

SERVICE MANUAL

维修手册

客户/品牌

机种名

AOC

e2460SD



本手册适用于主板为 715G5089M(Scalar IC—RTD2281W)

This manual applies to Main Board 715G5089M(Scalar IC—RTD2281W)

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1.显示器规格

1.1 技术规格

产品名称	AOCe2460SD
屏幕尺寸	531.36×298.89mm,real diagonal 609.7mm (24.0") (16: 9)
点距 (mm)	0.27675 × 0.27675 , RGB vertical stripe
亮度 (cd/m2) (典型值)	250cd/m2
对比度 (典型值)	1000:1 ,(动态)60000:1
可视角度	170/160 (CR>10)
响应时间 (典型值)	5ms
扫描频率	水平刷新率 (KHz) 30~80 垂直刷新率 (Hz) 55~75
最大分辨率	1920*1080/60Hz
显示颜色	16.7M
带宽	170 (MHz)
输入信号	Analog RGB 0.7Vp-p /75 ohm , TTL /DVI 150mV-1200mV
输入连接	D-Sub 15 pin + DVI 24 pin
即插即用	DDC 2B
调整控制	OSD 菜单控制, 16 种语言菜单
USB 接口	NA
功耗 (工作模式)	<=30W(EPA 4.0)
功耗 (休眠模式)	<=0.5W(EPA 4.0)
电源输入	AC 100-240V
多媒体音箱	-
安全, 辐射标准	CCC
颜色	黑色
宽 x 高 x 厚 (含底座)	562.6*414.35*220 mm
净重 (Kg)	5.6kg
支架/底座结构	标准底座
工作温度范围	5°C ~ 35°C
储藏温度范围	-20 ° C ~ 60 ° C

1.2 工厂预设模式

标准	分辨率	行频	场频
Dos-模式	720 × 400	31.47kHz	70Hz
VGA	640 × 480	31.47kHz	60Hz
	640 × 480	31.47kHz	67Hz
	640 × 480	31.47kHz	72Hz
	640 × 480	37.50kHz	75Hz
SVGA	800 × 600	37.879kHz	56Hz
	800 × 600	37.879kHz	60Hz
	800 × 600	46.875kHz	72Hz
	800 × 600	46.875kHz	75Hz
	832 × 624	49.725kHz	75Hz
XGA	1024 × 768	48.363kHz	60Hz
	1024 × 768	56.476kHz	70Hz
	1024 × 768	60.02kHz	75Hz
SXGA	1280 × 1024	64.00kHz	60Hz
	1280 × 1024	80.00kHz	75Hz
WXGA	1440×900	55.935 kHz	59.8 Hz
WSXGA	1680×1050	65.29 kHz	59.59 Hz
HD	1920×1080	66.295 kHz	59.887 Hz

1.3 产品新特点:

- 24” 大屏幕，最大分辨力 1920×1080，
- 4: 3/16: 9，宽普屏切换，随心时尚生活
- DCB 活彩技术，5 种增彩模式 Eco Mode 7 种亮度情景模式
- DCR 丽比技术，对比度高达 60000:1
- 16 种语言菜单；DVI+VGA 二种信号源输入接口
- ROHS 无铅制造，环保健康

1.4 输入信号接口说明

VGA connector

Pin No.	Description	Pin No.	Description
1.	Red Input	9.	+5VDC
2.	Green Input	10.	GND
3.	Blue Input	11.	GND
4.	GND	12.	SDA- DDC-Serial Data
5.	Connection detect	13.	H Sync
6.	Red GND	14.	V Sync
7.	Green GND	15.	SCL- DDC-Serial Clock
8.	Blue GND		

VGA Connector layout	
----------------------	--

DVI Connector

Pin No.	Description	Pin No.	Description
1.	TMDS Data 2-	13.	TMDS Data 3+
2.	TMDS Data 2+	14.	+5V Power
3.	TMDS Data 2/4 Shield	15.	Ground (for +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-

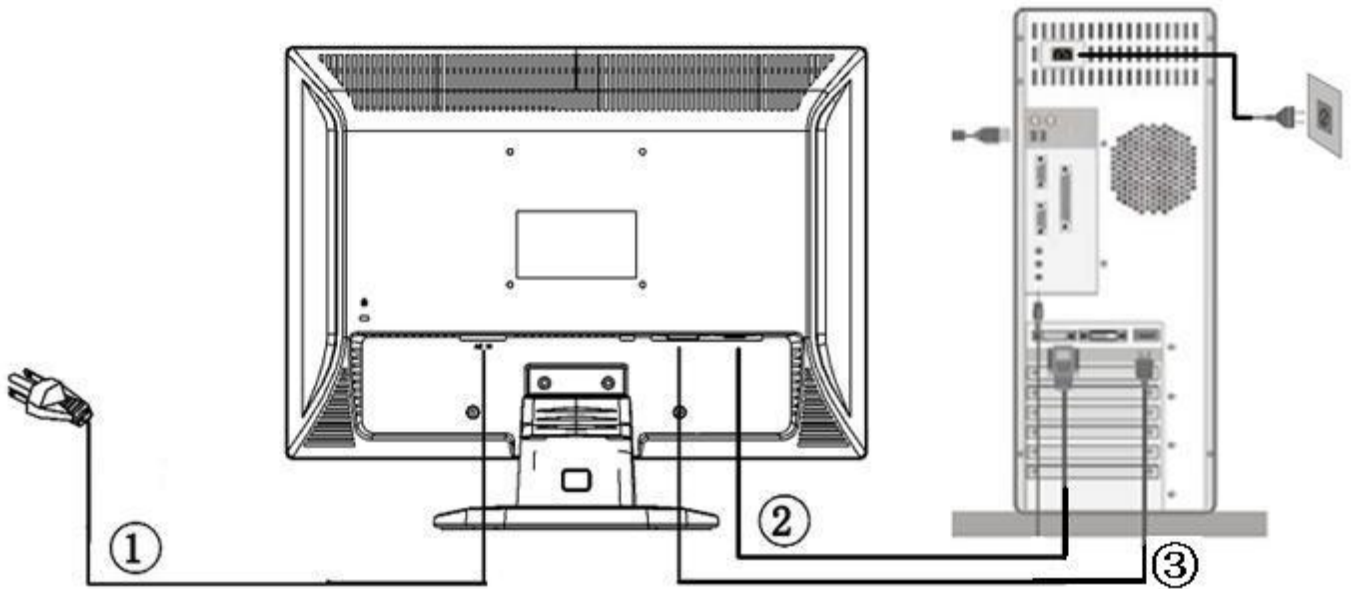
DVI Connector layout	
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1.5 LVDS 接口说明

Pin#	Signal Name	Pin#	Signal Name
1	RxOIN0-	2	RxOIN0+
3	RxOIN1-	4	RxOIN1+
5	RxOIN2-	6	RxOIN2+
7	GND	8	RxOCLKIN-
9	RxOCLKIN+	10	RxOIN3-
11	RxOIN3+	12	RxEIN0-
13	RxEIN0+	14	GND
15	RxEIN1-	16	RxEIN1+
17	GND	18	RxEIN2-
19	RxEIN2+	20	RxECLKIN-
21	RxECLKIN+	22	RxEIN3-
23	RxEIN3+	24	GND
25	NC (for test only. Do not connect)	26	NC (for test only. Do not connect)
27	NC (for test only. Do not connect)	28	VDD +5V
29	VDD +5V	30	VDD +5V

2.操作说明

2.1 连接显示器



- 将 DVI 或 VGA 信号线②或③连接到计算机 PC 显卡输出端。
- 接好电源线①,连接本机配套的外置电源模块,将引线插头插入机器后部插孔。
- 功能按键位于面板前面。按电源开关⑤即可开关显示器。通过调节这些功能键可得到您需要的画面。

2.2 按键功能介绍



	Icon	Control	Description
1	1 ↔ 2	输入信号源选择	DVI-VGA 信号源切换, 退出现有菜单
2	<	模式切换	模式切换, DCR, 标准, 文本, 网络, 游戏, 电影, 运动, OSD 向左、向前调整
3	>	4: 3/宽屏切换	宽屏/普屏切换, 在标准模式, 不可调; OSD 向右、向后调整,
4	☰	主菜单/MENU	激活菜单, 选项确认
5	⏻	Power	Power ON/OFF 电源开关,

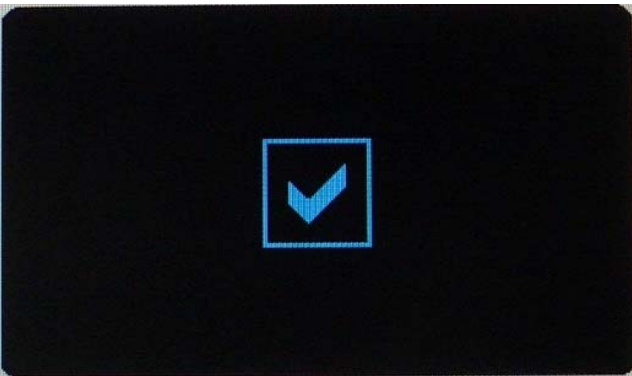
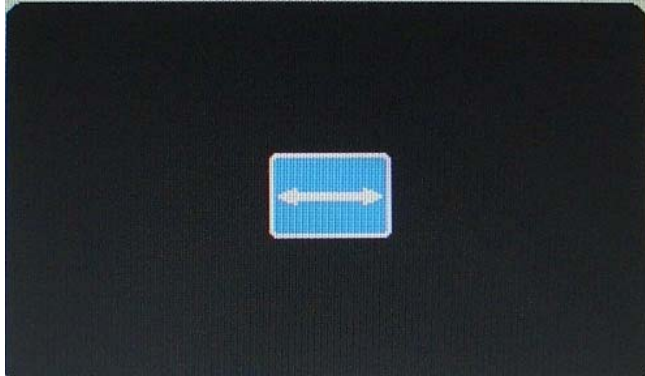
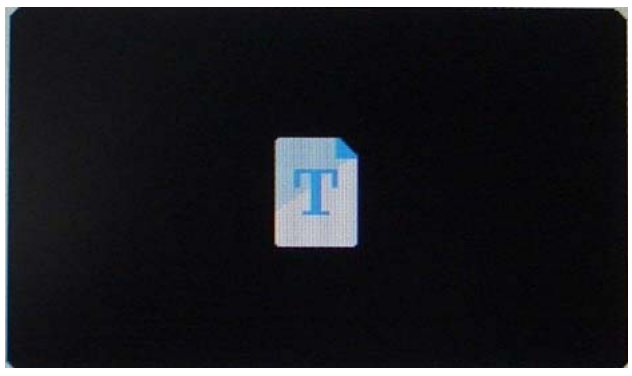
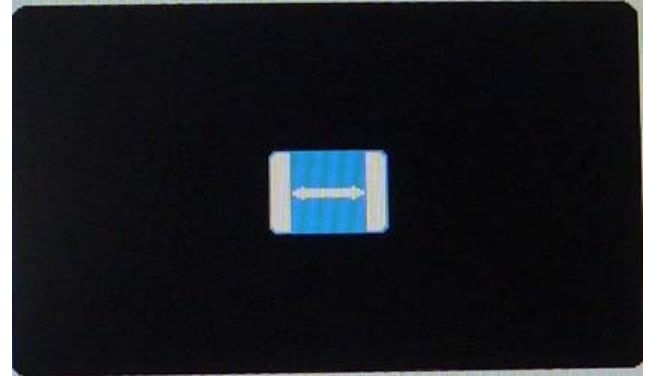





◀+MUNE--OSD锁定功能:

要锁定 OSD，请在显示器开机时按住 ，再按下  按钮，这时开机后OSD菜单控制键被锁住，并出现提示。


要解锁 OSD，请在显示器下一次开机时同样按住  时，+  按钮，这时打开显示器后，菜单功能按键可用。

2.3 OSD 菜单调整

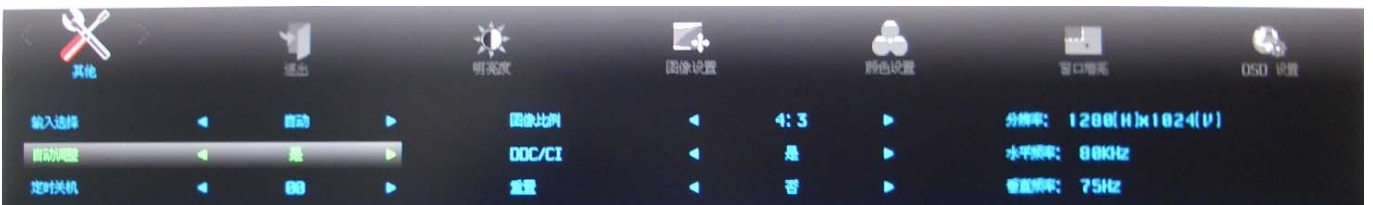
Hot key快捷键及图示

<	>
	
	
	MENU-锁定  + 
	

OSD 菜单调节

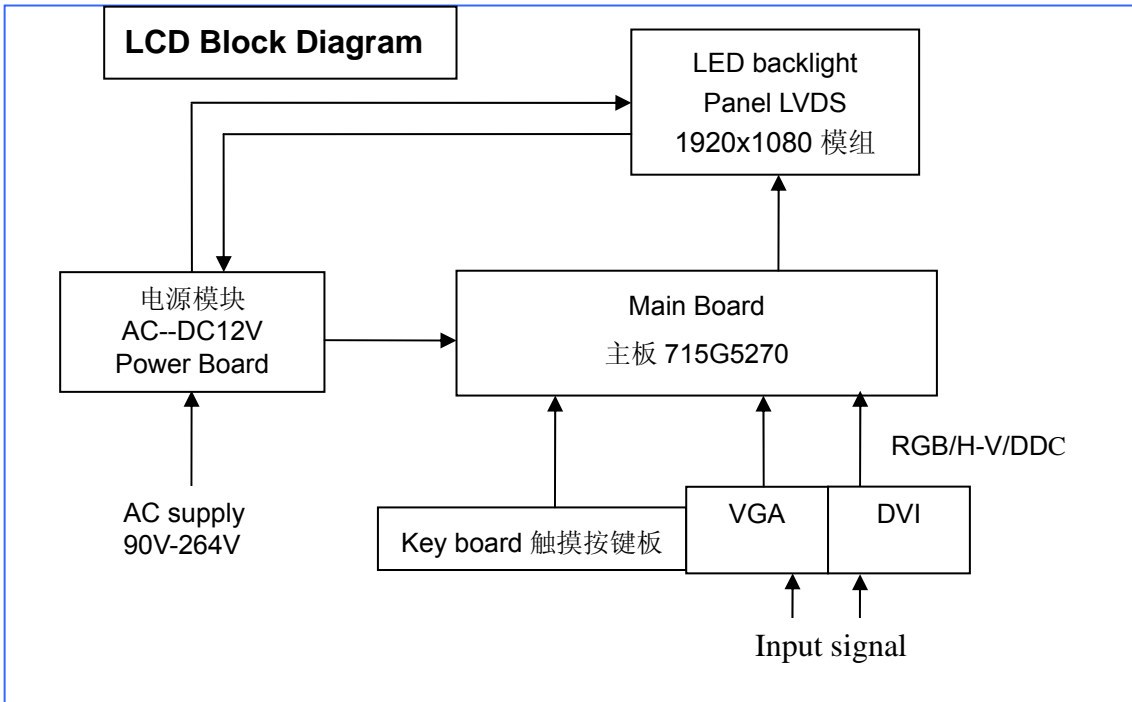
- 按 MENU 按钮  激活 OSD 窗口。
- 按 < 或 > 浏览这些功能。 如果想要调整的功能突出显示，按 MENU 按钮激活它。如果所选的功能包含有子菜单，再按一下 < 或 > 可以浏览到子菜单功能。如果想要调整的功能突出显示，按 MENU 按钮激活它。
- 按 < 或 > 更改所选功能的设置。
- 要退出和保存，请选择退出功能。 如果您想调整其它任何功能，请重复以上步骤。

