

Service
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Service Manual

Horizontal Frequency
30- 83kHz

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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

[illegible]

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

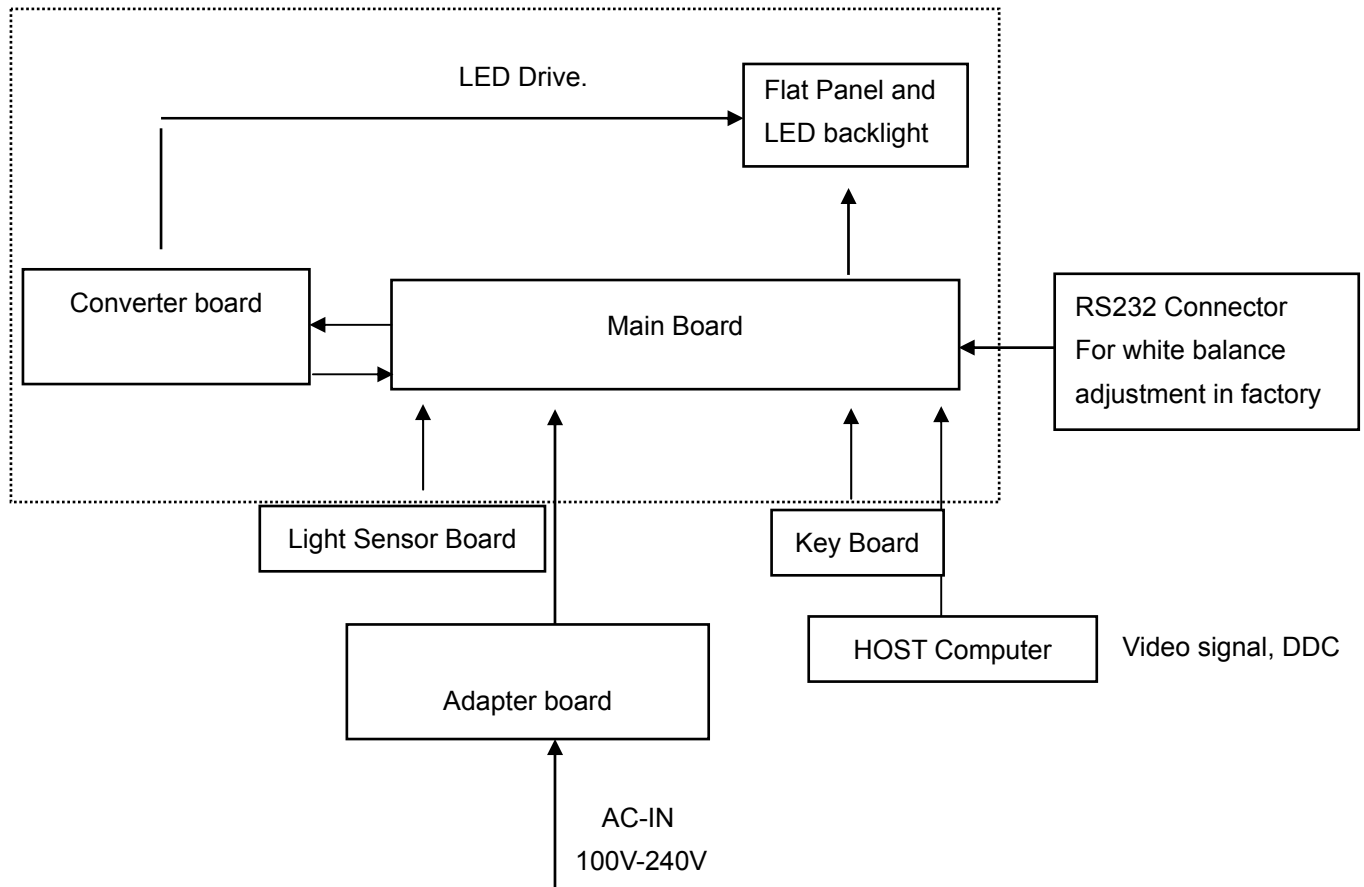
Panel	Product name	e2440Va	
	Driving system	TFT Color LCD	
	Viewable Image Size	60.97 cm diagonal	
	Pixel pitch	0.277 mm(H) x 0.277 mm(V)	
	Video	R, G, B Analog Interface & Digital Interface	
	Separate Sync.	H/V TTL	
	Display Color	16.7M Colors	
	Dot Clock	148.5 MHz	
Resolution	Horizontal scan range	30 kHz - 83 kHz	
	Horizontal scan Size(Maximum)	531.36mm	
	Vertical scan range	56 Hz - 75 Hz	
	Vertical scan Size(Maximum)	298.89mm	
	Optimal preset resolution	1920x1080(60 Hz)	
	Highest preset resolution	1920x1080(60 Hz)	
	Plug & Play	VESA DDC2B/CI	
	Input Connector	D-Sub 15pin & DVI-D	
	Input Video Signal	Analog: 0.7Vp-p(standard), 75 OHM, Positive & DVI-D Digital Interface (TMDS)	
	Power Source	12Vdc,3A	
	Power Consumption	Active < 35W	
		Standby < 1 W	
	Off Timer	0~24hours	Select timing to turn off the monitor.
	Speakers	2W x 2	
Physical Characteristics	Connector Type	15-pin Mini D-Sub & DVI-D	
	Signal Cable Type	Detachable	
	Dimensions & Weight:		
	Height (with base)	585.6mm	
	Width	425.2mm	
	Depth	190mm	
	Weight (monitor only)	3.8kg	
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, a converter board, an adapter board, a light sensor board, an audio board and a key board which house the flat panel control logic, brightness control logic and DDC.

The converter board will provide DC to DC Inverter voltage to drive the backlight of panel.

Monitor Block Diagram



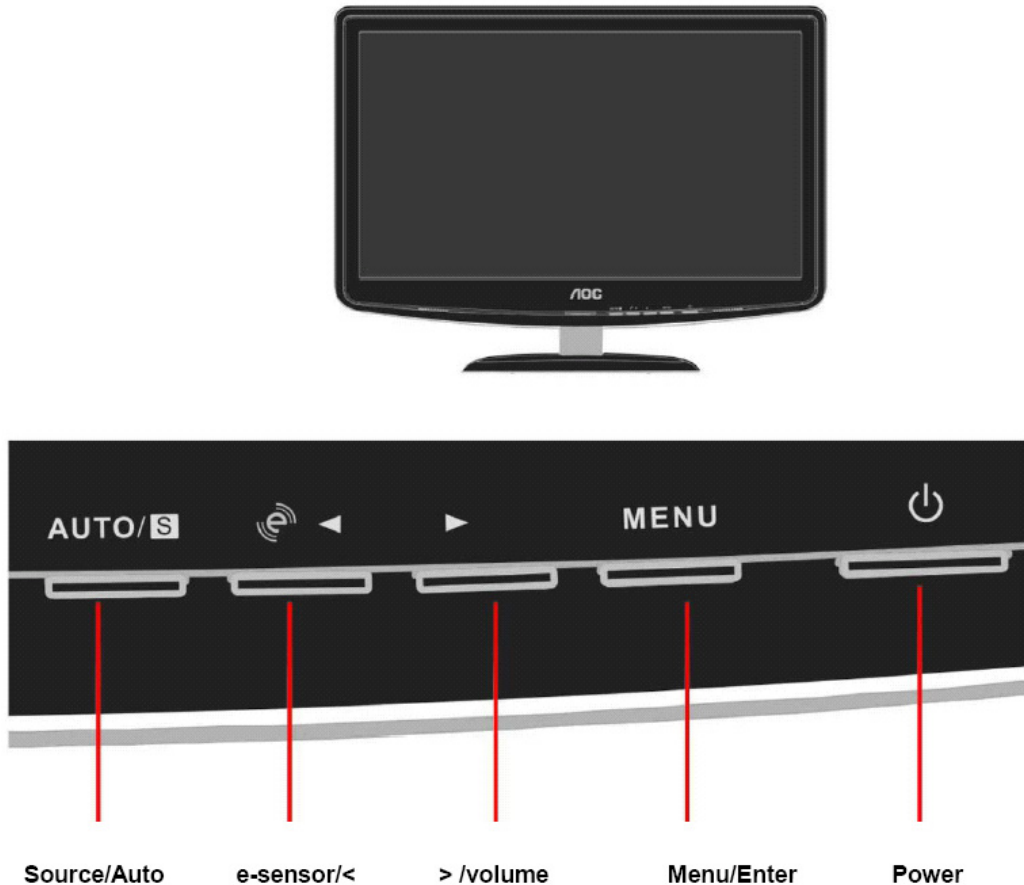
3. Operating Instructions

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 quality can be adjusted to your personal preferences.

3.2 Control Buttons and Connections



e-Sensor hot key.

When there is no OSD, Press ◀ continuously to select the e-Sensor mode (e-Sensor mode hot key may not be available in all models).

e-Sensor: The infrared sensor can detect if user is in front of monitor and adjust monitor brightness automatically to save power.

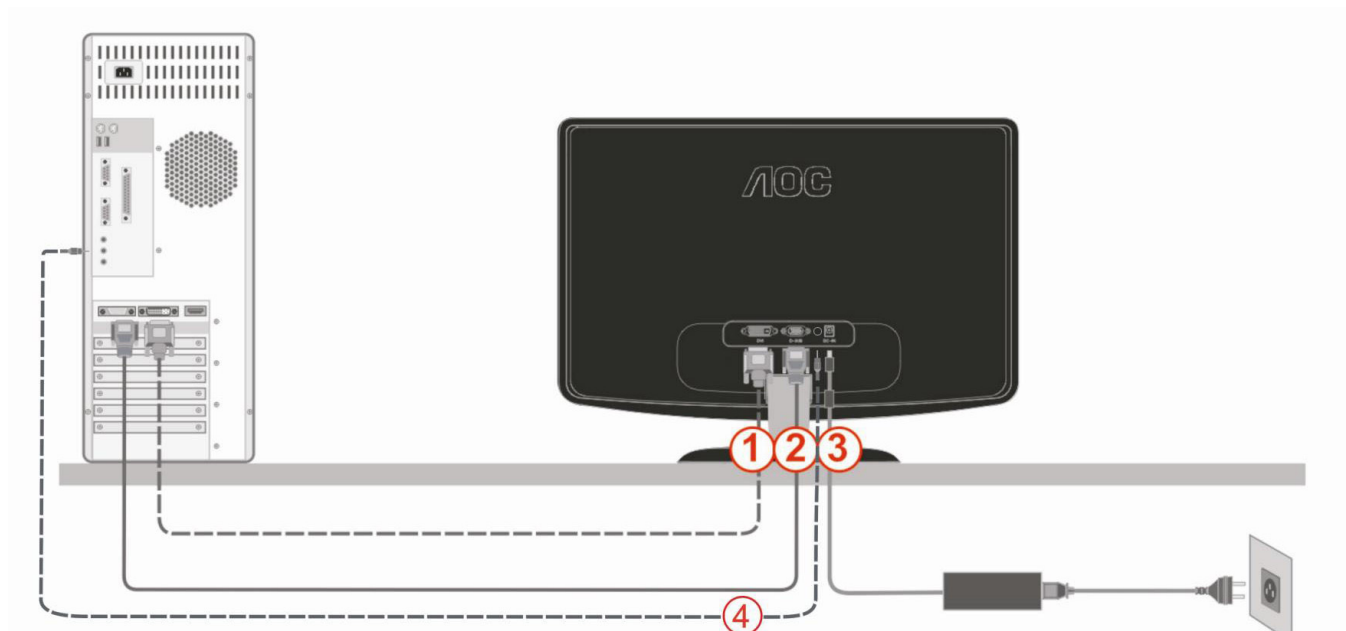
When it is on, we can select the detect range [Near, Average, Far] by using hot-key,.

Auto configure hot key

When there is no OSD, press Auto/Source button continuously about 2 second to do auto configure (Only for the models with dual or more inputs).

Volume adjustment hot key:

When there is no OSD, press Volume (▶) to active volume djustment bar, press ◀ or ▶ to adjust volume (Only for the models with speakers)



1. DVI
2. Analog (DB-15 VGA cable)
3. Power
4. Audio

To protect equipment, always turn off the PC and LCD monitor before connecting.

1. Connect the power cable to the AC port on the back of the monitor.
2. Connect one end of the 15-pin D-Sub cable to the back of the monitor and connect the other end to the computer's D-Sub port.
3. (Optional – Requires a video card with DVI port) - Connect one end of the DVI cable to the back of the monitor and connect the other end to the computer's DVI port.
4. Connect the audio cable to audio in port on the back of the monitor.
- 5 Turn on your monitor and computer.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

3.3 OSD Menu



-) 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 sub-menu . Once the desired function is highlighted, press **MENU-button** to activate it.
- 3) Press **◀ or ▶** to change the settings of the selected function. Press **◀ or ▶** to select another function in sub-menu . 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.
- 5) e-Sensor hot key: When there is no OSD, Press **◀** continuously to select the e-Sensor mode(e-Sensor mode hot key may not be available in all models).

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, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



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	On/OFF	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, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



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
	H.Position	0-100	Adjust the horizontal position of the picture.
	V.Position	0-100	Adjust the vertical position of the picture.

Color Temperature

1



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

2



Press ◀ or ▶ to select  (Color Temperature), and press **MENU** to enter.

3



Press ◀ or ▶ to select submenu, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



Press **AUTO** to exit.

	Warm	6500K	Recall Warm Color Temperature from EEPROM.
	Normal	7300K	Recall Normal Color Temperature from EEPROM.
	Cool	9300K	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

Color Boost

1



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

2



Press ◀ or ▶ to select  (Color Boost), and press **MENU** to enter.

3



Press ◀ or ▶ to select submenu, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



Press **AUTO** to exit.

	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
	Demo	on or off	Disable or Enable Demo

Picture Boost

1



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

Press ◀ or ▶ to select  (Picture Boost); and press **MENU** to enter.

2



Press ◀ or ▶ to select Bright Frame. Select “on” to activate Picture Boost.

3



Press ◀ or ▶ to select submenu, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



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, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



Press **AUTO** to exit.

	OSD Setup		
	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  (OSD Setup), and press **MENU** to enter.

3



Press ◀ or ▶ to select submenu, press **MENU** to enter, and press ◀ or ▶ to adjust.

4



Press **AUTO** to exit.

	Input Select	Auto Analog Digital	Select to Auto Detect input signal Select Analog Sigal Source as Input Select Digital Sigal 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

Reset

1



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

2



Press ◀ or ▶ to select  (Reset), and press **MENU** to enter.

3



Press ◀ or ▶ to select YES or NO.

4



Press **MENU** to exit.

	Reset	yes or no	Reset the menu to default
---	-------	-----------	---------------------------

Exit

1



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

2



Press ◀ or ▶ to select  (Exit); and press **MENU** to enter.

	Exit		Exit the main OSD
---	------	--	-------------------

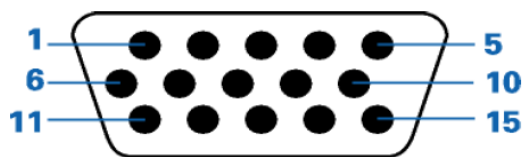
LED Indicator

Status	LED Color	
Full Power Mode	Blue	
Active-off Mode	Orange	

4. Input/Output Specification

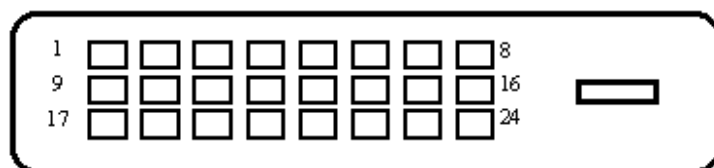
4.1 Input Signal Connector

Analog connectors



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

DVI connectors



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-	12	TMDS Data 3-	20	TMDS Data 5-
5	TMDS Data 4+	13	TMDS Data 3+	21	TMDS Data 5+
6	DDC Clock	14	+5V Power	22	TMDS Clock Shield
7	DDC Data	15	Ground(for+5V)	23	TMDS Clock +
8	N.C.	16	Hot Plug Detect	24	TMDS Clock -

4.2 Factory Preset Display Modes

STAND	RESOLUTION	Horizontal	Vertical
VGA	640×480@60Hz	31.469	59.94
	640×480@72Hz	37.861	72.809
	640×480@75Hz	37.5	75
SVGA	800×600@56Hz	35.156	56.25
	800×600@60Hz	37.879	60.317
	800×600@72Hz	48.077	72.188
	800×600@75Hz	46.875	75
XGA	1024×768@60Hz	48.363	60.004
	1024×768@70Hz	56.476	70.069
	1024×768@75Hz	60.023	75.029
XGA	1152x864@75Hz	67.5	75
XGA	1280x1024@60Hz	63.981	60.02
XGA	1280x1024@75Hz	79.976	75.025
WXGA	1440x900@60Hz	55.935	59.887
WSXGA+	1680x1050@60Hz	65.29	59.954
HDTV	1920x1080@60Hz	67.5	60
DOS	720×400@70Hz	31.469	70.087
VGA	640×480@67Hz	35	66.667
SVGA	832×624@75Hz	49.725	74.551

4.3 Panel Specification

4.3.1 General Features

This specification applies to the 24 inch-FHD Color a-Si TFT-LCD Module M240HW01. The display supports the FHD - 1920(H) x 1080(V) screen format and 16.7M colors (RGB 6-bits + Hi-FRC data). The light source of this TFT-LCD module is W-LED. All input signals are 2-channel LVDS interface and this module doesn't contain a driver for backlight.

4.3.2 Display Characteristics

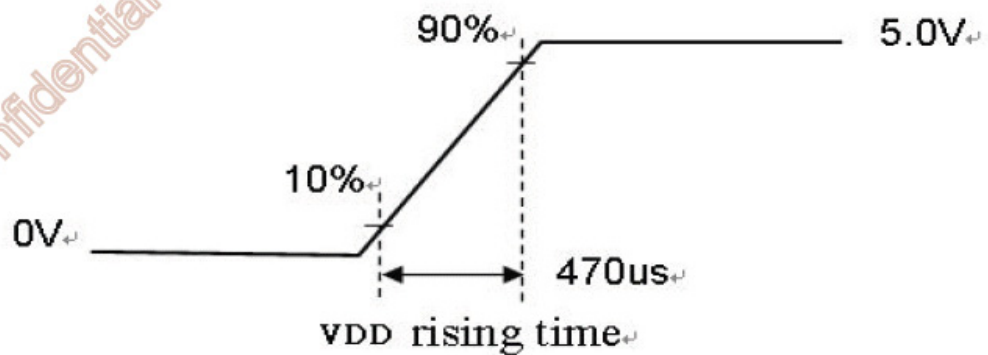
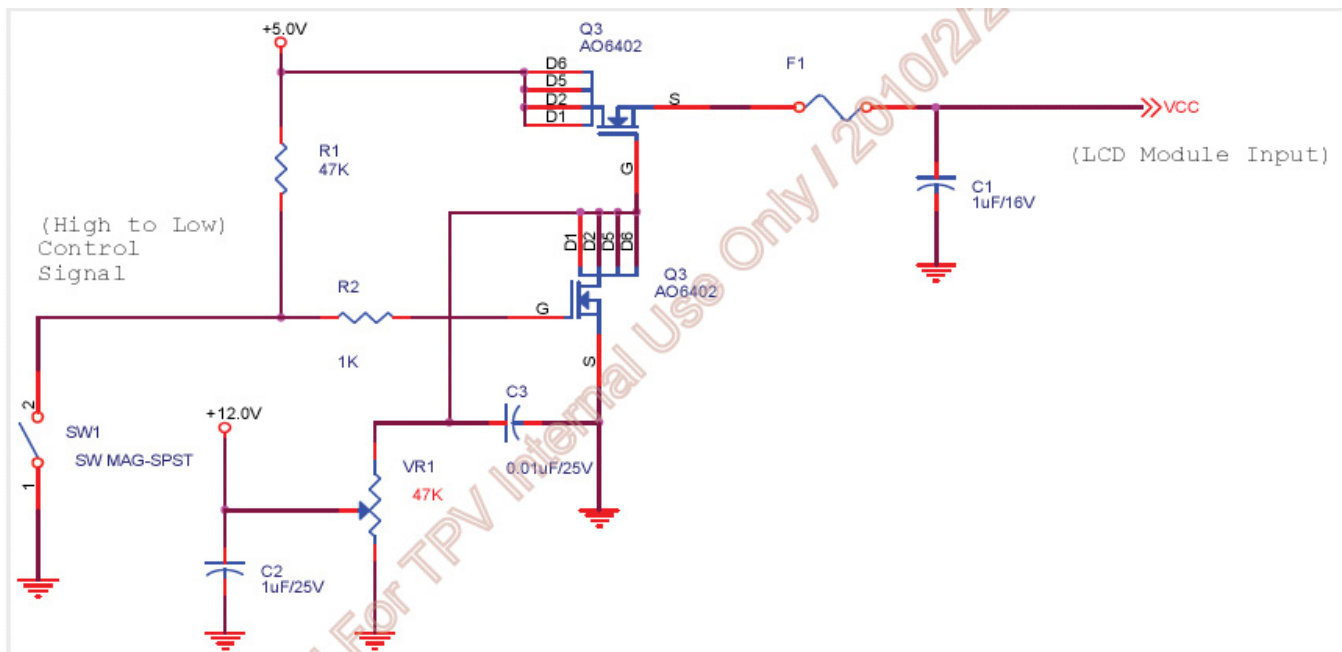
Ta=25°C

ITEMS	Unit	SPECIFICATIONS
Screen Diagonal	[mm]	609.7(24.0")
Active Area	[mm]	531.36 (H) x 298.89 (V)
Pixels H x V		1920(x3) x 1080
Pixel Pitch	[um]	276.75 (per one triad) ×276.75
Pixel Arrangement		R.G.B. Vertical Stripe
Display Mode		TN Mode, Normally White
White Luminance (Center)	[cd/m ²]	250 cd/m ² (Typ.)
Contrast Ratio		1000(Typ.)
Optical Response Time	[msec]	5ms (Typ., on/off)
Nominal Input Voltage VDD	[Volt]	+5.0 V (Typ)
Power Consumption (VDD line + LED line)	[Watt]	21W
Weight	[Grams]	2190 Typ.
Physical Size	[mm]	556.0(H)x323.2(V)x9.90(D)
Electrical Interface		Dual channel LVDS
Support Color		16.7M colors (RGB 6-bit + Hi_FRC)
Surface Treatment		Anti-Glare, 3H
Temperature Range		
Operating	[°C]	0 to +50
Storage (Shipping)	[°C]	-20 to +60
RoHS Compliance		RoHS Compliance

4.3.3 Electrical Characteristics

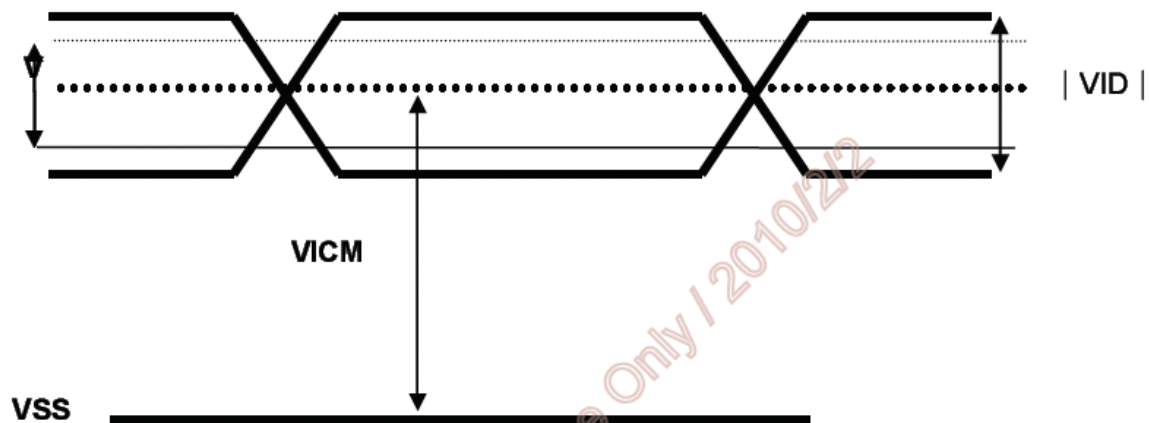
Symbol	Parameter	Min	Typ	Max	Unit	Conditions
VDD	Logic/LCD Drive Voltage	4.5	5.0	5.5	[Volt]	+/-10%
IDD	Input Current	-	0.6	1.2	[A]	VDD= 5.0V, All black Pattern, At 60Hz
PDD	VDD Power	-	3	6	[Watt]	VDD= 5.0V, All black Pattern, At 60Hz
IRush	Inrush Current	-	-	3	[A]	Note 1
VDDrp	Allowable Logic/LCD Drive Ripple Voltage	-	-	300	[mV] p-p	VDD= 5.0V, All Black Pattern At 75Hz

Note1: Measurement conditions: The duration of rising time of power input is 470us.



Symbol	Parameter	Min	Typ	Max	Units	Condition
VTH	Differential Input High Threshold	-	+50	+100	[mV]	VICM = 1.2V Note 1
VTL	Differential Input Low Threshold	-100	-50	-	[mV]	VICM = 1.2V Note 1
VID	Input Differential Voltage	100	-	600	[mV]	Note 1
VICM	Differential Input Common Mode Voltage	+1.0	+1.2	+1.5	[V]	VTH-VTL = 200MV (max) Note 1

Note1: LVDS signal waveform



Backlight Unit

Ta=25°C

Symbol	Parameter	Min. □	Typ.	Max.	Unit	Note
IR _{LED}	LED Operation Current	-	20	30	[mA] Note 1	Operating with fixed driving current
V _{LB}	Light Bar Operation Voltage (for reference)	-	42.9	44.2	[Volt] Note 2	
P _{BLU}	BLU Power consumption (for reference)	-	13.73	14.85	[Watt]	
LT _{LED}	LED life Time (Typical)	25,000	30,000	-	[Hour] Note 3	

Note 1 : The specified current is input LED chip 100% duty current.

Note 2 : The value showed in the table is one light bar's operation voltage.

Note 3 : Based on the operating current is 20mA.

