G0003615-4A	POP Label for e2351Fh	
	F40G0003615-7A	X-MEN Sticker Label	
	F44GDF01101	EPS for e2351	
	F44GDF01201	EPS for e2351	
	F44GDF01615-2A	Carton for e2351Fh	
	F52G1201163001	double sides adhesive tape	
	F52G18014A9001	Mylar	
	F70G23C1615-2B	e2351Fh CD MANUAL	
F09502	F95G176J-10111	FFC CABLE 10P 360MM P0.5MM KOTL	
	F95G176X-10111	FFC CABLE 10P 360MM P0.5MM WENXIN	2nd source
F09503	F95G179X30N102	FFC CABLE 30P 241MM P1.0MM WENXIN	
	F95G179J30N102	FFC CABLE 30P 241MM P1.0MM KOTL	2nd source
	KEPCAAA7	KEY BOARD	
F09501	F95G179J-6M110	FFC CABLE 6P 374MM P1.0MM KOTL	
	F95G179X-6M110	FFC CABLE 6P 374MM P1.0MM WENXIN	2nd source
U001	056G-669-45	IC TOUCH KEY IT7230EFN/BX QFN16 ITE	
R005,R006	061G0402000-JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	
R004	061G0402101-JT	RST CHIP 100R 1/16W 5% TZAI YUAN	
R001	061G0402103-JT	RST CHIP 10K 1/16W 5% TZAI YUAN	

R002,R003,R007,R008	061G0402472-JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	
C008	065G040210131J---Y	MLCC 0402 100pF +-5% 50V NPO YAGEO	
C005,C006,C007	065G040210427Z---Y	MLCC 0402 0.1uF -20%+80% 25V Y5V YAGEO	
C011	065G0402105A5K---A	MLCC 0402 1uF +-10% 10V X5R SAMSUNG	
	065G0402105A5K---T	MLCC 0402 1uF -10% 10V X5R TAIYO YUDEN	2nd source
C003,C004	065G040212031J---Y	MLCC 0402 12pF +-5% 50V NPO YAGEO	
D001	081G15BY--2-EL	LED Blue/Orange 12-22/BHS2C-C30/2C EVERHIGHT	
ZD001,ZD002	093G-39S-34--T	UDZSNP5.6B ROHM	
	709G4842-QS001	COMSUPTIVE ASS""Y	
E715	715G4842K0E000004F	Key PCB FR-4 94V-0 DS 105*11mm*1.2mm16 联板 福强	
	715G4842K0E000004L	Key PCB FR-4 94V-0 DS 105*11mm*1.2mm16 联板 威尔高	2nd source
	715G4842K0E000004K	Key PCB FR-4 94V-0 DS 105*11mm*1.2mm16 联板 景旺	2nd source
	Q01G6064--4	screw(Hinge)	
	Q12G6600--6	FOOT	
	Q26G-800504-2B	BARCODE LABEL FOR 3	
	Q36G-600517	duster cloth	
	Q40G000161515A	CARTON LABEL	
	Q41G78D1615-9A	WARRANTY CARD	
	Q45G2010M0201A	pe bag	
	Q45G8801607--7	pe bag	
	Q45G9901609243---N	PE PAG	