OSD菜单图示如下：

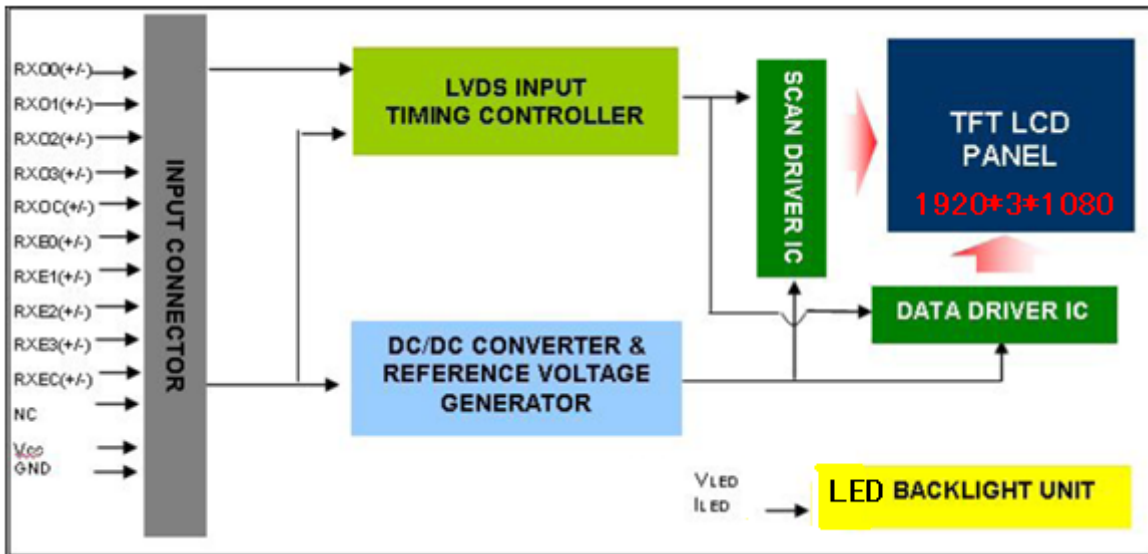


3.电气方框图

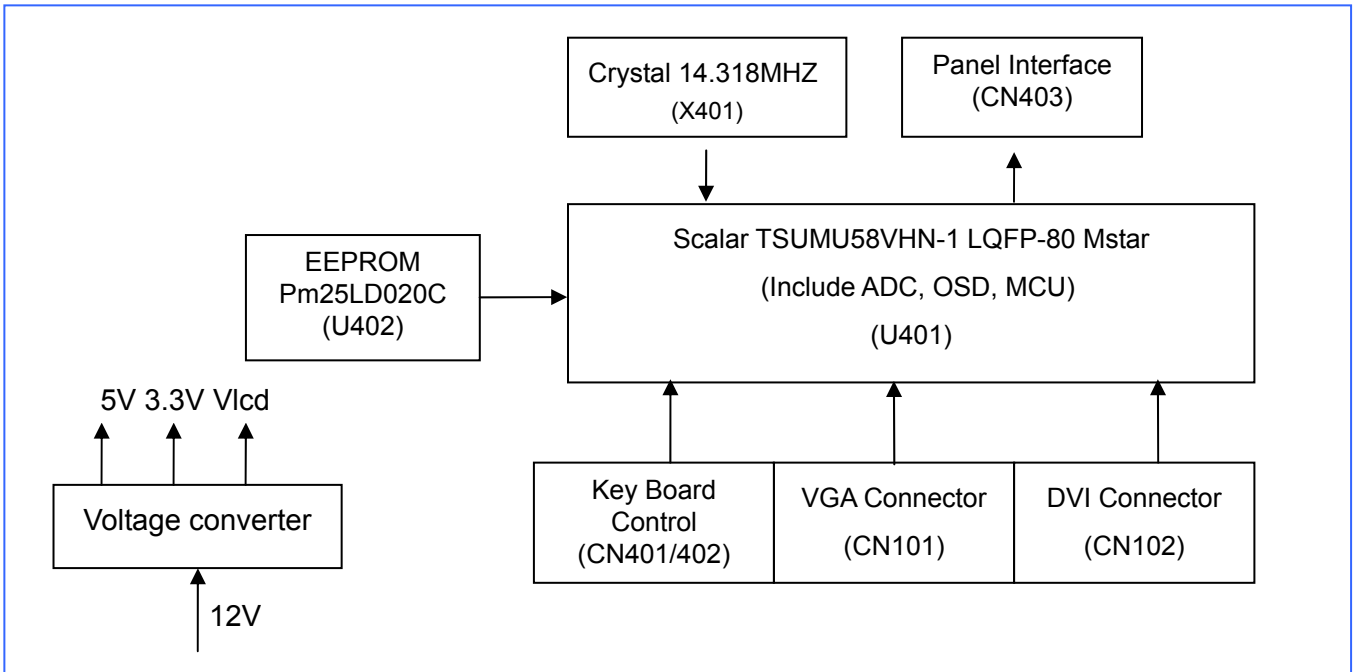
3.1 LCD 整机方框图



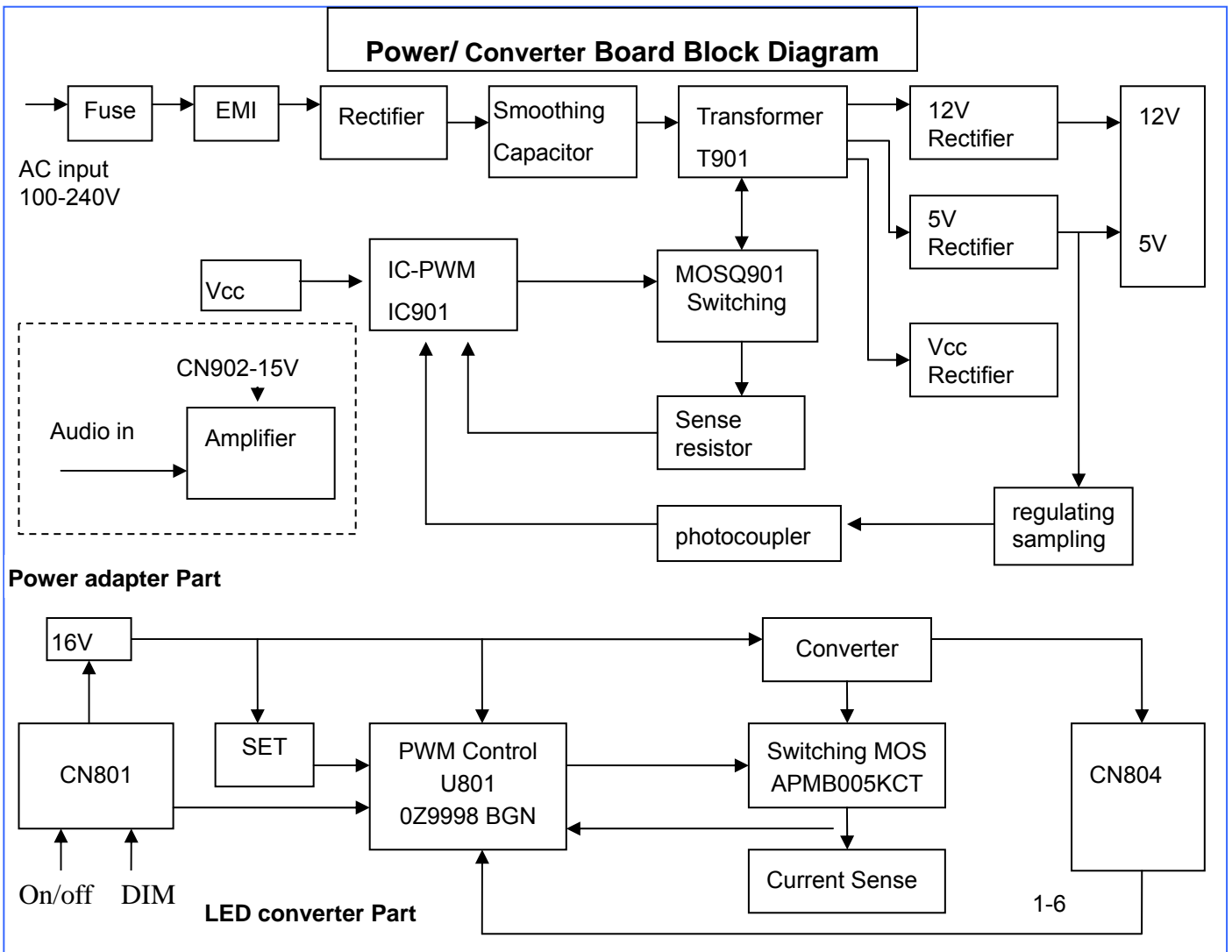
3.2 Panel 方框图



3.3 Main 主板方框图

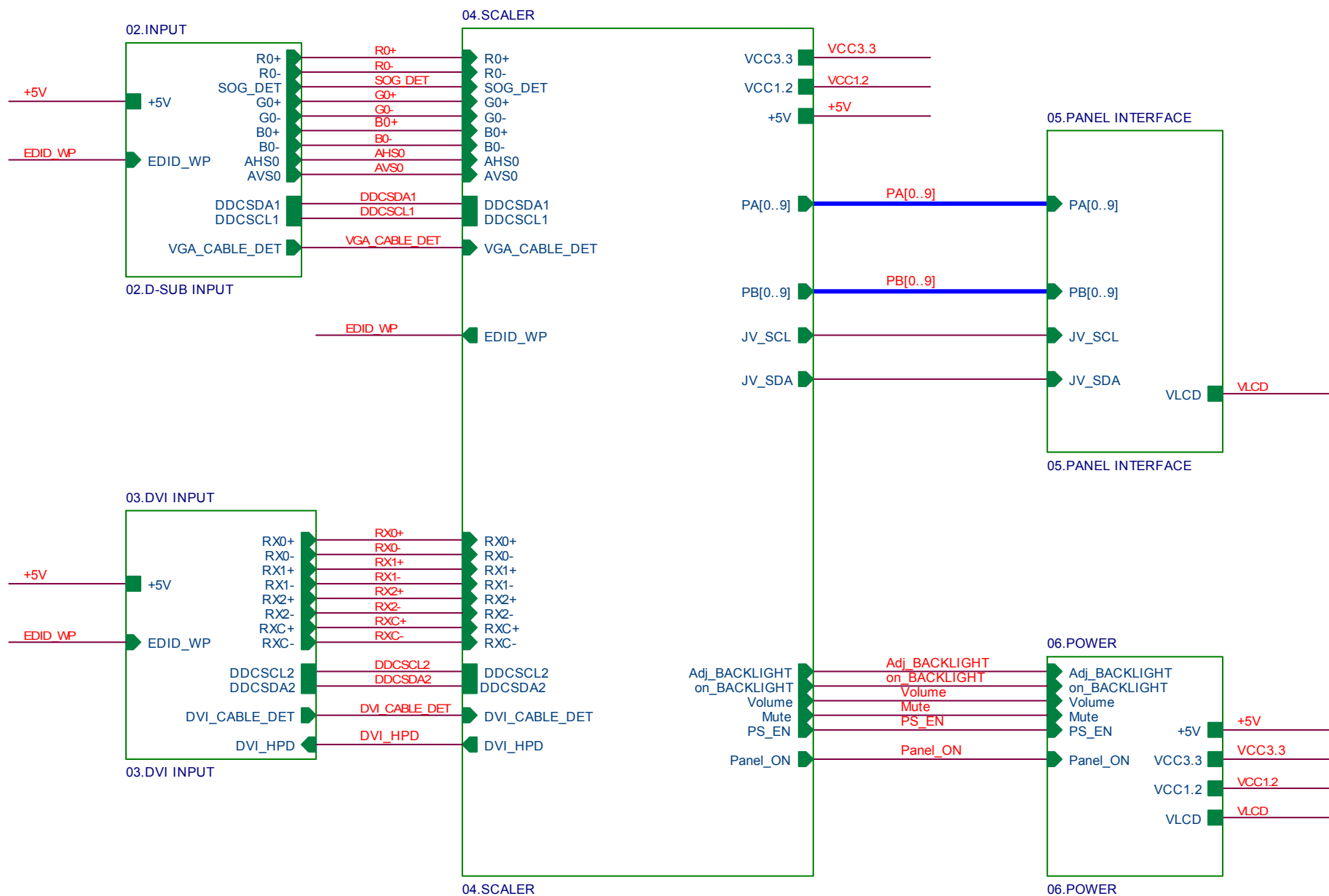


3.4 Power 电源板方框图

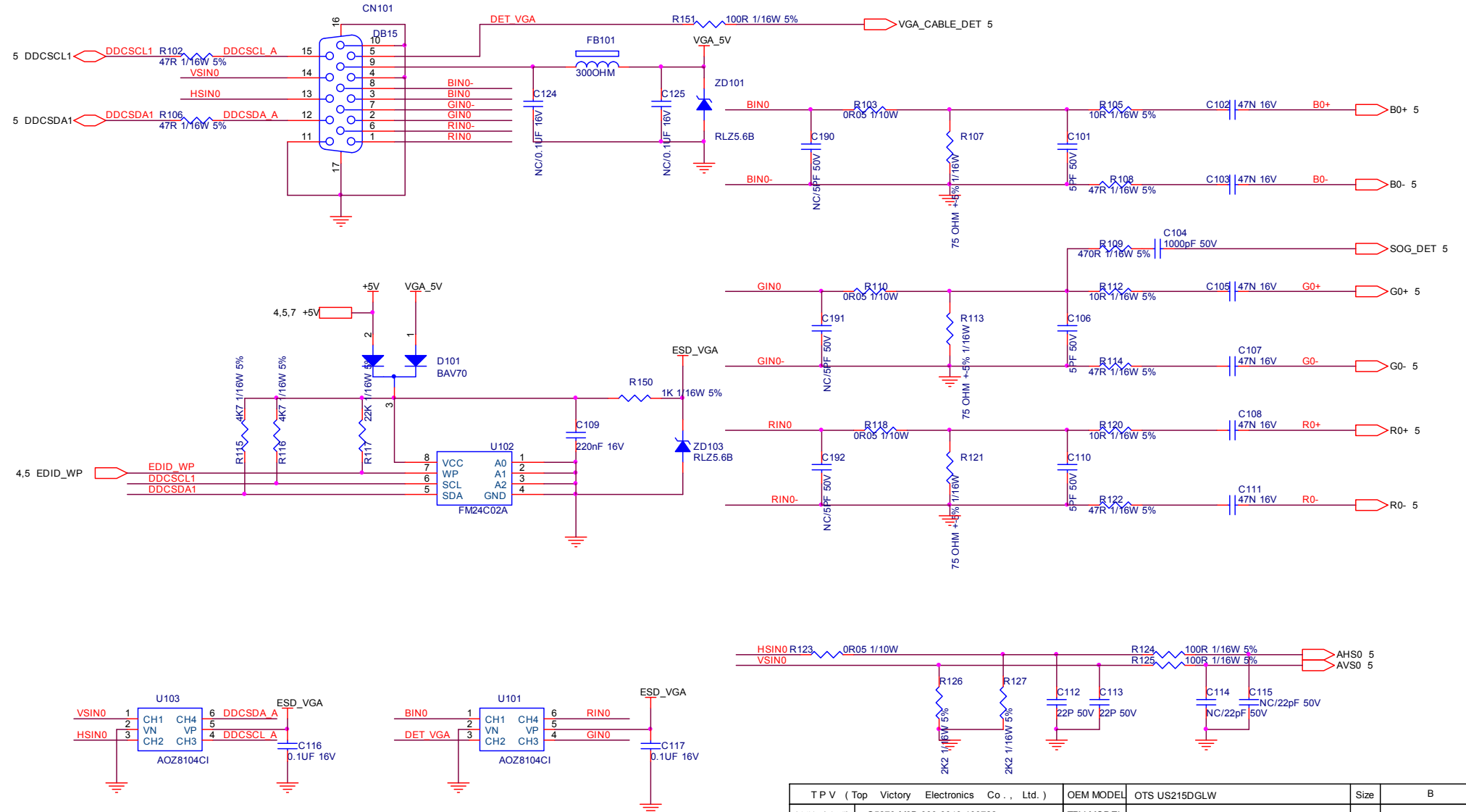


4.电原理图

4.1 主板 715G5270M

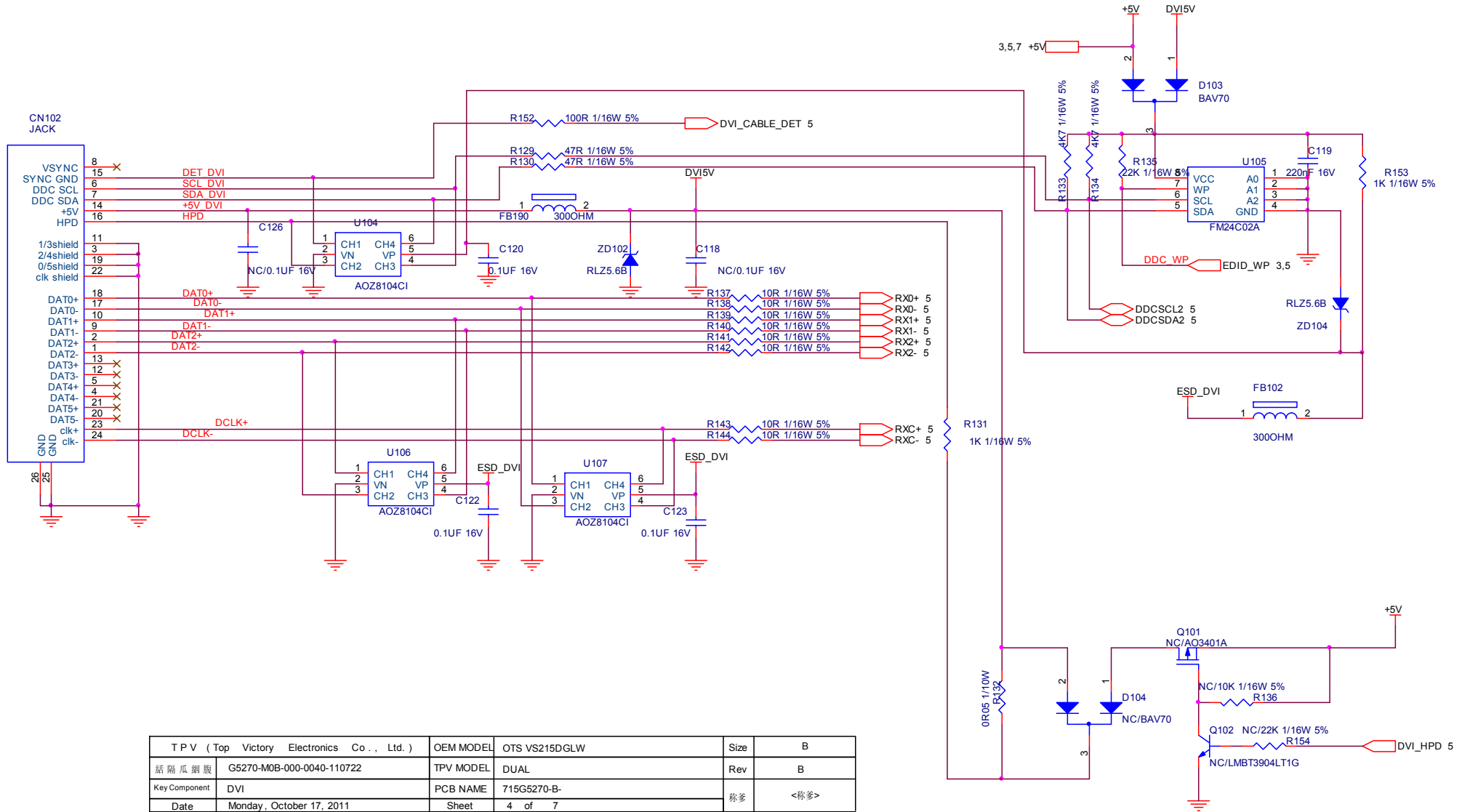


VGA input

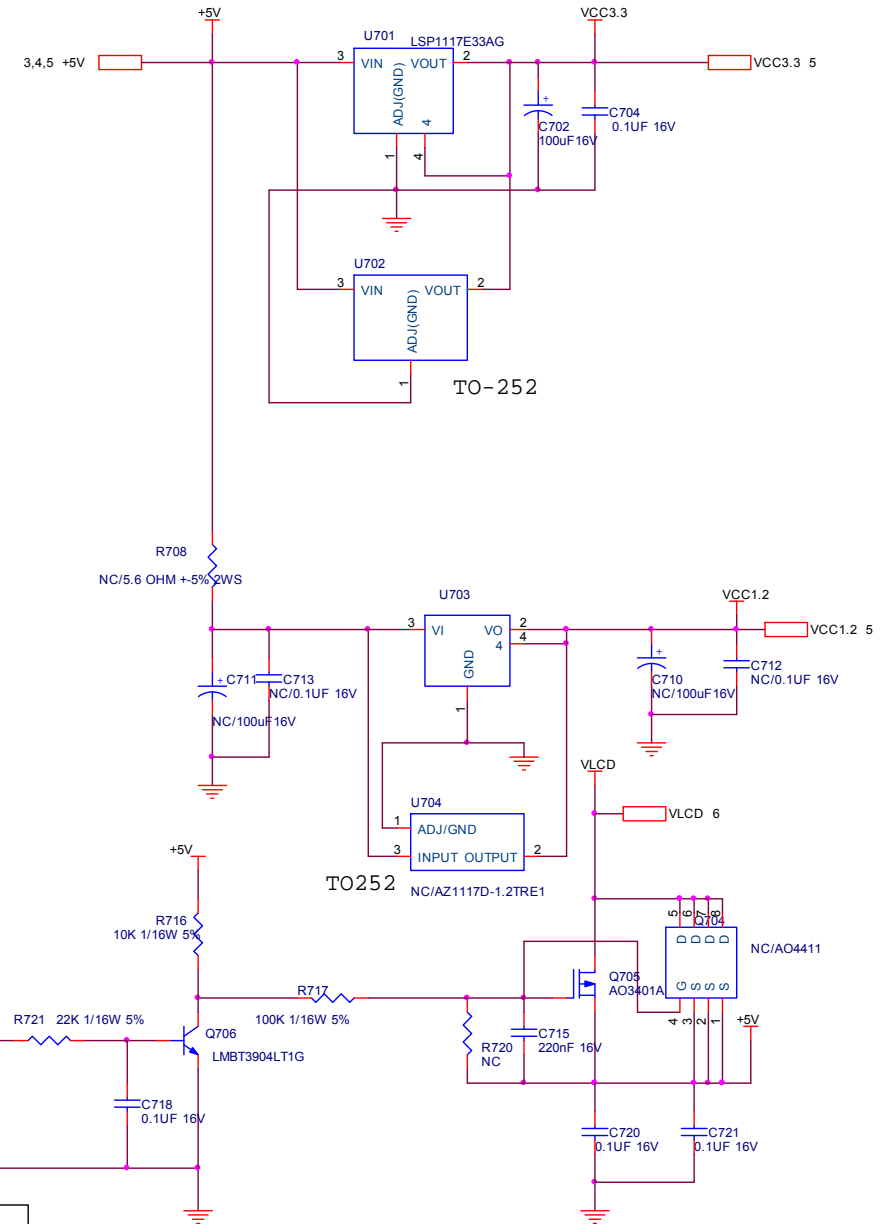
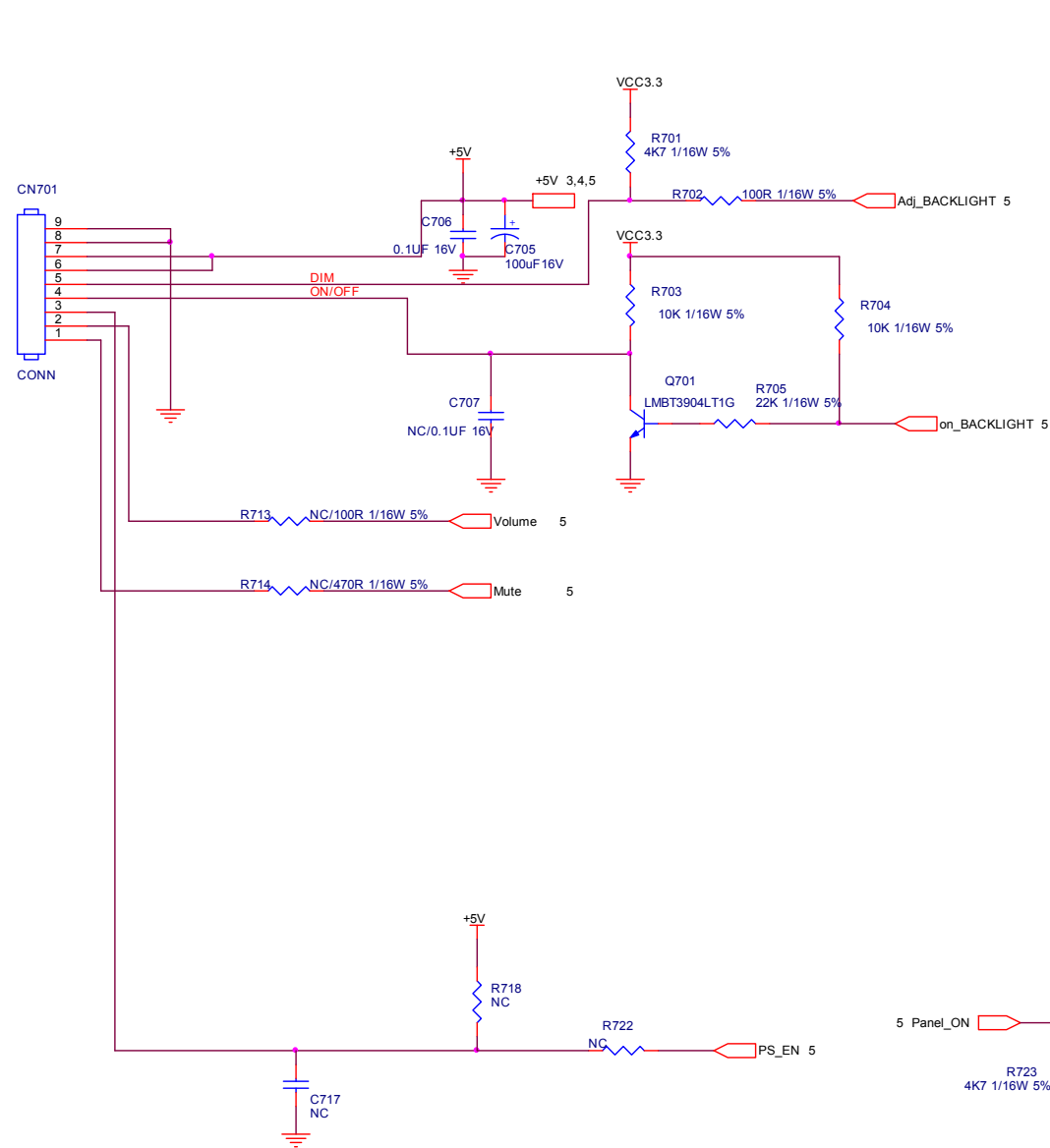


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS US215DGLW	Size	B
結構瓜網膜	G5270-M0B-000-0040-100722	TPV MODEL	DUAL	Rev
Key Component	D-SUB I/O	PCB NAME	715G5270-B-	稱號
Date	Monday, October 17, 2011	Sheet	3 of 7	<稱號>