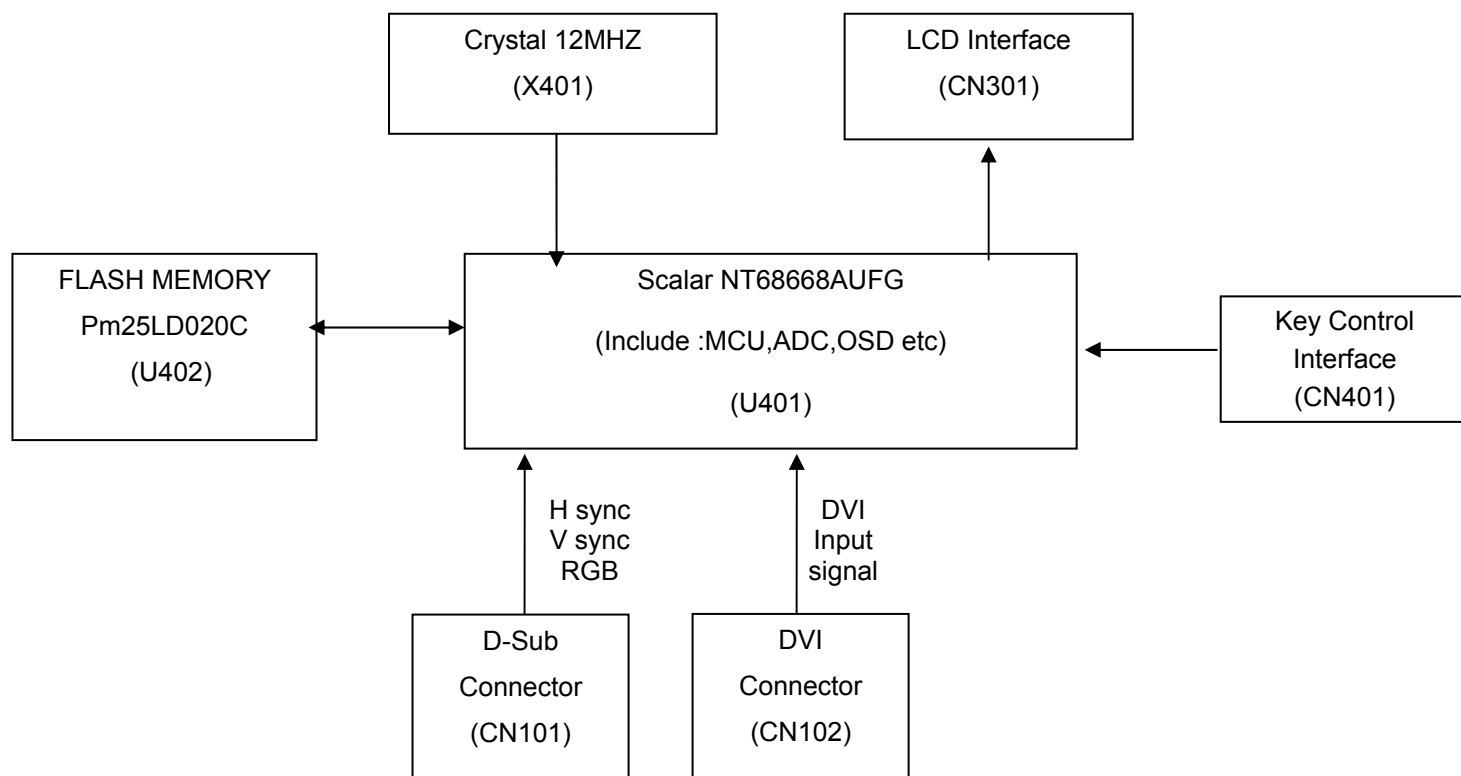
4.3.4 Optical Characteristics

Ta=25°C

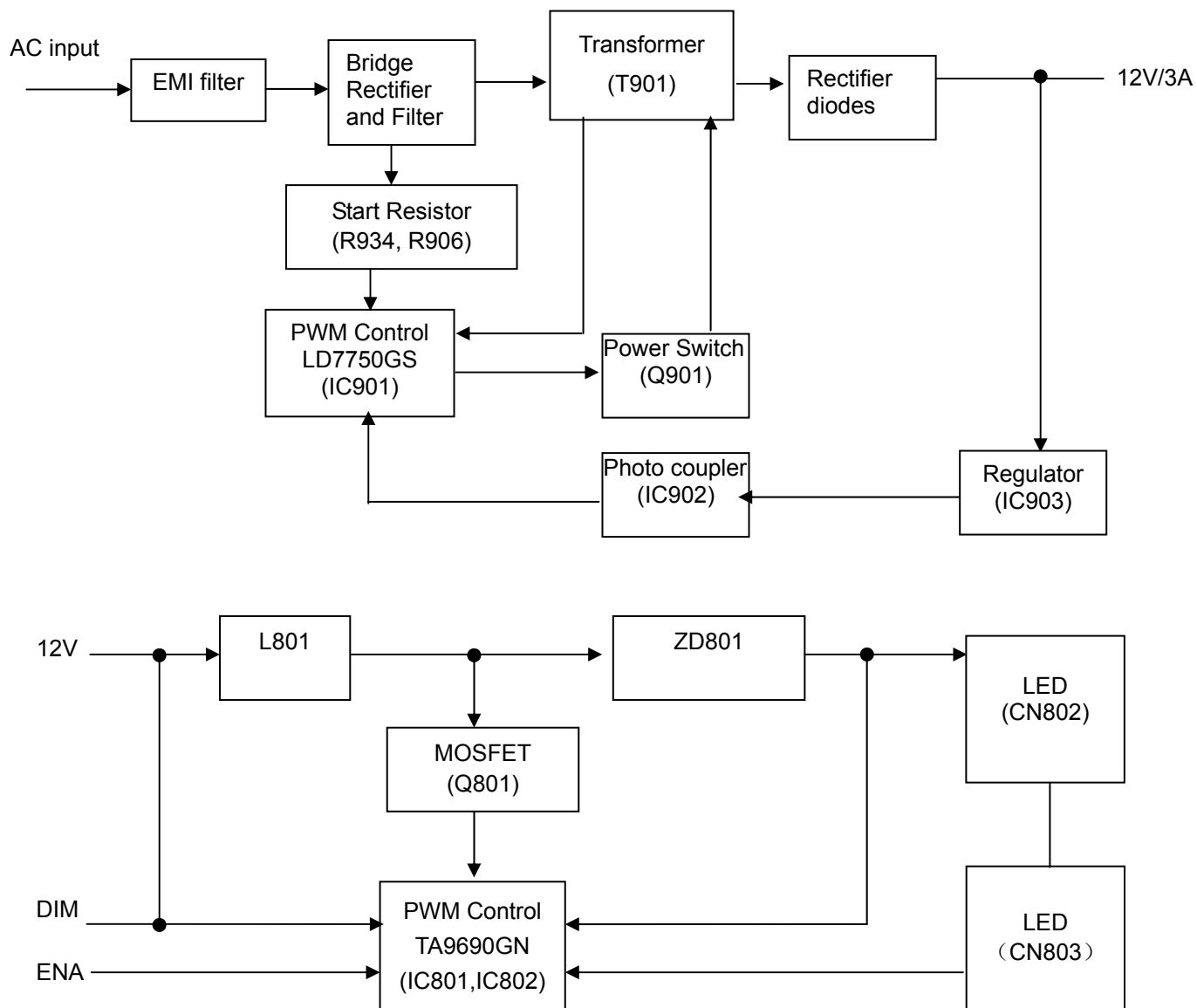
Item	Unit	Conditions	Min.	Typ.	Max.
Viewing Angle	[degree]	Horizontal (Right) CR = 10 (Left)	150	170	- -
		Vertical (Up) CR = 10 (Down)	140	160	- -
Contrast ratio		Normal Direction	600	1000	-
Response Time	[msec]	Raising Time (T _{rR})	-	3.5	7.4
		Falling Time (T _{rF})	-	1.5	2.6
		Raising + Falling	-	5	10
Color / Chromaticity Coordinates (CIE)		Red x	0.608	0.638	0.668
		Red y	0.318	0.348	0.378
		Green x	0.304	0.334	0.364
		Green y	0.578	0.608	0.638
		Blue x	0.120	0.150	0.180
		Blue y	0.027	0.057	0.087
Color Coordinates (CIE) White		White x	0.283	0.313	0.343
		White y	0.299	0.329	0.359
Central Luminance	[cd/m ²]		200	250	-
Luminance Uniformity	[%]		70	75	-
Crosstalk (in 60Hz)	[%]				1.5
Flicker	dB				-20

5. Block Diagram

5.1 Main Board



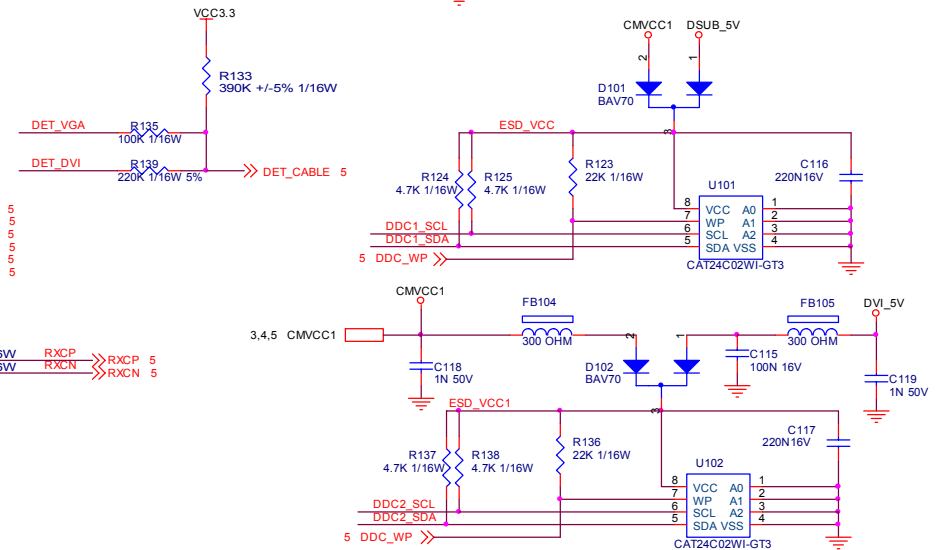
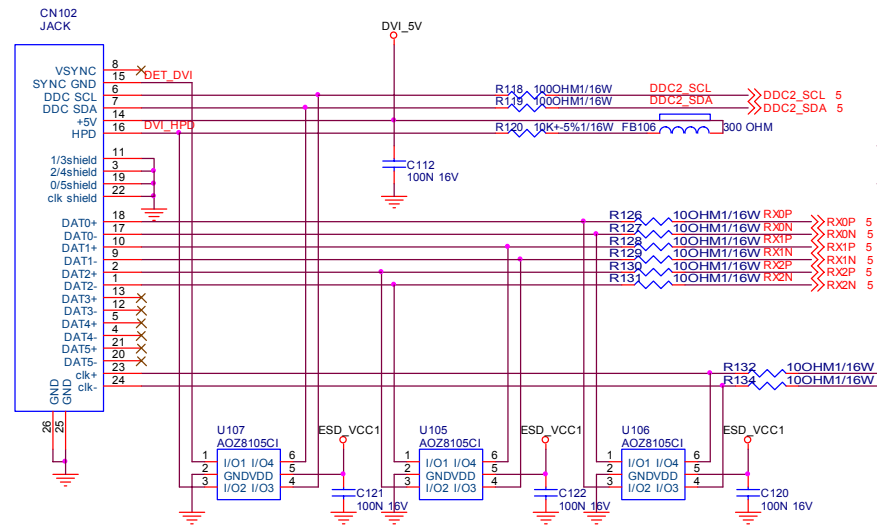
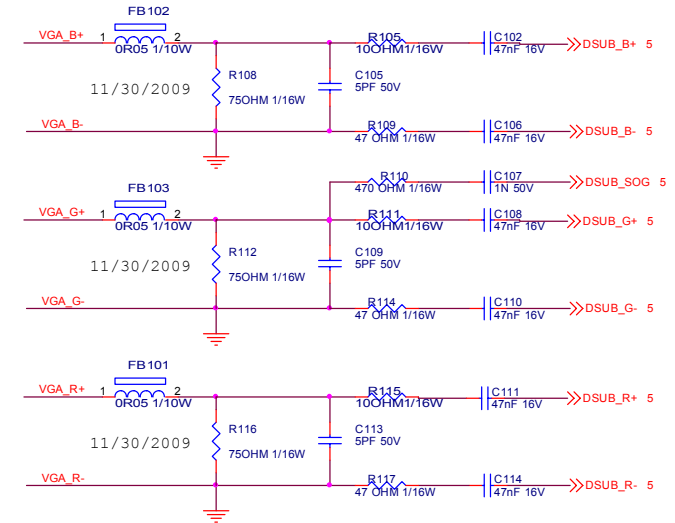
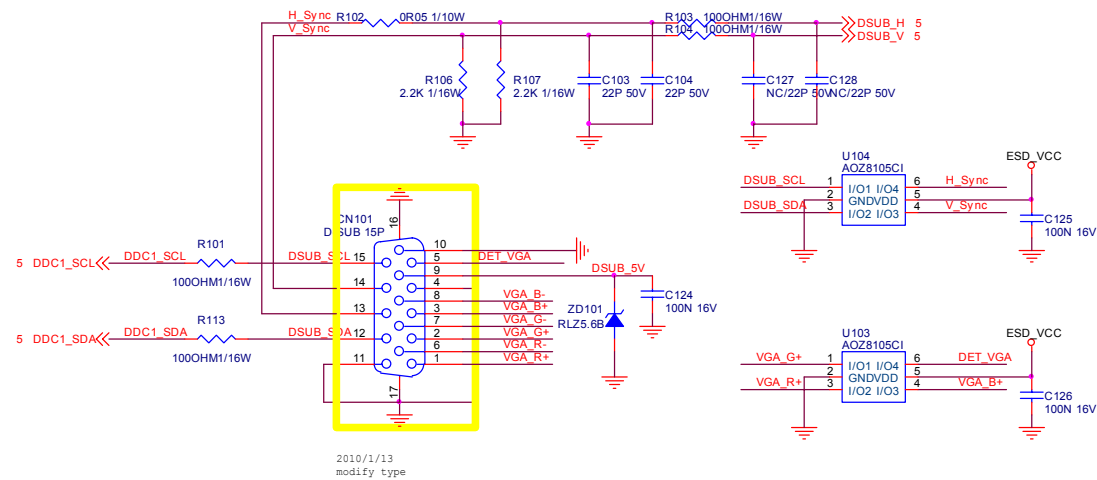
5.2 Power Board



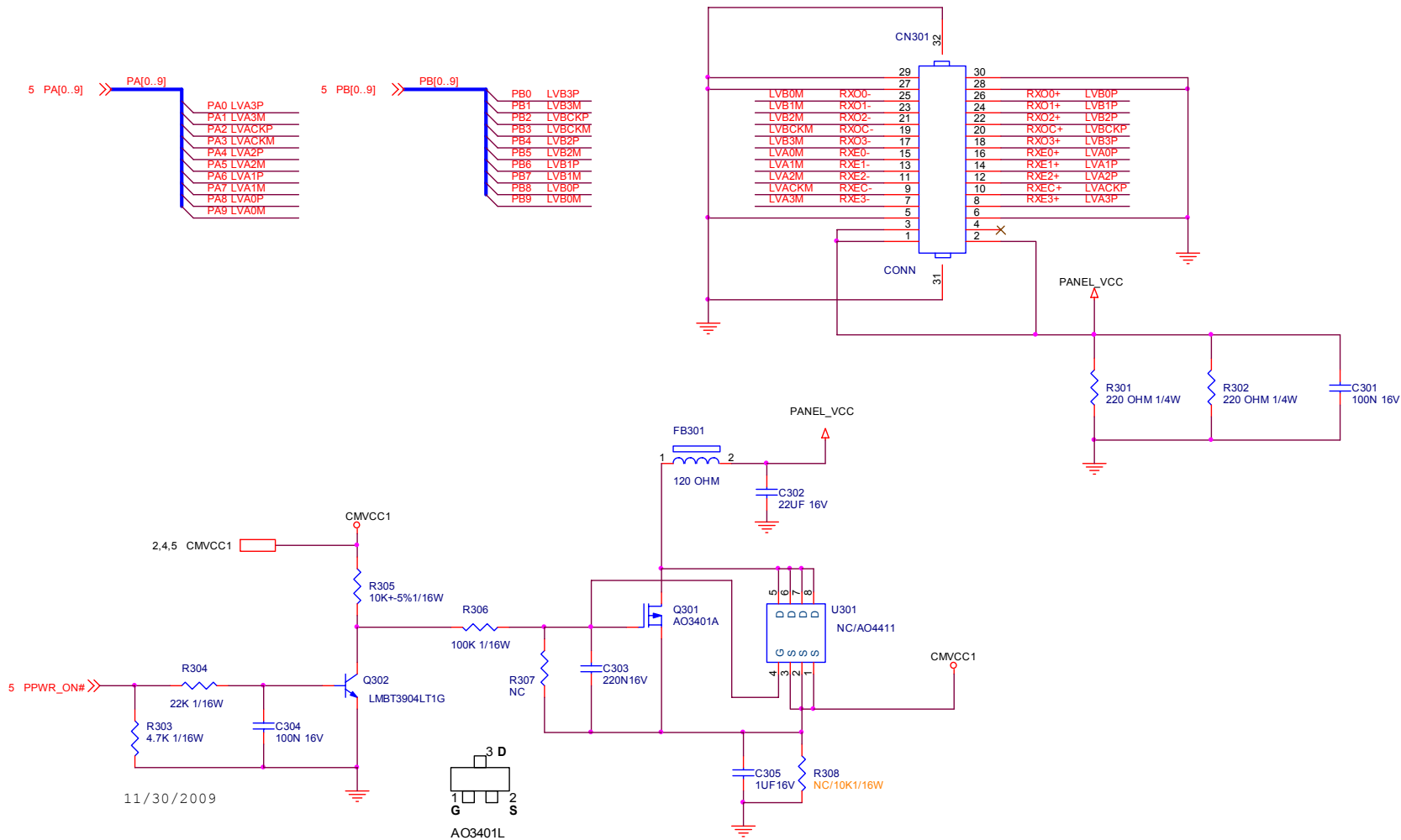
6. Schematic

6.1 Main Board

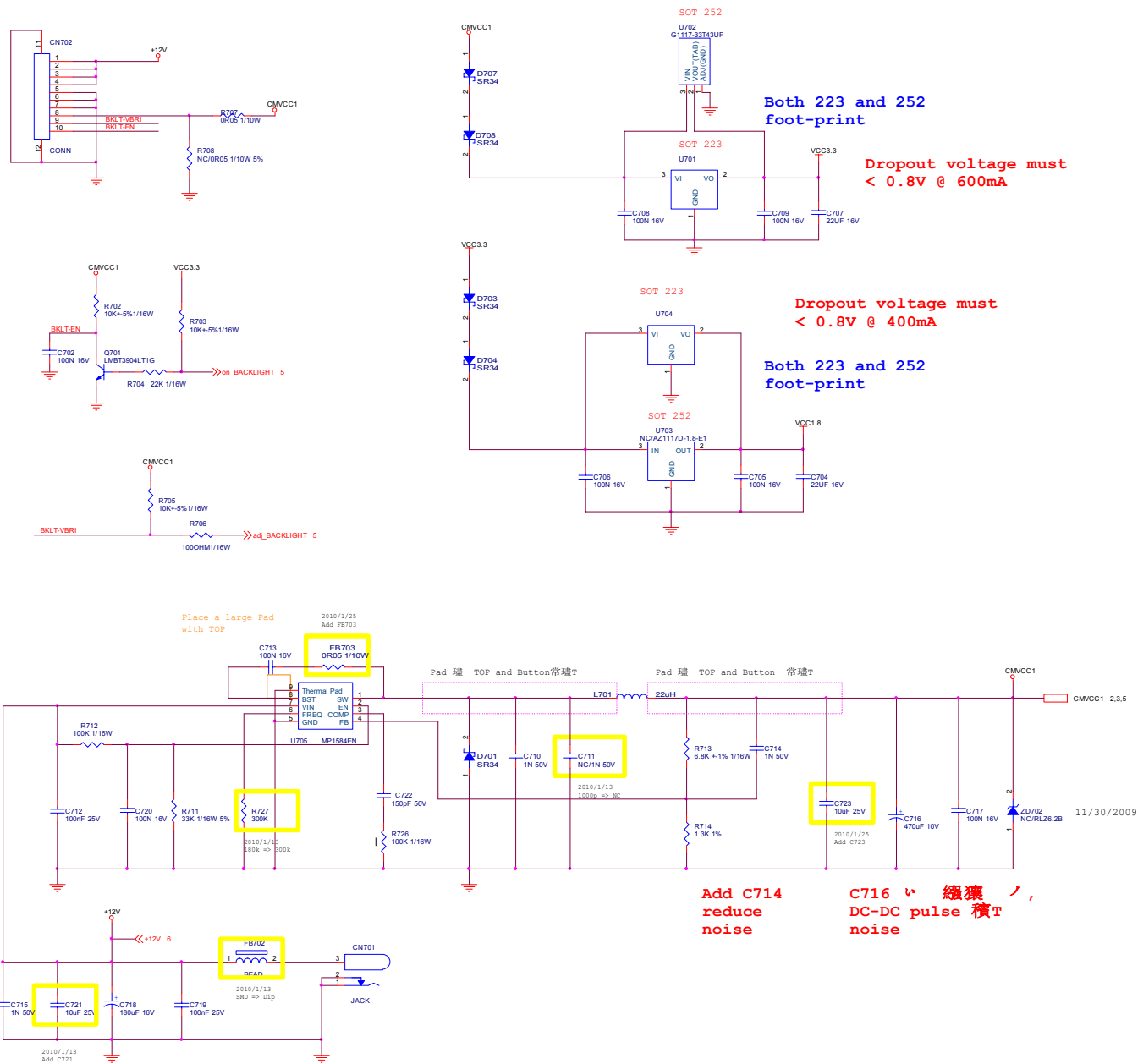
715G4002M01000004S



T P V (Top Victory Electronics Co. , Ltd.)		OEM MODEL	AOC e2040VA	Size	B
新隔瓜顯器	G4002-M0D-000-0040-100416	TPV MODEL	e2040VA	Rev	C
Key Component	2.0.INPUT	PCB NAME			
Date	Tuesday, April 27, 2010	Sheet	2 of 6	称爹	<称爹>

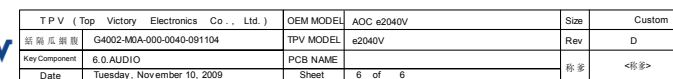
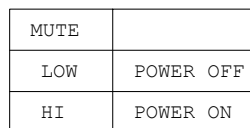
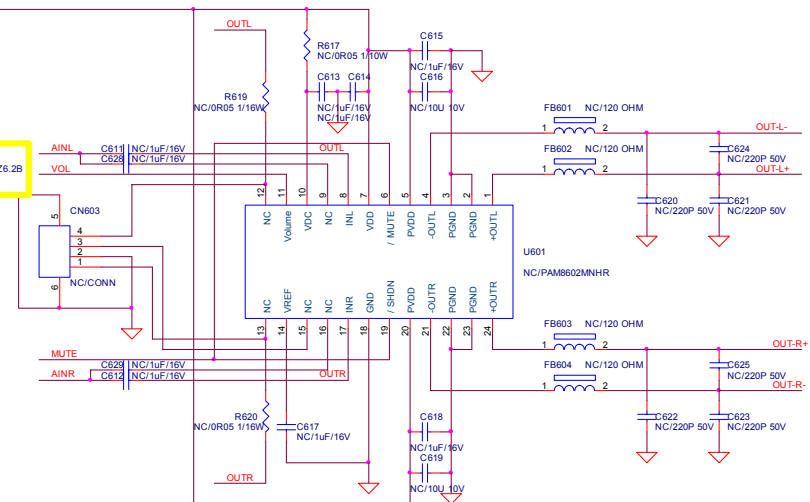
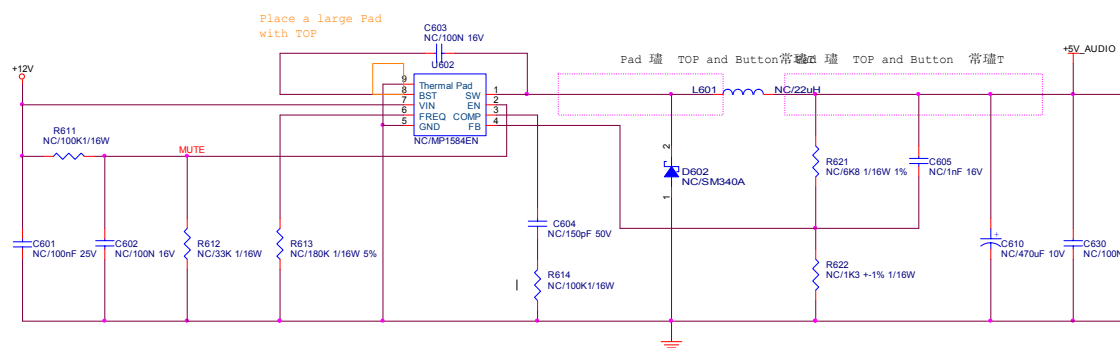
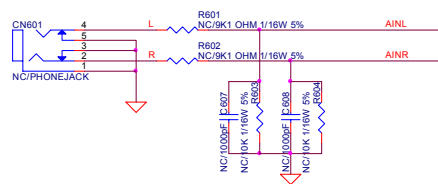


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	AOC e2040VA	Size	B
碶隔爪網股	G4002-MOD-000-0040-100416	TPV MODEL	Rev	C
Key Component	3.0.OUTPUT	PCB NAME	称審	<称審>
Date	Tuesday, April 27, 2010	Sheet	3 of 6	