DVI input part



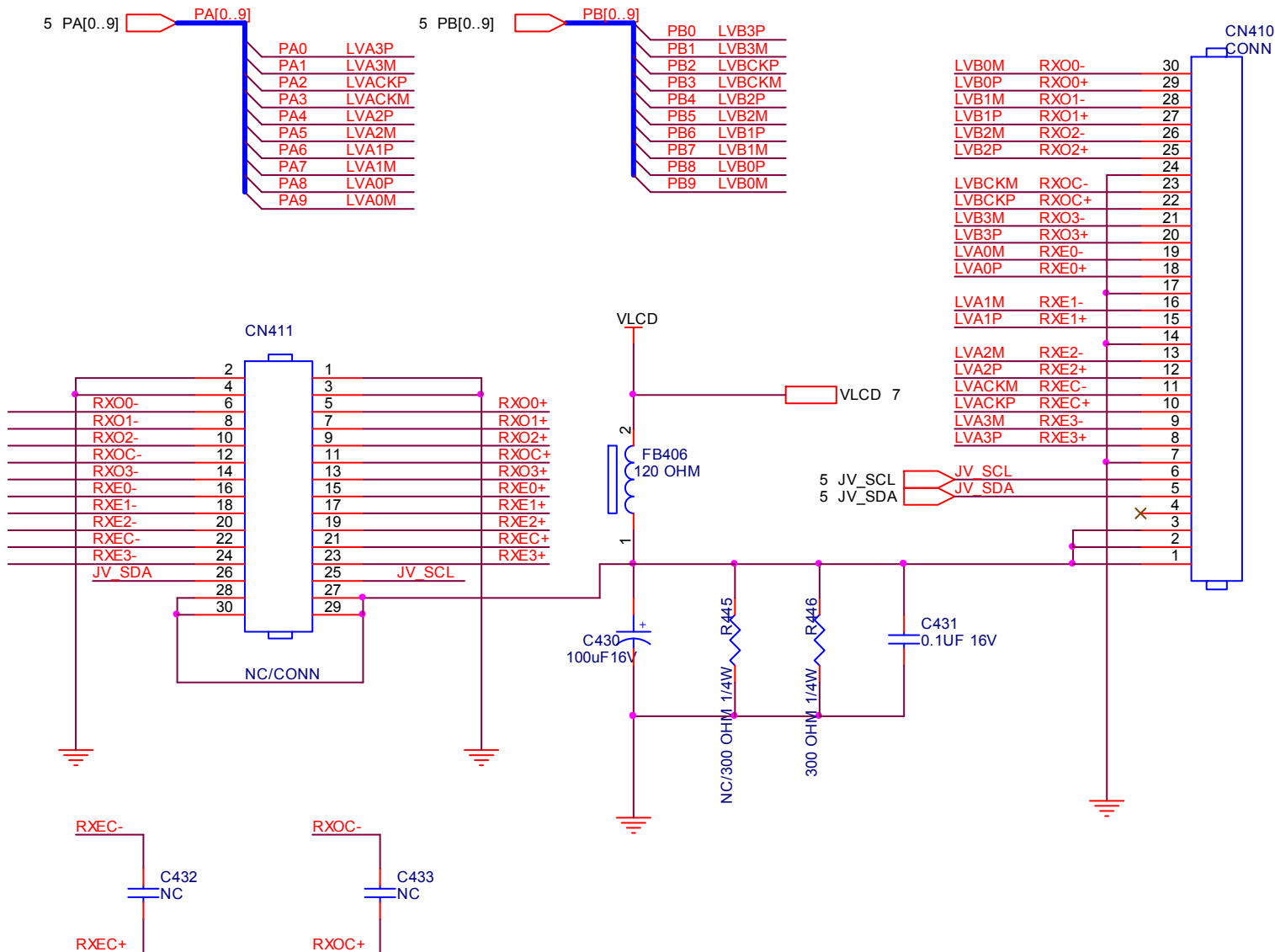
Power 5V+3.3V+Vlcd



<Variant Name>

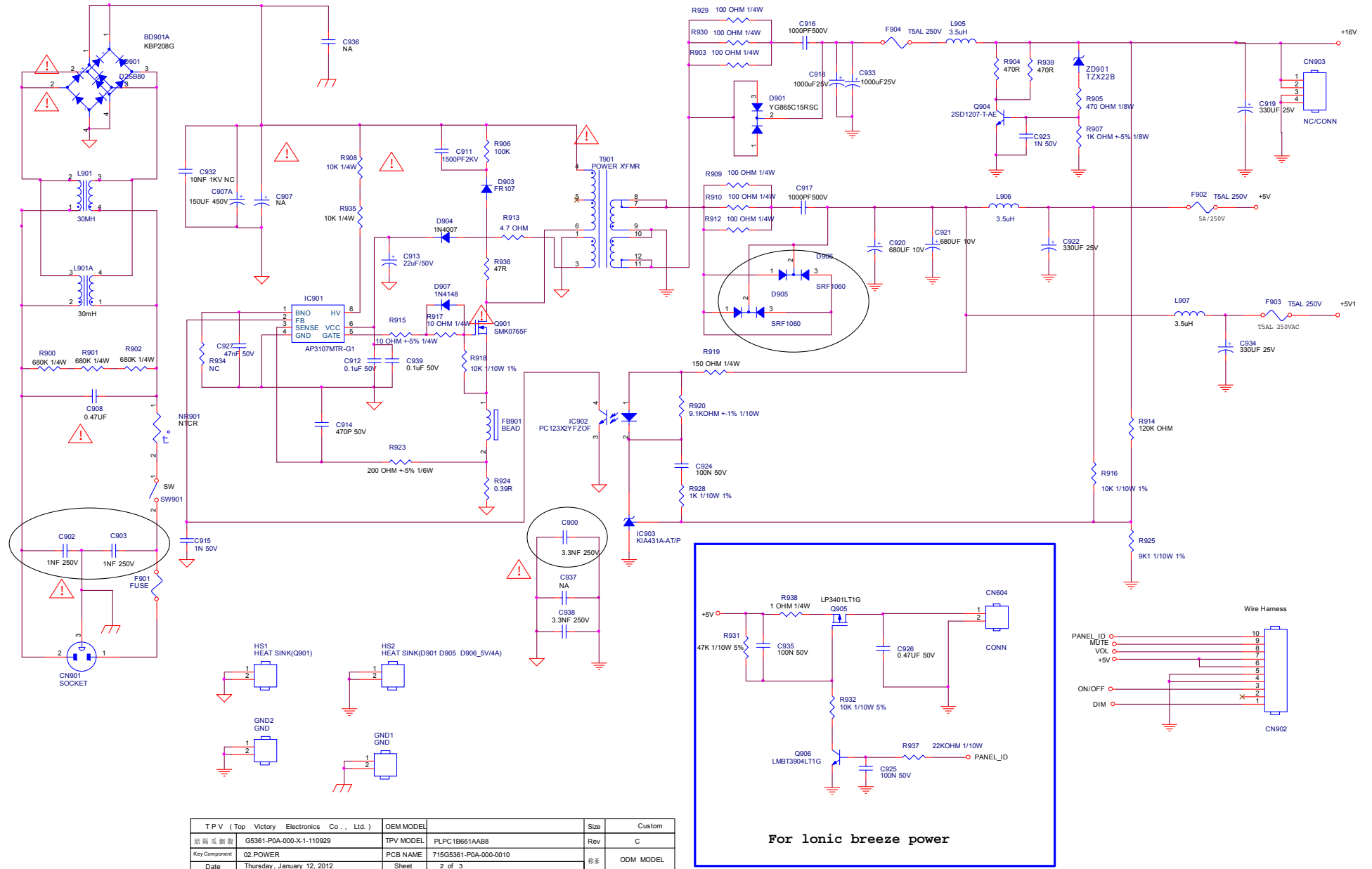
T P V (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS US215DGLW	Size	B
絲瓜網版	G5270-M0B-000-0040-110722	TPV MODEL	Rev	A
Key Component	POWER	PCB NAME	715G5270-B-	称簽
Date	Monday, October 17, 2011	Sheet	7 of 7	<称簽>

Output part

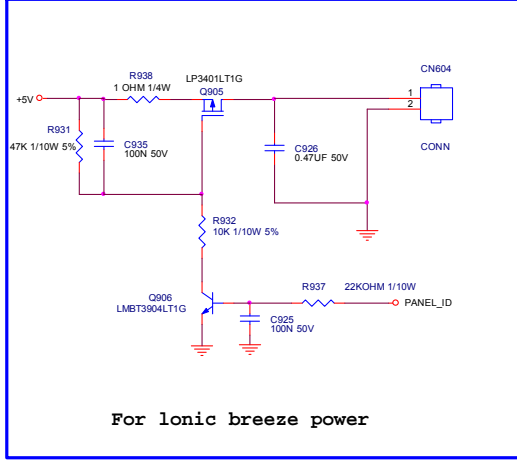


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	OTS VS215DGLW	Size	A
紙隔瓜網腹	G5270-M0B-000-0040-110722	TPV MODEL	DUAL	Rev
Key Component	LVDS PANEL I/O	PCB NAME	715G5270-B-	称簽
Date	Thursday, September 29, 2011	Sheet	6 of 7	<称簽>

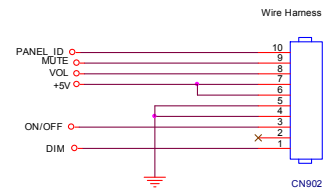
4.2 电源板 Power 715G5361P



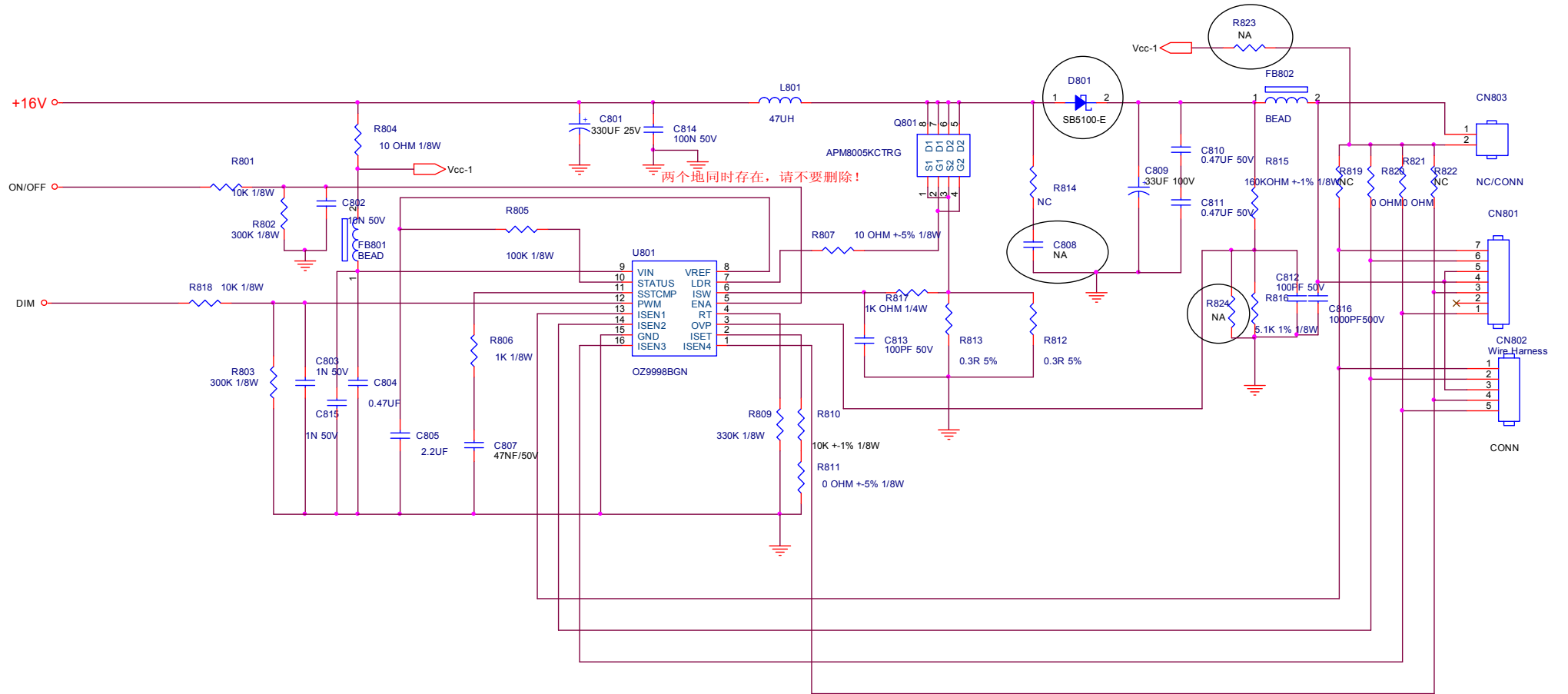
TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	Size	Custom
新橋瓦廠 G5361-POA-000-X-1-110929	TPV MODEL PLPC18661AAB8	Rev	C
Key Component 02 POWER	PCB NAME 715G5361-POA-000-0010	数量	ODM MODEL
Date Thursday, January 12, 2012	Sheet 2 of 3		



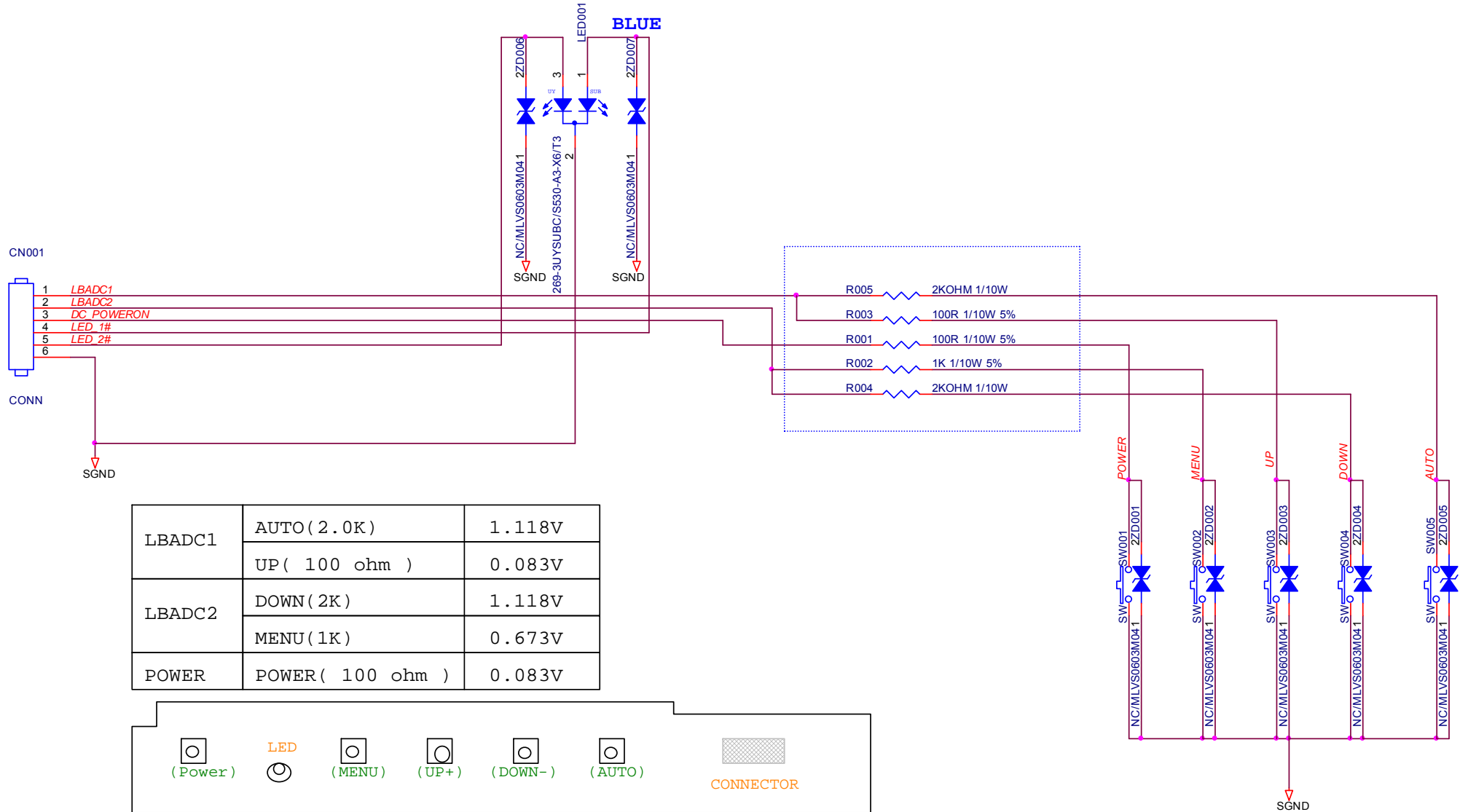
For Ionic breeze power



LED drive



4.3 按键板 key 715G5357K



5. 机构爆炸图

ITEM	P/N	DESCRIPTION	QTY
1	A3MG2854	BEZEL	1
2		PANEL	1
3	A19QJ790	CHASSIS	1
4	A34G2832	REAR COVER	1
5	A375A791-01L	HINGE	1
6	A34G2833-12-02A	STAND	1
7	A34G2834-12-02A	BASE	1
8	Q17G6600-6	FOOT PAD	4
9	Q33G6590-12-02A	LENS	1
10	Q33G6591-12-02A	KEYPAD	1
11		KEY PCB	1
12	J52P0800-3-1A	WYLAR	1
13		POWER BOARD	1
14		MAIN BOARD	1
15	D44G2831-25-603	EVA WASHER	4
S1	M06000-B-020	SCREW, M0600	4
S2	M061740-6-020	SCREW, M0606	1
S3	Q10L10-6-020	SCREW, M0606	2
S4	M061740-03-47	SCREW, M0610	3
S5	M061740-6-023	SCREW, M0606	3

6. 故障处理流程

6.1 检修工具仪器

电压计、电流计、电阻计或数字多用表；

双踪示波器；






图形信号发生器；

色彩分析仪；

交流功率计；

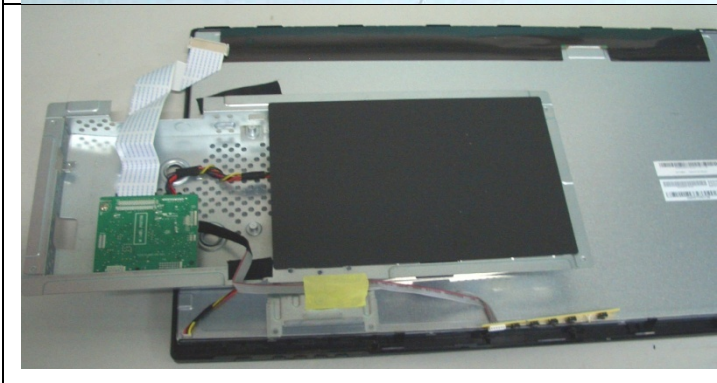
DDC 烧录工具；

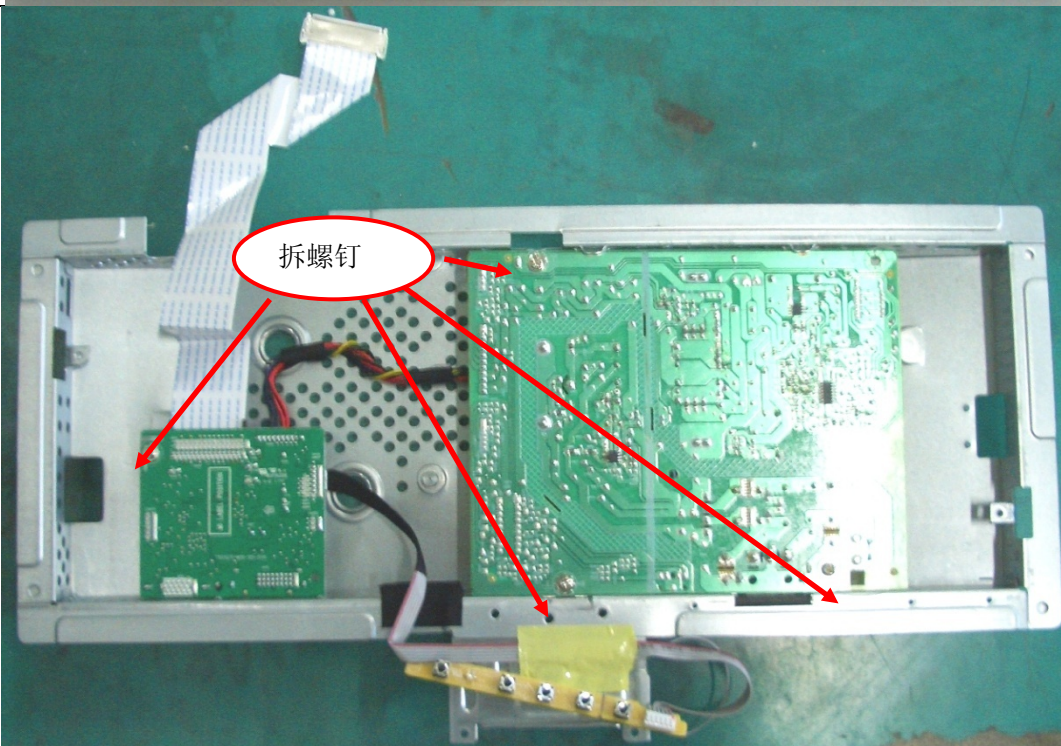
十字螺丝刀、干净软布等等。

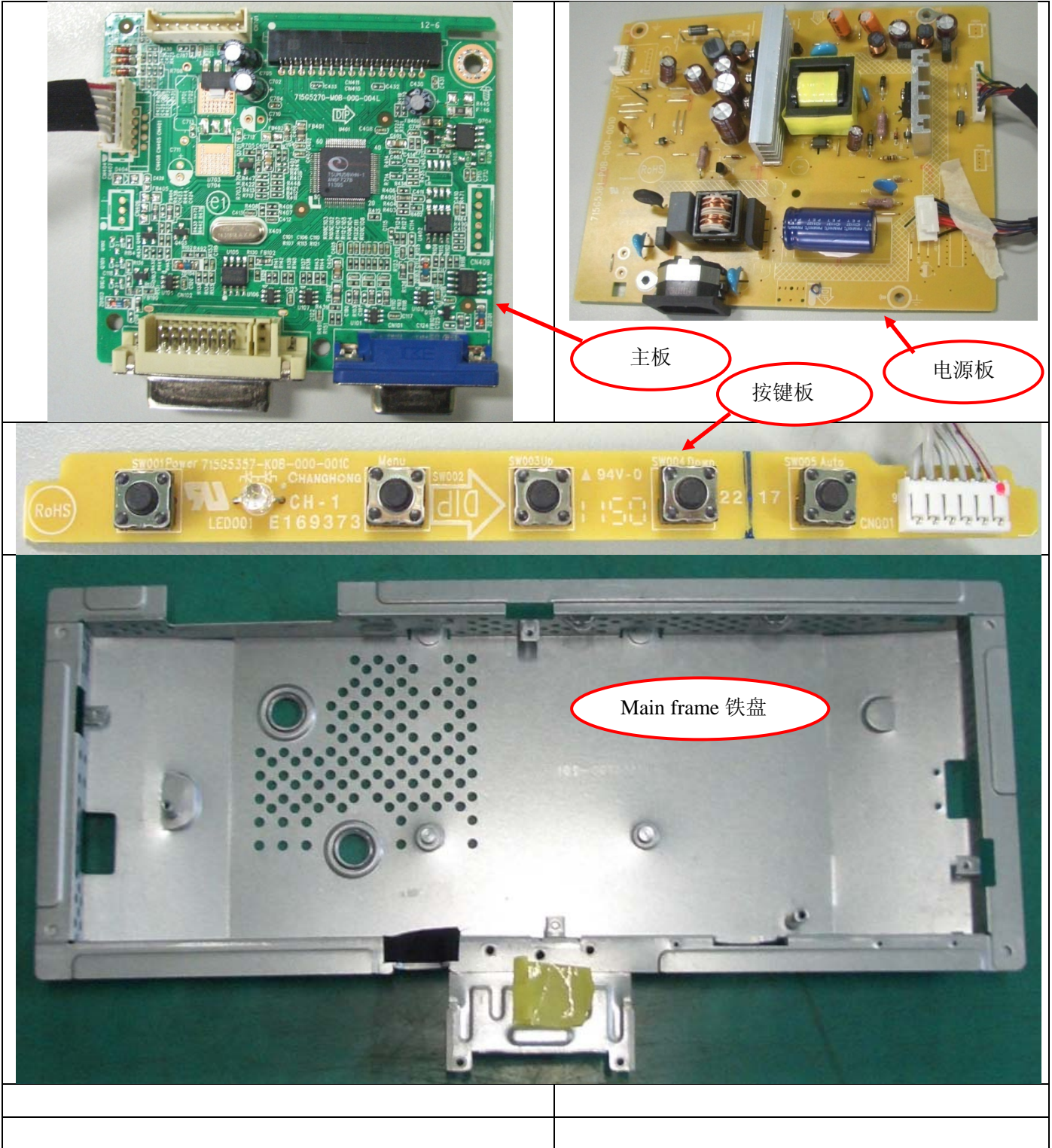
<p>Phillips screwdriver</p>	
<p>spacer screwdriver</p>	
<p>C/D Disassembly Tool</p>	
<p>Gloves or soft cloth</p>	
<p>Prepare soft cloth and sponge as working platform</p>	