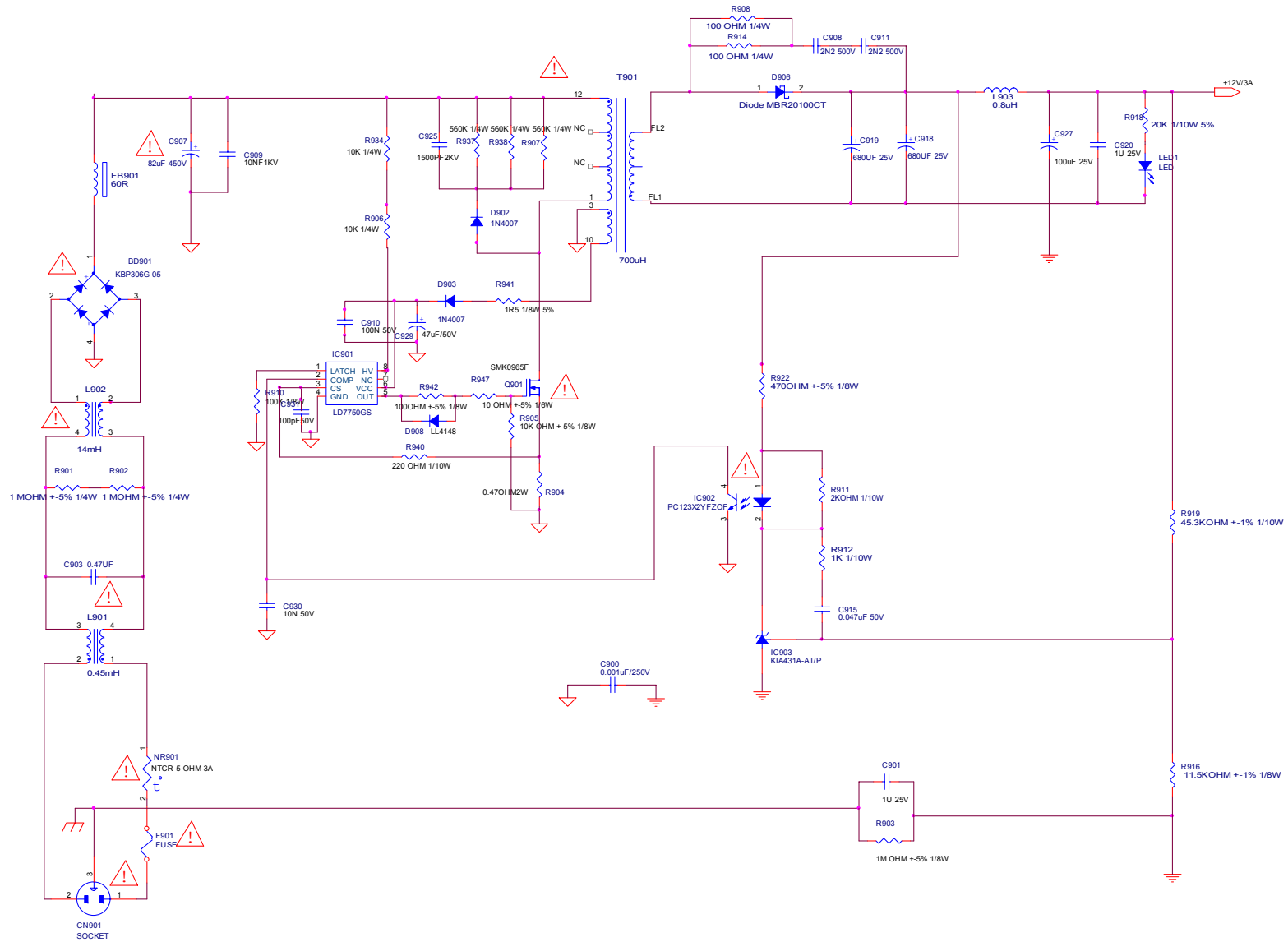




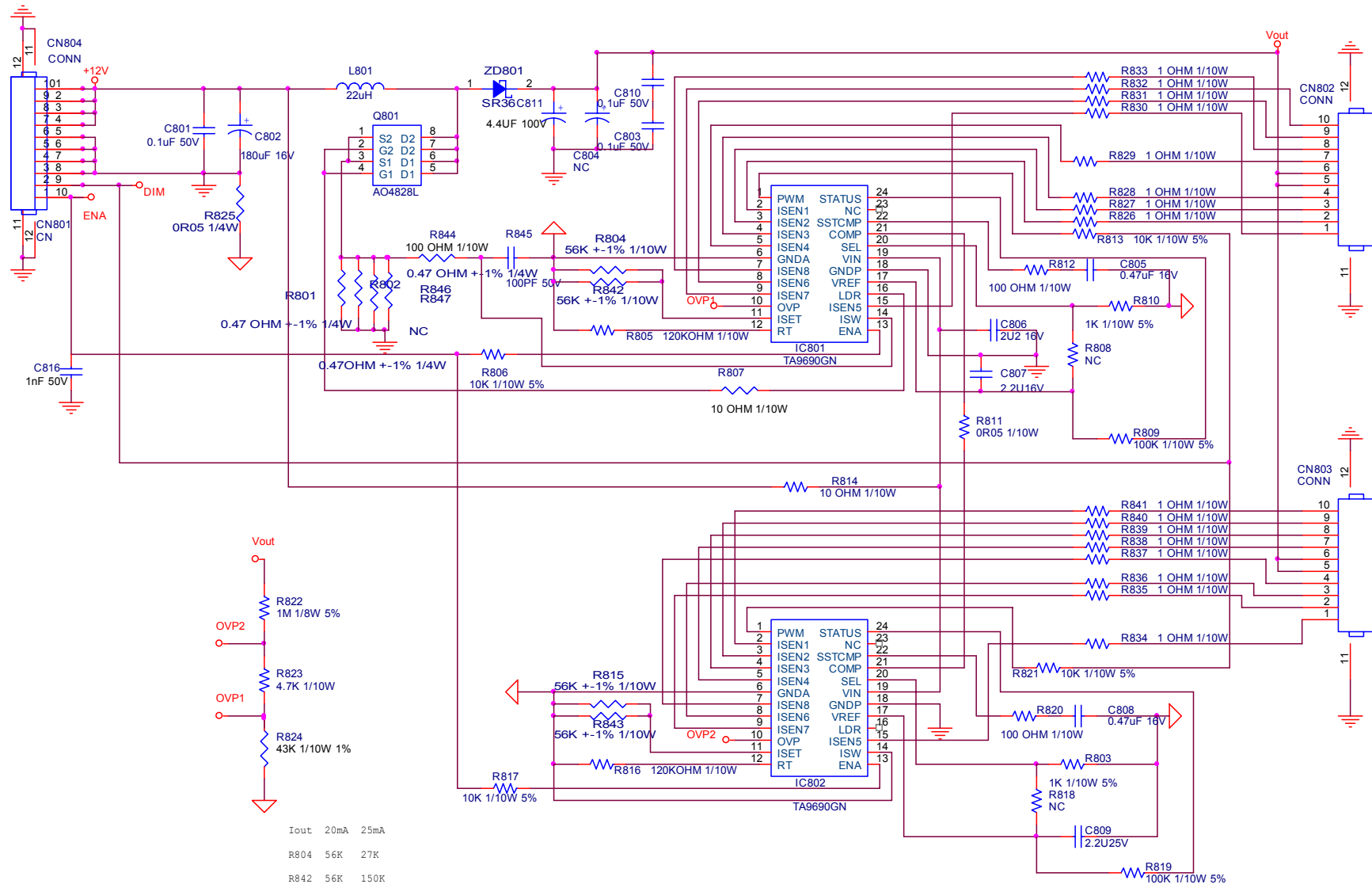
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	AOC e2040VA	Size	C
品牌前置數	G4002-MDD-000-0040-100416	TPV MODEL	e2040VA	Rev	C
Key Component	5.0 SCALER	PCB NAME		料號	<料號>
Date	Tuesday, April 27, 2010	Sheet	5 of 6		



6.2 Power Board Adapter 715G3980P02000003S

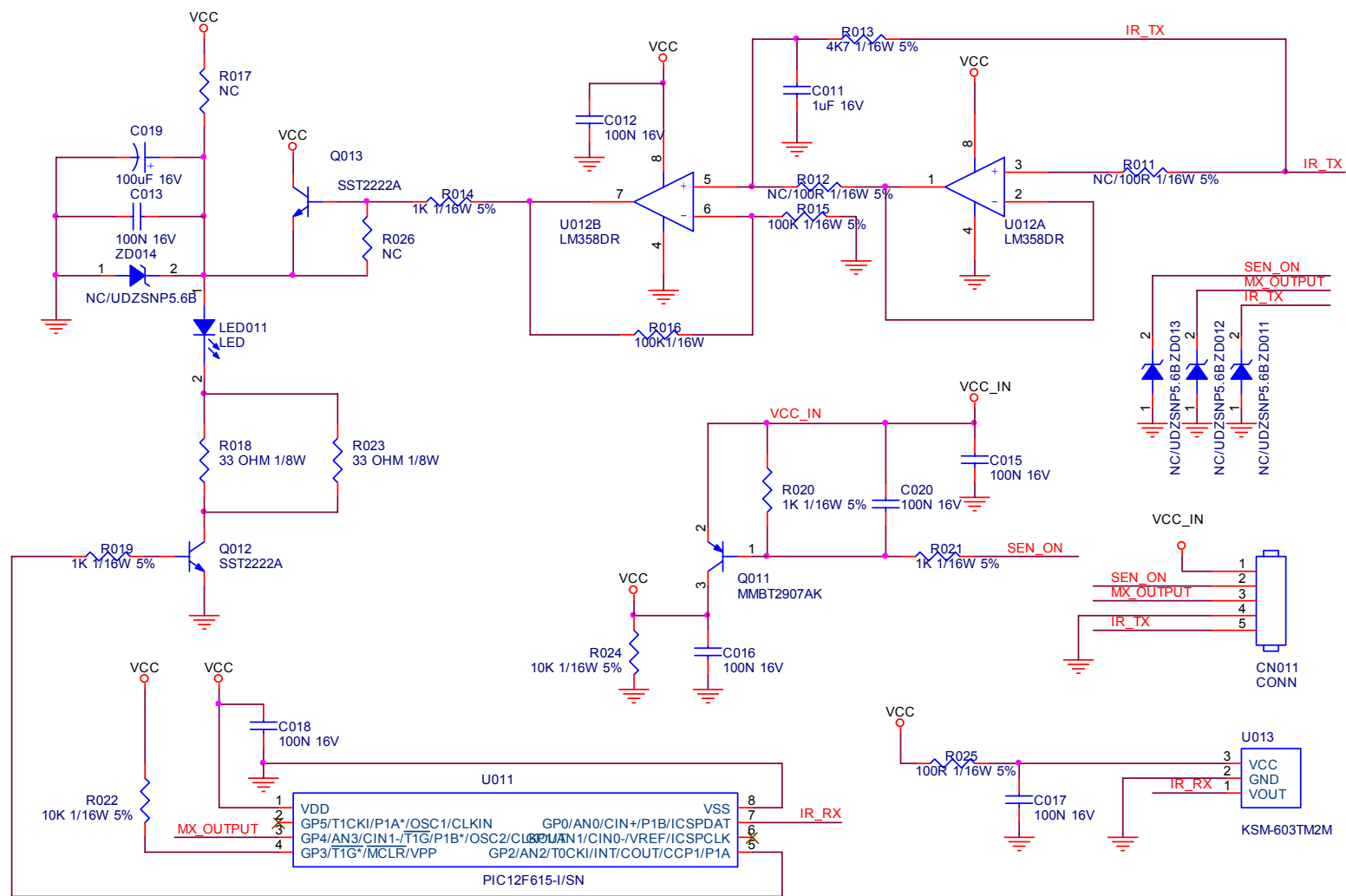


Converter
715G3823P04000004S



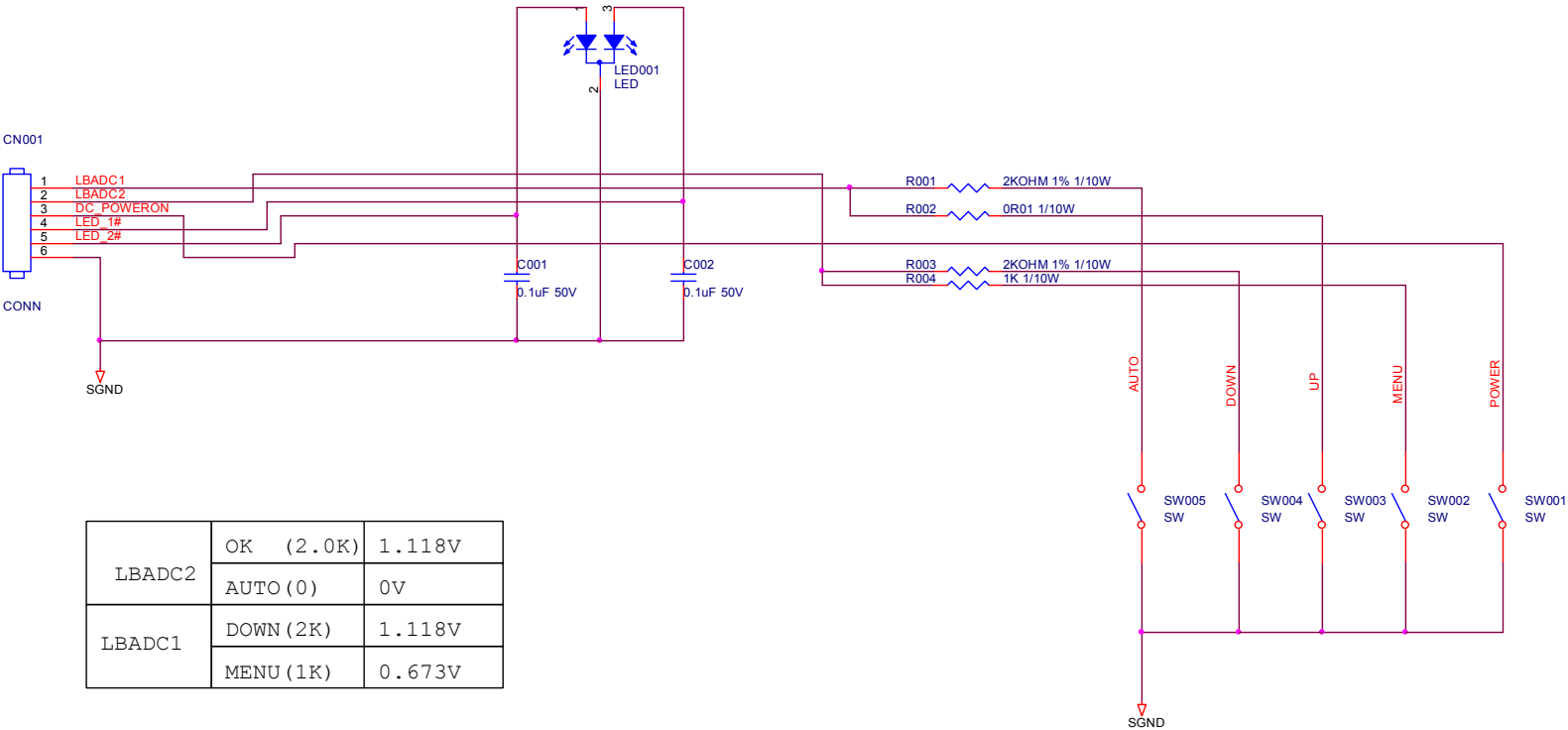
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	A4
紙隔瓜網膠	G3823-P03-X-X-2-100106	TPV MODEL		Rev	1
Key Component	02.CONVERTER	PCB NAME	715G3823-P04	称爹	ODM MODEL
Date	Thursday, July 15, 2010	Sheet	of		

6.3 Light Sensor Board
715G3995T01000004C

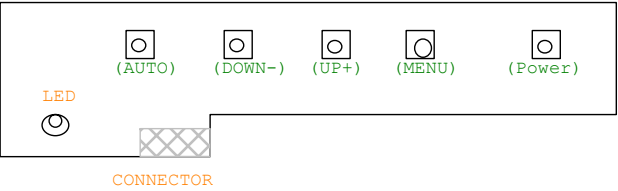


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	40TH	Size	A
紙隔瓜網腹	G3995-T01-000-0040-100415	TPV MODEL	40TH	Rev
Key Component	PIC12F615-I/SN	PCB NAME	Power Sensor	称爹
Date	Friday, April 16, 2010	Sheet	2 of 2	<称爹>

6.4 Key Board
715G4014K01000004C

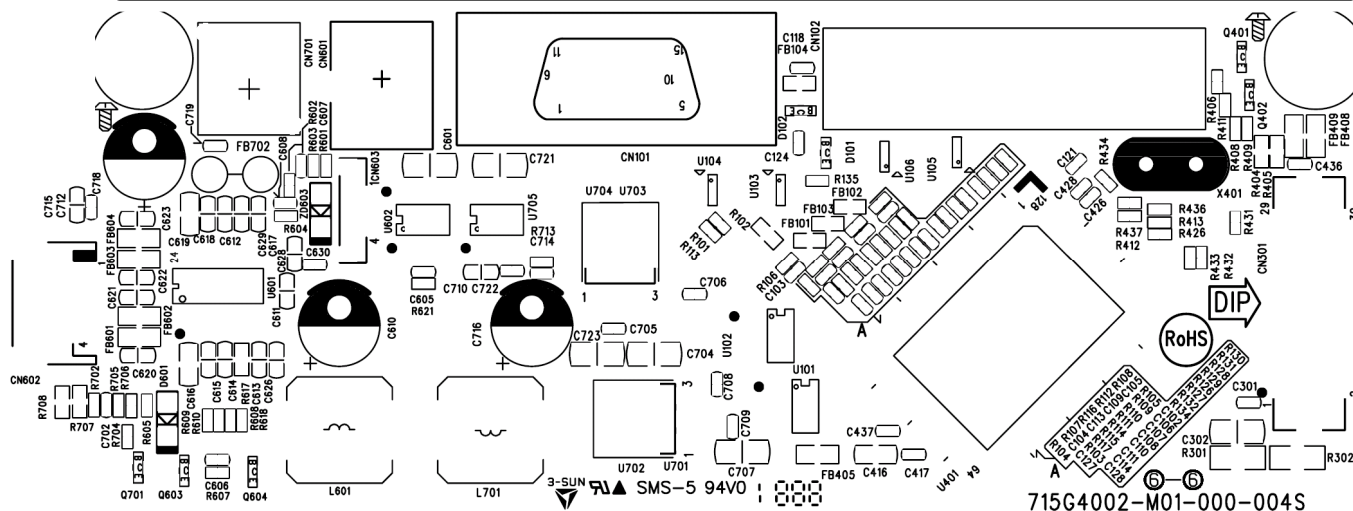
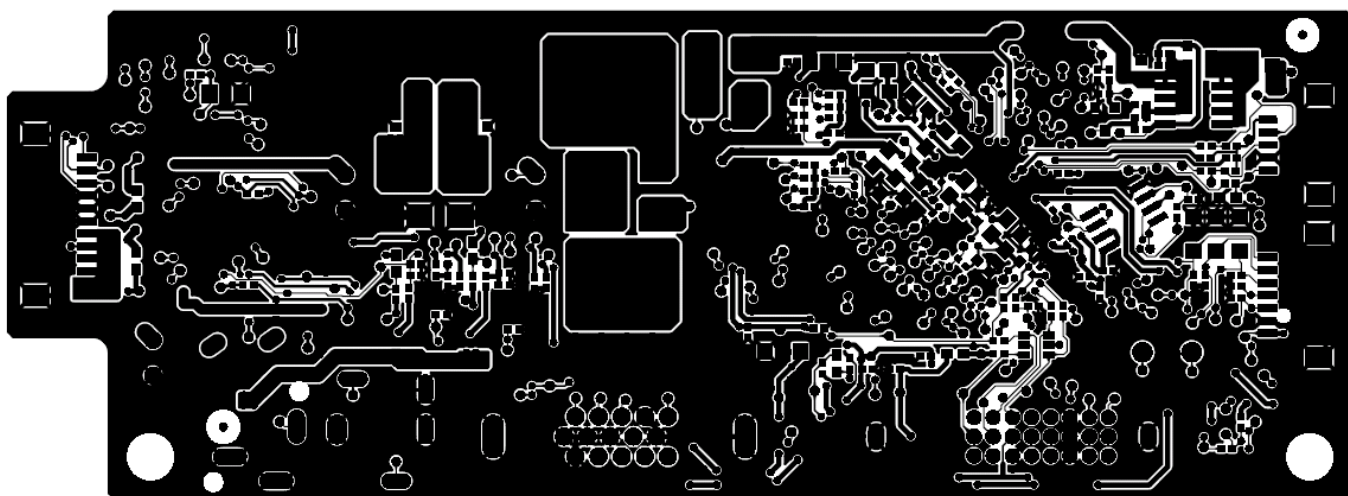


LBADC2	OK (2.0K)	1.118V
	AUTO (0)	0V
LBADC1	DOWN (2K)	1.118V
	MENU (1K)	0.673V



TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL	N/A	Size	B
結構瓜網膜	TBD	TPV MODEL	e2040V	Rev	D
Key Component	2.0.key	PCB NAME	TBD	稱爹	<稱爹>
Date	Thursday, November 05, 2009	Sheet	2 of 2		

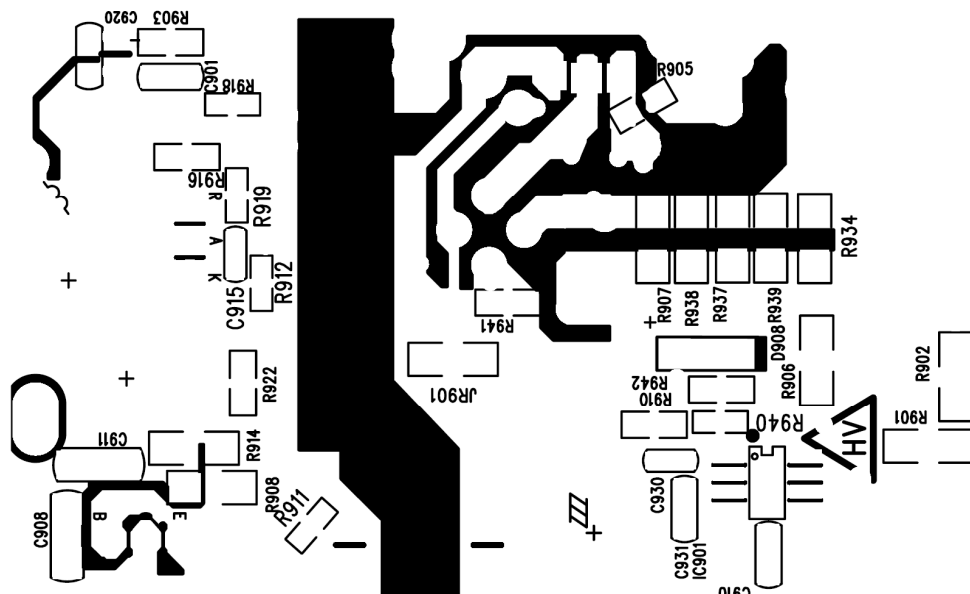
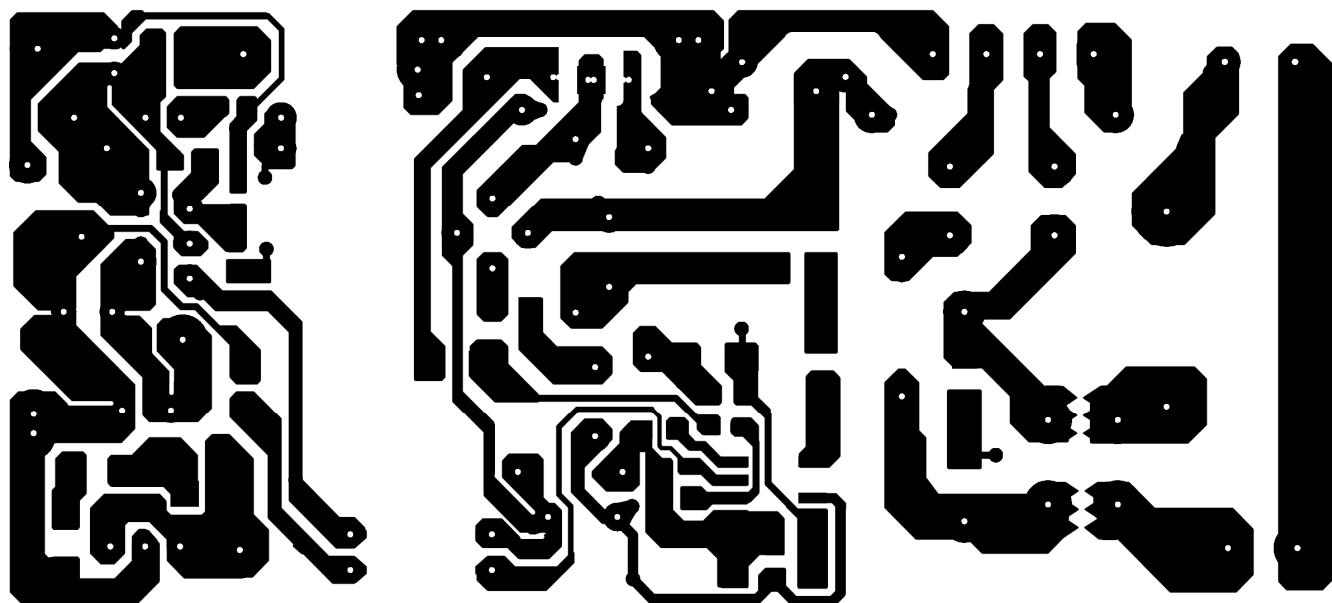
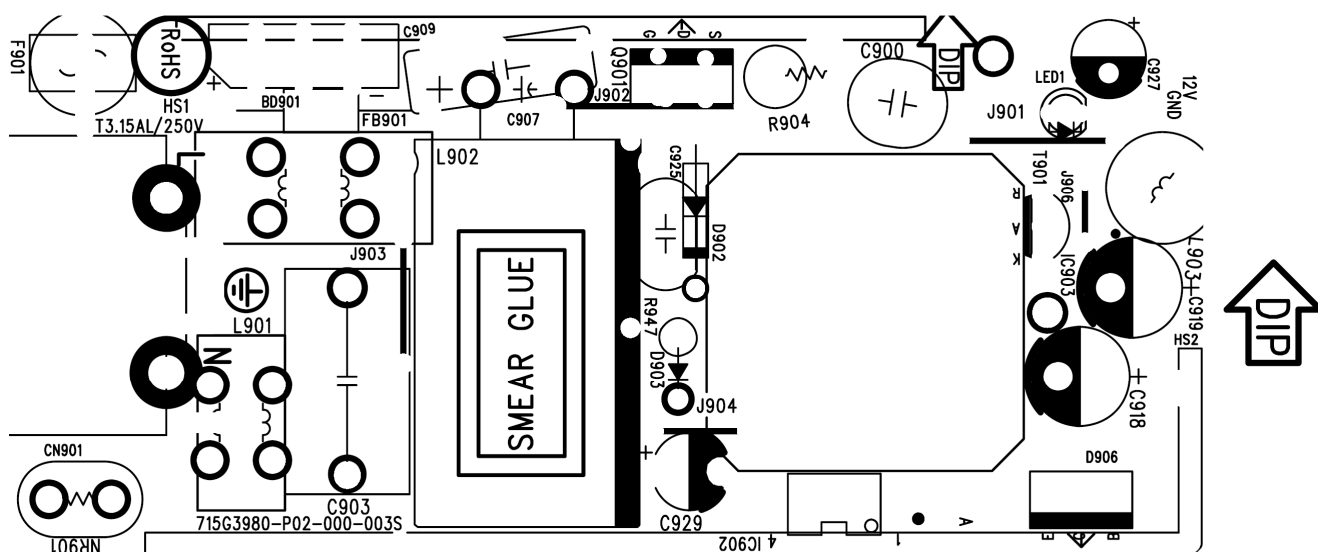
715G4002M01000004S



7.2 Power Board

Adapter Board

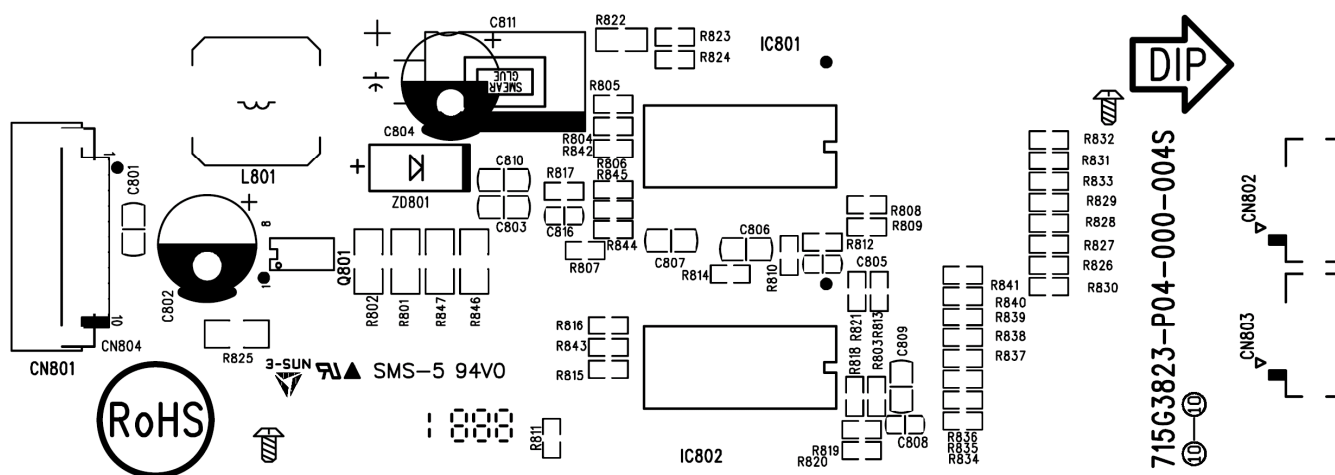
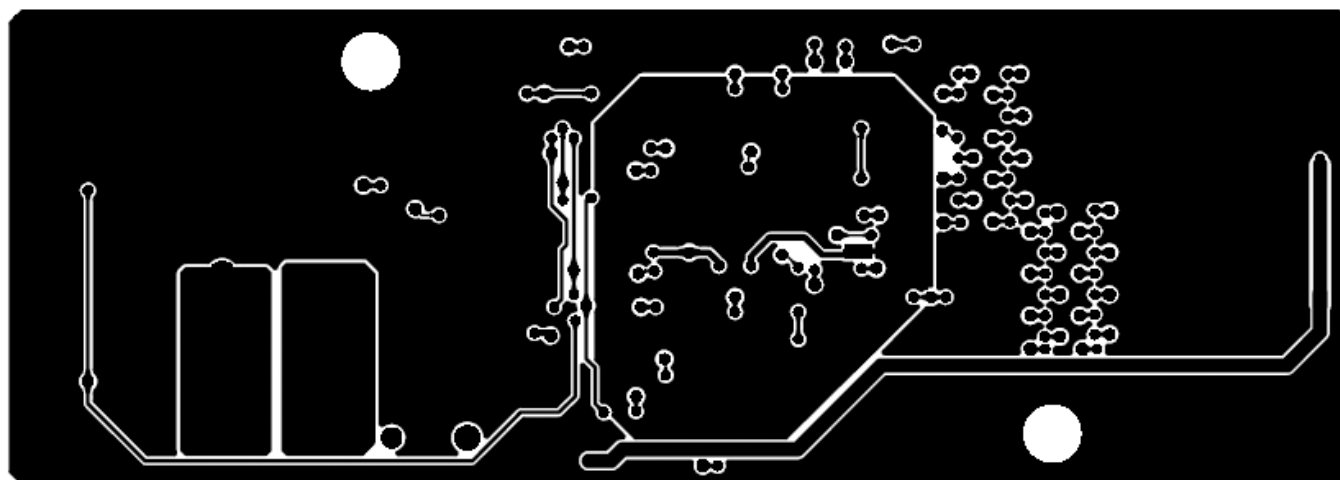
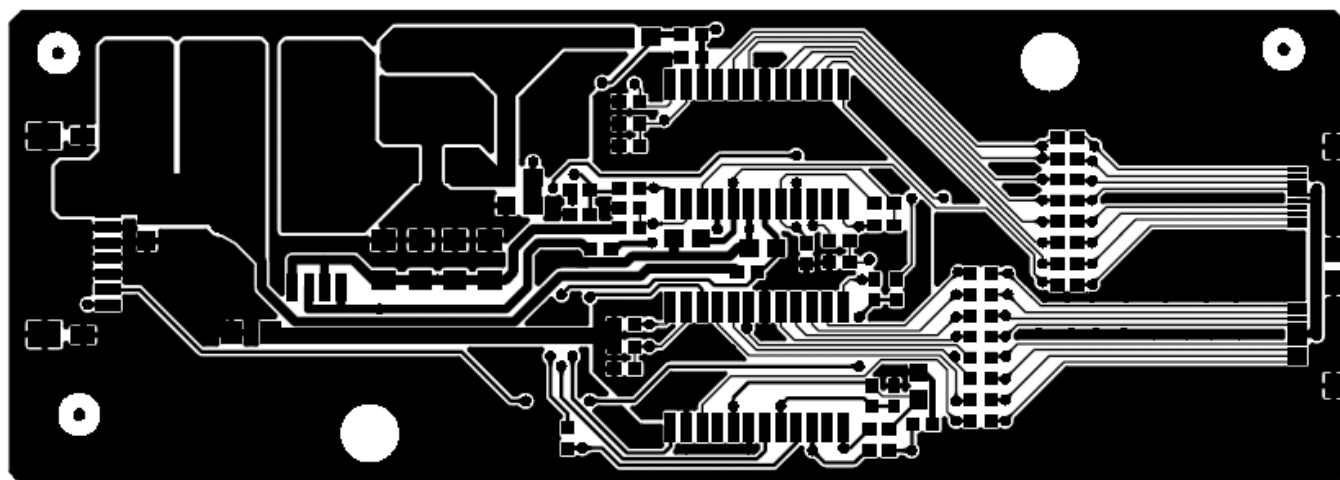
715G3980P02000003S