6.2 机构拆解图示



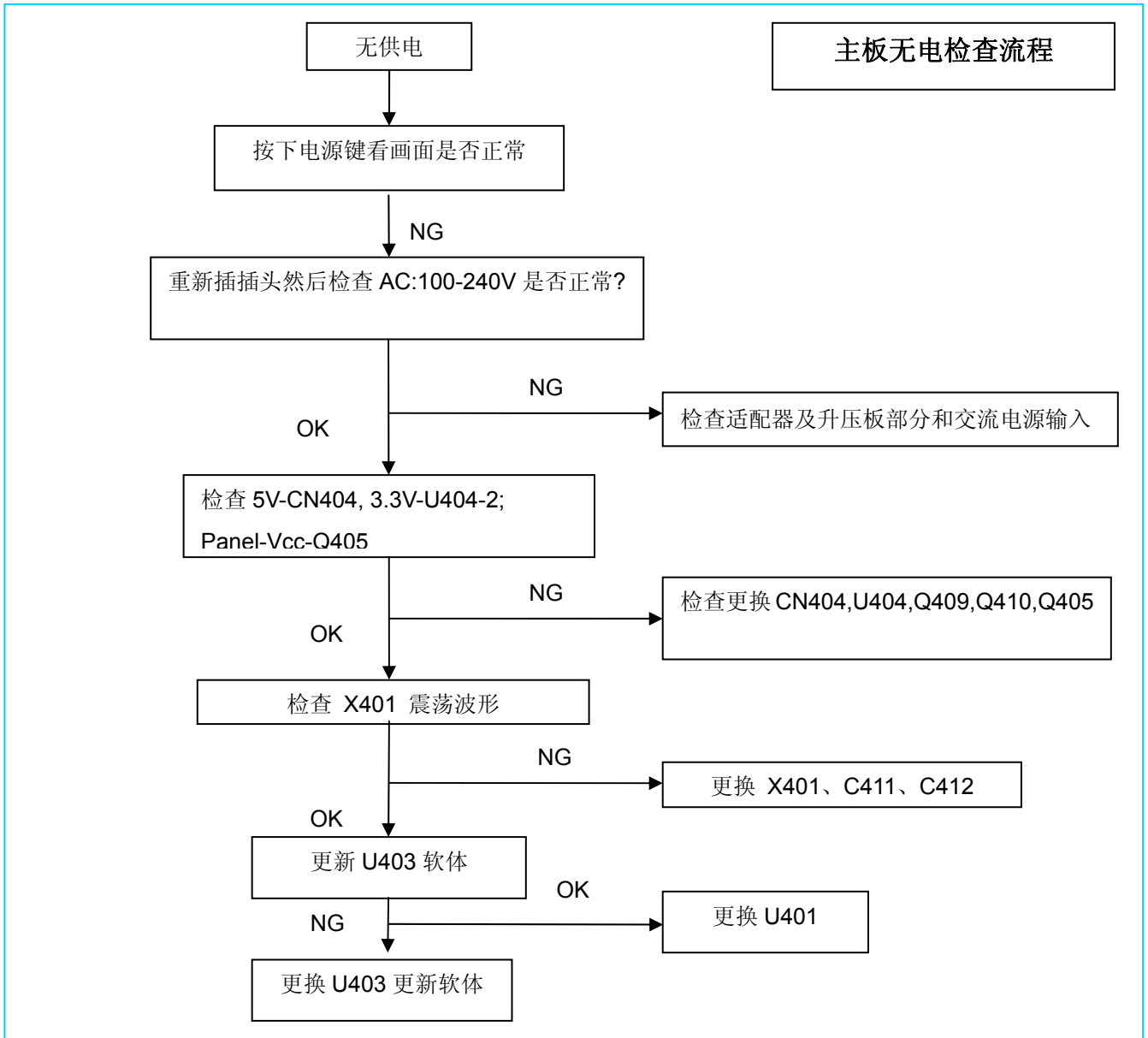




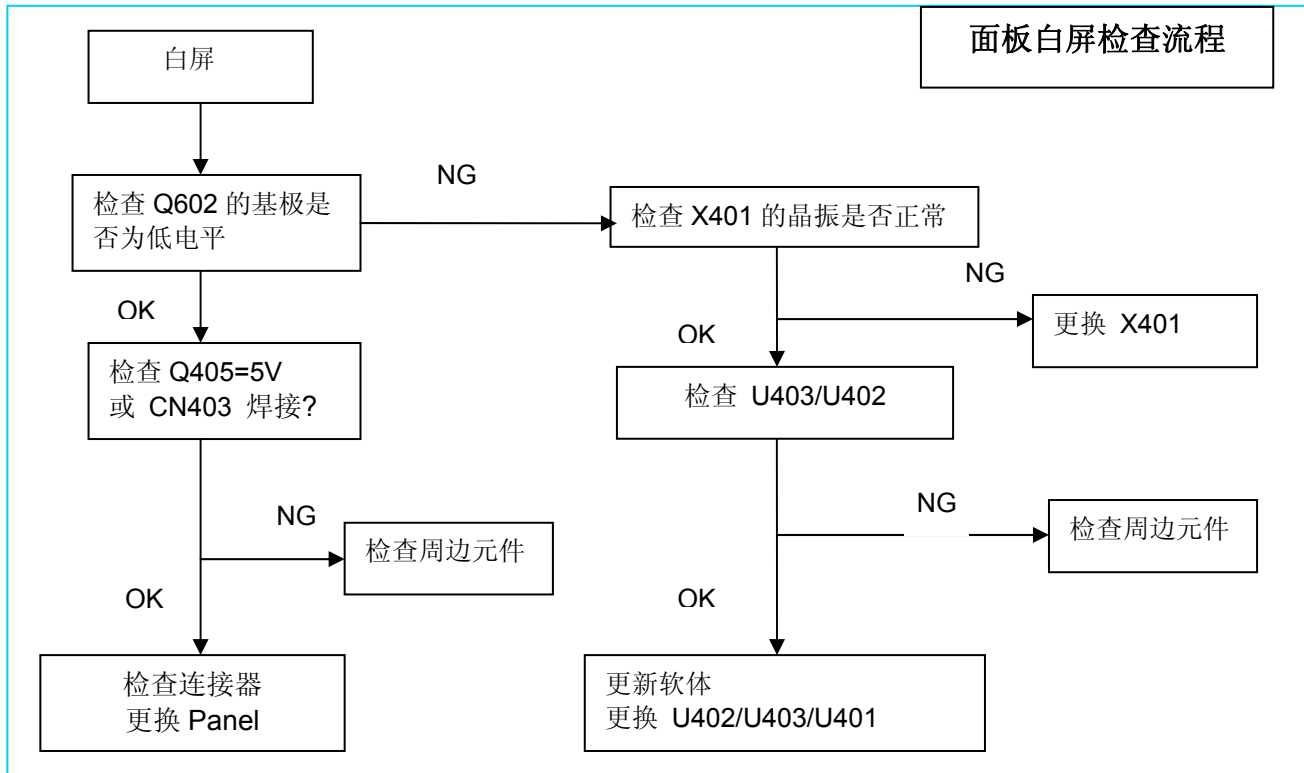


6.3 故障处理流程

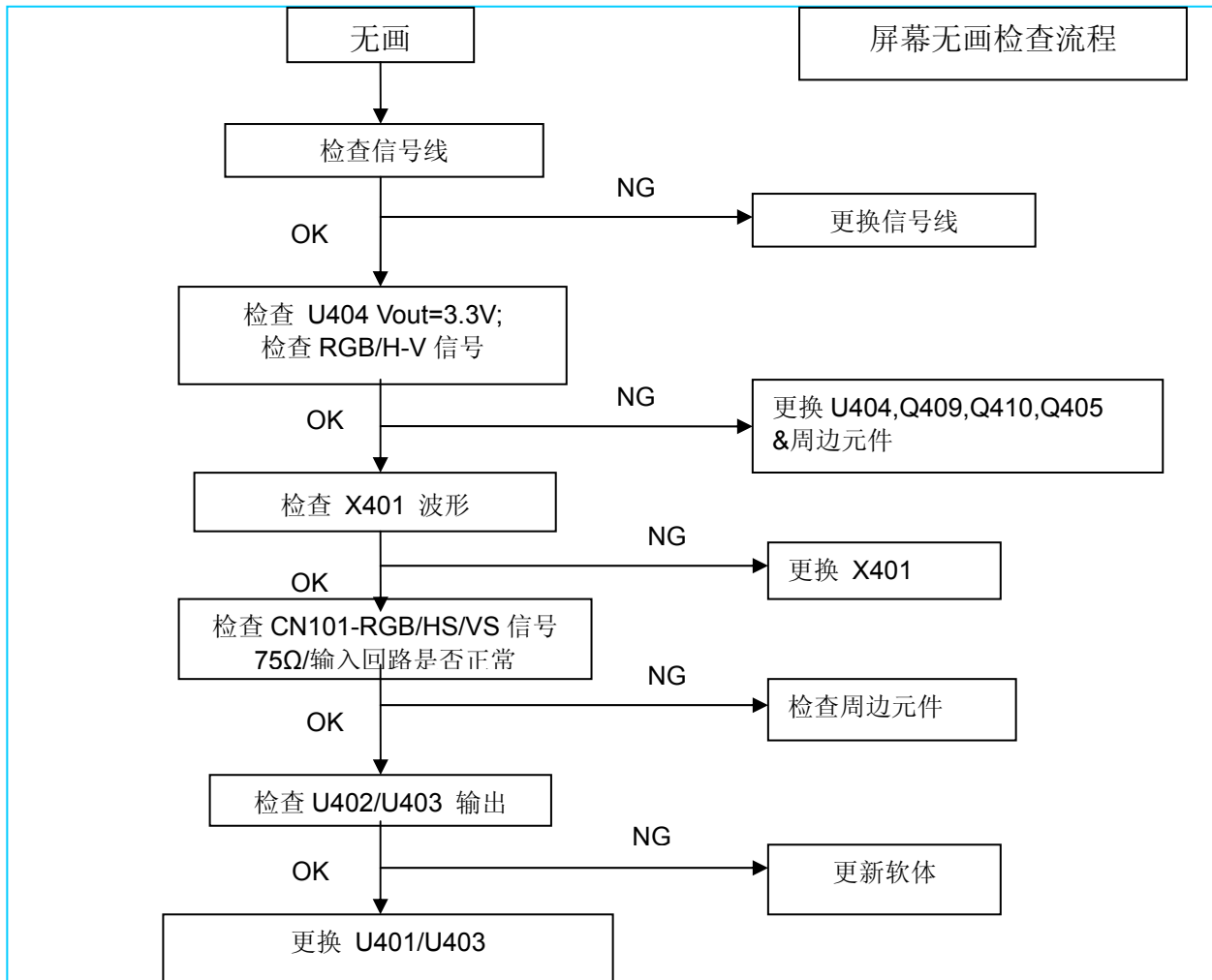
主板无电



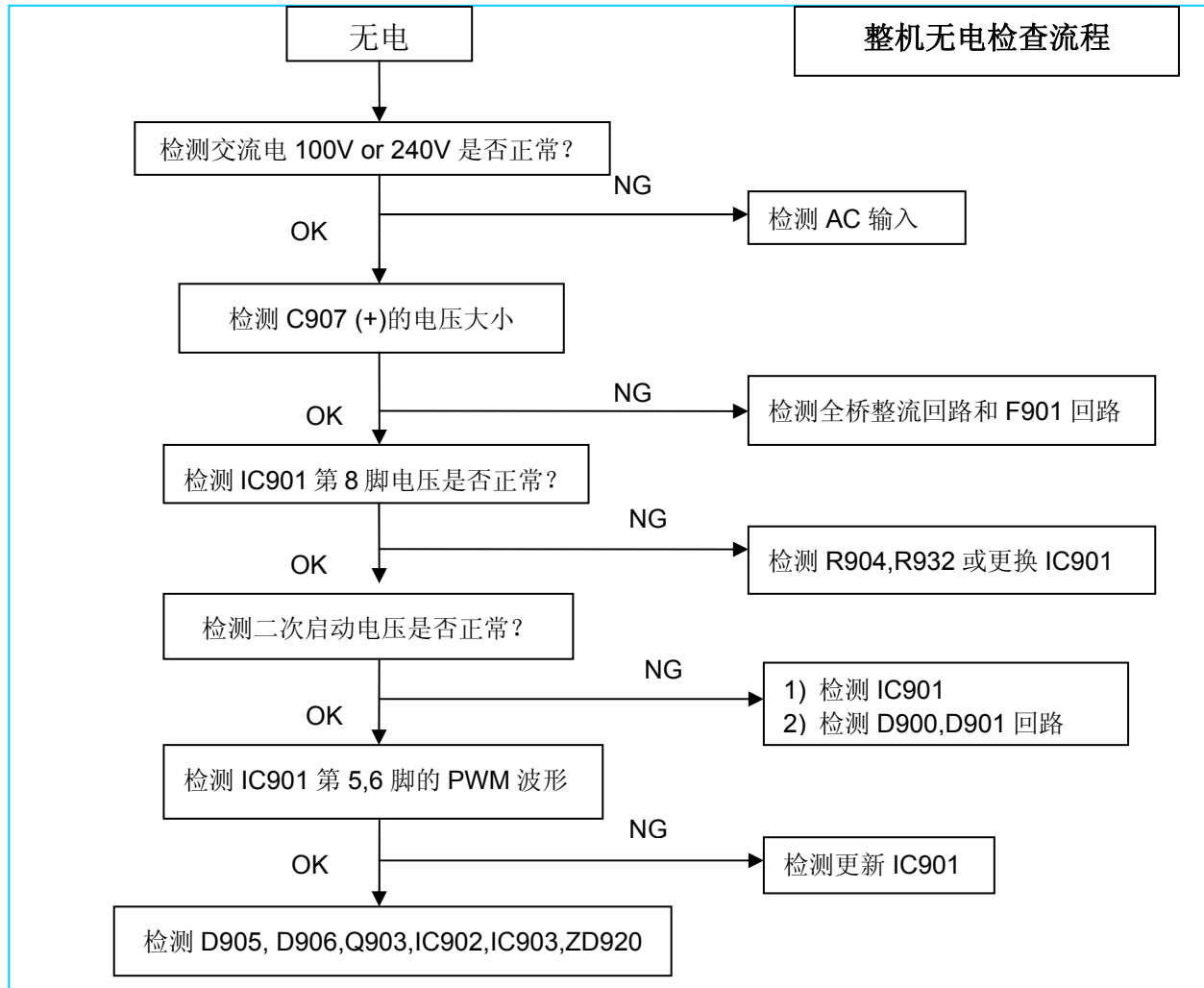
面板白屏检查流程



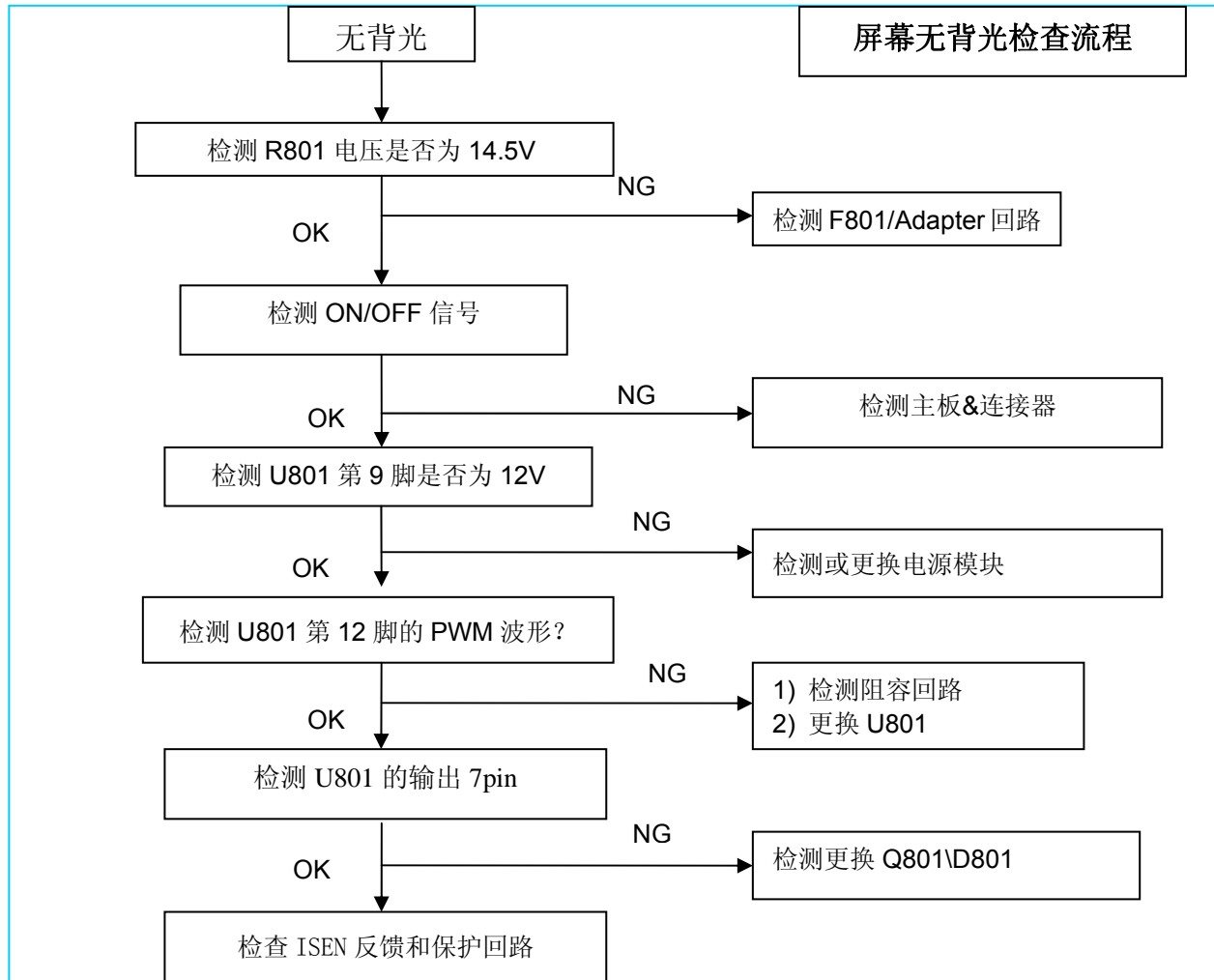
屏幕无画



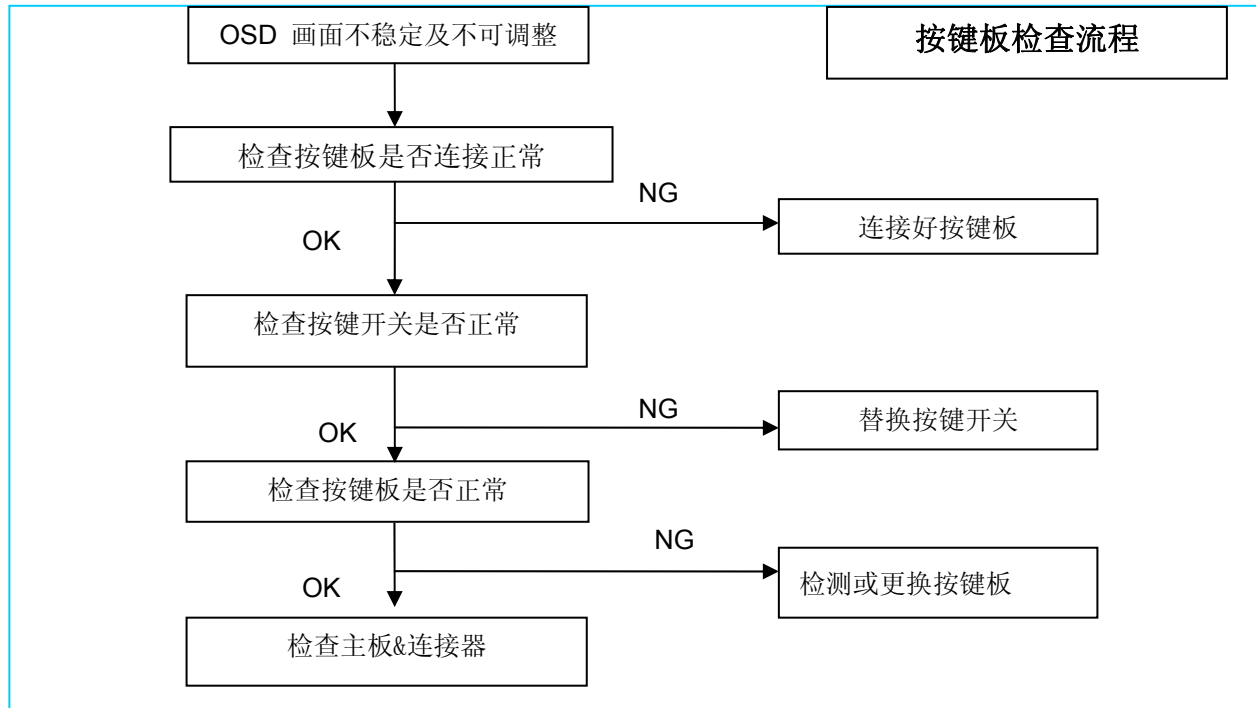
电源模块 无电死机



屏幕无背光



按键板检查



7. 软体更新和 DDC 改写

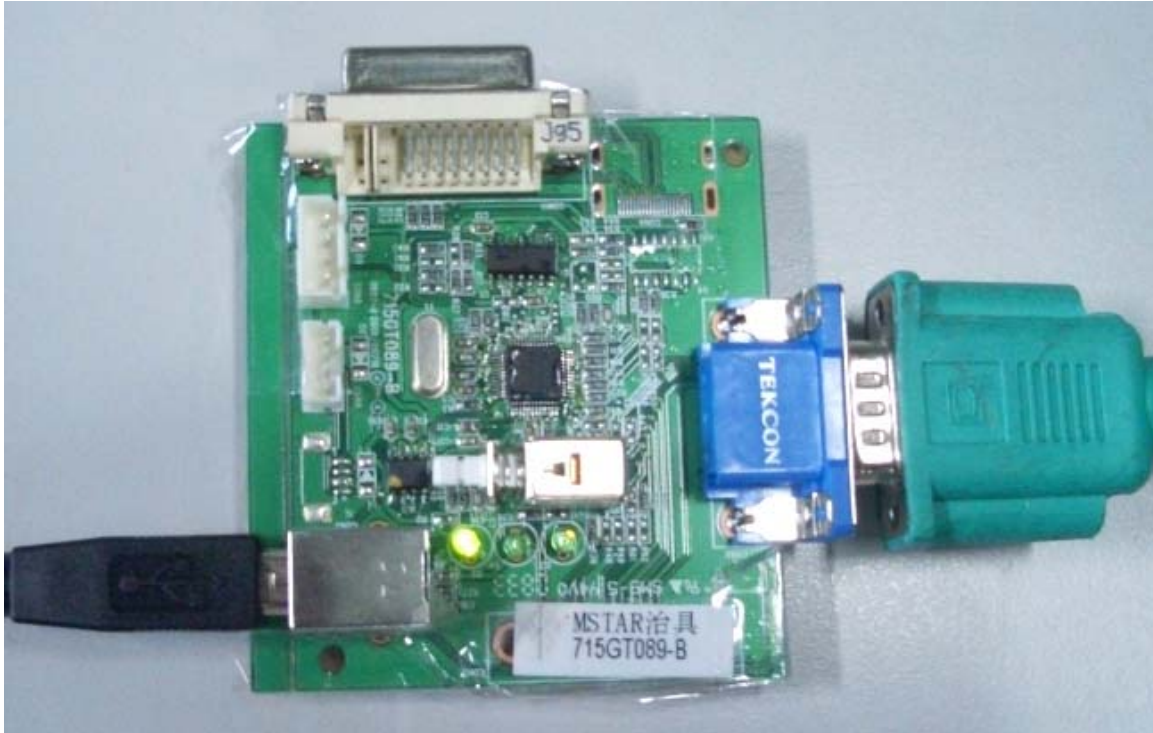
7.1 软体更新步骤

本机信息:

	756GJBCB0AA0620000	MCU ASSY+CBPCBB7A1QAJ G5270-0B
U402	056G2233 11	IC Pm25LD020C-SCE SIOC-8(150mil) 2M
SMTCB-U402	100GAMAK001B11	AOC_e2460_ID11_TSUMU58VHN_AUOM240HW01
U401	056G 562A22	SCALER TSUMU58VHN-1 LQFP-80

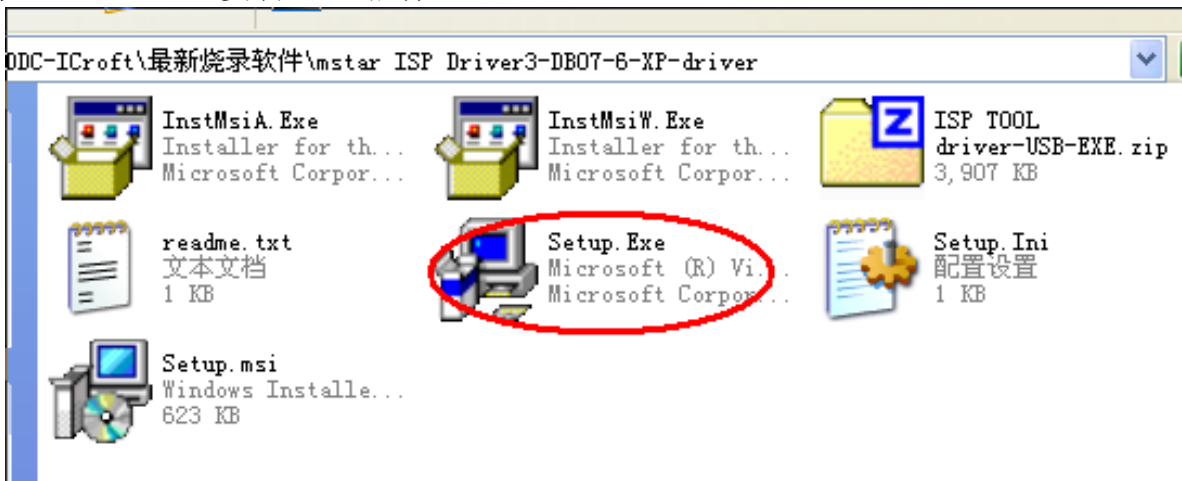
步骤 1 连接

1. 用 USB 连接线缆将软件改写工具（ISP 版 715GT089-B）连接到计算机 PC-USB 口，用 VGA15 芯线缆连接显示器，如下图所示：

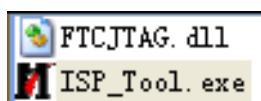


步骤 2 驱动安装

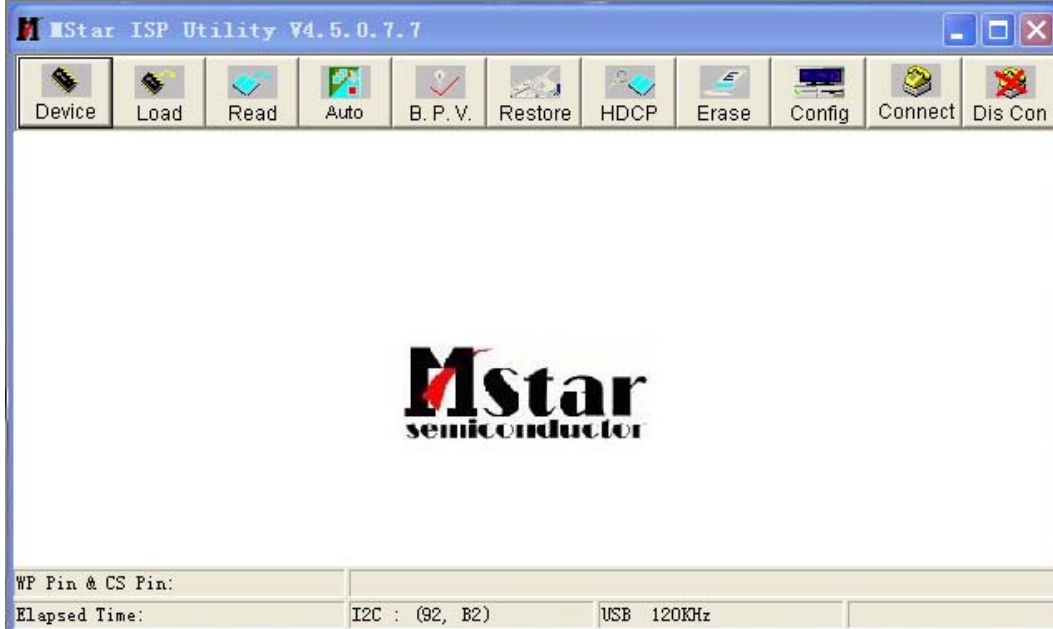
- 1.使用 715GT089-B，安装 USB 驱动：mstar ISP Driver3-DB07-6-XP-driver



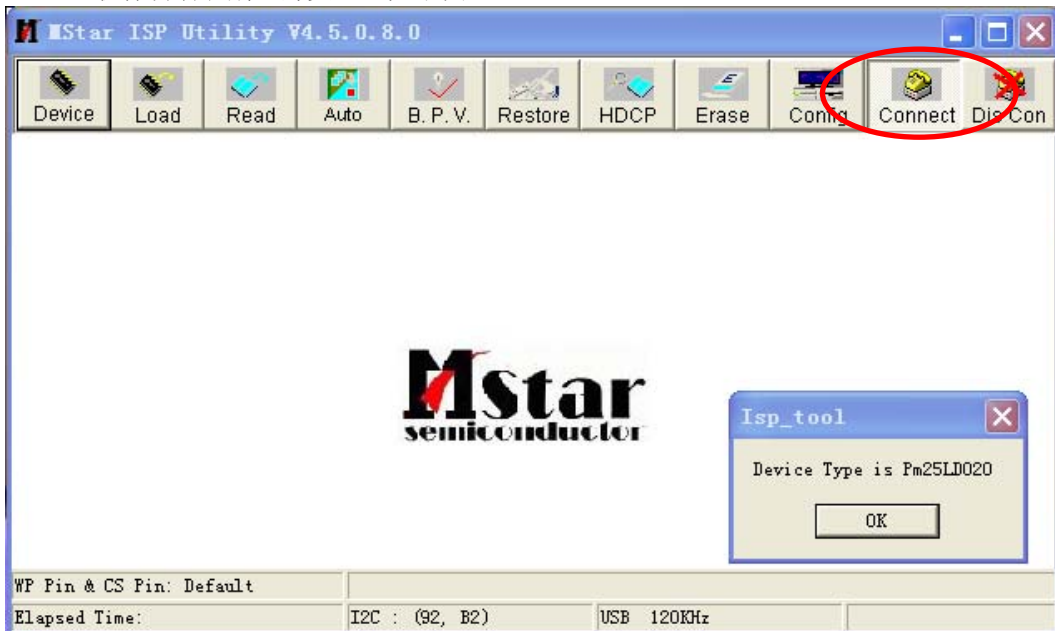
步骤 3:运行



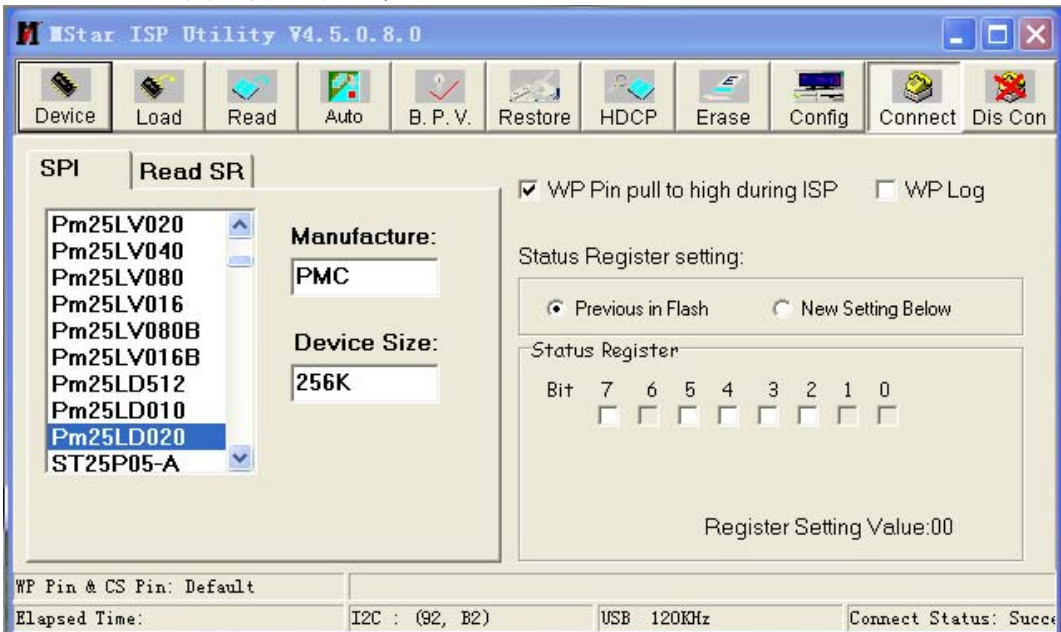
1. 打开 Mstar tool V4.5.0.8，（这 2 个文件在一个目录中），显示如下画面，按图示点选。:



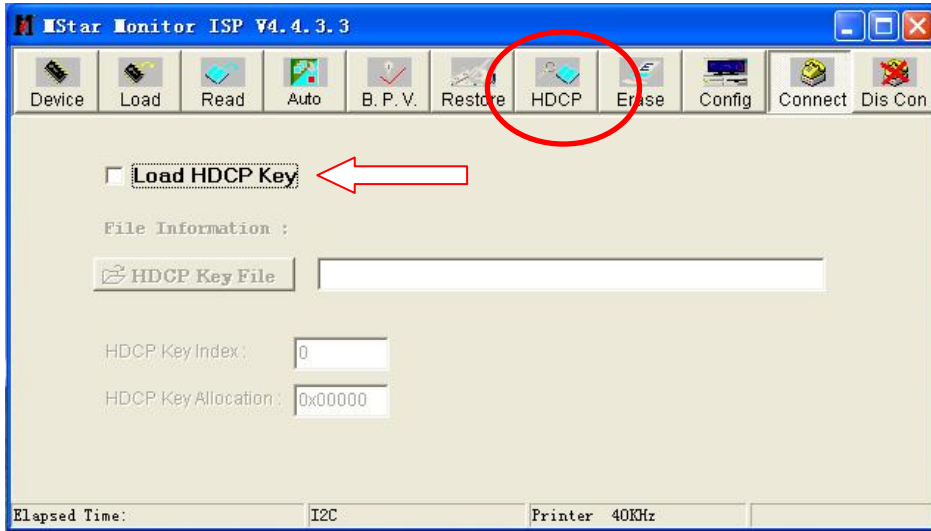
2. 点击“Connect” 软体自动识别芯片类型，如下图：



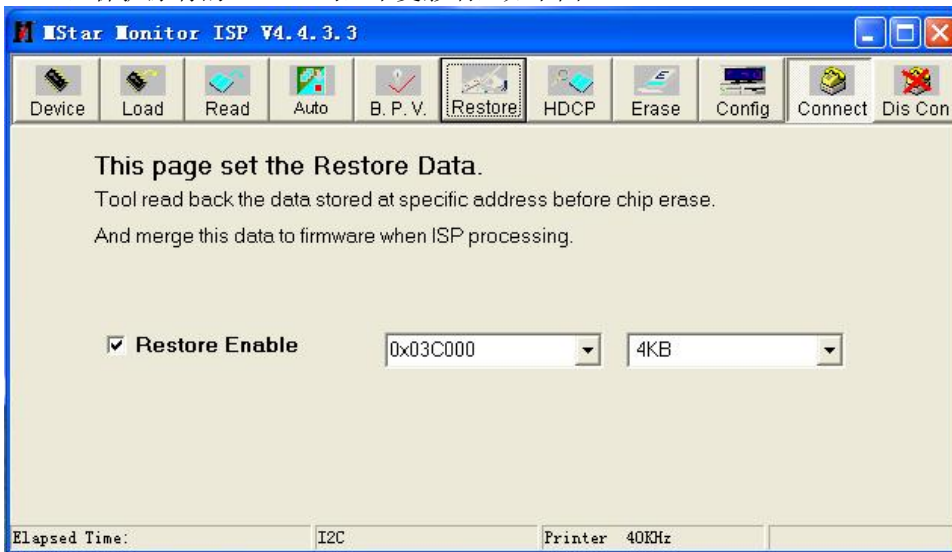
3. 点击图中的“Device”，出现下图，按图中勾选；



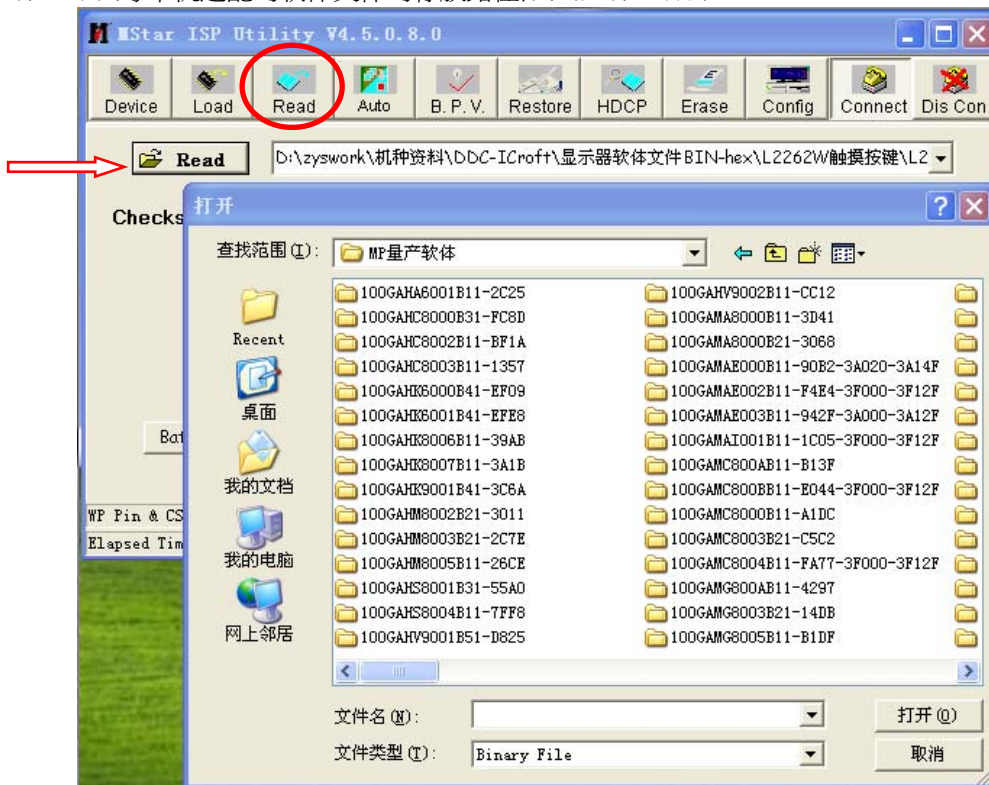
4. 点击图中的“HDCP”，不加载 HDCP 码，



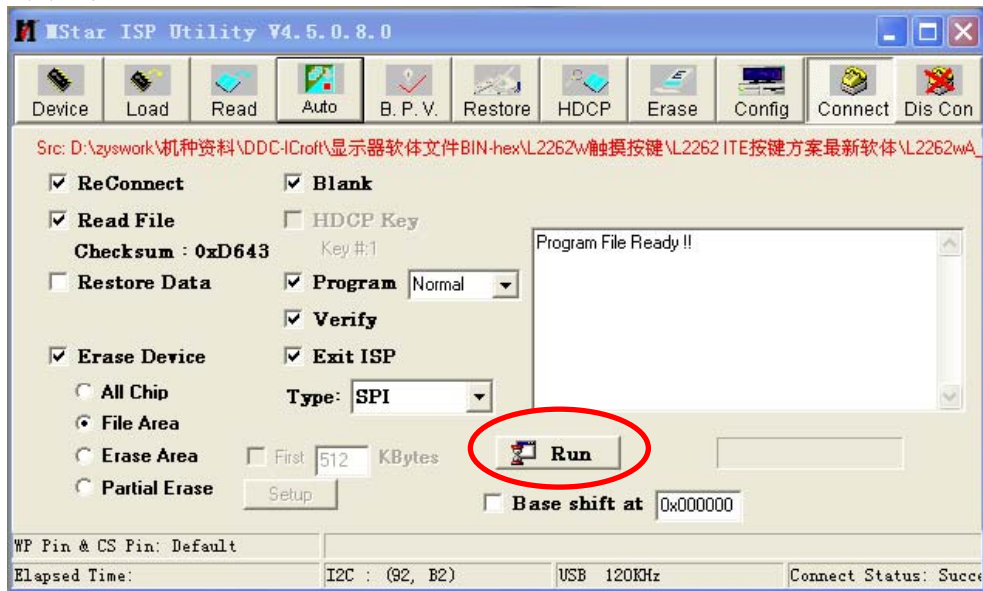
5. 点击图中的“Restore”，保护原有的 HDCP 码，不受影响，如下图：