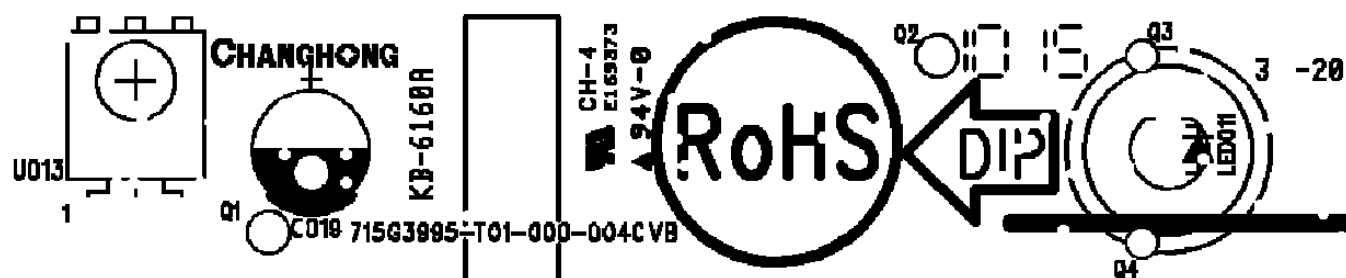
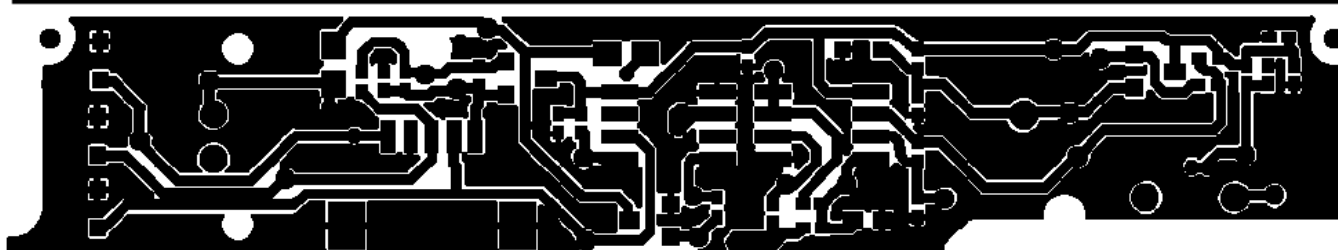
L
N

000 : 04V6-2-SMS
3-SUN SMS-2 94V0 : 000
NTS-E

Converter Board
715G3823P04000004S

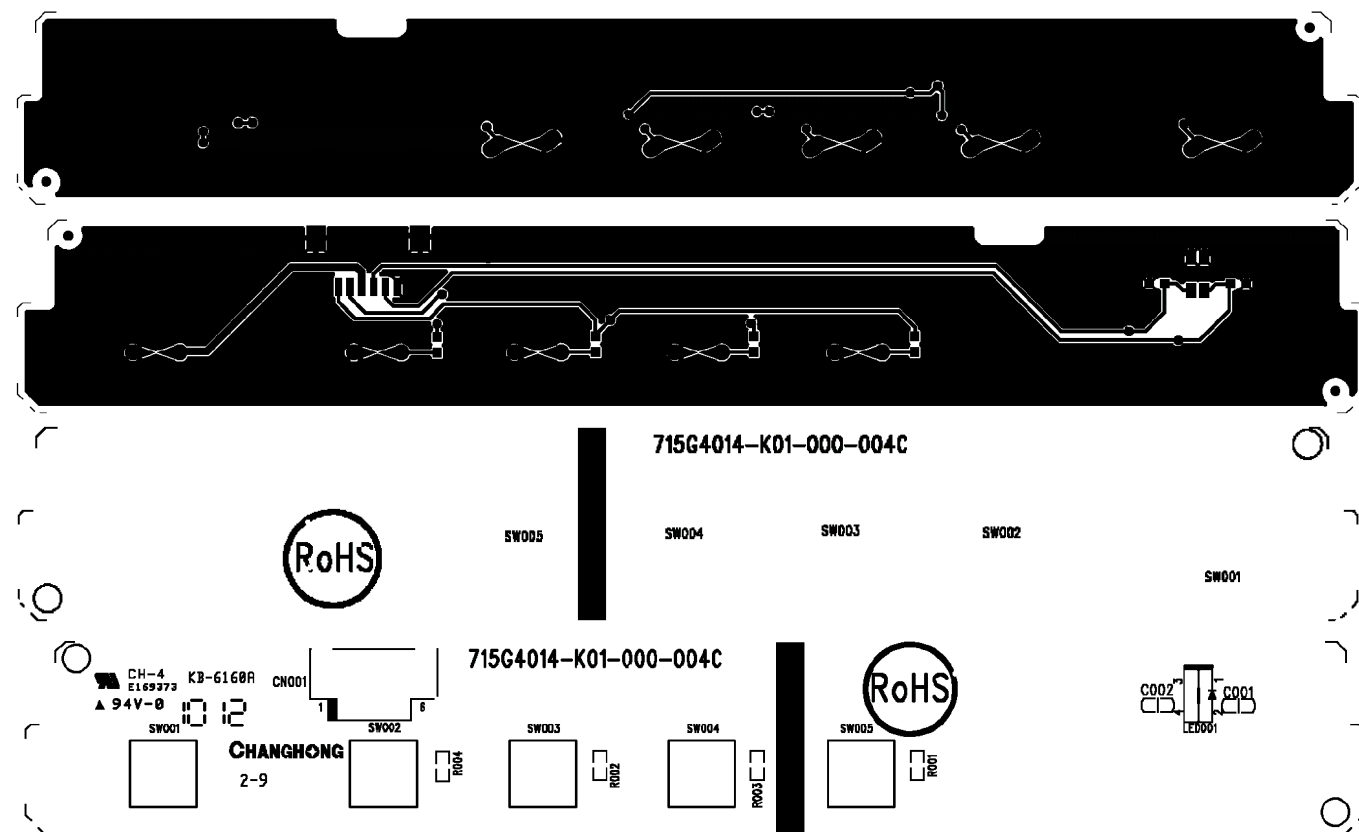


7.3 Light Sensor Board 715G3995T01000004C



7.4 Key Board

715G4014K01000004C



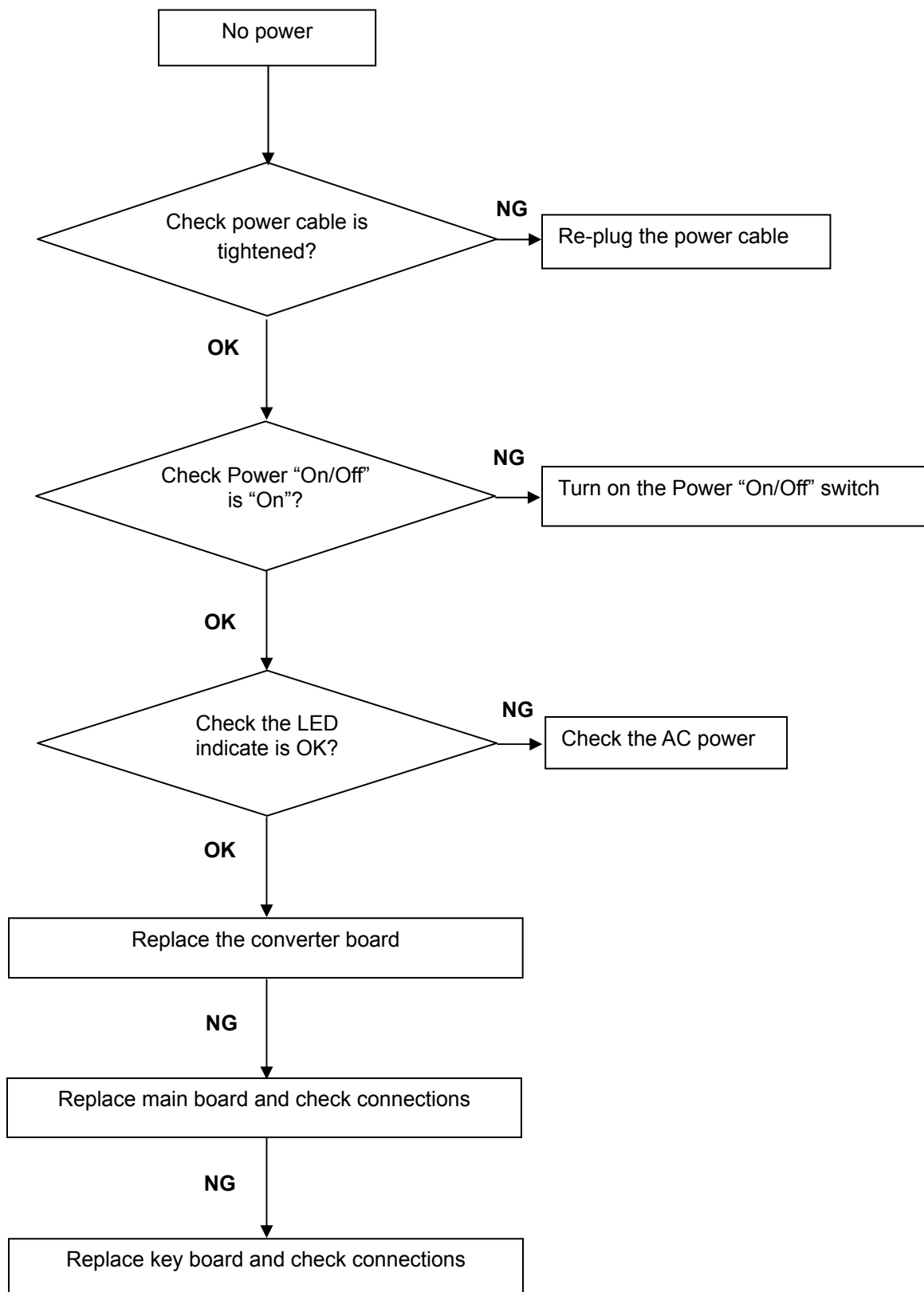
8. Maintainability

8.1 Equipments and Tools Requirement

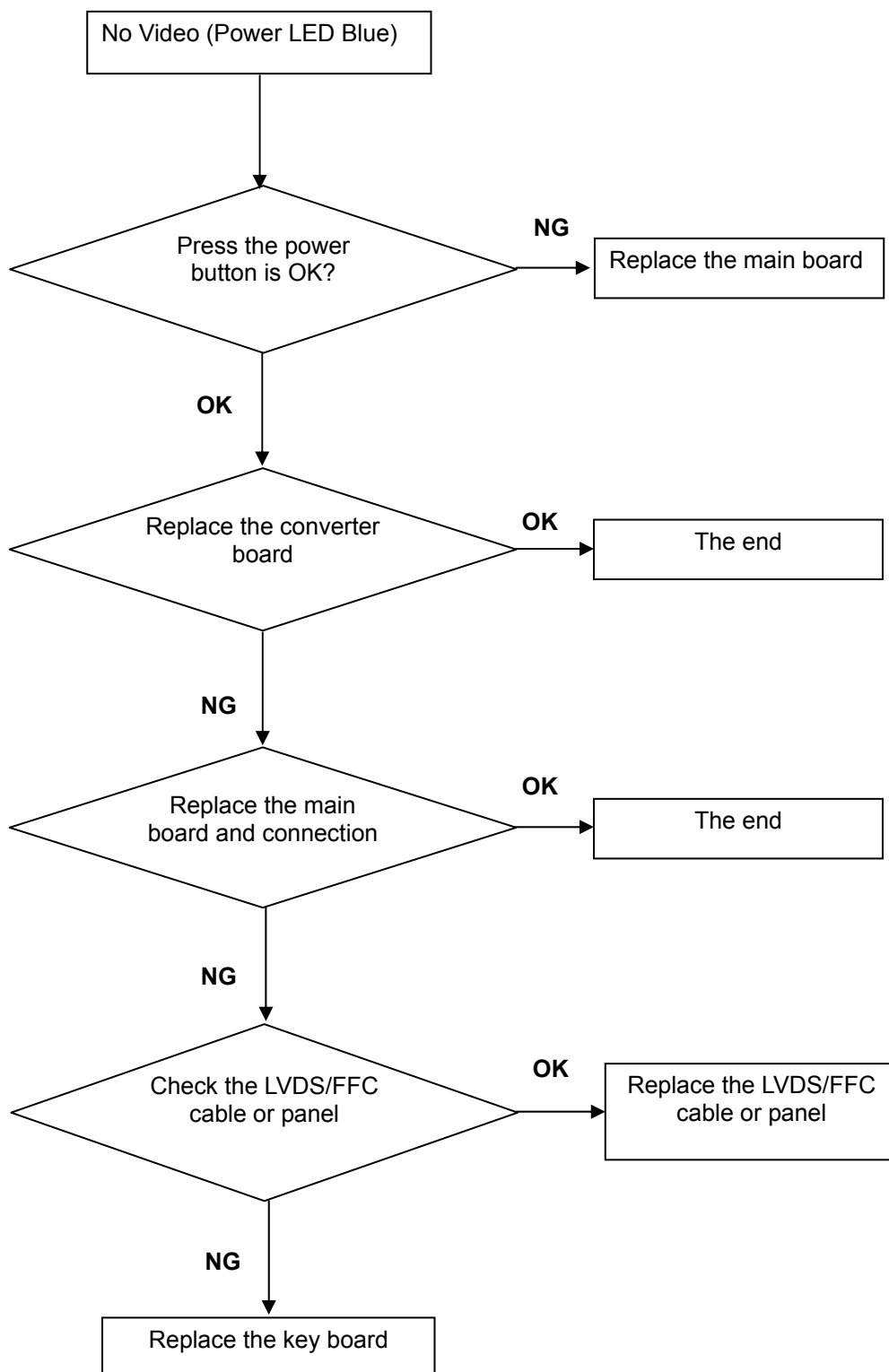
1. Voltmeter.
2. Oscilloscope.
3. Pattern Generator.
4. DDC Tool with an IBM Compatible Computer.
5. Alignment Tool.
6. LCD Color Analyzer.
7. Service Manual.
8. User Manual.

8.2 Trouble Shooting

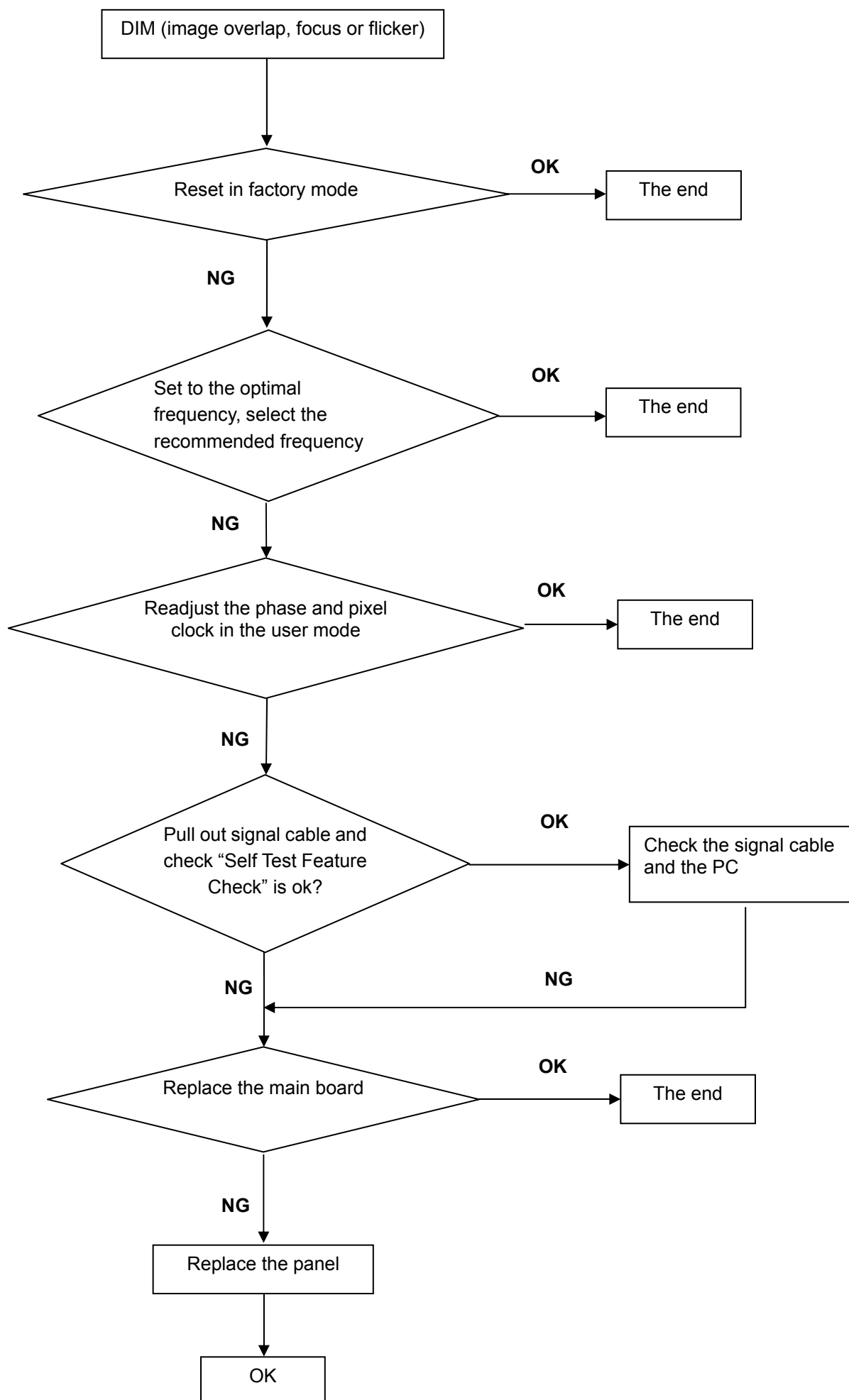
1. No Power



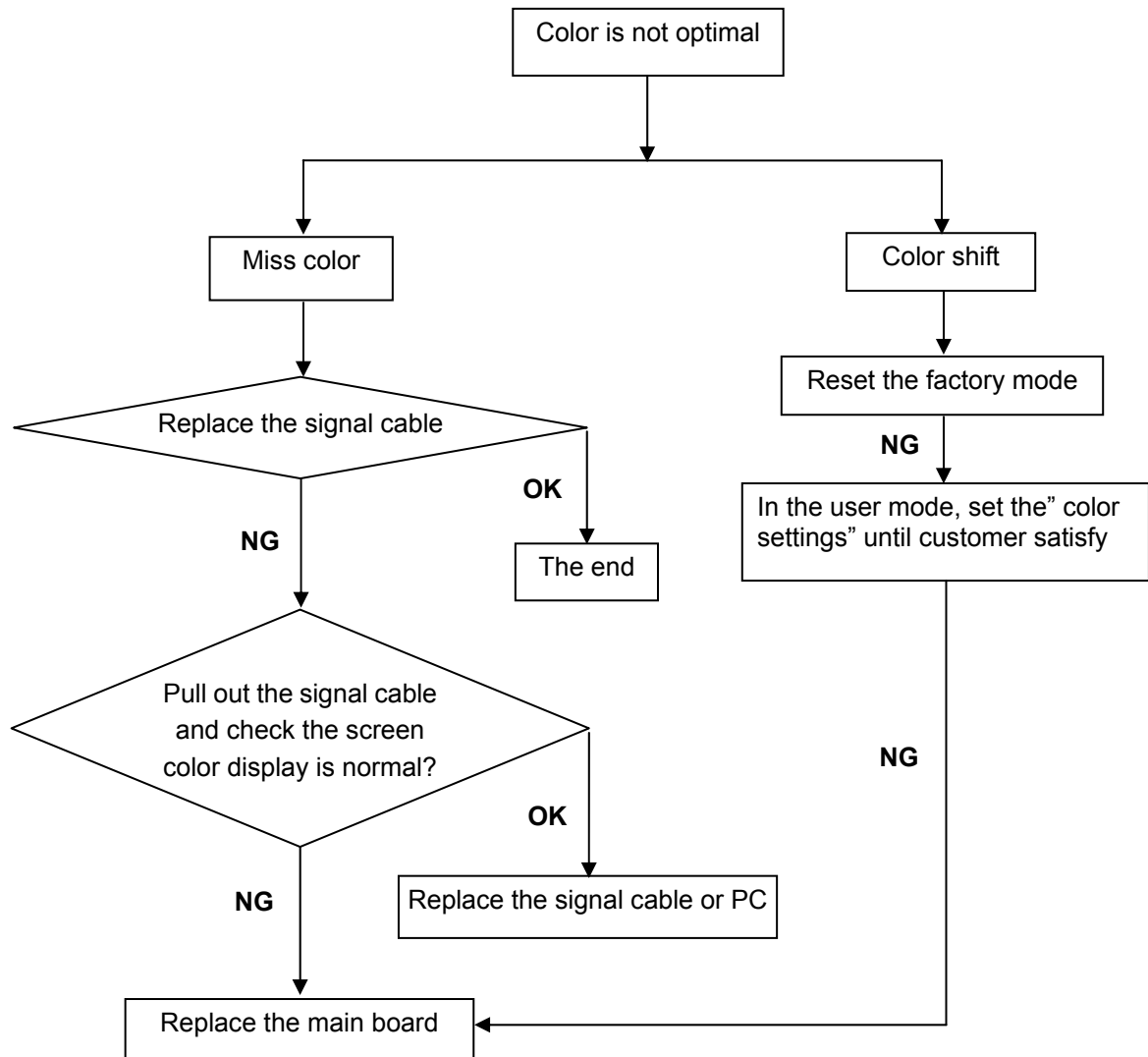
2. No Video (Power LED Blue)



3. DIM



4. Color is not optimal



9. FOS Testing

9.1 Brightness Measurement

Max. Brightness >250 cd/m²(typ).

Test conditions:

- Center of display
- Video input (RGB) = 0,700V for Analog Input
- Brightness control is set to max
- Contrast control is set to max.

Min. brightness measurement:

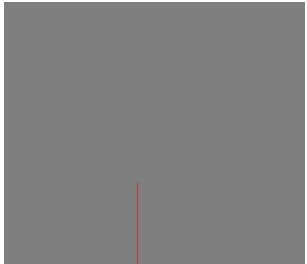
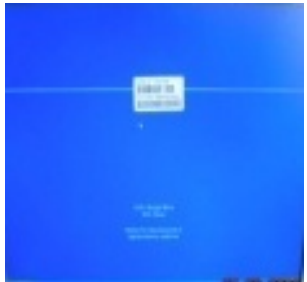
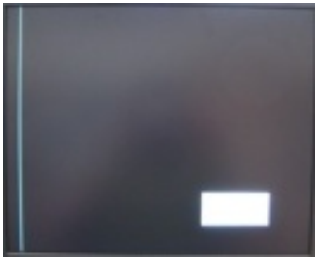
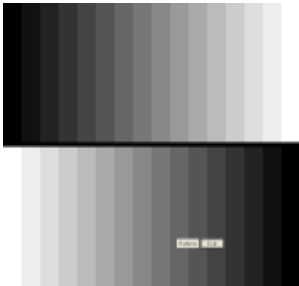
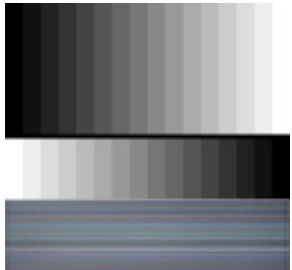
< 45% of Max luminance (max luminance = max contrast + max brightness)

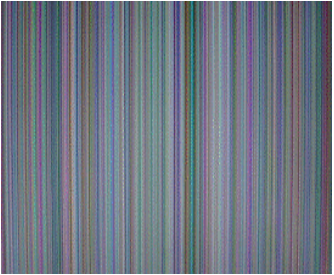
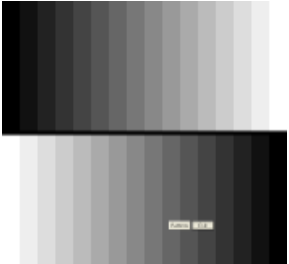
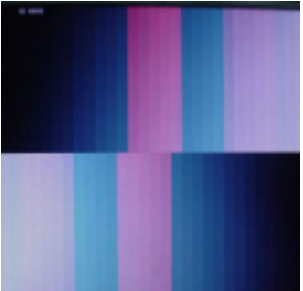
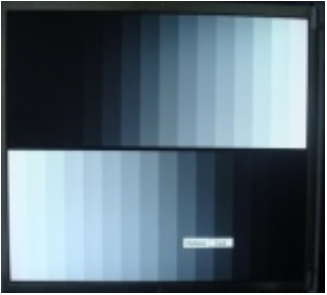
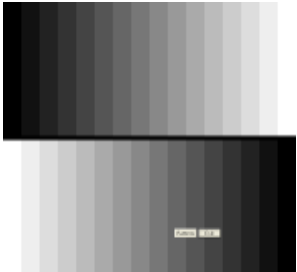
Test conditions: - Center of display

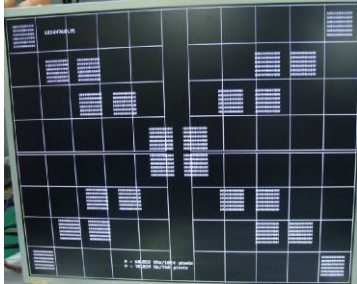
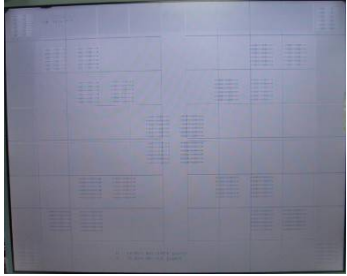
- Video input (RGB) = 0.700V for Analog Input
- Brightness control is set to min.
- Contrast control is set to min.

11.2 Patterns Testing

Item	Condition (Resolution, Commended test paten)	Normal picture	Abnormal Picture
Waterwave noise	1. 1920 x 1080 (60 Hz) 2. White pattern		
Mura	1.1920 x 1080 (60 Hz), 2. Black pattern or White pattern.		
LCD bubble	1.1920 x 1080 (60 Hz), 2. Black pattern or White pattern		
Cross line	1.1920 x 1080 (60 Hz), 2. Black pattern		

Half line	1.1920 x 1080 (60 Hz), 2. Black pattern or White pattern		
H-Line	1.1920 x 1080 (60 Hz), 2. Black pattern, Red pattern, Green pattern or Blue pattern.		
V-Line	1.1920 x 1080 (60 Hz), 2. Black pattern or White pattern		
H-Strip	1.1920 x 1080 (60 Hz), 2. Black pattern, Gray scale pattern, Red pattern, Green pattern or blue pattern .		
V-Strip	1.1920 x 1080 (60 Hz), 2. Black pattern, Gray scale pattern, Red pattern, Green pattern or blue pattern .		

Abnormal display	1. 1920 x 1080 (60 Hz), 2. Gray scale pattern		
Gray defect	1. 1920 x 1080 (60 Hz), 2. Gray scale pattern		
Video noise	1. 1920 x 1080 (60 Hz), 2. Gray scale pattern		
Color tint	1. 1920 x 1080 (60 Hz), 2. Gray scale pattern		
Gray scale failure	1. 1920 x 1080 (60 Hz), 2. Gray scale pattern		

Light leakage	1.1920 x 1080 (60 Hz), 2. Black pattern or White pattern		
Fuzzy video	1.1920 x 1080 (60 Hz), 2. Pane picture		

10. Firmware and DDC Instruction

10.1 Firmware Instruction

Step 1: Operation Conditions:

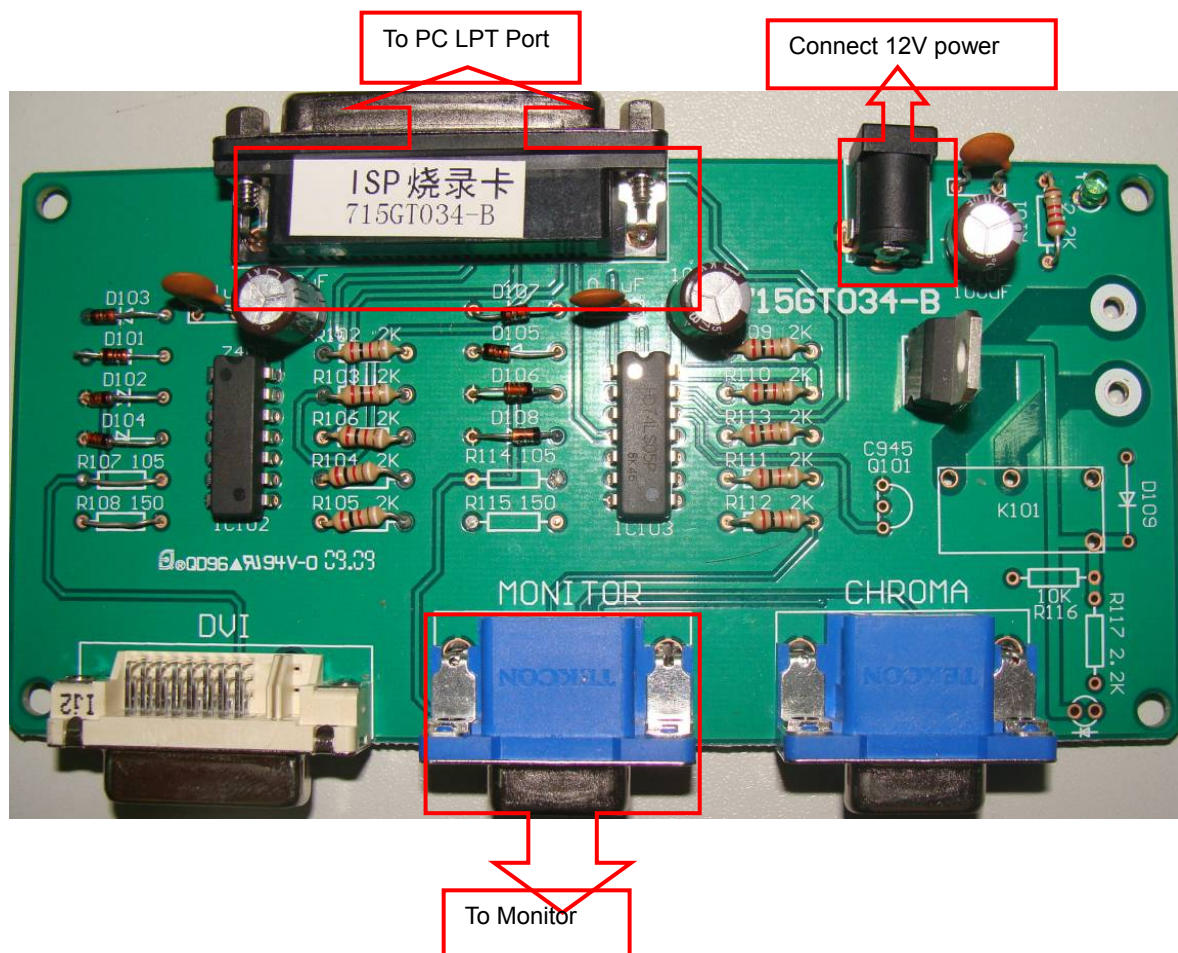
- 1) An i486 (or above) personal computer or compatible.
- 2) Microsoft operation system Windows 95/98/2000/XP.
- 3) ISPTool programs
- 4) VGA cable & LPT cable
- 5) ISP board (PN: 715GT034-B, 715GT048-1 or 715GT035-A)
- 6) ISP Firmware/Software
- 7) **For example:** NOVATEK ICNT68668FGQFP-128

Step 2: Connection:

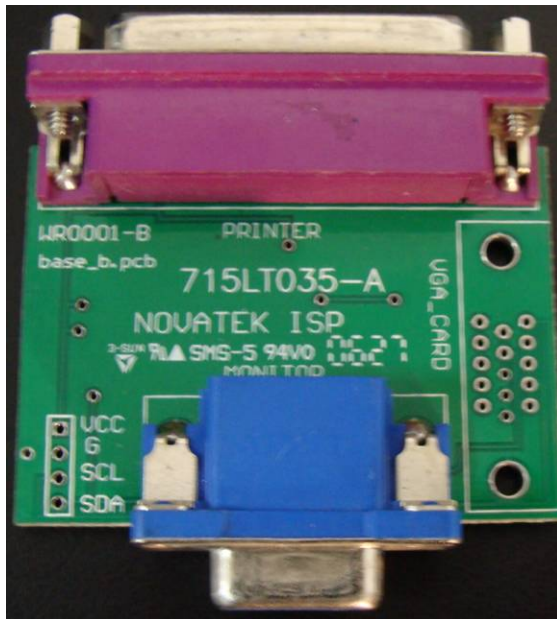
NO1. TPV Part No. : 715GT048-1 or 715GT035-A (715GT048-1 or 715GT035-A)



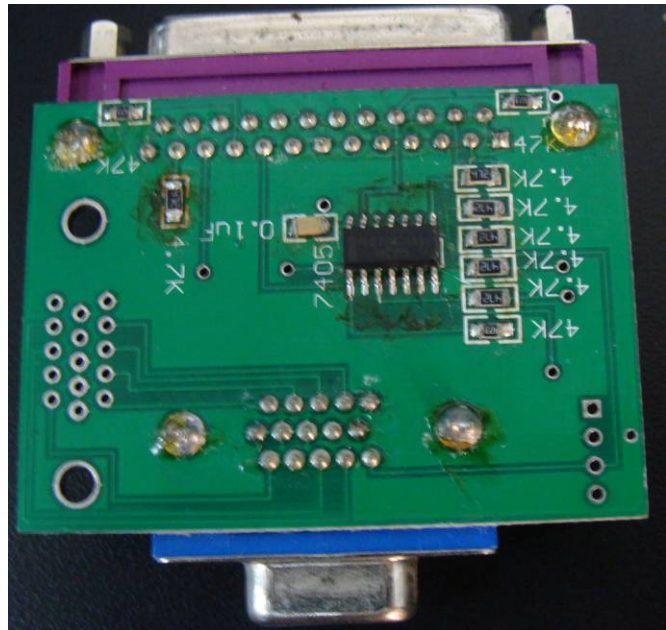
NO2. TPV Part No : 715GT034-B (NEW LCD EDID TOOL : 715GT034-B)



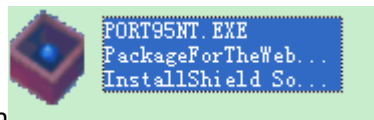
ISP TOOL front side



ISP TOOL reverse side



Step 3: Programming:



1. Double-click the icon to install Port95nt print driver,

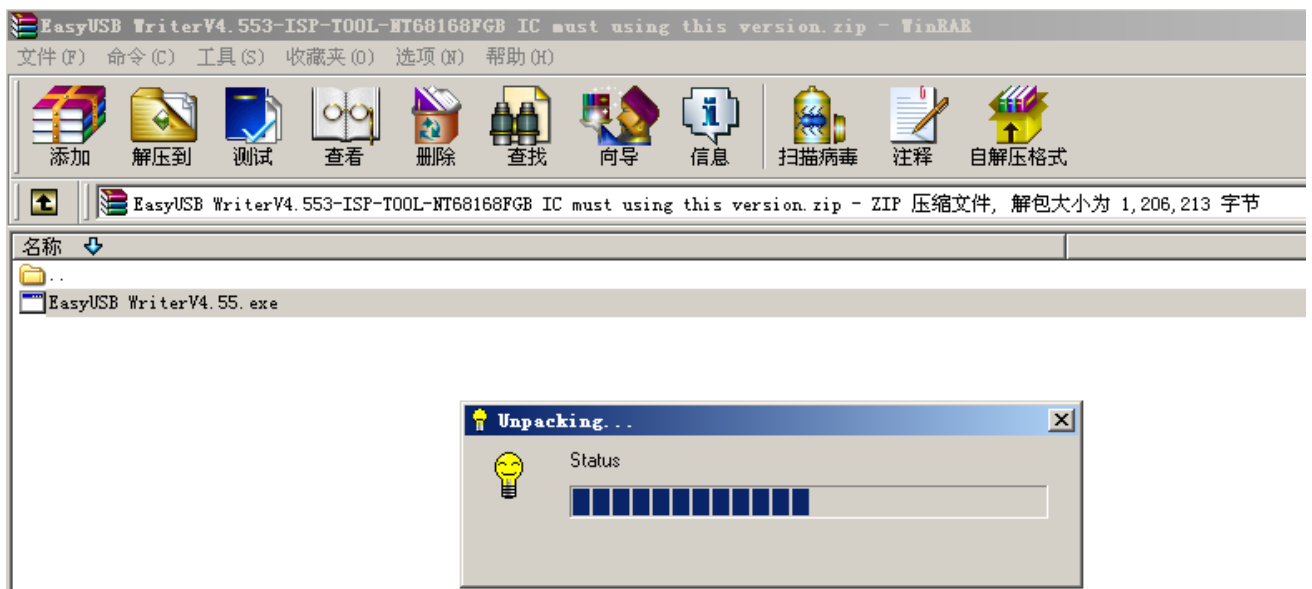
2. Install tool programme



2.1 decompress

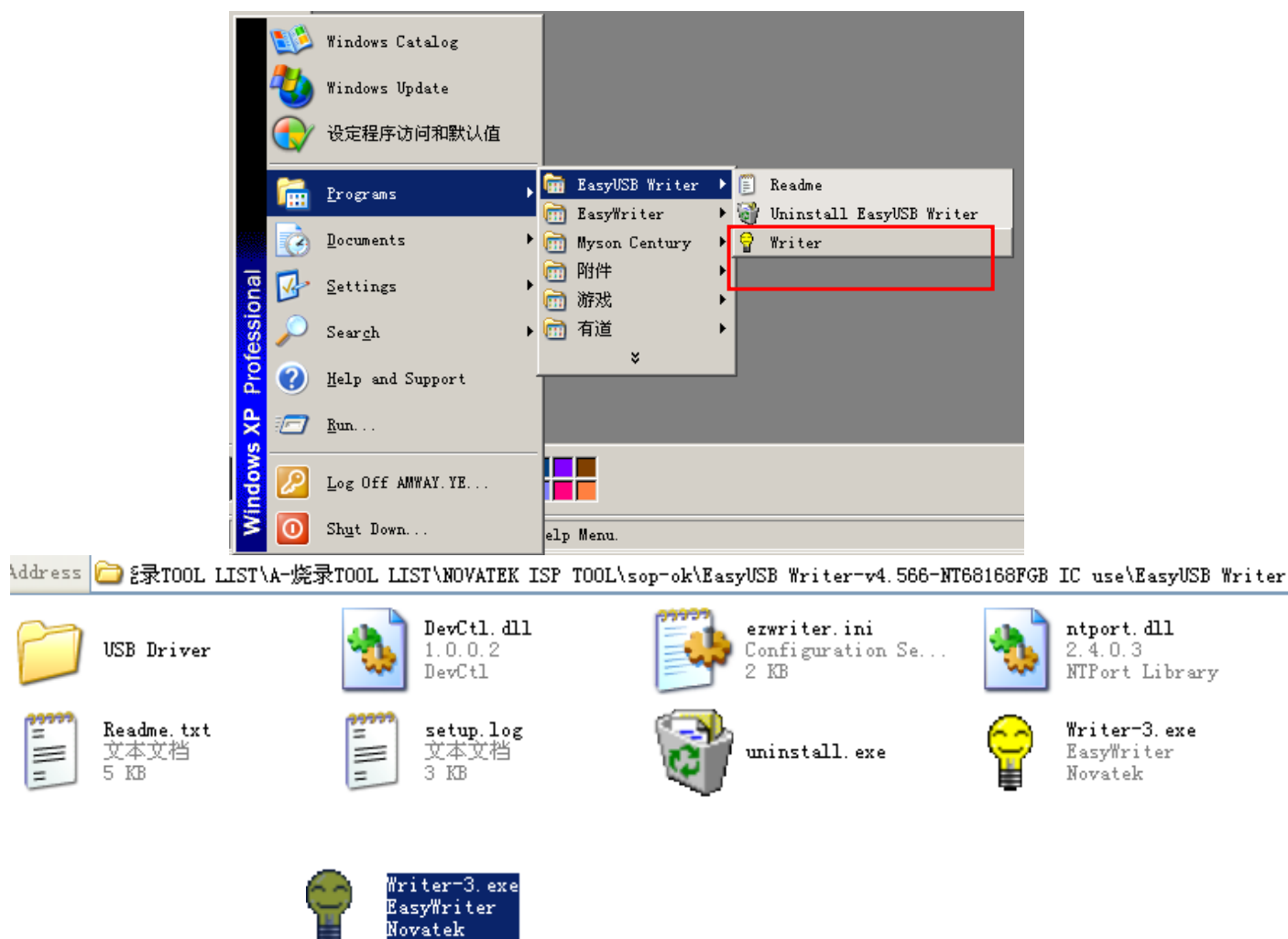
PS:NT68168F Scale IC must use V4.566 version.

2.2 Double-click

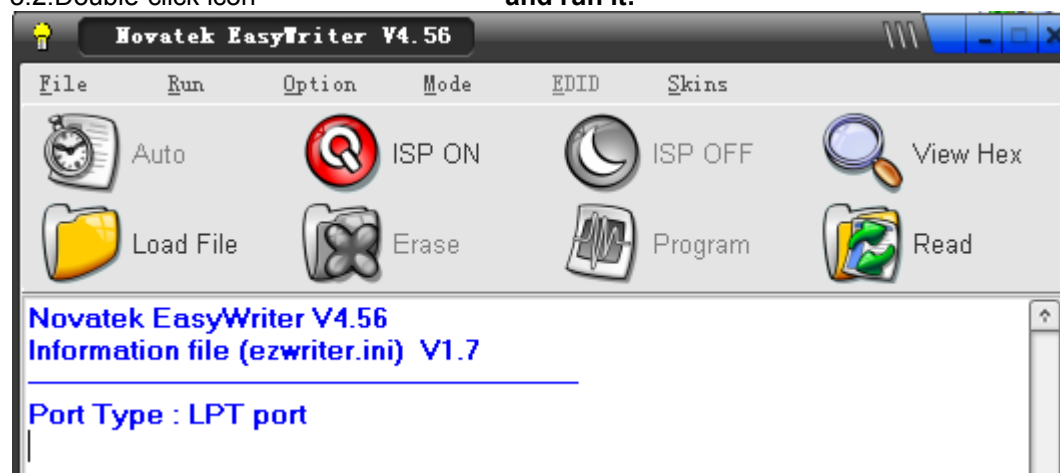


3. ISP Tool

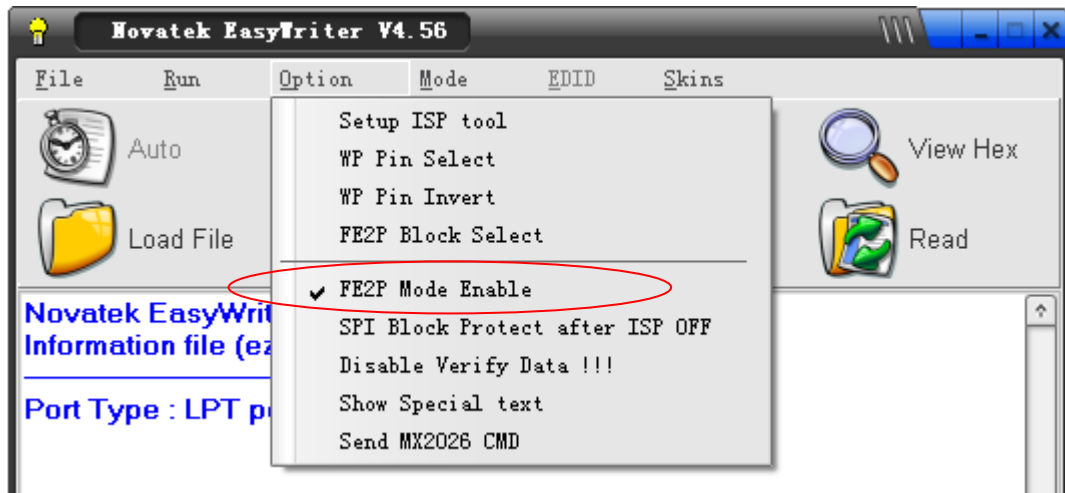
3.1. Choose "writer" as follow picture.



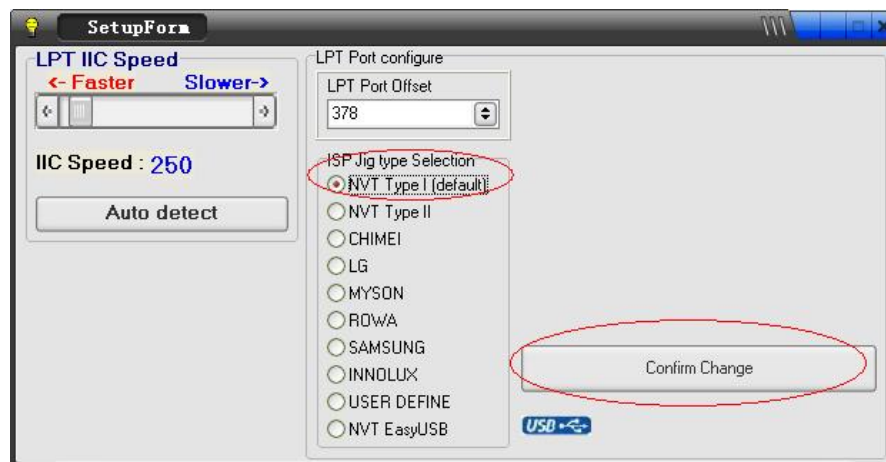
3.2. Double-click icon and run it:



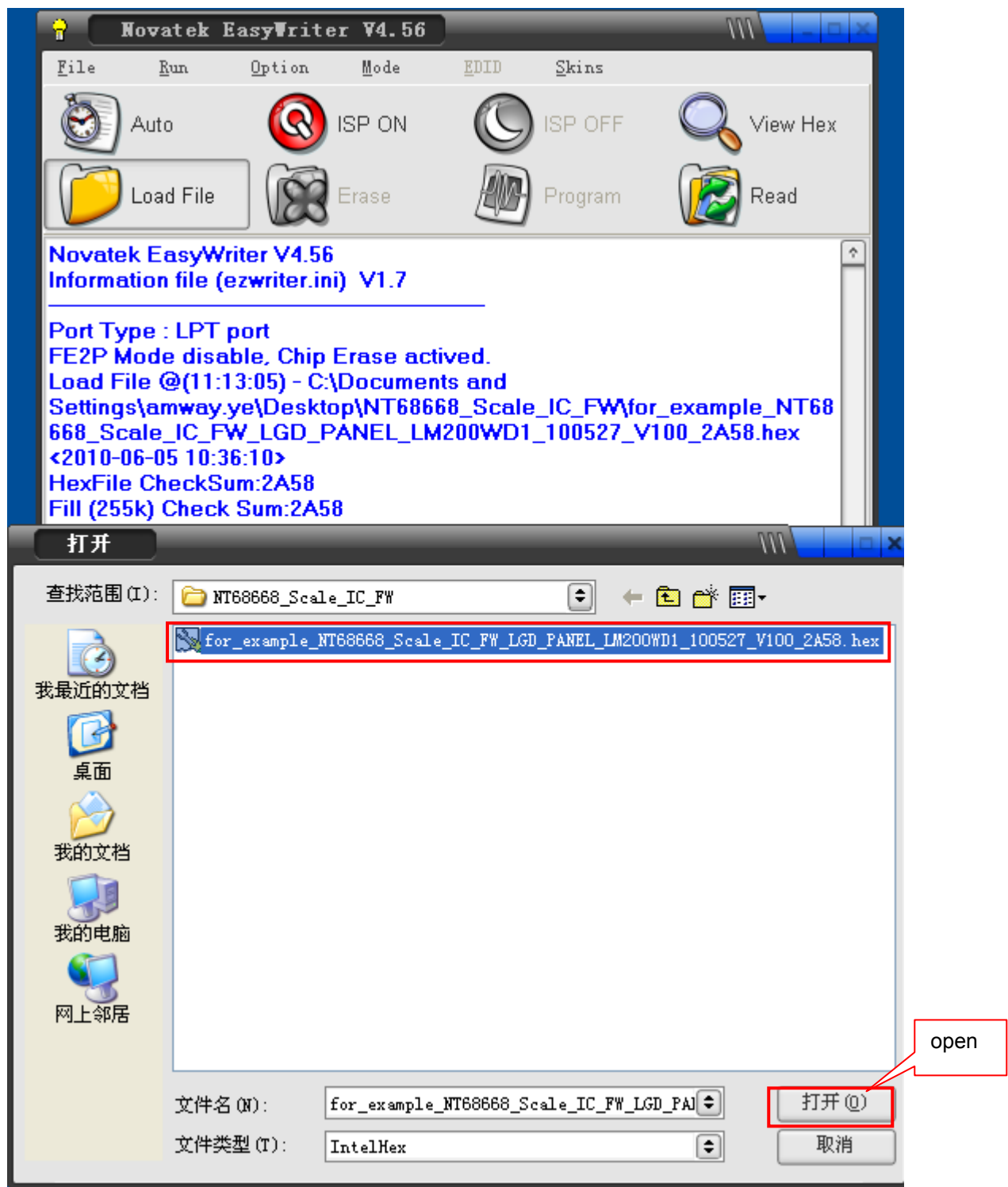
4. Click TOOL "Option", "FE2P Mode Enable" TOOL show "√"



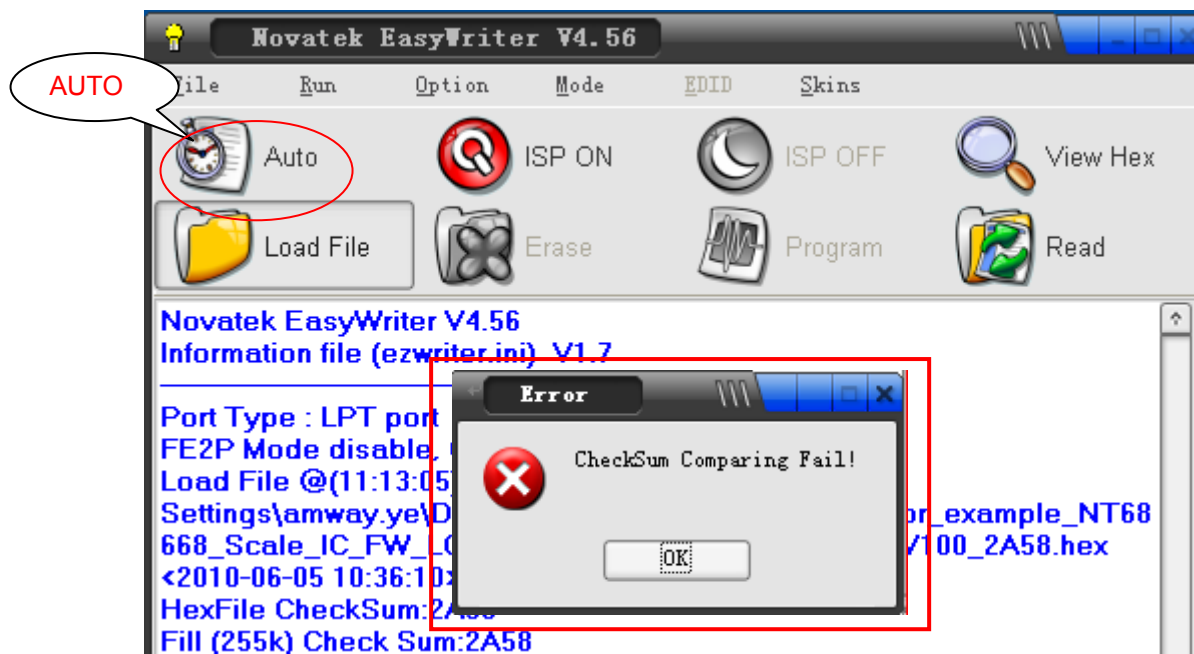
5. Click tool "Option" choose "Setup ISP tool" and then choose LPT Port, the next, choose NVT Type (default), click "Auto Detect" to choose the appropriate speed. Click "Confirm change".