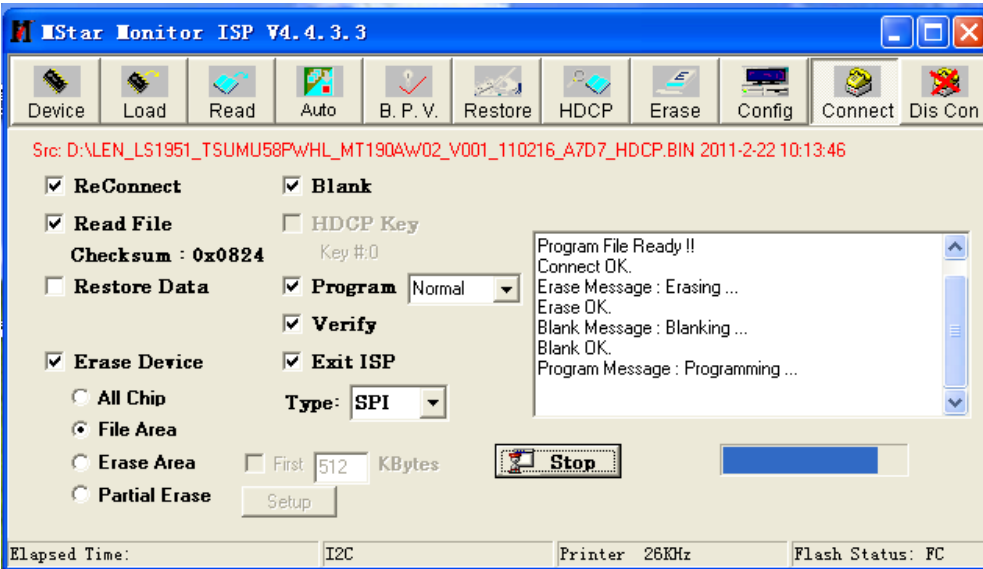
6. 加载软件文件，寻找与本机适配的软件文件的存放路径,找到文件，打开，



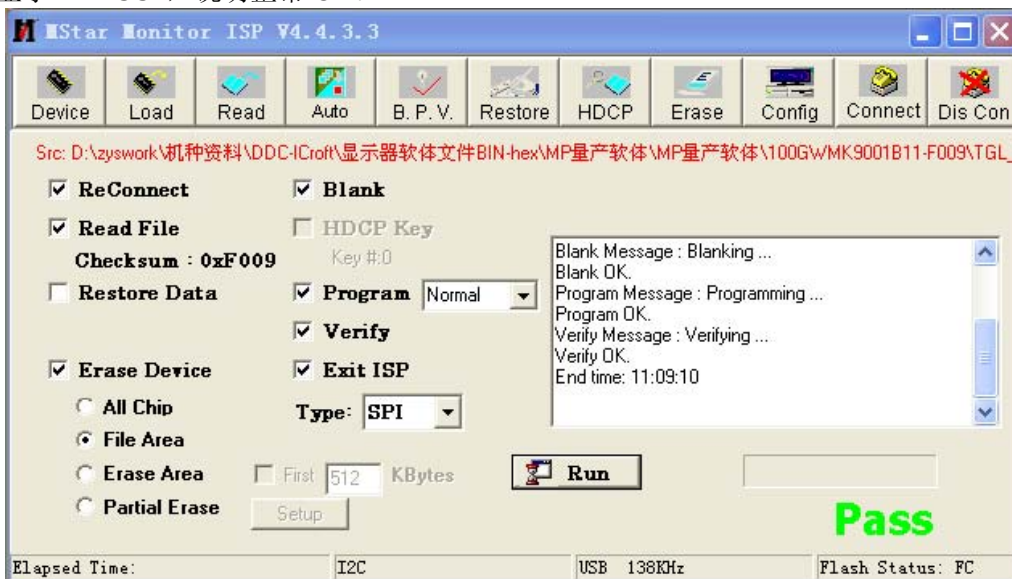
7.点击“Auto”，出现下图：



8.点击“Run”，程序自动编程和更新软体，

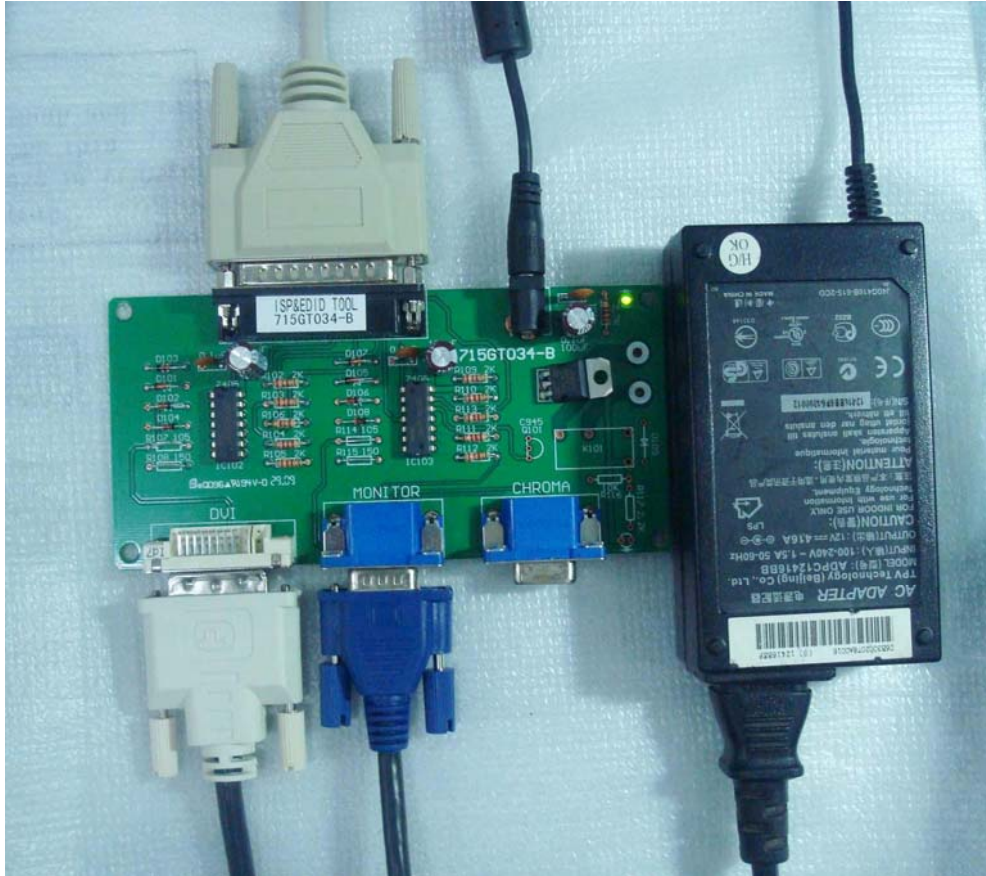


9.更新结束，显示“PASS”，说明正常OK。

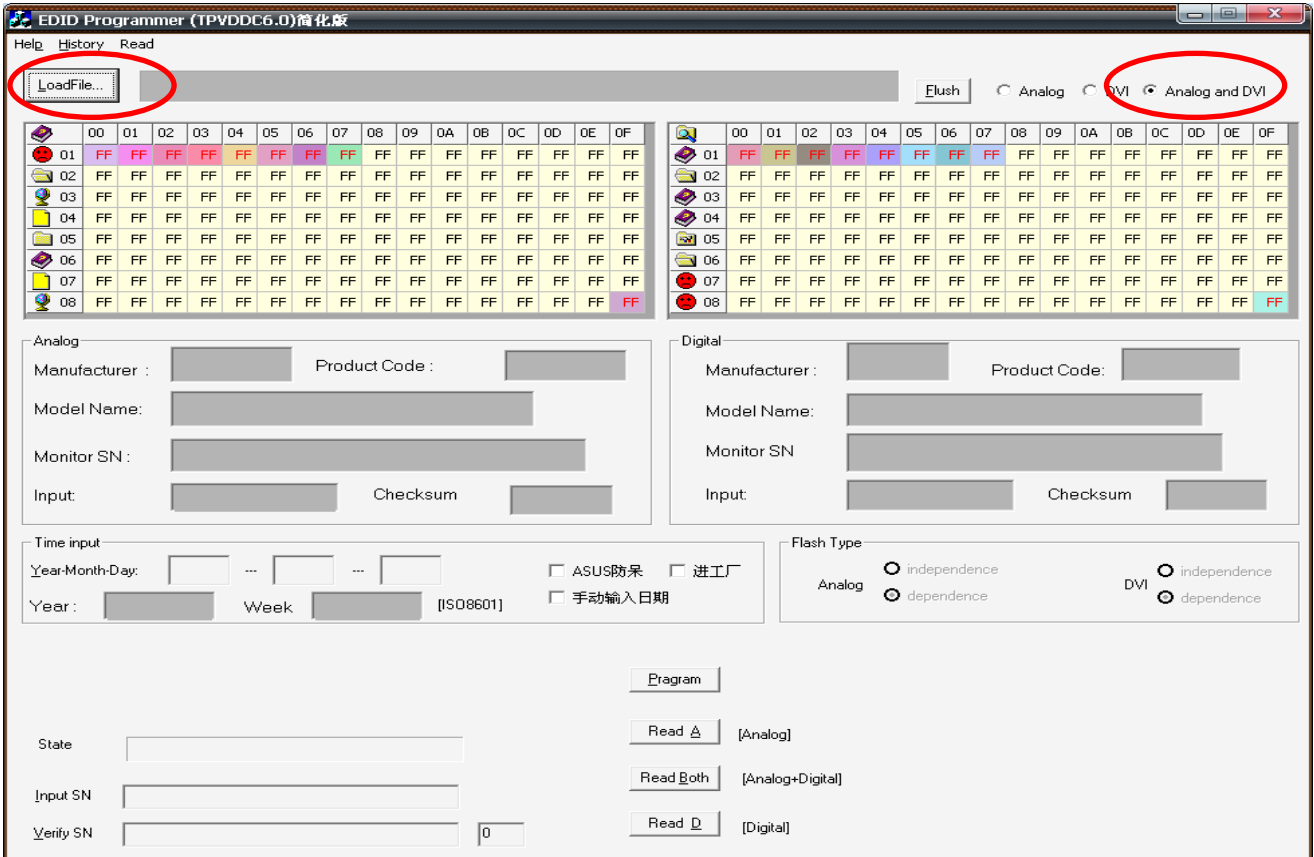


7.2 改写 DDC/EDID

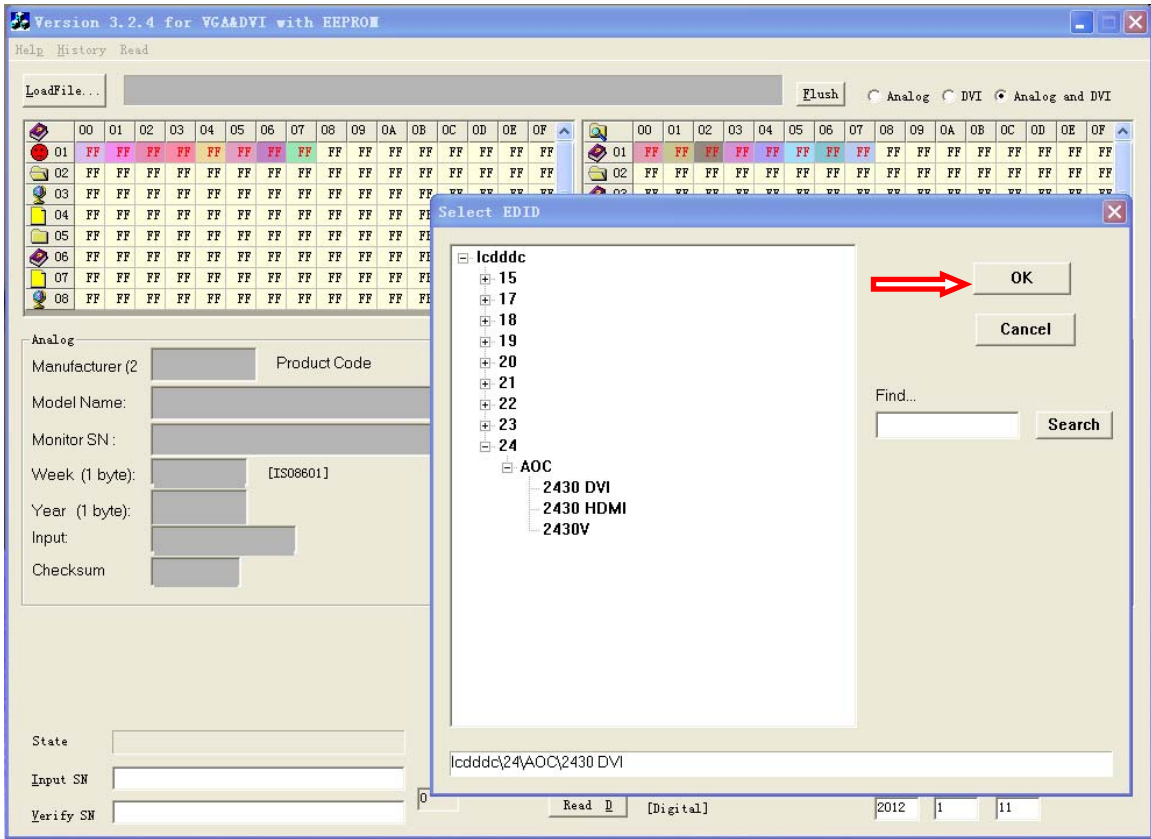
1.连接工具---DDC Tool (715GT034-B+12V 电源), 连接打印线缆到 PC, DVI&VGA 线缆连接显示器, 如图所示:



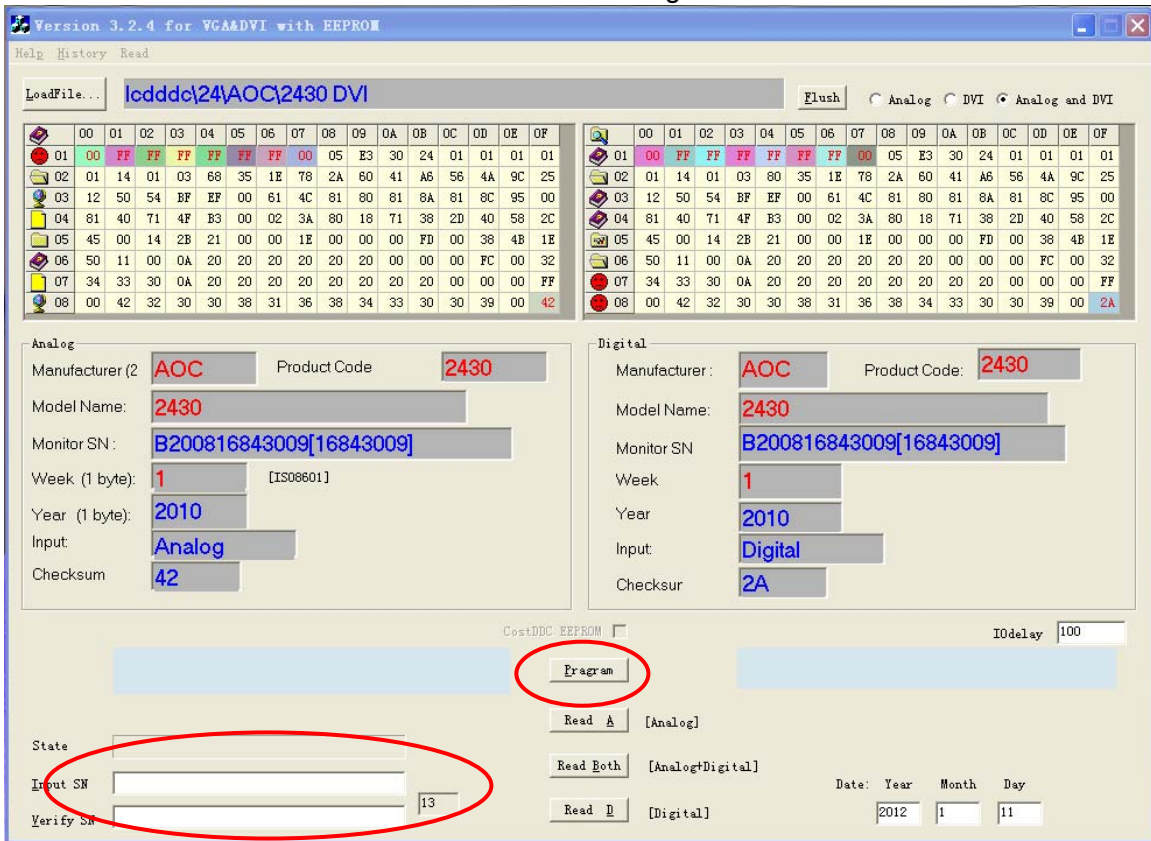
2.运行 DDC 软件 EEPROM_DDC_BJ_3_22_2.exe, PC 须预先安装打印口驱动, PORT95NT1.EXE



3.选择和本机匹配的 DDC 文件，



4.选择文件后，出现下图，输入二次机器序列号后，点击“Program”



5.DDC 改写成功，出现“PASS”。

Version 3.2.4 for VGA&DVI with EEPROM

Help History Read

LoadFile... 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	05	E3	30	24	01	01	01	01
02	01	14	01	03	68	35	1E	78	2A	60	41	A6	56	4A	9C
03	12	50	54	BF	EF	00	61	4C	81	80	81	8A	81	8C	95
04	81	40	71	4F	B3	00	02	3A	80	18	71	38	2D	40	58
05	45	00	14	2B	21	00	00	1E	00	00	00	FD	00	38	4B
06	50	11	00	0A	20	20	20	20	20	00	00	00	FC	00	32
07	34	33	30	0A	20	20	20	20	20	20	20	20	00	00	FF
08	00	42	32	30	30	38	31	36	38	34	33	30	30	39	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	05	E3	30	24	01	01	01	01
02	01	14	01	03	68	35	1E	78	2A	60	41	A6	56	4A	9C
03	12	50	54	BF	EF	00	61	4C	81	80	81	8A	81	8C	95
04	81	40	71	4F	B3	00	02	3A	80	18	71	38	2D	40	58
05	45	00	14	2B	21	00	00	1E	00	00	00	FD	00	38	4B
06	50	11	00	0A	20	20	20	20	20	00	00	00	FC	00	32
07	34	33	30	0A	20	20	20	20	20	20	20	20	00	00	FF
08	00	42	32	30	30	38	31	36	38	34	33	30	30	39	00

Analog

Manufacturer (2): Product Code:

Model Name:

Monitor SN:

Week (1 byte): [ISO8601]

Year (1 byte):

Input:

Checksum:

Digital

Manufacturer: Product Code:

Model Name:

Monitor SN:

Week:

Year:

Input:

Checksum:

Cost/DDC EEPROM Total av

D-SUB: PASS!

Program

Read A [Analog]

Read Both [Analog+Digital]

Read D [Digital]

DVI: PASS!