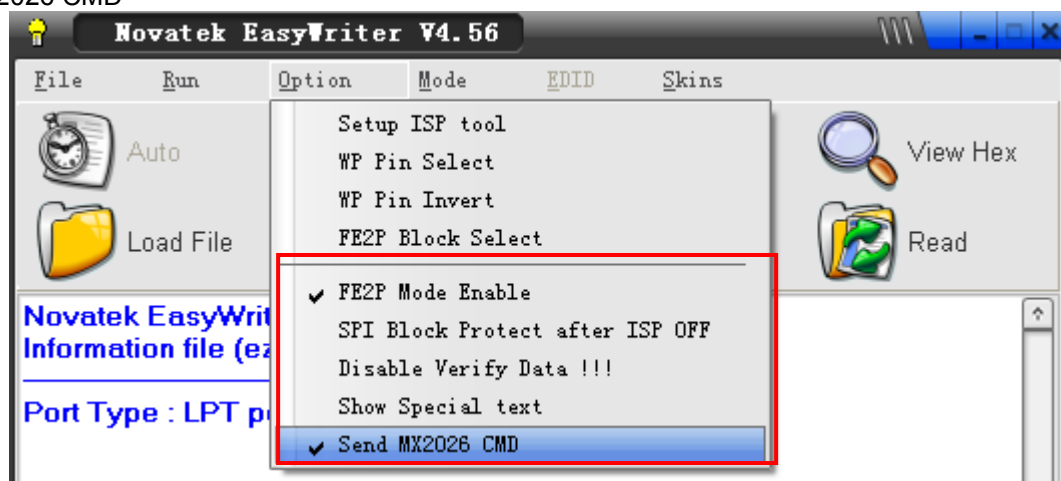
6. Click "Load File" to use the proper software:



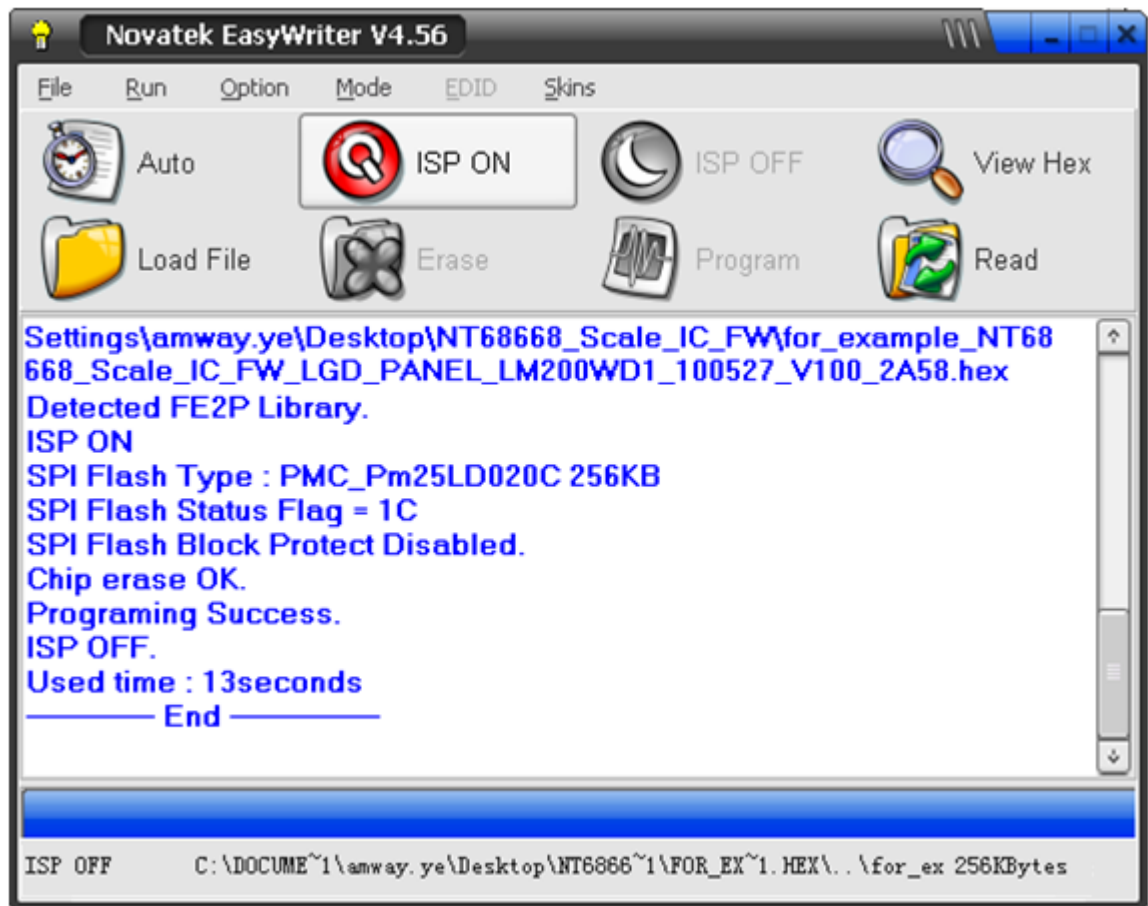
Click "Auto" to upgrade F/W. Appear the dialog box as follow.



Click "Send MX2026 CMD"



Click "AUTO" , when appear "pass" as follow picture that burning is successful:



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

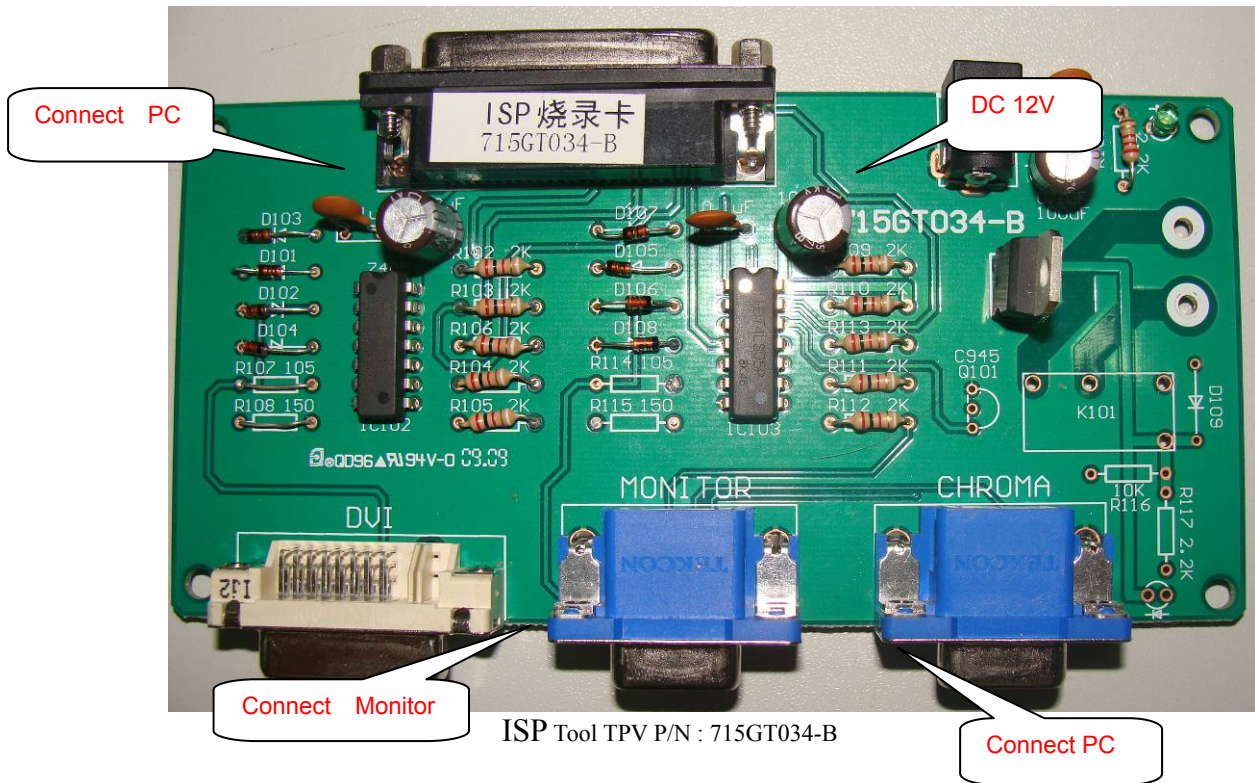
Step4: Check whether the FW version is correct, then do “Auto Color” and “Reset”.

- a. For VGA, if can't use the recommended optimal resolution; for DVI, if no video with PC source, while picture is normal with chroma source, it's the reason for “DDC Loss”, so pls do DDC programming.
- b. When the monitor connects the DVD or other play devices with DVI cable, and play the HD video with copyright, while the low-resolution, snowflake point or no video with normal audio; But picture is normal with PC source, pls programming the “HDCP code” or replace the new main board. (Pls refer to the “HDCP code” programming as below)

Step5: HDCP Write SOP

I. Prepare condition :

1. Prepare one PC and the system is WIN98/NT/2000/XP, make sure the PC have Print Port.
2. Install Port95nt Software, the way of the install Port95 (LPT PORT drive):
 - a. select the software of Port95nt.exe, and run it,
 - b. After install ok, restart the PC.
3. Connect the cable and Jig :
 - a. Use the Print cable connect the PC and HDCP record card
 - b. Connect the VGA cable with the ISP record card .the picture of Print cable, VGA cable and ISP record card as below :



II. HDCP Write Step :

Step1. Double click“HDCPWrite.exe”

Note :

For the monitor produced before 2008-01-01, please use “5Bytes_old_command.exe” for HDCP key.

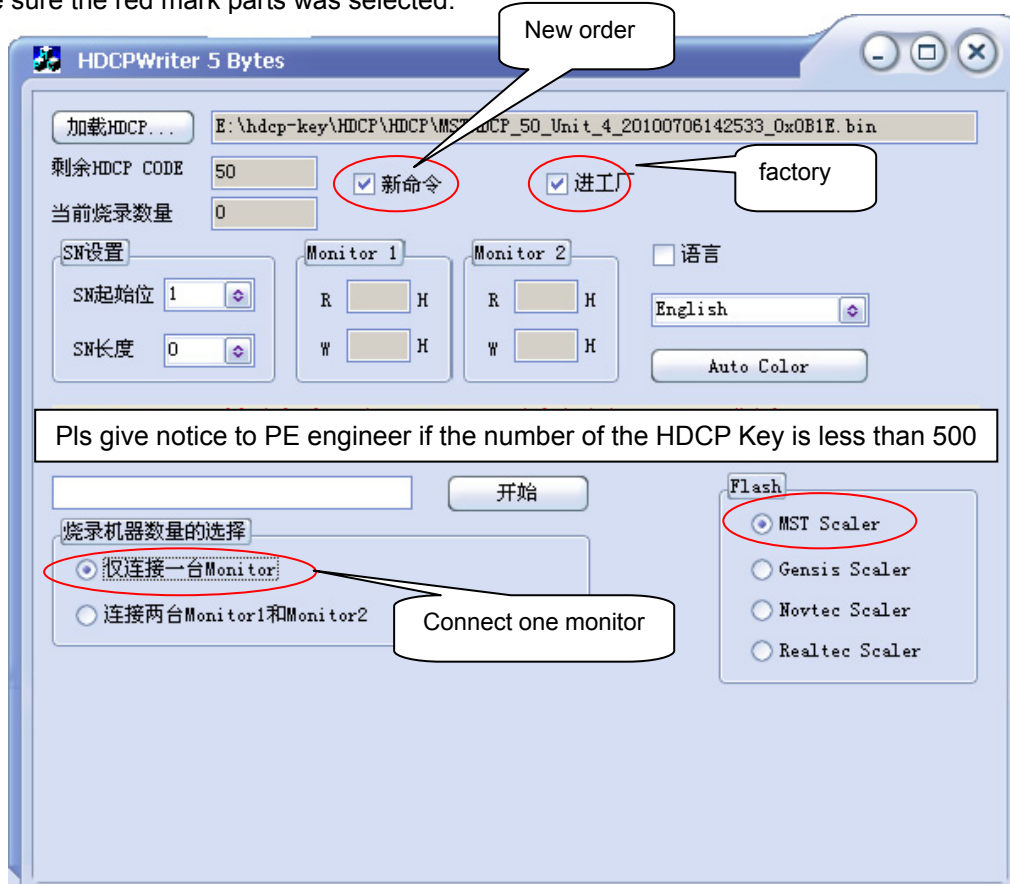
For the monitor produced after 2008-01-01, please use “20Bytes-new_command.exe” for HDCP key.

Address E:\hdc-key\HDCP TOOL new-command&old-command\HDCP TOOL			
名称	大小	类型	修改日期
5Bytes-old_command_HDCPWrite.exe	44 KB	Application	2009-5-13 15:44
20Bytes-new_command_HDCPWrite.exe	44 KB	Application	2009-5-13 15:45
Config.ini	1 KB	Configuration S...	2009-7-7 11:33
SkinPlusPlusDLL.dll	288 KB	Application Ext...	2004-9-9 13:29
XPCorona.ssk	122 KB	SSK 文件	2004-7-6 8:58

Step2. Click“加载HDCP” and choose the corresponding “*.BIN” by scaler IC.



Step3. Make sure the red mark parts was selected.



Step4. Click“开始”item ,Start to write HDCP, When display “Monitor 1 PASS” means Write OK.



III. Check HDCP.

USE “Blu-Ray Disc” DVD, Check the HDMI &DVI of monitor display naturally.

Note: Appear fault “**Monitor 1 NG(CRC)**”

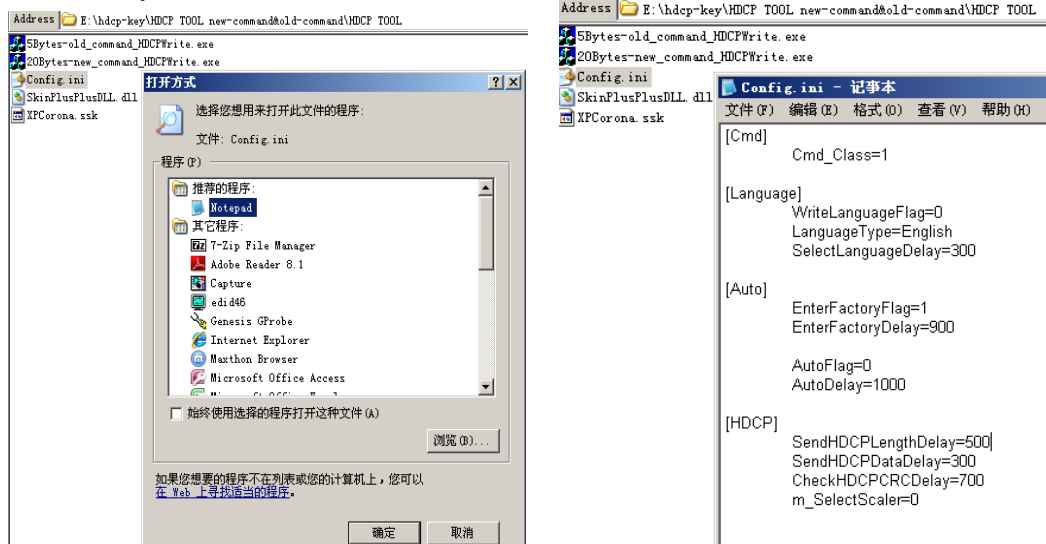
1. Check whether the HDCP writer is correct. Check the connection between PC, Monitor and tool. check whether the tool's power supply is useable.

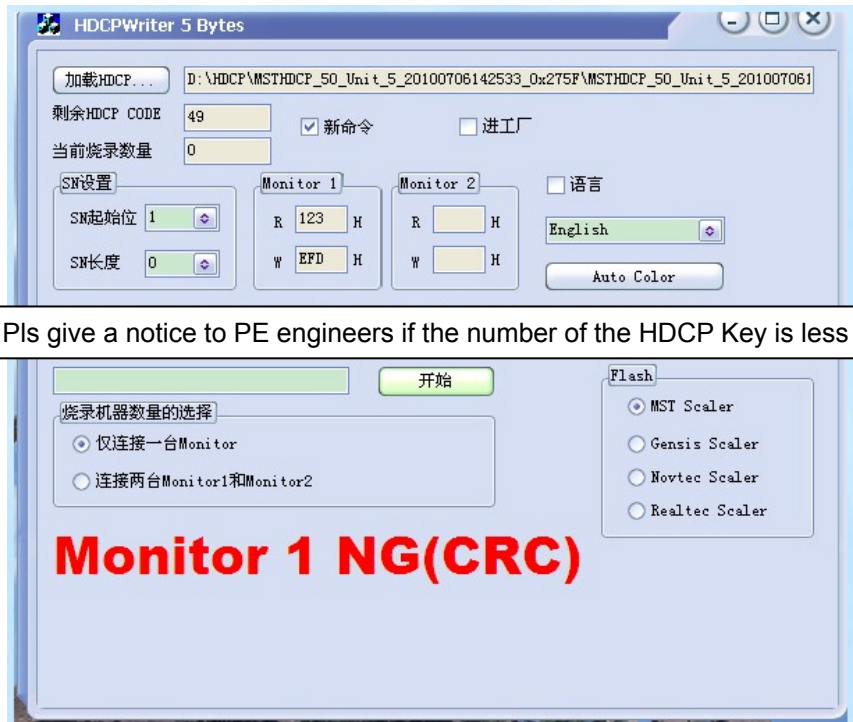
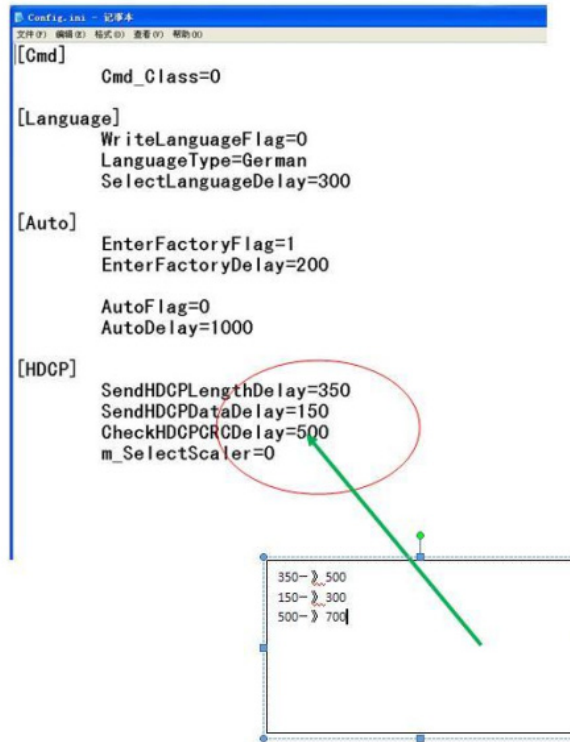
2. Try to again if still can't work, please open the “CONFIG.INI”as follow:

SendHDCPLengthDelay=350

SendHDCPDataDelay=150

CheckHDCPCRCDelay=550

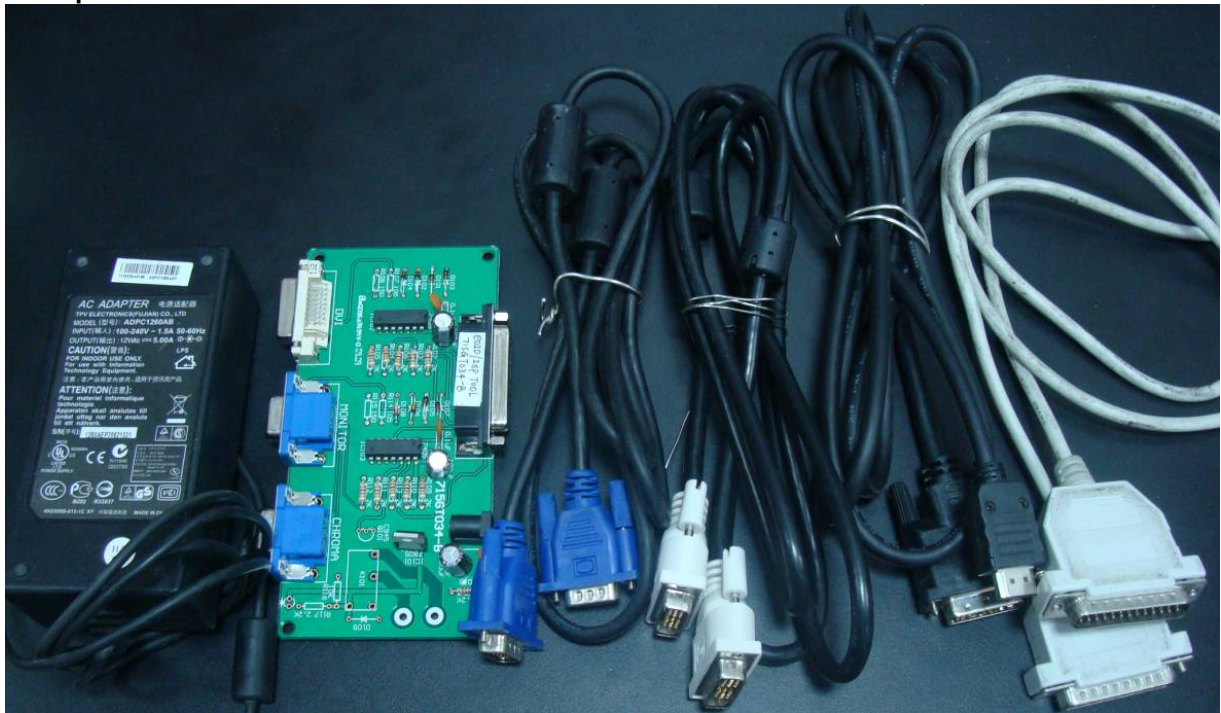




10.2 DDC Instruction

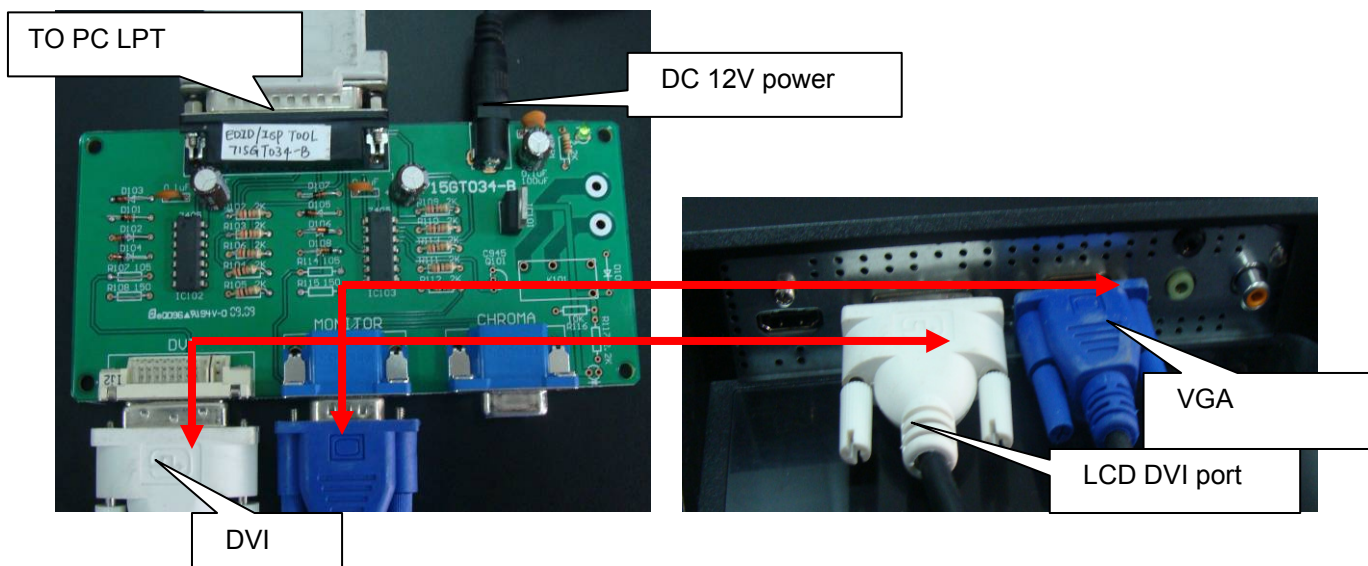
Tool list:

1. DDC board:715GT034-B
2. Software (WA.DAT&WD.DAT&*. CONFIG.INI)
3. LPT driver software
4. LPT cable, D-SUB CABLE ,DVI CABLE and DVI to HDMI CABLE
5. 12V(Adapter)
6. TPVDDCHDMI and TPVDDC6.0
7. PC
8. For example:e2239Fwt



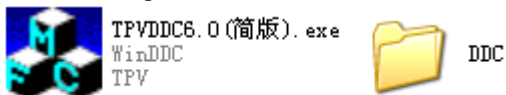
Tool picture

For VGA&DVI BURNING: DDC Board as the follow picture:

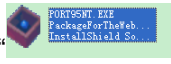


Install software:

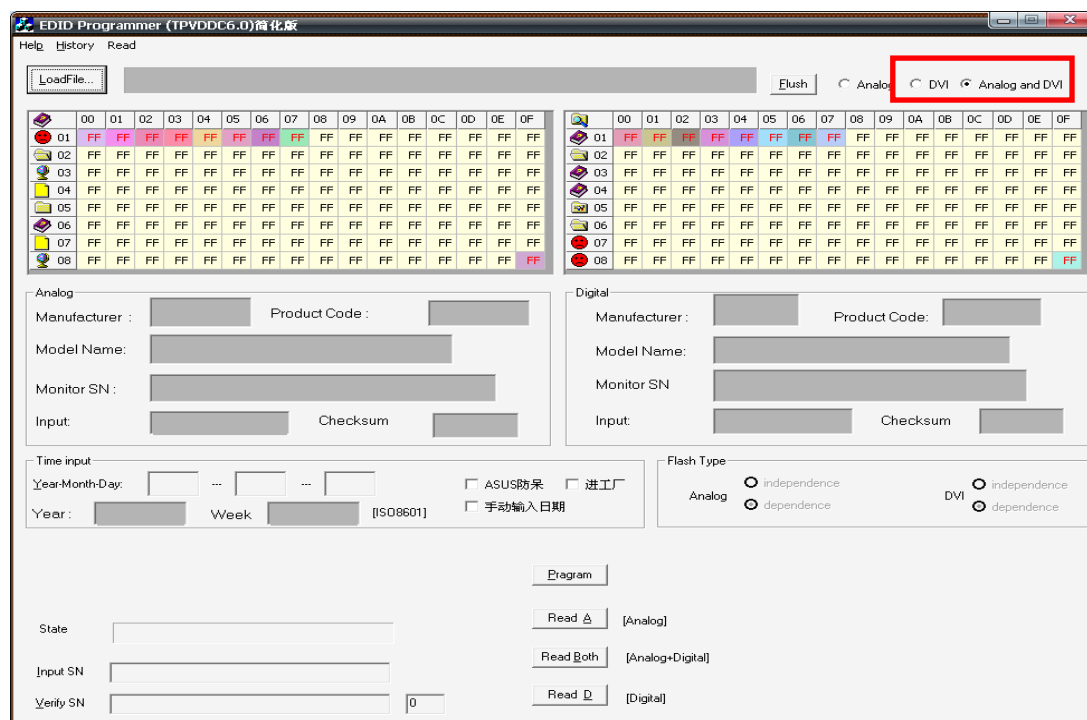
Note:Burning software and EDID data must be put in the same folder as follow picture:



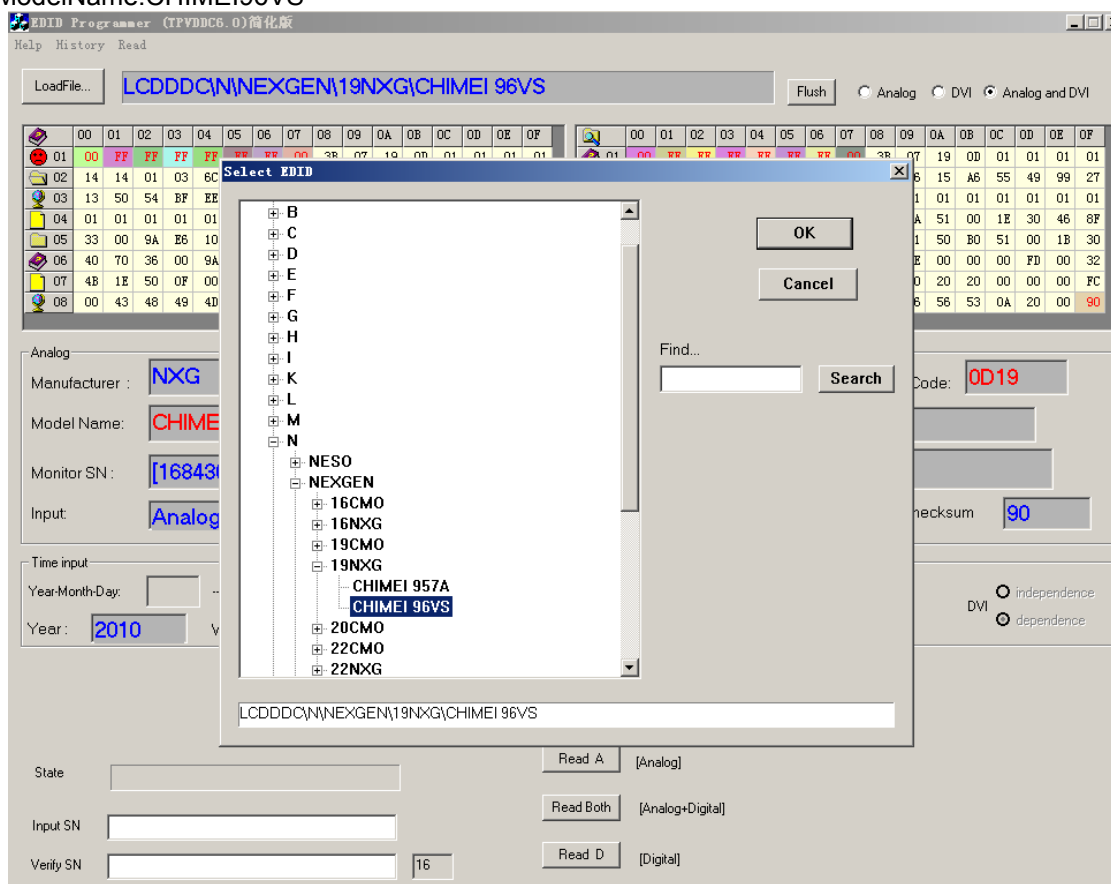
VGA&DVI Burning:

1. Double-click the icon “” to install Port95nt print driver, and then restart the computer.

Double-click  , select “Analog and DVI” show as follow picture



2. Click “Load file” and select as follow picture. then click “LCDDDC”
EX: DDCModelName:CHIMEI96VS



3. Click “ok” show as follow picture.

EDID Programmer (TPVDDC6.0) 简化版

LoadFile... LCDDDC\N\NEXGEN\19NXG\CHIMEI 96VS Flush Analog DVI Analog and DVI

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	00	FF	FF	FF	FF	FF	FF	00	3B	07	19	0D	01	01	01	01
02	14	14	01	03	6C	29	17	78	2E	B6	15	A6	55	49	99	27
03	13	50	54	B7	EE	00	61	4C	01	01	01	01	01	01	01	01
04	01	01	01	01	01	01	66	21	56	AA	51	00	1E	30	46	8F
05	33	00	9A	B6	10	00	00	1E	66	21	50	B0	51	00	18	30
06	40	70	36	00	9A	B6	10	00	00	1E	00	00	00	FD	00	32
07	4B	1E	50	0F	00	0A	20	20	20	20	20	20	20	00	00	FC
08	00	43	48	49	4D	45	49	20	39	36	56	53	0A	20	00	90

Analog: Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Analog Checksum: 9D

Digital: Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Digital Checksum: 90

Time input: Year-Month-Day: Year: 2010 Week: 20 [ISO8601] ASUS防呆 进工厂 手动输入日期

Flash Type: Analog independence dependence DVI independence dependence

Program Read [Analog] Read Both [Analog+Digital] Read [Digital]

State Input SN Verify SN 16

4. Input same SN twice and date. Click “Program” to burn. When appear “pass” as follow picture that burning is successful.

EDID Programmer (TPVDDC6.0) 简化版

LoadFile... LCDDDC\N\NEXGEN\19NXG\CHIMEI 96VS Flush Analog DVI Analog and DVI

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	00	FF	FF	FF	FF	FF	FF	00	3B	07	19	0D	01	01	01	01
02	14	14	01	03	6C	29	17	78	2E	B6	15	A6	55	49	99	27
03	13	50	54	B7	EE	00	61	4C	01	01	01	01	01	01	01	01
04	01	01	01	01	01	01	66	21	56	AA	51	00	1E	30	46	8F
05	33	00	9A	B6	10	00	00	1E	66	21	50	B0	51	00	18	30
06	40	70	36	00	9A	B6	10	00	00	1E	00	00	00	FD	00	32
07	4B	1E	50	0F	00	0A	20	20	20	20	20	20	20	00	00	FC
08	00	43	48	49	4D	45	49	20	39	36	56	53	0A	20	00	90

Analog: Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Analog Checksum: 9D

Digital: Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Digital Checksum: 90

Time input: Year-Month-Day: Year: 2010 Week: 20 [ISO8601] ASUS防呆 进工厂 手动输入日期

Flash Type: Analog independence dependence DVI independence dependence

Program Read [Analog] Read Both [Analog+Digital] Read [Digital]

State Input SN 1111111111111111 Verify SN 1111111111111111 16

5. Click “program”,
Note: . Appear fault as follow , please input SN twice and burning again.

EDID Programmer (TPVDDC6.0) 简化版

Help History Read

LoadFile... LCDDDC\N\NEXGEN\19NXG\CHIMEI 96VS Flush Analog DVI Analog and DVI

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	FF	00	00	00	00	00	00	FF	C4	F8	B6	F2	A8	FB	FF
02	F4	EA	FE	FC	93	D6	B8	87	D1	19	EA	59	AA	B6	66
03	EC	AF	AB	40	11	FF	9E	B3	FE	FE	FE	FE	FE	FE	FE
04	FE	FE	FE	FE	FE	FE	99	DE	A9	55	AE	FF	E1	CF	B9
05	CC	FF	65	19	EF	FF	FF	E1	99	DE	AF	4F	AE	FF	E4
06	BF	8F	C9	FF	65	19	EF	FF	E1	99	DE	AF	4F	AE	FF
07	B4	E1	AF	F0	FF	F5	DF	DF	DF	DF	DF	DF	DF	DF	03
08	FF	BC	B7	B6	B2	BA	B6	DF	C6	C9	A9	AC	F5	DF	B1

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	FF	00	00	00	00	00	00	FF	C4	F8	B6	F2	A8	FB	FF
02	F4	EA	FE	FC	7F	D6	B8	87	D9	19	EA	59	AA	B6	D8
03	EC	AF	AB	40	11	FF	9E	B3	FE	FE	FE	FE	FE	FE	FE
04	FE	FE	FE	FE	FE	FE	99	DE	A9	55	AE	FF	E1	CF	B9
05	CC	FF	65	19	EF	FF	FF	E1	99	DE	AF	4F	AE	FF	E4
06	BF	8F	C9	FF	65	19	EF	FF	E1	99	DE	AF	4F	AE	FF
07	B4	E1	AF	F0	FF	F5	DF	DF	DF	DF	DF	DF	DF	DF	03
08	FF	BC	B7	B6	B2	BA	B6	DF	C6	C9	A9	AC	F5	DF	BD

Analog Manufacturer: qGX Product Code: E2E6 Model Name: 挤侗憾哑嫂 Monitor SN: [-01112] Input: Digital Checksum

Digital Manufacturer: qGX Product Code: F2E6 Model Name: 挤侗憾哑嫂 Monitor SN: [-01112] Input: Analog Checksum: BD

Time input Year-Month-Day: Year: 2224 Week: 244 (ISO8601)

Flash Type Analog: independence dependence DVI: independence dependence

Program Read [A] [Analog] Read [Both] [Analog+Digital] Read [D] [Digital]

State: [1111111111111111] Input SN: 1111111111111111 Verify SN: 1111111111111111 16

EDID Programmer (TPVDDC6.0) 简化版

Help History Read

LoadFile... LCDDDC\N\NEXGEN\19NXG\CHIMEI 96VS Flush Analog DVI Analog and DVI

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	00	FF	FF	FF	FF	FF	00	3B	07	19	00	01	01	01	01
02	14	14	01	03	8C	29	17	78	2E	B6	15	A6	55	49	99
03	13	50	54	BF	EE	00	61	4C	01	01	01	01	01	01	01
04	01	01	01	01	01	01	66	21	56	AA	51	00	1E	30	46
05	33	00	9A	E6	10	00	00	1E	66	21	50	B0	51	00	1B
06	40	70	36	00	9A	E6	10	00	00	1E	00	00	00	FD	00
07	4B	1E	50	0F	00	0A	20	20	20	20	20	20	20	00	FC
08	00	43	48	49	4D	45	49	20	39	36	56	53	0A	20	00

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
01	00	FF	FF	FF	FF	FF	00	3B	07	19	00	01	01	01	01
02	14	14	01	03	8C	29	17	78	2E	B6	15	A6	55	49	99
03	13	50	54	BF	EE	00	61	4C	01	01	01	01	01	01	01
04	01	01	01	01	01	01	66	21	56	AA	51	00	1E	30	46
05	33	00	9A	E6	10	00	00	1E	66	21	50	B0	51	00	1B
06	40	70	36	00	9A	E6	10	00	00	1E	00	00	00	FD	00
07	4B	1E	50	0F	00	0A	20	20	20	20	20	20	20	00	FC
08	00	43	48	49	4D	45	49	20	39	36	56	53	0A	20	00

Analog Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Analog Checksum: 9D

Digital Manufacturer: NXG Product Code: 0D19 Model Name: CHIMEI 96VS Monitor SN: [16843009] Input: Digital Checksum: 90

Time input Year-Month-Day: Year: 2020 Week: 20 (ISO8601)

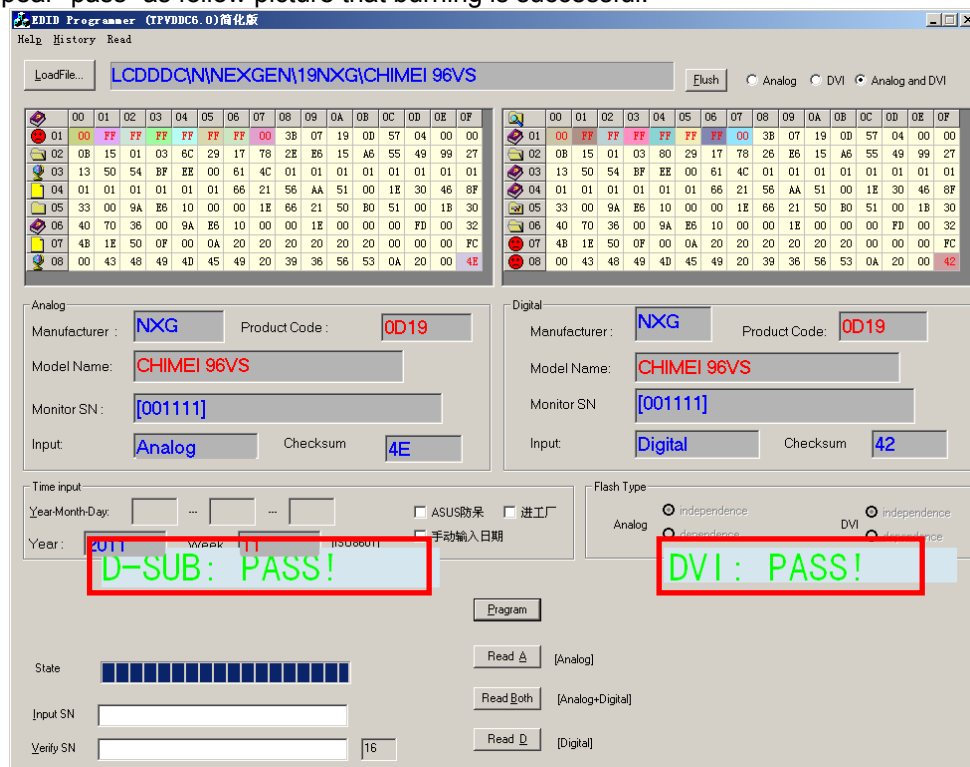
Flash Type Analog: independence dependence DVI: independence dependence

Program Read [A] [Analog] Read [Both] [Analog+Digital] Read [D] [Digital]

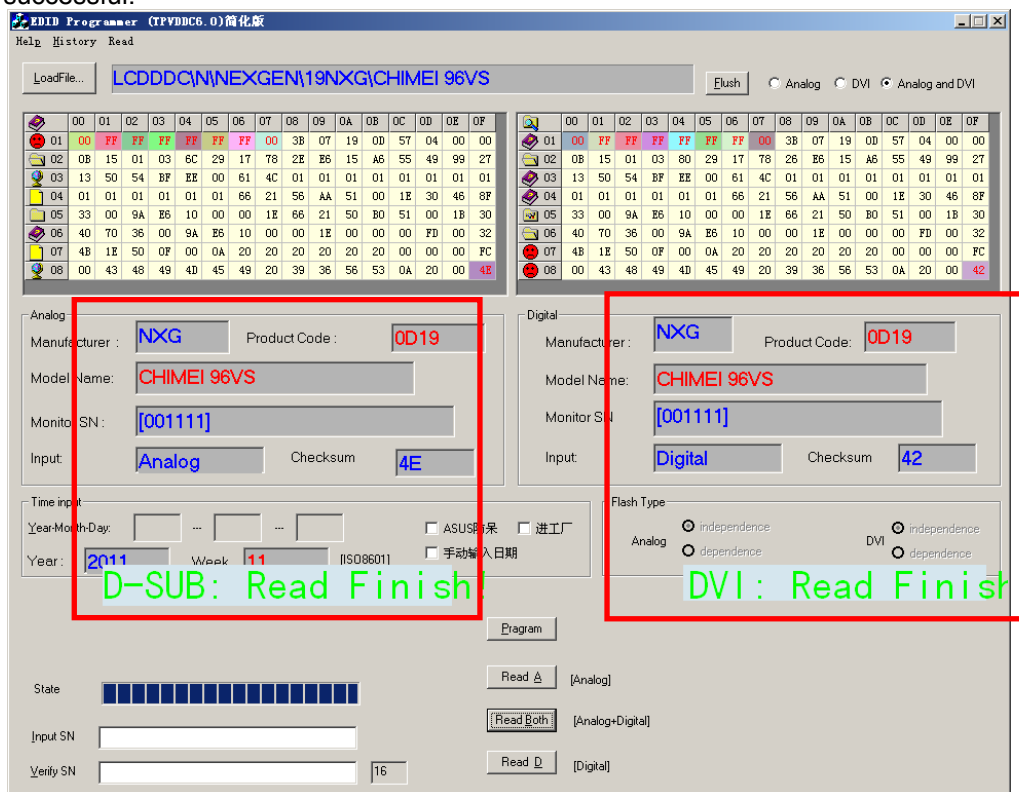
State: [] Input SN: [] Verify SN: [] 16

D-SUB: FAIL! DVI: FAIL!

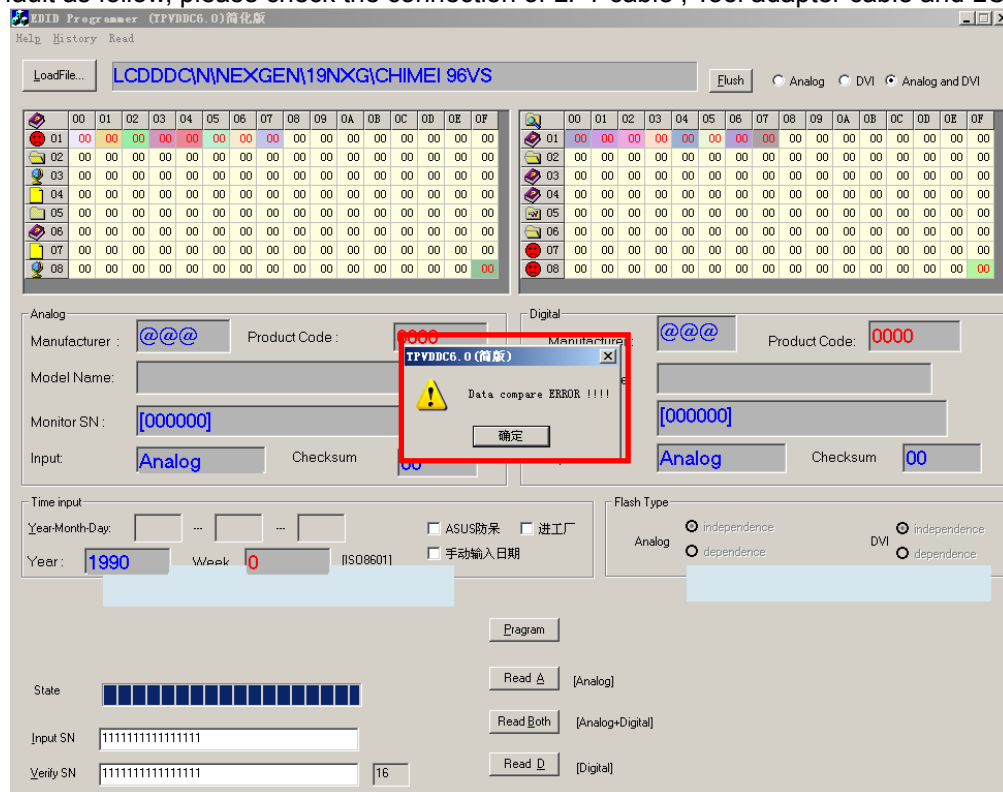
When appear “pass” as follow picture that burning is successful.



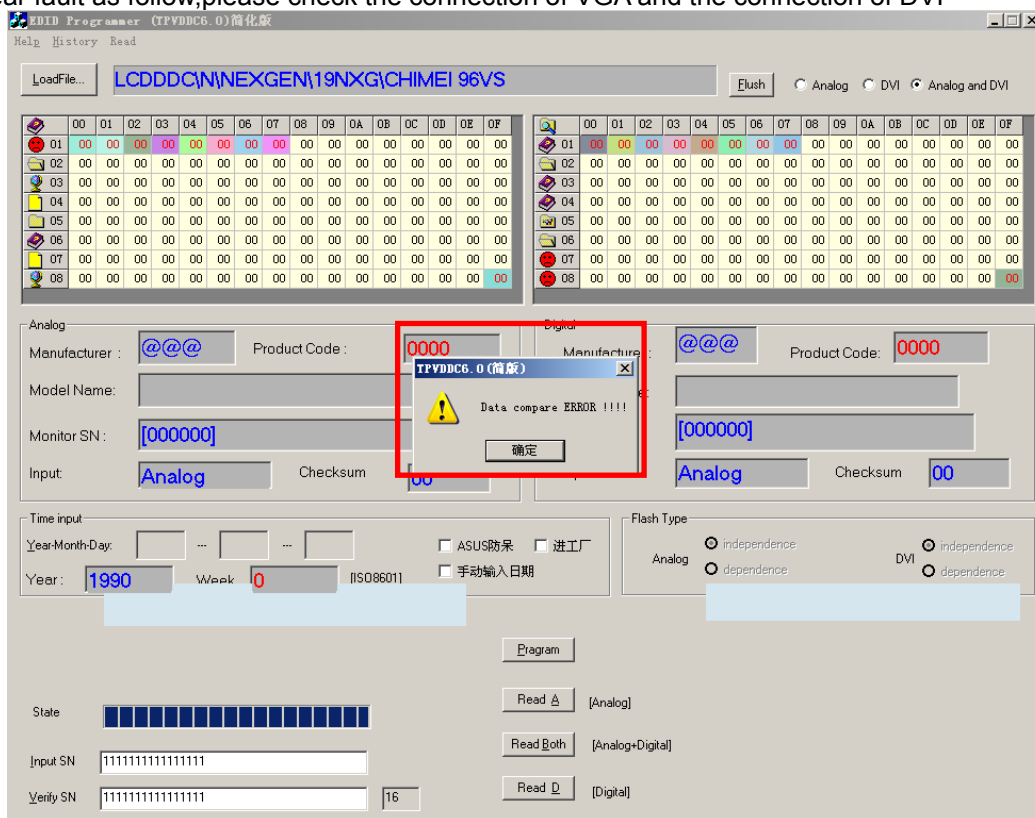
Click “Read both” show as follow picture..If read SN and model name are same as before inputing as before that burning is successful.



Appear fault as follow, please check the connection of LPT cable , Tool adapter cable and LCD power.



Appear fault as follow, please check the connection of VGA and the connection of DVI



Note:

If the burn software is unsuccessful, appear fault :

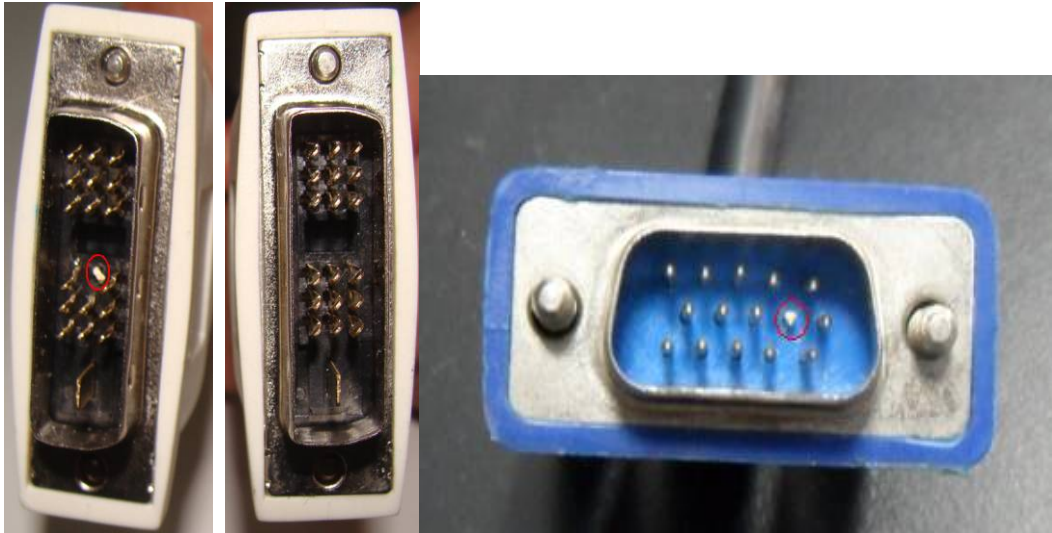
1. For VGA, the resolution will be not the best achieve.
2. For DVI, No picture, no sound.

If program failed, in VGA mode, you can't use the optimal resolution.

When Read is OK, program is NG, pls do take following action:

1. For VGA, cut off the 9th pin (connect the monitor).

2. For DVI, cut off the 14th pin (the shortest pin, power supply).
3. Connect the EEPROM WP pin to ground.



11. 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 simple 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 .

1. Setting the color temp.

A. MEM.CHANNEL 3 (Warm color):

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

B. MEM.CHANNEL 4 (Normal color):

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

C. MEM.CHANNEL 9(Cool color):

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

D. MEM.CHANNEL 10 (sRGB color):

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

2. Enter into the factory mode:

Press the MENU button, pull out the power cord, then plug the power cord. Then the factory OSD will be at the left top of the panel.

3. Bias adjustment:

Set the Contrast  to 50; Adjust the Brightness  to 90.

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 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 $=100 \pm 2$

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 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 $=100 \pm 2$

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 $=100 \pm 2$

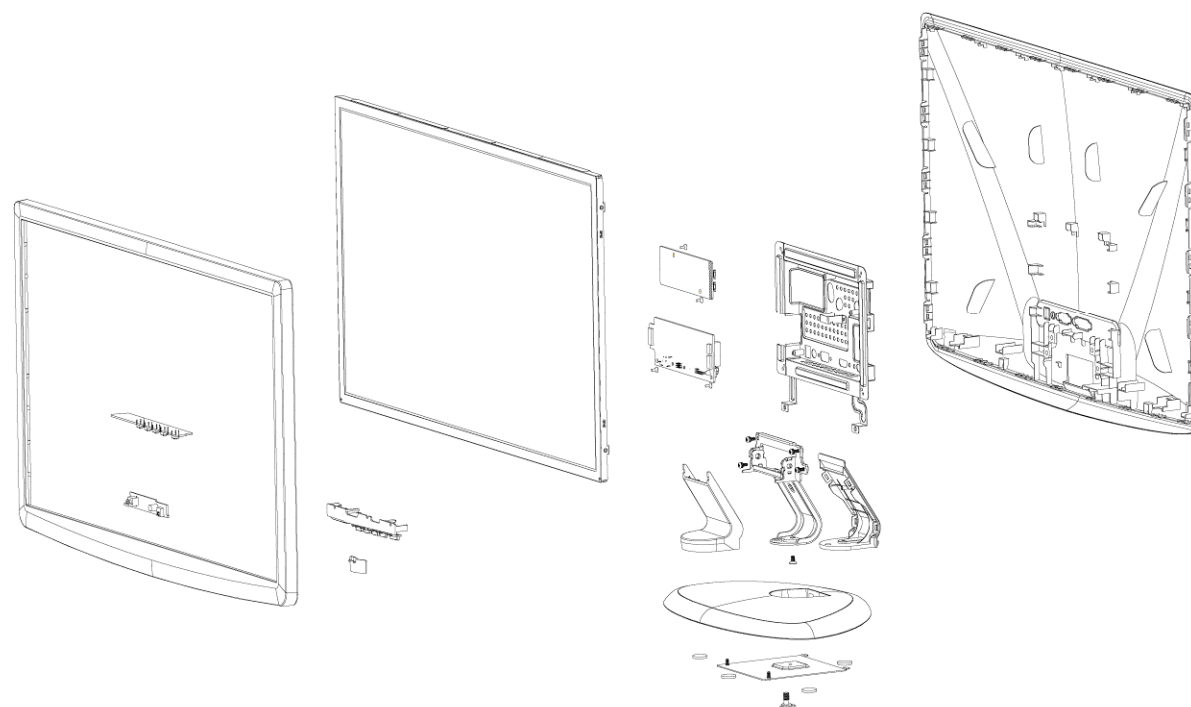
D. Adjust sRGB color-temperature

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 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 $=100 \pm 2$

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

12. Monitor Exploded View

2440



13. 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.