Date: Year Month Day

State

Input SN

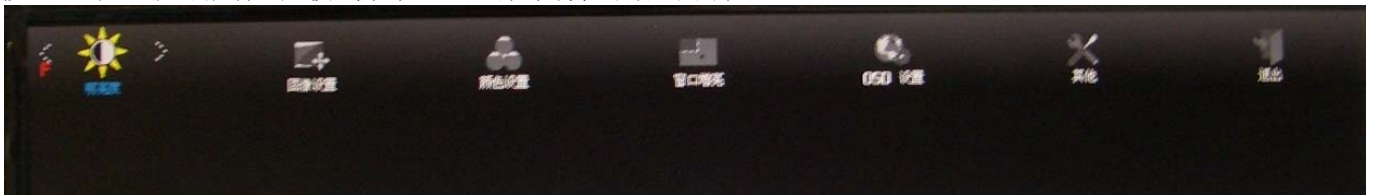
Verify SN

7.3.工厂模式调整

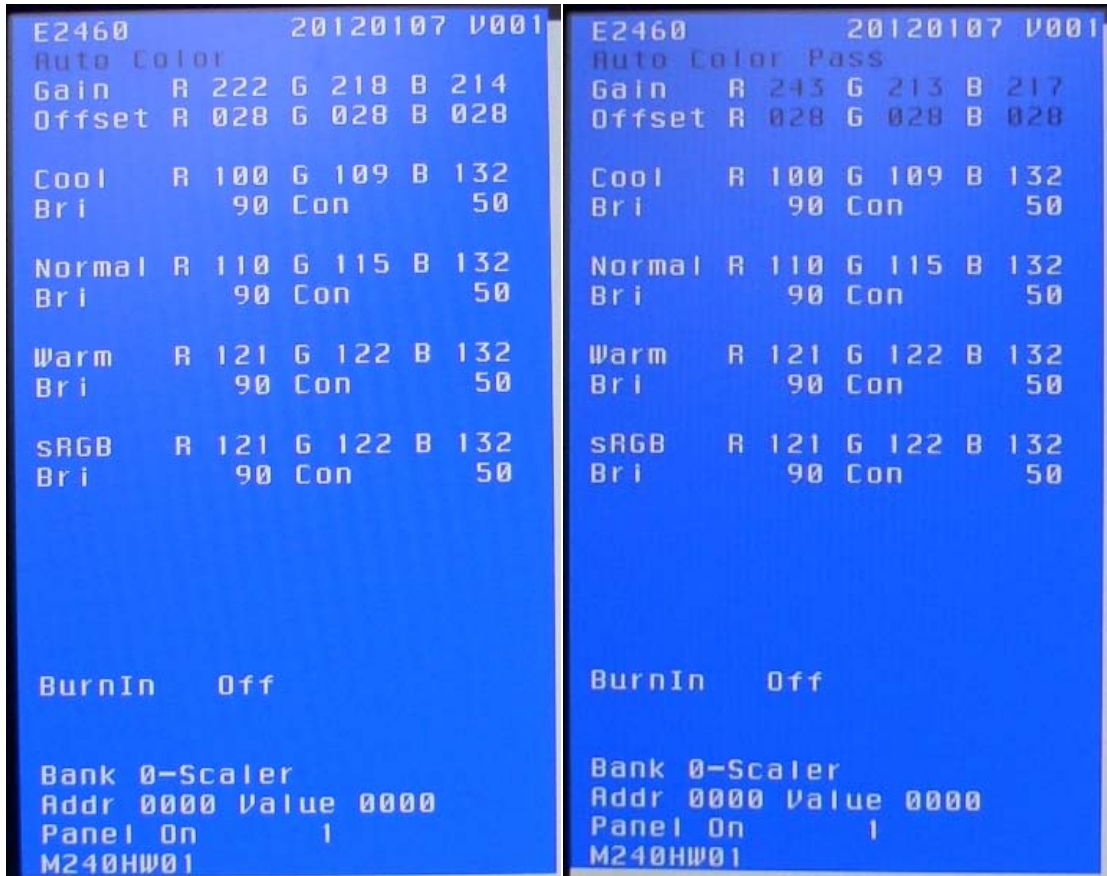
更新此机的软件后，有必要进行白平衡调整和对系统进行恢复工厂初始设置操作。

进入工厂模式方法：

显示器在通电状态，拔掉电源线，然后按住“menu”键，插入电源线，机器通电工作，松开“menu”按键，然后轻按Menu键，就可激活工厂模式菜单，OSD菜单将位于屏的下方。



选中“F”，按下“MENU”，出现菜单内容，然后选中“Auto Color”，按下MENU，则机器自动进行白平衡调整，显示“PASS”则系统正常。如下图所示：



调整完毕退出工厂模式菜单。

在改写了软体和 DDC 文件后，需要对显示器进行“重置”操作：

退出菜单，关闭电源，更新完毕。



8.料件清单

注意：以下料件信息仅供参考，如有变更，恕不另行通知，请到 <http://cs.tpv.com.cn> 获取最新信息。

8.1 机种名：TKBAB728BGA1HNJ

点位	组件	对象描述	备注
	070GHDCP500HDC	HDCP CODE	2
	0D1G1030 8120	screw	4
	0M1G1740 6120	SCREW	1
	0Q1G 130 6120	SCREW (T3X6)	2
E750	750GBU240H1D23N000	LCD M240HW01 VD0A XM AUO	1
	756GJBCB0AA0620000	MCU ASSY+ CBPCBB7A1QAJ G5270-0B	
U402	056G2233 11	IC Pm25LD020C-SCE SIOC-8(150mil) 2M	1
SMTCB-U402	100GAMAK001B11	AOC_e2460_ID11_TSUMU58VHN_AUOM240HW01	
	CBPCBB7A1QAJ	CONVERSION G5270-0B-000-0040-2-111102	1
	A15G1790201	MAINFRAME SGCC	1
	A34G2832 3101A	REAR COVER_L236WAG-V60	1
	A34G2833 1101A	STAND	1
	A34G2834 1101A	BASE_L236WAG-s1	1
	A34G2854 1101A	BEZEL 24"	1
	A37G0296011	HINGE_23.6"	1
	AM1G1740 8120	SCREW(M4*8)	3
	AM1G1740 10 47 CR3	SCREW	3
CN404	033G3802 6B Y	CONN 6PIN 2.0	2 nd source
CN404	033G3802 6B Y L	WAFER	1
CN701	033G3802 9B Y	CONNECTOR 9P 2.0	2 nd source
CN701	033G3802 9B Y L	CONN 2.0 9P	1
CN410	033G801930F CH L	FFC CONN 1.0mm 30P R/A 34mm 6mm	2 nd source
CN410	033G801930F CH JS	FFC CONN 1.0mm 30P R/A 34mm 6.3mm	1
CN101	088G 35315F HD	D-SUB CONN 15P BLUE - R/A	2 nd source
CN101	088G 35315F XH	D-SUB 15PIN VERTICAL CONN WITH SCREW	1
CN102	088G 35424FXNH	DVI CONN WITH SCREW 24P R/A	1
X401	093G 22 53 J	CRYSTAL 14.31818MHZ/32PF49US	1
	AIGBB7A1QAJ	MAIN BOARD AI	1
C705	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	1
C702	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	1
C430	067G 3051013PB	EC 105C 100uF M 16V 5*11mm JH CD263	1
	SMTCB7A1QAJ	MAIN BOARD SMTJ	1
	040G 45762420A	LABEL 25x6mm	1
U401	056G 562A22	SCALER TSUMU58VHN-1 LQFP-80	1
U701	056G 585 4A	AP1117E33L-13-77 1A 3.3V SOT-223	1
U101	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	1
U103	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	1
U104	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	1
U106	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	1
U107	056G 662 48	ESD PROTECT AZC399-04S.R7G SOT23-6L	1
U101	056G 662 49	ESD PROTECT L30ESDL5V0C6-4 SOT23-6L	2 nd source
U103	056G 662 49	ESD PROTECT L30ESDL5V0C6-4 SOT23-6L	2 nd source
U104	056G 662 49	ESD PROTECT L30ESDL5V0C6-4 SOT23-6L	2 nd source
U106	056G 662 49	ESD PROTECT L30ESDL5V0C6-4 SOT23-6L	2 nd source
U107	056G 662 49	ESD PROTECT L30ESDL5V0C6-4 SOT23-6L	2 nd source
U102	056G1133 34 1	EEPROM M24C02-RMN6TP 2Kb SO-8	1

U105	056G1133 34 1	EEPROM M24C02-RMN6TP 2Kb SO-8	1
U402	056G2233 11	IC Pm25LD020C-SCE SIOC-8(150mil) 2M	1
Q401	057G 417517	Tra LMBT3906LT1G -200mA/-40V SOT-23 LRC	1
Q403	057G 417517	Tra LMBT3906LT1G -200mA/-40V SOT-23 LRC	1
Q701	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	1
Q706	057G 417518	TRA LMBT3904LT1G 200mA/40V SOT-23 LRC	1
Q704	057G 763 3	AO4411 SO-8 BY AOS	1
R407	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	2 nd source
R409	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	2 nd source
R416	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	2 nd source
R432	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	2 nd source
R441	061G0402000 JT	RST CHIPR MAX0R05 1/16W TZAI YUAN	2 nd source
R407	061G0402000 JY	RST CHIPR MAX 0R05 OHM 1/16W YAGEO	1
R409	061G0402000 JY	RST CHIPR MAX 0R05 OHM 1/16W YAGEO	1
R416	061G0402000 JY	RST CHIPR MAX 0R05 OHM 1/16W YAGEO	1
R432	061G0402000 JY	RST CHIPR MAX 0R05 OHM 1/16W YAGEO	1
R441	061G0402000 JY	RST CHIPR MAX 0R05 OHM 1/16W YAGEO	1
R144	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R143	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R142	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R141	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R140	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R139	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R138	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R137	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R120	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R112	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R105	061G0402100 JT	RST CHIP 10R 1/16W 5% TZAI YUAN	1
R144	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R143	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R142	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R141	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R140	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R139	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R138	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R137	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R120	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R112	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R105	061G0402100 JY	RST CHIPR 10 OHM +-5% 1/16W YAGEO	2 nd source
R702	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R410	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R152	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R151	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R125	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R124	061G0402101 JT	RST CHIP 100R 1/16W 5% TZAI YUAN	2 nd source
R702	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1
R410	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1
R152	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1
R151	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1
R125	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1
R124	061G0402101 JY	RST CHIPR 100 OHM +-5% 1/16W YAGEO	1

R150	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R131	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R153	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R421	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R422	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R423	061G0402102 JT	RST CHIP 1K 1/16W 5% TZAI YUAN	2 nd source
R131	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R150	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R423	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R422	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R421	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R153	061G0402102 JY	RST CHIPR 1KOHM +-5% 1/16W YAGEO	1
R413	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R412	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R402	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R401	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R703	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R704	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R716	061G0402103 JT	RST CHIP 10K 1/16W 5% TZAI YUAN	2 nd source
R401	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R402	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R412	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R413	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R703	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R704	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R716	061G0402103 JY	RST CHIPR 10KOHM +-5% 1/16W YAGEO	1
R717	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	1
R491	061G0402104 JT	RST CHIP 100K 1/16W 5% TZAI YUAN	1
R717	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	2 nd source
R491	061G0402104 JY	RST CHIPR 100KOHM +-5% 1/16W YAGEO	2 nd source
R406	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	1
R404	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	1
R403	061G0402220 JT	RST CHIP 22R 1/16W 5% TZAI YUAN	1
R403	061G0402220 JY	RST CHIPR 22 OHM +-5% 1/16W YAGEO	2 nd source
R404	061G0402220 JY	RST CHIPR 22 OHM +-5% 1/16W YAGEO	2 nd source
R406	061G0402220 JY	RST CHIPR 22 OHM +-5% 1/16W YAGEO	2 nd source
R433	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	2 nd source
R442	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	2 nd source
R126	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	2 nd source
R127	061G0402222 JT	RST CHIP 2K2 1/16W 5% TZAI YUAN	2 nd source
R126	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	1
R127	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	1
R433	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	1
R442	061G0402222 JY	RST CHIPR 2.2KOHM +-5% 1/16W YAGEO	1
R721	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	2 nd source
R705	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	2 nd source
R117	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	2 nd source
R135	061G0402223 JT	RST CHIP 22K 1/16W 5% TZAI YUAN	2 nd source
R721	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	1
R705	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	1
R135	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	1

R117	061G0402223 JY	RST CHIPR 22KOHM +-5% 1/16W YAGEO	1
R492	061G0402224 JT	RST CHIP 220K 1/16W 5% TZAI YUAN	1
R492	061G0402224 JY	RST CHIPR 220KOHM +-5% 1/16W YAGEO	2 nd source
R427	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	1
R428	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	1
R429	061G0402392 JT	RST CHIP R 3K9 +/-5% 1/16W TZAI YUAN	1
R427	061G0402392 JY	RST CHIPR 3.9KOHM 5% 1/16W YAGEO	2 nd source
R428	061G0402392 JY	RST CHIPR 3.9KOHM 5% 1/16W YAGEO	2 nd source
R429	061G0402392 JY	RST CHIPR 3.9KOHM 5% 1/16W YAGEO	2 nd source
R439	061G0402394 JT	RST 0402 390K 5% 1/16W	2 nd source
R439	061G0402394 JY	RST CHIP R 390K +/-5% 1/16W YAGEO	1
R130	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R129	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R122	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R114	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R108	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R106	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R102	061G0402470 JT	RST CHIP 47R 1/16W 5% TZAI YUAN	2 nd source
R130	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R129	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R122	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R114	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R108	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R106	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R102	061G0402470 JY	RST CHIPR 47 OHM 5% 1/16W YAGEO	1
R109	061G0402471 JT	RST CHIP 470R 1/16W 5% TZAI YUAN	2 nd source
R109	061G0402471 JY	RST CHIPR 470OHM +-5% 1/16W YAGEO	1
R723	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R701	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R134	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R133	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R116	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R115	061G0402472 JT	RST CHIP 4K7 1/16W 5% TZAI YUAN	2 nd source
R116	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R115	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R701	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R134	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R133	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R723	061G0402472 JY	RST CHIPR 4.7KOHM +-5% 1/16W YAGEO	1
R107	061G0402750 JT	RST 0402 75R 5% 1/16W	2 nd source
R113	061G0402750 JT	RST 0402 75R 5% 1/16W	2 nd source
R121	061G0402750 JT	RST 0402 75R 5% 1/16W	2 nd source
R121	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	1
R113	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	1
R107	061G0402750 JY	RST CHIPR 75OHM +-5% 1/16W YAGEO	1
R132	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	2 nd source
R123	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	2 nd source
R118	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	2 nd source
R110	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	2 nd source
R103	061G0603000 JT	RST CHIP MAX 0R05 1/10W TZAI YUAN	2 nd source
R132	061G0603000 JY	RST CHIPR MAX0R05 1/10W YAGEO	1

R123	061G0603000 JY		RST CHIPR MAX0R05 1/10W YAGEO	1
R118	061G0603000 JY		RST CHIPR MAX0R05 1/10W YAGEO	1
R110	061G0603000 JY		RST CHIPR MAX0R05 1/10W YAGEO	1
R103	061G0603000 JY		RST CHIPR MAX0R05 1/10W YAGEO	1
R405	061G0603220 JT		RST CHIP 22R 1/10W 5% TZAI YUAN	2 nd source
R405	061G0603220 JY		RST CHIPR 22 OHM £«-5£¥ 1/10W YAGEO	1
R444	061G0603331 JT		RST 0603 330R 5% 1/10W	2 nd source
R444	061G0603331 JY		RST CHIPR 330 OHM +-5% 1/10W YAGEO	1
R438	061G0603471 JT		RST CHIPR 470OHM +-5% 1/10W TZAI YUAN	2 nd source
R438	061G0603471 JY		RST CHIPR 470 OHM 5% 1/10W YAGEO	1
R446	061G1206301 JF		RST CHIPR 300 OHM +-5% 1/4W fenghua	2 nd source
R446	061G1206301 JT		RST CHIPR 300 OHM +-5% 1/4W TZAI YUAN	1
C104	065G040210232K	3	CAP CHIP 0402 1N 50V X7R +/-10%	2 nd source
C104	065G040210232K	A	CAP 0402 1NF 10% 50V X7R	1
C104	065G040210232K	F	CAP 0402 1NF 10% 50V X7R	2 nd source
C122	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C123	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C402	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C408	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C407	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C403	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C405	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C721	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C720	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C718	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C706	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C704	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C431	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C120	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C117	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C116	065G040210412K	A	CAP CHIP 0402 100nF K 16V X7R	1
C122	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C123	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C402	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C403	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C405	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C407	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C408	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C431	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C704	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C706	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C718	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C720	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C721	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C120	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C117	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C116	065G040210412K	F	CAP 0402 100NF 10% 16V X7R	2 nd source
C122	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C123	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C402	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C721	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source

C720	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C718	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C706	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C704	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C431	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C408	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C407	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C405	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C403	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C120	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C117	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C116	065G040210412K	M	CAP 0402 0.1UF 10% 16V X7R	2 nd source
C112	065G040222031J	3	CAP CHIP 0402 22P 50V NPO +/-5%	2 nd source
C113	065G040222031J	3	CAP CHIP 0402 22P 50V NPO +/-5%	2 nd source
C112	065G040222031J	A	CAP 0402 22PF J 50V NPO	1
C113	065G040222031J	A	CAP 0402 22PF J 50V NPO	1
C113	065G040222031J	F	CAP 0402 22PF 5% 50V NP0	2 nd source
C112	065G040222031J	F	CAP 0402 22PF 5% 50V NP0	2 nd source
C109	065G040222415K	3	NDS-Assign CAP CHIP 220nF 16V X5R	2 nd source
C119	065G040222415K	3	NDS-Assign CAP CHIP 220nF 16V X5R	2 nd source
C410	065G040222415K	3	NDS-Assign CAP CHIP 220nF 16V X5R	2 nd source
C715	065G040222415K	3	NDS-Assign CAP CHIP 220nF 16V X5R	2 nd source
C715	065G040222415K	A	CAP 0402 220NF 10% 16V X5R	1
C410	065G040222415K	A	CAP 0402 220NF 10% 16V X5R	1
C119	065G040222415K	A	CAP 0402 220NF 10% 16V X5R	1
C109	065G040222415K	A	CAP 0402 220NF 10% 16V X5R	1
C715	065G040222415K	F	CAP 0402 220NF 10% 16V X5R	2 nd source
C410	065G040222415K	F	CAP 0402 220NF 10% 16V X5R	2 nd source
C119	065G040222415K	F	CAP 0402 220NF 10% 16V X5R	2 nd source
C109	065G040222415K	F	CAP 0402 220NF 10% 16V X5R	2 nd source
C103	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C102	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C105	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C107	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C108	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C111	065G040247312K	3	CHIP CAP 47NF16V X7R 10%	2 nd source
C105	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C107	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C108	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C111	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C102	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C103	065G040247312K	A	CAP 0402 47NF 10% 16V X7R	1
C102	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C103	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C105	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C107	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C111	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C108	065G040247312K	F	CAP 0402 47NF 10% 16V X7R	2 nd source
C110	065G040250931C	3	CAP CHIP 0402 5PF 50V NP0 +/-0.25pF	2 nd source
C106	065G040250931C	3	CAP CHIP 0402 5PF 50V NP0 +/-0.25pF	2 nd source
C101	065G040250931C	3	CAP CHIP 0402 5PF 50V NP0 +/-0.25pF	2 nd source

C110	065G040250931C	A	CAP 0402 5PF 0.25pF 50V NP0	2 nd source
C106	065G040250931C	A	CAP 0402 5PF 0.25pF 50V NP0	2 nd source
C101	065G040250931C	A	CAP 0402 5PF 0.25pF 50V NP0	2 nd source
C101	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	1
C106	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	1
C110	065G040250931C	Y	CAP 0402 5PF 0.25pF 50V NP0	1
C412	065G040256031J	3	CAP CHIP 0402 56pF 50V NP0 +/-5%	2 nd source
C413	065G040256031J	3	CAP CHIP 0402 56pF 50V NP0 +/-5%	2 nd source
C412	065G040256031J	Y	CAP CHIP 0402 56pF 50V NP0 +/-5%	1
C413	065G040256031J	Y	CAP CHIP 0402 56pF 50V NP0 +/-5%	1
C406	065G0603475A5K	T	CAP CHIP 0603 4.7UF K 10V X5R	1
C401	065G0805106A5K	3	CHIP 10uF 10V X5R 10%	2 nd source
C404	065G0805106A5K	3	CHIP 10uF 10V X5R 10%	2 nd source
C409	065G0805106A5K	3	CHIP 10uF 10V X5R 10%	2 nd source
C409	065G0805106A5K	A	CAP 0805 10UF 10% 10V X5R	1
C404	065G0805106A5K	A	CAP 0805 10UF 10% 10V X5R	1
C401	065G0805106A5K	A	CAP 0805 10UF 10% 10V X5R	1
FB406	071G 56K121	M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	1
FB402	071G 56K121	M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	1
FB401	071G 56K121	M	CHIP BEAD 120OHM 6A MGLB2012-120T-LF	1
FB406	071G 56K121	TA	CHIP BEAD 120R/6000mA HCB2012KF-121T60	2 nd source
FB402	071G 56K121	TA	CHIP BEAD 120R/6000mA HCB2012KF-121T60	2 nd source
FB401	071G 56K121	TA	CHIP BEAD 120R/6000mA HCB2012KF-121T60	2 nd source
FB190	071G 59G301	M	CHIP BEAD 0603 300R 25% 200mA	2 nd source
FB102	071G 59G301	M	CHIP BEAD 0603 300R 25% 200mA	2 nd source
FB101	071G 59G301	M	CHIP BEAD 0603 300R 25% 200mA	2 nd source
FB190	071G 59G301	TA	CHIP BEAD 300OHM 200mA FCM1608KF-301T02	1
FB102	071G 59G301	TA	CHIP BEAD 300OHM 200mA FCM1608KF-301T02	1
FB101	071G 59G301	TA	CHIP BEAD 300OHM 200mA FCM1608KF-301T02	1
D103	093G 64 42	P	BAV70 SOT23 BY PAN JIT	1
D101	093G 64 42	P	BAV70 SOT23 BY PAN JIT	1
ZD104	093G 39GA01	T	RLZ5.6B	1
ZD103	093G 39GA01	T	RLZ5.6B	1
ZD102	093G 39GA01	T	RLZ5.6B	1
ZD101	093G 39GA01	T	RLZ5.6B	1
ZD104	093G 39S 24	T	RLZ 5.6B LLDS	2 nd source
ZD101	093G 39S 24	T	RLZ 5.6B LLDS	2 nd source
ZD102	093G 39S 24	T	RLZ 5.6B LLDS	2 nd source
ZD103	093G 39S 24	T	RLZ 5.6B LLDS	2 nd source
E715	715G5270M0C000004L		MAIN PCB FR4 DS 80*72*1.6mm	1
	H40G 45762429A		LABEL	1
	J44GK9021010LY		EPS	1
	J44GK9022010LY		EPS	1
	J52G1801 5 1A		TAPE_INSULATING	1
	KEPCBQR1J		KEY BOARD G5357-K0B-000-0010-2-111207	1
CN001	095G820H 6D702		HARNESS 6P(SANW)-6P(2008) 340mm	1
LED001	381G00121YG0EL		LED Y/G 269-3UYSYGC/S530-A3/F182-150	1
	AIKEPCBQR1J		KEY BOARD FOR AI	1
SW001	077G603S AI HJ		TACT SWITCH AI 2PIN SEALED	1
SW002	077G603S AI HJ		TACT SWITCH AI 2PIN SEALED	1
SW003	077G603S AI HJ		TACT SWITCH AI 2PIN SEALED	1

SW004	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	1
SW005	077G603S AI HJ	TACT SWITCH AI 2PIN SEALED	1
	SMTKEPCBQR1J	KEY BOARD FOR SMT	1
R001	061G0603101 JI	RST 0603 100R 5% 1/10W TA-I	2 nd source
R003	061G0603101 JI	RST 0603 100R 5% 1/10W TA-I	2 nd source
R003	061G0603101 JT	RST CHIP 100R 1/10W 5% TZAI YUAN	1
R001	061G0603101 JT	RST CHIP 100R 1/10W 5% TZAI YUAN	1
R002	061G0603102 JI	TEST ONLY RST 0603 1K 5% 1/10W TA-I	2 nd source
R002	061G0603102 JT	RST CHIP 1K 1/10W 5% TZAI YUAN	1
R005	061G0603202 JI	RST 0603 2K 5% 1/16W TA-I	2 nd source
R004	061G0603202 JI	RST 0603 2K 5% 1/16W TA-I	2 nd source
R004	061G0603202 JT	RST 0603 2K 5% 1/10W	1
R005	061G0603202 JT	RST 0603 2K 5% 1/10W	1
ZD007	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD006	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD005	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD004	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD003	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD002	093G 64 59 SU	ESD MLVS0603M04 0603	1
ZD001	093G 64 59 SU	ESD MLVS0603M04 0603	1
E715	715G5357K0B000001C	KEY PCB FR1 SS 115X10+1.6(mm)	1
	PLPCB5361CYM1J	POWER G5361-P0B-000-X-1-111115	1
GND1	009G6005 1	GND TERMINAL	1
GND2	009G6005 1	GND TERMINAL	1
IC902	056G 139 3A	PC123Y22FZOF SHARP	1
IC903	056G 158 10 T	DC/DC AS431AZTR-E1 150MA 40V TO-92	1
IC903	056G 158 12	Shunt Regulator KIA431A-AT/P TO-92	2 nd source
Q904	057G 419 18 T	SMALLTRAN 2SD1207-T-AE 2A 60V MP	2 nd source
Q904	057G 530503 T	2SD1207T	1
NR901	061G 58809MEN	RST NTCR 80HM +/-20%/NMM01 4A XIANZHENG	1
C908	063G107K474 6S	0.47UF +/-10%	1
C932	065G 1M1033E3	CAP CER 10NF 20% 1KV Y5U	1
C902	065G305M1023WR	CAP Y2 1NF 20% 250V Y5U	1
C903	065G305M1023WR	CAP Y2 1NF 20% 250V Y5U	1
C900	065G306M3323WR	CAP Y1 3.3NF 20% 250V Y5U	1
C907	067G 40Z10115K	EC 100UF 20% 450V 18*35	1
C907	067G 40Z10115L	EC 100uF 450V M 18*35.5mm	2 nd source
L901	073G 174 65 S2	LINE FILTER 30mH MIN	1
L907	073G 253 91 H	IND CHOKE 3.5uH+-10% DADONG	1
L906	073G 253 91 H	IND CHOKE 3.5uH+-10% DADONG	1
L905	073G 253 91 H	IND CHOKE 3.5uH+-10% DADONG	1
L801	073G 253214 DN	CHOKE COIL 47UH 10% LZ.CC013.G01 2.5A	1
T901	080GL22T 3 N1	X'FMR 490UH 7% 4UH YUVA-1093 EER28	1
CN901	087G 501 32 S	AC SOCKET ST-01CP-BCE-R	1
BD901	093G 50460 51	BRIDGE D2SB80 2A 800V GBL	1
D801	093G 60988	SCHOTTKY SB5100-E 5A 100V DO-201AD	1
CN902	095G 82510D532	HARNESS 10P(SCN)-9P(PLUG) 140MM	1
CN902	095G 82510W532	HARNESS 10P(SCN)-9P(PLUG) 140mm	2 nd source
CN801	311GW200A06ABX	WAFER 2.0mm 6P	1
	705GJB57062	Q901 ASS'Y	1
	051G 200 1	OIL FOR DISAPPEAR	0.1

Q901	057G 667923	MOSFET SMK0765F 7A 650V TO-220FP	2 nd source
Q901	057G 667924	MOSFET SMK0965F	1
HS1	090G6064 1	HEAT SINK	1
	0M1G 930 8120	SCREW 3x8	1
	705GJB93070	D901/D905/D906 ASS'Y	1
	051G 200 1	OIL FOR DISAPPEAR	0.3
HS3	090G6273 1	HEAT SINK	1
D901	093G 60268	SCHOTTKY YG865C15RSC 20A 150V TO-220F	1
D906	093G 60507	SCHOTTKY SRF1060 C0 10A 60V ITO-220AB	1
D905	093G 60507	SCHOTTKY SRF1060 C0 10A 60V ITO-220AB	1
	0M1G1730 8120	SCREW 3x8	3
	H40G 45762429A	LABEL	2
	PLB5361CYM1SMTJ	POWER BOARD FOR SMT	1
IC901	056G 379198	AC/DC CONVERTER AP3107MTR-G1 SOIC-7	1
U801	056G 700 11	LED DRIVER OZ9998BGN-A1-0-TR SOP-16	1
Q801	057G 763947	MOSFET APM8005KCTRG 6A 80V SOP-8	1
R928	061G06031001FF	RST CHIPR 1 KOHM +-1% 1/10W FENGHUA	2 nd source
R928	061G06031001FT	RST CHIP 1K 1/10W 1%	1
R918	061G06031002FF	RST CHIPR 10 KOHM +-1% 1/10W FENGHUA	2 nd source
R916	061G06031002FF	RST CHIPR 10 KOHM +-1% 1/10W FENGHUA	2 nd source
R918	061G06031002FT	RST CHIP 10K 1/10W 1%	1
R916	061G06031002FT	RST CHIP 10K 1/10W 1%	1
R925	061G06039101FF	RST CHIPR 9.1KOHM +-1% 1/10W FENGHUA	2 nd source
R920	061G06039101FF	RST CHIPR 9.1KOHM +-1% 1/10W FENGHUA	1
R925	061G06039101FI	TEST ONLY RST 0603 9.1K 1% 1/10W TA-I	1
R920	061G06039101FT	RST CHIP 9K1 1/10W 1%	2 nd source
R925	061G06039101FT	RST CHIP 9K1 1/10W 1%	2 nd source
R811	061G0805000 JF	RST CHIPR 0 OHM +-5% 1/8W FENGHUA	2 nd source
R811	061G0805000 JT	RST 0805 0.05R MAX 1/8W	1
R804	061G0805100 JF	RST CHIPR 10 OHM +-5% 1/8W FENGHUA	1
R807	061G0805100 JF	RST CHIPR 10 OHM +-5% 1/8W FENGHUA	2 nd source
R807	061G0805100 JT	RST CHIP 10R 1/8W 5% TZAI YUAN	1
R804	061G0805100 JT	RST CHIP 10R 1/8W 5% TZAI YUAN	2 nd source
R907	061G0805102 JF	RST CHIPR 1K OHM +-5% 1/8W FENGHUA	2 nd source
R806	061G0805102 JF	RST CHIPR 1K OHM +-5% 1/8W FENGHUA	1
R907	061G0805102 JT	RST CHIPR 1K OHM +- 5% 1/8W TZAI YUAN	1
R801	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	1
R818	061G0805103 JF	RST CHIPR 10K OHM +-5% 1/8W FENGHUA	1
R801	061G0805103 JT	RST 0805 10K 5% 1/8W	2 nd source
R818	061G0805103 JT	RST 0805 10K 5% 1/8W	2 nd source
R805	061G0805104 JY	RST CHIPR 100KOHM 1/8W YAGEO	1
R810	061G08051202FT	RST CHIP 12K 1/8W 1%	1
R810	061G08051202FY	RST CHIP 12K 1/8W 1%	2 nd source
R815	061G0805164 JF	RST 0805 160K 5% 1/8W	1
R815	061G0805164 JT	RST 0805 160K 5% 1/8W	2 nd source
R803	061G0805304 JF	RST CHIPR 300KOHM +-5% 1/8W FENGHUA	1
R802	061G0805304 JF	RST CHIPR 300KOHM +-5% 1/8W FENGHUA	1
R803	061G0805304 JT	RST CHIP 300K 1/8W 5% TZAI YUAN	2 nd source
R802	061G0805304 JT	RST CHIP 300K 1/8W 5% TZAI YUAN	2 nd source
R809	061G08053303FT	RST CHIP 330K 1% 1/8W	1
R809	061G08053303FY	RST CHIP 330K 1/8W 1%	2 nd source

R905	061G0805471 JF	RST CHIPR 470 OHM +-5% 1/8W FENGHUA	1
R905	061G0805471 JT	RST CHIPR 470OHM +-5% 1/8W TZAI YUAN	2 nd source
R816	061G08055101FF	RST CHIPR 5.1KOHM +-1% 1/8W FENGHUA	2 nd source
R816	061G08055101FT	RST CHIP 5K1 1/8W 1%	1
RJ901	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	2 nd source
RJ801	061G1206000 JF	RST CHIPR MAX0R05 1/4W FENGHUA	2 nd source
RJ801	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	1
RJ901	061G1206000 JT	RST CHIPR MAX0R05 1/4W TZAI YUAN	1
R917	061G1206100 JF	RST CHIPR 10 OHM +-5% 1/4W FENGHUA	2 nd source
R917	061G1206100 JT	RST CHIPR 10 OHM +-5% 1/4W TZAI YUAN	1
R817	061G12061001FF	RST CHIPR 1KOHM +-1% 1/4W FENGHUA	2 nd source
R817	061G12061001FT	RST CHIP R 1Kohm +-1% 1/4W	1
R930	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R929	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R912	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R910	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R909	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R903	061G1206101 JF	RST CHIPR 100 OHM +-5% 1/4W FENGHUA	2 nd source
R930	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R903	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R909	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R910	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R912	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R929	061G1206101 JT	RST CHIPR 100 OHM +-5% 1/4W TZAI YUAN	1
R935	061G1206103 JF	RST CHIPR 10KOHM +-5% 1/4W FENGHUA	2 nd source
R908	061G1206103 JF	RST CHIPR 10KOHM +-5% 1/4W FENGHUA	2 nd source
R935	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	1
R908	061G1206103 JT	RST CHIPR 10KOHM +-5% 1/4W TZAI YUAN	1
R919	061G1206151 JF	RST CHIPR 150 OHM +-5% 1/4W FENGHUA	2 nd source
R919	061G1206151 JT	RST CHIPR 150 OHM +-5% 1/4W TZAI YUAN	1
R813	061G1206308 JF	RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA	1
R812	061G1206308 JF	RST CHIPR 0.3 OHM +-5% 1/4W FENGHUA	1
R813	061G1206308 JT	RST 1206 0.3R 5% 1/4W	2 nd source
R812	061G1206308 JT	RST 1206 0.3R 5% 1/4W	2 nd source
R936	061G12064709FF	RST 1206 47R 1% 1/4W FENGHUA	2 nd source
R936	061G12064709FT	RST 1206 47R 1% 1/4W TZAI YUAN	1
R913	061G1206479 JF	RST CHIPR 4.7OHM +-5% 1/4W FENGHUA	2 nd source
R913	061G1206479 JT	RST 1206 4.7R 5% 1/4W	1
R900	061G1206684 JF	RST CHIPR 680KOHM +-5% 1/4W FENGHUA	2 nd source
R901	061G1206684 JF	RST CHIPR 680KOHM +-5% 1/4W FENGHUA	2 nd source
R902	061G1206684 JF	RST CHIPR 680KOHM +-5% 1/4W FENGHUA	2 nd source
R901	061G1206684 JT	RST CHIPR 680 KOHM +-5% 1/4W TZAI YUAN	1
R900	061G1206684 JT	RST CHIPR 680 KOHM +-5% 1/4W TZAI YUAN	1
R902	061G1206684 JT	RST CHIPR 680 KOHM +-5% 1/4W TZAI YUAN	1
C812	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	1
C813	065G080510131J F	CAP CHIP 0805 100PF J 50V NPO	1
C813	065G080510131J Y	CAP CHIP 0805 100P 50V NPO +/-5%	2 nd source
C812	065G080510131J Y	CAP CHIP 0805 100P 50V NPO +/-5%	2 nd source
C923	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	2 nd source
C915	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	2 nd source
C815	065G080510232K F	CAP 0805 1000PF 10% 50V X7R	1

C803	065G080510232K	Y	CAP CHIP 0805 1N 50V X7R +/-10%	1
C815	065G080510232K	Y	CAP CHIP 0805 1N 50V X7R +/-10%	2 nd source
C915	065G080510232K	Y	CAP CHIP 0805 1N 50V X7R +/-10%	1
C923	065G080510232K	Y	CAP CHIP 0805 1N 50V X7R +/-10%	1
C803	065G080510332K	F	CAP 0805 10NF K 50V X7R	2 nd source
C802	065G080510332K	F	CAP 0805 10NF K 50V X7R	2 nd source
C802	065G080510332K	Y	CAP CHIP 0805 10N 50V X7R +/-10%	1
C912	065G080510432K	3	CAP CHIP 0805 100N 50V X7R +/-10%	2 nd source
C814	065G080510432K	3	CAP CHIP 0805 100N 50V X7R +/-10%	2 nd source
C924	065G080510432K	3	CAP CHIP 0805 100N 50V X7R +/-10%	2 nd source
C924	065G080510432K	A	CAP CHIP 0805 0.1UF K 50V X7R	1
C912	065G080510432K	A	CAP CHIP 0805 0.1UF K 50V X7R	1
C814	065G080510432K	A	CAP CHIP 0805 0.1UF K 50V X7R	1
C924	065G080510432K	T	0.1UF K 50V X7R TAIYO YUDEN	2 nd source
C814	065G080510432K	T	0.1UF K 50V X7R TAIYO YUDEN	2 nd source
C805	065G080522512K	3	CAP CHIP 0805 2U2 16V X7R +/-10%	2 nd source
C805	065G080522512K	M	CAP 0805 2.2UF 10% 16V X7R	1
C914	065G080547131J	F	CAP CHIP 0805 470PF J 50V NPO	2 nd source
C914	065G080547131J	Y	CAP CHIP 0805 470P 50V NPO +/-5%	1
C927	065G080547332K	F	CAP CHIP 0805 47NF K 50V X7R	1
C927	065G080547332K	Y	CAP CHIP 0805 47N 50V X7R +/-10%	2 nd source
C811	065G080547432K	3	CAP 0805 470NF 10% 50V X7R	2 nd source
C810	065G080547432K	3	CAP 0805 470NF 10% 50V X7R	2 nd source
C804	065G080547432K	3	CAP 0805 470NF 10% 50V X7R	2 nd source
C804	065G080547432K	T	CAP CHIP 0805 0.47UF K 50V X7R	1
C810	065G080547432K	T	CAP CHIP 0805 0.47UF K 50V X7R	1
C811	065G080547432K	T	CAP CHIP 0805 0.47UF K 50V X7R	1
	PLB5361CYM1AIJ		POWER BOARD FOR ai	1
CN901	006G 31500		EYELET	3
	040G 45762420A		LABEL 25x6mm	1
R915	061G 17210052T	TZ	RST CFR 10R 1/4W 5%	2 nd source
R915	061G 17210052T	XZ	RST CFR 10 OHM +-5% 1/4W XIANZHENG	1
R923	061G 60220152T	TZ	RST CFR 200OHM +-5% 1/6W TZAI YUAN	2 nd source
R923	061G 60220152T	XZ	RST CFR 200 OHM +-5% 1/6W XIANZHENG	1
R906	061G152M10452T	HX	RST MOF 100K 5% 2WS	2 nd source
R906	061G152M10452T	SY	RST MOFR 100KOHM +-5% 2WS FUTABA	1
R904	061G152M39152T	SY	RST MOFR 390 OHM +-5% 2WS	1
R924	061G152M39852T	HX	RST MOF 0.39R 5% 2W	2 nd source
R924	061G152M39852T	SY	RST MOF 0.39R 5% 2W	1
C911	065G 2K152 2T6213		CAP CER 1.5NF 10% 2KV Y5P	1
C807	065G500K4732GT		CAP JC 47NF 10% 50V X7R	1
C807	065G500K4732HT		CAP CER 47NF 10% 50V X7R	2 nd source
C917	065G517K102 2T6921		CAP CER 1000PF K 500V Y5P	1
C916	065G517K102 2T6921		CAP CER 1000PF K 500V Y5P	1
C816	065G517K102 2T6921		CAP CER 1000PF K 500V Y5P	1
C921	067G 2046812KT		CS CAP 680uF 10V 8*11 mm	1
C920	067G 2046812KT		CS CAP 680uF 10V 8*11 mm	1
C921	067G 2046812LT		CAP CS 680UF 20% 10V 8*11.5	2 nd source
C920	067G 2046812LT		CAP CS 680UF 20% 10V 8*11.5	2 nd source
C809	067G 4153309KT		EC 33UF 20% 100V 8*12 ED	1
C801	067G 5153314KT		EC 330UF 20% 25V EJ1E331MPN1009RU	1

C922	067G 5153314KT	EC 330UF 20% 25V EJ1E331MPN1009RU	1
C934	067G 5153314KT	EC 330UF 20% 25V EJ1E331MPN1009RU	1
C919	067G215D3314KT	EC 330UF 20% 25V 10*12 ED	1
C918	067G215S1024KT	EC 1000UF 20% 25V 12.5*20 ED	1
C933	067G215S1024KT	EC 1000UF 20% 25V 12.5*20 ED	1
C933	067G215S1024LT	EC 1000UF 20% 25V 12.5*20	2 nd source
C918	067G215S1024LT	EC 1000UF 20% 25V 12.5*20	2 nd source
C913	067G215Y2207KT	CAP 105°C 22UF M 50V KINGNICHIEG	1
FB601	071G 55 9 T	BEAD 3.5*0.8*6.0mm 110R HF	1
FB801	071G 55 29	FERRITE BEAD	1
FB802	071G 55 29	FERRITE BEAD	1
FB901	071G 55 29	FERRITE BEAD	1
F901	084G 56 4 B	FUSE 4A 250V	1
F903	084G 56 5 B	FUSE 5A 250V SS-5-5A-AP	1
F902	084G 56 5 B	FUSE 5A 250V SS-5-5A-AP	1
F903	084G 56 5 C	FUSE 5A 250V MST 5A 250V	2 nd source
F902	084G 56 5 C	FUSE 5A 250V MST 5A 250V	2 nd source
ZD901	093G 3916352T	ZD TZX22B	1
D904	093G 5212T52T	DIODE 1N4007-AO DO-41	1
D903	093G 6026T52T	CTIFIER DIODE FR107	1
D907	093G 6451652T	1N4148	1
J809	095G 90 23	JUMPER WIRE	1
J810	095G 90 23	JUMPER WIRE	1
J811	095G 90 23	JUMPER WIRE	1
J812	095G 90 23	JUMPER WIRE	1
J813	095G 90 23	JUMPER WIRE	1
J901	095G 90 23	JUMPER WIRE	1
J902	095G 90 23	JUMPER WIRE	1
J903	095G 90 23	JUMPER WIRE	1
J904	095G 90 23	JUMPER WIRE	1
J905	095G 90 23	JUMPER WIRE	1
J906	095G 90 23	JUMPER WIRE	1
J908	095G 90 23	JUMPER WIRE	1
J909	095G 90 23	JUMPER WIRE	1
J801	095G 90 23	JUMPER WIRE	1
J802	095G 90 23	JUMPER WIRE	1
J803	095G 90 23	JUMPER WIRE	1
J804	095G 90 23	JUMPER WIRE	1
J805	095G 90 23	JUMPER WIRE	1
J806	095G 90 23	JUMPER WIRE	1
J807	095G 90 23	JUMPER WIRE	1
J808	095G 90 23	JUMPER WIRE	1
	715G5361P0B0000010	PWR PCB FR1 CTI>600 SS 184X145X1.6mm	1
	Q51G 6 4509	GLUE_RTV	1
	Q12G6600 6	FOOT	4
	Q33G0519 1101A	KEY_FUNCTION	1
	Q33G0520 1101A	LENS_POWER	1
	Q44G3231 15603	EVA	4