TKAANT2BWWA1DNE

Location	Part No.	Description	Remark
	040G 58162435A	P/N LABEL FOR MANUAL PE BAG	
	050G 600 1 W	WHITE STRAP (1G004991)	
	052G 1150 C	INSULATING TAPE	
	052G 1207 A	Conductive Tape 45mm *25mm *0.08mm	
	052G 1211 B	Conductive Tape 85mm *40mm *0.09mm	
HDCP-L	070GHDCP500HDC	NO-SUGGEST HDCP CODE	
E07801	078G025A 2 Y	SPK 4 OHM 2.5 W 340/150mm 42.2X22.2mm	
E08904	089G 17356H580	AUDIO CABLE 1.8M without PE bag	
E08902	089G 715HAAE01	SIGNAL CABLE	
E08901	089G404A15N IS	POWER CORD	
E09504	095G176W 10E07	FFC CABLE 10PIN P0.5MM 370MM	
E09514	095G176W 10E08	FFC CABLE 10PIN P0.5MM 325MM	
E09501	095G8018 3TE39	HARNESS 30P-30P 410MM	
E09503	095G8022 5TE01	HARNESS 5P(A1253)-5P(A1253) 260MM	
E09502	095G8022 7TE01	HARNESS 7P-6P 130MM	
E09505	095G802210TE01	HARNESS 10P(A1253)-10P(A1253) 90MM	
	0D1G1030 8120	screw	
	705GHA34030	2440 BASE ASS'Y	
	705GHA34032	E2440VA REAR COVER_STAND ASS'Y	
E750	750GLU240H1623N000	PANEL M240HW01 V60A XM AUO	
	A34G1863DAVB1M0130	BEZEL	
E080	ADPCA1236HD1	ADAPTER BOARD	
	H01G6009 1	Screw	
	H15G0035401201	MAIN FRAME FOR 2440	
	H26G 800504 2A	barcode	
	H33G0022 1 1L	LENS_AOC_L201WA-2040LED	
	H33G0023AED 1B	KEY PAD_AOC_L201WA-2040LED	
	H40G 24N61528B	e2440Va EU ID LABEL	
	H40G 58361511A	e2040v POP LABEL	
	H40G 58361511A	esensor LABEL	
	H40G 58361538A	e2440Va CAROTN LABEL	
	H40G 58361568A	SRS WIN7 SIL EPA LABEL	
	H41G780961525A	QSG	
	H44GD005101	PULP	
	H44GD005201	PULP	
	H44GD005615 2A	2440Va CARTON	
	H45G 77 6	PE PACKING	
	H45G 87 1 20	EPE COVER	
	H45G 87 1810H A	EPE COVER FOR BASE	
	H52G6025 16 58	mylar	
	H70G201061517B	e2440Va CD MANUAL	
	KEPC9HC2	KEY BOARD	
	LNPCA372AHD1	CONVERTER BOARD	
	LSPC9HC2	LIGHT SENSOR BOARD	
	Q45G 76 28 H A	PE BAG FOR MANUAL	
	Q52G 1185 99	big carton tape for aoc	
	Q52G6019 14	TAPE	
	0Q1G 130 8120	SCREW 42A9930011	

	A34G1867DAV 1M0130	BASE FOR 2440	
	H15G0042101	BASE BRACKET	
	0M1G1740 10120	SCREW 42A9940008	
	0Q1G 140 8120	SCREW T4X8	
	A34G1864DAV 2M0100	REAR COVER	
	A34G1865DBA 1B0100	STAND	
	A34G1866DBA 1B0100	STAND	
	A37G0164011	HINGE_ASS'Y	
	756GHACB A1002	MAIN BOARD-CBPC9NRA1H4	
SMTCA-U402	100GANAK001W11	MCU ASS'Y-056G2233 11	
	040G 154501 1	HI-POT GND LABEL	
	040G 45762412B	CBPC LABEL	
	045G 88525 E	PE BAG	
IC902	056G 139 3A	PC123Y22FZOF SHARP	
NR901	061G 58005 X	RST NTCR 5R 20% 3A 2.6W	
R904	061G152M47858G SY	RST MOFR 0.47 OHM +-5% 2WS	
C903	063G107K474 6S	0.47UF +-10%	
C909	065G 1K103 2E6921	CAP CER 10NF K 1KV Y5U	
C900	065G306M1022B2	1000pf 400vac/250vac y1	
C927	067G 3151014KV	CAP 105C 100UF M 25V	
C919	067G 515681 4L	EC 680UF 20% 25V RZW 8*20	
C918	067G 515681 4L	EC 680UF 20% 25V RZW 8*20	
C907	067G515Z82015L	EC 82UF 20% 450V RXQ 18*31.5	
D902	071G 55 30	FERRITE BEAD 4.0*2*3	
D903	071G 55 30	FERRITE BEAD 4.0*2*3	
L902	073G 174514 X	LINE FILTER 14mH MIN 3LFT1495-143M	
L901	073G 174515 H	LINE FILTER 0.45mH MIN LCL-11006 HA	
L903	073G 253902 H	IND CHOKE 0.8uH MIN DADON	
LED1	081G 2 3 1P	LED GPG2603T/R006-35A GUANGPU	
E08906	089G 171536 G	DC CABLE 1000mm	
BD901	093G 50460514	BRIDGE KBP306G-05 3A/800V TSC	
D903	093G 5212T52T	DIODE 1N4007-AO DO-41	
D902	093G 5212T52T	DIODE 1N4007-AO DO-41	
	705GQ957052	D906 ASS'Y	
	705GQ957053	Q901 ASS'Y	
	705GQA57002	AC SOCKET ASS'Y	
	ADA1236HD1SMT	ADAPTER BOARD FOR SMT	
	H33G0027 1 1C	LENS FOR AOC 40TH	
	H33G0028 GM T 18	TOP COVER FOR AOC 40TH	
	H33G0029 GM T 18	BOTTON COVER FOR AOC 40TH	
	Q40G300B615 1C	LABEL adapter	
	Q51G 6 4509	GLUE_RTV	
	Q51G 6 4509	GLUE_RTV	
T901	S80GL19P512V	Transformer ASS'Y	
	040G 45762412B	CBPC LABEL	
C718	067G204V181 3K	CS CAP 180uF 16V 8*8 mm	
C716	067G204V471 2K	CS CAP 470uF 10V 8*8 mm	
C610	067G204V471 2K	CS CAP 470uF 10V 8*8 mm	
FB702	071G 5526A H	CORE 6.0X3.5X3.5 127 25% 3.5X6.0	
CN601	088G 30254C	PHONE JACK 3.5mm 5P V/A GREEN	
CN701	088G 304 11 C	DC POWER JACK 3P 2.5mm	
CN101	088G 35315FVCL	D-SUB CONN 15P V/T 10.5mm WITH SCREW	
CN102	088G 35424F VC	DVI CONN 24P V/T WITH SCREW	
X401	093G 2251B J	CRYSTAL 12MHZ NXS12.000AC30F-KAB10	

	Q55G 23524	WELDING FLUX WITHOUT PB	
	Q55G 100625	TIN STICK_LOW ARGENTUM	
CN602	033G8023 4 JS	WAFER	
CN402	033G8032 5F HR	CONNECTOR	
CN401	033G8032 7F HR	CONNECTOR	
CN702	033G803210F HR	CONNECTOR 10P 1.25	
U401	056G 562328	IC Scaler NT68668AUFQ QFP-128	
U704	056G 563113	IC G1117-18T63Uf 1A/1.8V SOT-223	
U602	056G 563215	IC DC/DC MP1584EN SOIC8E	
U705	056G 563215	IC DC/DC MP1584EN SOIC8E	
U702	056G 563512	IC G1117-33T43UF 1A/3.3V TO-252	
U601	056G 616 65	IC PAM8602MNHHR SSOP-24	
U107	056G 662502	IC ESD AZC199-04S.R7G SOT23-6L	
U106	056G 662502	IC ESD AZC199-04S.R7G SOT23-6L	
U105	056G 662502	IC ESD AZC199-04S.R7G SOT23-6L	
U103	056G 662502	IC ESD AZC199-04S.R7G SOT23-6L	
U104	056G 662502	IC ESD AZC199-04S.R7G SOT23-6L	
U102	056G1133918	NO-SUGGEST AT24C02BN-SH-T 2kb SO-8	
U101	056G1133918	NO-SUGGEST AT24C02BN-SH-T 2kb SO-8	
U402	056G2233 11	IC Pm25LD020C-SCE SIOC-8(150mil) 2M	
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	
Q701	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q604	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q302	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	
Q301	057G 763940	MOSFET AO3401A SOT-23	
R406	061G0402000 JY	NO-SUGGEST RST CHIPR MAX 0R05 OHM 1/16W	
R408	061G0402000 JY	NO-SUGGEST RST CHIPR MAX 0R05 OHM 1/16W	
R427	061G0402000 JY	NO-SUGGEST RST CHIPR MAX 0R05 OHM 1/16W	
R115	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R111	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R105	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R134	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R132	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R131	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R130	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R129	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R128	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R127	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R126	061G0402100 JY	NO-SUGGEST RST CHIPR 10 OHM +5% 1/16W Y	
R706	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R616	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R435	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R420	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R419	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R401	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R119	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R118	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R113	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R104	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R103	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R101	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +5% 1/16W	
R606	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +5% 1/16W YA	

R437	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R436	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R426	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R413	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R412	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R705	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R703	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R702	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R618	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R610	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R609	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R607	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R120	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R305	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R402	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R403	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R417	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R418	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R603	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R604	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R605	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R614	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R726	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R712	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R415	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R306	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R135	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R434	061G0402105 JY	RST CHIPR 1000KOHM 1/16W YAGEO	
R622	061G04021241FF	RST 0402 1.24K 1% 1/16W FENGHUA	
R714	061G04021301FY	RST CHIPR 1K3 +-1% 1/16W YAGEO	
R106	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R107	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	
R704	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R304	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R136	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R123	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	
R139	061G0402224 JY	RST CHIPR 220KOHM +-5% 1/16W YAGEO	
R416	061G0402224 JY	RST CHIPR 220KOHM +-5% 1/16W YAGEO	
R727	061G0402304 JF	RST 0402 300K 5% 1/16W FENGHUA	
R711	061G0402333 JY	RST CHIPR 33KOHM £«-5£¥ 1/16W YAGEO	
R431	061G04023901FY	RST CHIP 3.9KOHM 1% YAGEO	
R432	061G04023901FY	RST CHIP 3.9KOHM 1% YAGEO	
R433	061G04023901FY	RST CHIP 3.9KOHM 1% YAGEO	
R133	061G0402394 JY	RST CHIP R 390K +/-5% 1/16W YAGEO	
R109	061G0402470 JY	NO-SUGGEST RST CHIPR 47 OHM 5% 1/16W YAG	
R114	061G0402470 JY	NO-SUGGEST RST CHIPR 47 OHM 5% 1/16W YAG	
R117	061G0402470 JY	NO-SUGGEST RST CHIPR 47 OHM 5% 1/16W YAG	
R414	061G04024700FY	RST CHIP 470R 1/16W 1%	
R110	061G0402471 JY	RST CHIPR 470OHM +-5% 1/16W YAGEO	
R615	061G0402471 JY	RST CHIPR 470OHM +-5% 1/16W YAGEO	
R422	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R411	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R410	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R303	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	

R138	061G0402472 JY		RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R137	061G0402472 JY		RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R125	061G0402472 JY		RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R124	061G0402472 JY		RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R613	061G0402474 JY		RST CHIP 470K 1/16W 5% YAGEO	
R621	061G04026801FY		RST CHIP 6K8 1/16W 1%	
R713	061G04026801FY		RST CHIP 6K8 1/16W 1%	
R108	061G0402750 JY		NO-SUGGEST RST CHIPR 75OHM +-5% 1/16W YA	
R112	061G0402750 JY		NO-SUGGEST RST CHIPR 75OHM +-5% 1/16W YA	
R116	061G0402750 JY		NO-SUGGEST RST CHIPR 75OHM +-5% 1/16W YA	
R602	061G0402912 JY		RST CHIP 9K1 1/16W 5% YAGEO	
R601	061G0402912 JY		RST CHIP 9K1 1/16W 5% YAGEO	
FB605	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
R617	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
R707	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
R102	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
FB703	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
FB103	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
FB102	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
FB101	061G0603000 JF		RST CHIPR MAX 0R05 1/10W FENGHUA	
R404	061G0603221 JF		ST CHIPR 220 OHM +-5% 1/10W FENGHUA	
R405	061G0603331 JF		RST CHIPR 330OHM +-5% 0603	
FB401	061G0805000 JF		RST CHIPR 0 OHM +-5% 1/8W FENGHUA	
R302	061G1206221 JF		RST CHIPR 220 OHM +-5% 1/4W FENGHUA	
R301	061G1206221 JF		RST CHIPR 220 OHM +-5% 1/4W FENGHUA	
C605	065G040210212K	A	CAP 0402 1NF 16V X7R	
C107	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C118	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C119	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C607	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C608	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C714	065G040210232K	A	CAP 0402 1NF K 50V X7R	
C603	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C602	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C438	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C437	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C435	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C434	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C433	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C432	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C431	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C427	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C606	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C630	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C702	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C705	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C706	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C708	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C709	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C713	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C717	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C720	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C112	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C115	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	

C120	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C121	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C122	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C124	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C125	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C126	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C301	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C304	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C401	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C402	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C403	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C405	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C407	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C417	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C418	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C419	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C422	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C425	065G040210412K	Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C719	065G040210427Z	T	NO-SUGGEST 0402 0.1UF 25V Y5V	
C712	065G040210427Z	T	NO-SUGGEST 0402 0.1UF 25V Y5V	
C604	065G040215131J	Y	CHIP 150pF 50V NPO YAGEO	
C722	065G040215131J	Y	CHIP 150pF 50V NPO YAGEO	
C103	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C104	065G040222031J	A	CAP 0402 22PF J 50V NPO	
C116	065G040222417Z	A	NO-SUGGEST CAP CHIP 0402 220nF Z 16V Y5V	
C117	065G040222417Z	A	NO-SUGGEST CAP CHIP 0402 220nF Z 16V Y5V	
C303	065G040222417Z	A	NO-SUGGEST CAP CHIP 0402 220nF Z 16V Y5V	
C429	065G040222417Z	A	NO-SUGGEST CAP CHIP 0402 220nF Z 16V Y5V	
C426	065G040227031J	A	CAP 0402 27PF 50V NPO	
C428	065G040227031J	A	CAP 0402 27PF 50V NPO	
C102	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C106	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C108	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C110	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C111	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C114	065G040247312K	A	8.31HIP 0402 47nF K 16V X7R	
C113	065G040250931J	A	CAP 0402 5PF J 50 NPO	
C109	065G040250931J	A	CAP 0402 5PF J 50 NPO	
C105	065G040250931J	A	CAP 0402 5PF J 50 NPO	
C710	065G060310232K	F	CAP CHIP 0603 1NF K 50V X7R	
C715	065G060310232K	F	CAP CHIP 0603 1NF K 50V X7R	
C627	065G060310232K	Y	CAP CHIP 0603 1N 50V X7R +/-10%	
C626	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C618	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C617	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C615	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C614	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C613	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C612	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C305	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C408	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C414	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C415	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C424	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	

C611	065G060310512K	A	NO-SUGGEST CAP CHIP 0603 1UF K 16V X7R	
C620	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C621	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C622	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C623	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C624	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C625	065G060322131J	Y	CAP CHIP 0603 220P 50V NPO +/-5%	
C616	065G0805106A7Z	A	CAP 0805 10UF Z 10V Y5V	
C619	065G0805106A7Z	A	CAP 0805 10UF Z 10V Y5V	
C439	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C423	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C421	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C416	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C413	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C406	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C404	065G0805475A2K	Y	CAP CHIP 0805 4.7UF K 10V X7R	
C601	065G120610625K	Y	NO-SUGGEST CAP CHIP 1206 10uF K 25V X5R	
C723	065G120610625K	Y	NO-SUGGEST CAP CHIP 1206 10uF K 25V X5R	
C721	065G120610625K	Y	NO-SUGGEST CAP CHIP 1206 10uF K 25V X5R	
C707	065G120622617Z	Y	NO-SUGGEST CHIP 1206 22UF Z 16V Y5V	
C704	065G120622617Z	Y	NO-SUGGEST CHIP 1206 22UF Z 16V Y5V	
C609	065G120622617Z	Y	NO-SUGGEST CHIP 1206 22UF Z 16V Y5V	
C302	065G120622617Z	Y	NO-SUGGEST CHIP 1206 22UF Z 16V Y5V	
FB604	071G 56K121	M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB603	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	
FB301	071G 56K121	M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	
FB402	071G 56V301	B	CHIP BEAD 0805 300OHM BULLWILL	
FB403	071G 56V301	B	CHIP BEAD 0805 300OHM BULLWILL	
FB404	071G 56V301	B	CHIP BEAD 0805 300OHM BULLWILL	
FB405	071G 56V301	B	CHIP BEAD 0805 300OHM BULLWILL	
FB407	071G 56V301	B	CHIP BEAD 0805 300OHM BULLWILL	
FB106	071G 59G301		CHIP BEAD 300OHM	
FB105	071G 59G301		CHIP BEAD 300OHM	
FB104	071G 59G301		CHIP BEAD 300OHM	
L701	073G253S521	H	SMD CHOKE 22UH 20% 3.3A HF	
L601	073G253S521	H	SMD CHOKE 22UH 20% 3.3A HF	
D101	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
D102	093G 64 42	L	DIODE LBAV70LT1G SOT-23 LRC	
ZD101	093G 39GA01	T	RLZ5.6B	
D601	093G 64S522SEM		LL4148	
D602	093G3004	3	SM340A	
D701	093G3004	3	SM340A	
D703	093G3004	3	SM340A	
D704	093G3004	3	SM340A	
D707	093G3004	3	SM340A	
D708	093G3004	3	SM340A	
CN301	311GW125A30ACH		WAFER 1.25mm 30P	
	715G4002M01000004S		MAIN BOARD PCB	
	040G 45762412B		CBPC LABEL	
C802	067G204V181	3K	CS CAP 180uF 16V 8*8 mm	
C811	067G415R479	9K	EC 4.7UF 20% 100V ED 8*12	
	LNAK372AHD1SMT		CONVERTER BOARD FOR SMT	

U013	056G 627911	IR 38KHZ KSM-603TM2M	
C019	067G305M1013KV	105 摄氏度 100UF +-20% 16V	
LED011	081G IR 7 GP	CHIP IR LED GP1303T12A/940-2	
	H12G6200 13	RUBBER	
	051G 200 1	OIL FOR DISAPPEAR	
D906	093G 605AP	Diode MBR20100CT	
	0M1G 130 5120	SCREW	
HS1	Q90G0201 1	HEAT SINK	
	051G 200 1	OIL FOR DISAPPEAR	
Q901	057G 667924	MOSFET SMK0965F	
	0M1G 930 5120	SCREW	
HS1	Q90G0200 1	HEAT SINK	
CN901	087G 50112A CJ	AC SOCKET	
E09509	095G 900H12 D	HARNESS 1p-1p 75	
	096G 29 6	H.S. TUBE	
IC901	056G 379530	AC/DC CONVERTER LD7750GS SOP-8	
R912	061G0603102 JF	RST CHIPR 1K OHM +-5% 1/10W FENGHUA	
R940	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R918	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R911	061G0603202 JT	RST CHIPR 2KOHM 1/10W TZAI YUAN	
R919	061G06034532FF	RST CHIPR 45.3KOHM +-1% 1/10W FENGHUA	
R905	061G08051002FF	RST CHIPR 10KOHM +-1% 1/8W FENGHUA	
R903	061G08051004FT	RST CHIP R 1 MOHM +-1% 1/8W	
R942	061G0805101 JT	RST CHIP 100R 1/8W 5% TZAI YUAN	
R910	061G0805104 JT	RST CHIPR 100KOHM +- 5% 1/8W TZAI YUAN	
R916	061G08051152FT	RST CHIPR 11.5KOHM +- 1% 1/8W TZAI YUAN	
R941	061G0805159 JT	RST CHIP 1R5 1/8W 5%	
R922	061G0805471 JT	RST CHIPR 470OHM +-5% 1/8W TZAI YUAN	
JR901	061G12060007JT	RST CHIPR MAX 0R05 1/4W 1206	
R908	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R914	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	
R906	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	
R934	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	
R901	061G1206105 JF	RST CHIPR 1 MOHM +-5% 1/4W FENGHUA	
R902	061G1206105 JF	RST CHIPR 1 MOHM +-5% 1/4W FENGHUA	
R907	061G1206564 JF	RST CHIPR 560KOHM +-5% 1/4W FENGHUA	
R937	061G1206564 JF	RST CHIPR 560KOHM +-5% 1/4W FENGHUA	
R938	061G1206564 JF	RST CHIPR 560KOHM +-5% 1/4W FENGHUA	
C930	065G060310332K A	CAP CHIP 0603 10nF K 50V X7R	
C915	065G060347332K Y	CAP CHIP 0603 47N 50V X7R +/-10%	
C931	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	
C901	065G080510332K F	CAP 0805 10NF K 50V X7R	
C910	065G080510432K A	CAP CHIP 0805 0.1UF K 50V X7R	
C920	065G080510522K 3	CAP CHIP 0805 1U 25V X7R +/-10%	
C908	065G1206222B2K T	CAP CHIP 1206 2200PF K 630V X7R	
C911	065G1206222B2K T	CAP CHIP 1206 2200PF K 630V X7R	
D908	093G 64S522SEM	LL4148	
	ADA1236HD1AI	ADAPTER BOARD FOR AI	
SW005	077G 603 AI HJ	TACT SWITCH 2PIN	
SW004	077G 603 AI HJ	TACT SWITCH 2PIN	
SW003	077G 603 AI HJ	TACT SWITCH 2PIN	
SW002	077G 603 AI HJ	TACT SWITCH 2PIN	
SW001	077G 603 AI HJ	TACT SWITCH 2PIN	
CN803	033G801910Y H	FPC CONN. 0.5mm SMT 10P	

CN802	033G801910Y H	FPC CONN. 0.5mm SMT 10P	
CN801	033G803210F HR	CONNECTOR 10P 1.25	
IC802	056G 379167	IC TA9690GN-A1-0-TR SOP-24	
IC801	056G 379167	IC TA9690GN-A1-0-TR SOP-24	
Q801	057G 763 92	FET P8008HV 4A/80V SOP-8	
R811	061G0603000 JF	RST CHIPR MAX 0R05 1/10W FENGHUA	
R814	061G0603100 JF	RST CHIPR 10 OHM 5% 1/10W FENGHUA	
R807	061G0603100 JF	RST CHIPR 10 OHM 5% 1/10W FENGHUA	
R820	061G0603101 JF	RST CHIPR 100 OHM +-5% 1/10W FENGHUA	
R812	061G0603101 JF	RST CHIPR 100 OHM +-5% 1/10W FENGHUA	
R844	061G0603101 JF	RST CHIPR 100 OHM +-5% 1/10W FENGHUA	
R803	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R810	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	
R806	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R813	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R821	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R817	061G0603103 JT	RST CHIP 10K 1/10W 5% TZAI YUAN	
R819	061G0603104 JT	RST CHIP 100K 1/10W 5% TZAI YUAN	
R809	061G0603104 JT	RST CHIP 100K 1/10W 5% TZAI YUAN	
R840	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R841	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R836	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R837	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R839	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R838	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R833	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R832	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R831	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R830	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R829	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R828	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R827	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R826	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R835	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R834	061G0603109 JT	RST CHIP 1R 1/10W 5% TZAI YUAN	
R816	061G0603124 JT	RST CHIP 120K 1/10W 5% TZAI YUAN	
R805	061G0603124 JT	RST CHIP 120K 1/10W 5% TZAI YUAN	
R824	061G06034302FT	RST CHIPR 43KOHM 1% 1/10W TZAI YUAN	
R823	061G0603472 JF	RST CHIPR 4.7KOHM +-5% 1/10W FENGHUA	
R815	061G06035602FF	RST CHIPR 56KOHM +-1% 1/10W FENGHUA	
R843	061G06035602FF	RST CHIPR 56KOHM +-1% 1/10W FENGHUA	
R804	061G0603563 JF	RST CHIPR 56KOHM 5% 1/10W FENGHUA	
R842	061G0603563 JF	RST CHIPR 56KOHM 5% 1/10W FENGHUA	
R822	061G08051004FT	RST CHIP R 1 MOHM +-1% 1/8W	
R825	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	
R801	061G1206478 JF	RST CHIP 1206 0.47OHM 1/4W 5%	
R847	061G1206478 JF	RST CHIP 1206 0.47OHM 1/4W 5%	
R802	061G1206478 JF	RST CHIP 1206 0.47OHM 1/4W 5%	
R845	065G060310131J F	CAP CHIP 0603 100PF J 50V NPO	
C805	065G060347412K F	CAP CHIP 0603 0.47UF K 16V X7R	
C808	065G060347412K F	CAP CHIP 0603 0.47UF K 16V X7R	
C810	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C803	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	
C801	065G080510432K F	CAP CHIP 0805 0.1UF K 50V X7R	

C809	065G080522512K 3	CAP CHIP 0805 2U2 16V X7R +/-10%	
C807	065G080522512K 3	CAP CHIP 0805 2U2 16V X7R +/-10%	
C806	065G080522522K T	CAP 0805 2.2uF 10% 25V X7R	
L801	073G253S 59 X	SMD CHOKE 22uH 4A 3SMSL12575-220M HF	
ZD801	093G 60S 31 T	DIODE B360B 3A/60V SMB	
E715	715G3823P04000004D	CONVERTER BOARD PCB	2nd source
E715	715G3823P04000004S	CONVERTER BOARD PCB	
U012	056G 192 25	D-AMP AS358MTR-E1 SOIC-8	
U011	056G1125200	IC MCU PIC12F615-I/SN SOIC-8	
Q011	057G 417 16 T	MMBT2907	
Q013	057G 761 18 T	TEST ONLY SST2222A 0.4 60 SMT3	
Q012	057G 761 18 T	TEST ONLY SST2222A 0.4 60 SMT3	
R025	061G0402101 JY	NO-SUGGEST RST CHIPR 100 OHM +-5% 1/16W	
R027	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R014	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R019	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R020	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R021	061G0402102 JY	NO-SUGGEST RST CHIPR 1KOHM +-5% 1/16W YA	
R024	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R022	061G0402103 JY	NO-SUGGEST RST CHIPR 10KOHM +-5% 1/16W Y	
R015	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R016	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	
R013	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	
R018	061G0805330 JT	RST CHIP 33R 1/8W 5% TZAI YUAN	
R023	061G0805330 JT	RST CHIP 33R 1/8W 5% TZAI YUAN	
C020	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C018	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C017	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C016	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C015	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C013	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C012	065G040210412K Y	CAP CHIP 0402 100N 16V X7R +/-10%	
C011	065G060310517Z Y	CAP 0603 1UF -20%+80% 16V Y5V	
E715	715G3995T01000004C	IR PCB	
CN011	033G8032 5F HR	CONNECTOR	
E715	715G3995T01000004S	IR PCB	2nd source
CN901	006G 31500	EYELET	
GND	006G 31501	EYELET	
12V	006G 31501	EYELET	
C907	006G 31502	1.5MM RIVET	
NR901	006G 31502	1.5MM RIVET	
L902	006G 31502	1.5MM RIVET	
L901	006G 31502	1.5MM RIVET	
C903	006G 31502	1.5MM RIVET	
IC903	056G 158 10 T	IC AS431AZTR-E1 TO-92 BY AAC	
R947	061G 60210052T XZ	RST CF 10R 5% 1/6W	
C925	065G 2K152 2T6921	CAP CER 1500pF K 2KV Y5P	
C929	067G 2154707NT	KY50VB47M-TP5 6.3*11	
FB901	071G 55908	BEAD - 60R - C8B RH3.5X4.7X1.0+TAP	
F901	084G 55 7W	FUSE 3.15A 250V Wickmann	
J901	095G 90 23	JUMPER WIRE	
J902	095G 90 23	JUMPER WIRE	
J903	095G 90 23	JUMPER WIRE	
J904	095G 90 23	JUMPER WIRE	

J906	095G 90 23	JUMPER WIRE	
E715	715G3980P02000003M	ADAPTER BOARD PCB	2nd source
E715	715G3980P02000003S	ADAPTER BOARD PCB	
CN001	033G8032 6F HR	CONNECTOR 6P 1.25	
R002	061G0603000 FF	RST CHIPR MAX0R01 1/10W FENGHUA	
R004	061G06031001FF	RST CHIPR 1 KOHM +-1% 1/10W FENGHUA	
R001	061G06032001FF	RST CHIP 2KOHM 1% 1/10W FENGHUA	
R003	061G06032001FF	RST CHIP 2KOHM 1% 1/10W FENGHUA	
C001	065G060310432K A	CAP CHIP 0603 100nF K 50V X7R	
C002	065G060310432K A	CAP CHIP 0603 100nF K 50V X7R	
LED001	081G 14 12 GP	CHIP LED GPTD1210YBC5-D	
E715	715G4014K01000004C	KEY BOARD PCB	
E715	715G4014K01000004S	KEY BOARD PCB	2nd source