

Service
Service
Service



Service Manual

Horizontal Frequency
30- 80 kHz

Table Of Contents

Description	Page	Description	Page
Table Of Contents.....	1	6.2.Electrical Block Diagram.....	13
Revision List.....	2	7. Schematic.....	15
1. Monitor Specification.....	3	7.1 Main Board.....	15
2. LCD Monitor Description.....	4	7.2 Power Board.....	21
3. Operation Instruction.....	5	8.PCB Layout.....	23
3.1. General Instructions.....	5	8.1. Main Board.....	23
3.2. Control Button.....	5	8.2. Power Board.....	25
3.3 Adjusting the Picture.....	6	8.3. Key Board.....	28
4. Input/Output Specification.....	8	9. Maintainability.....	29
4.1. Input Signal Connector.....	8	9.1. Equipments and Tools Requirement.....	29
4.2. Factory Preset Display Modes.....	8	9.2. Trouble Shooting.....	30
5. Panel Specification.....	9	9.2.1 Main Board.....	30
5.1. General Feature.....	9	9.2.2 Power Board.....	33
5.2. Optical Characteristics.....	10	9.2.3 Key Board.....	35
5.3 Electrical Characteristics.....	10	10 White-Balance, Luminance adjustment...36	
6. Block Diagram.....	11	11. Monitor Exploded View.....	37
6.1 Software Flow Chart.....	11	12. BOM List.....	38

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]

1. Monitor Specification

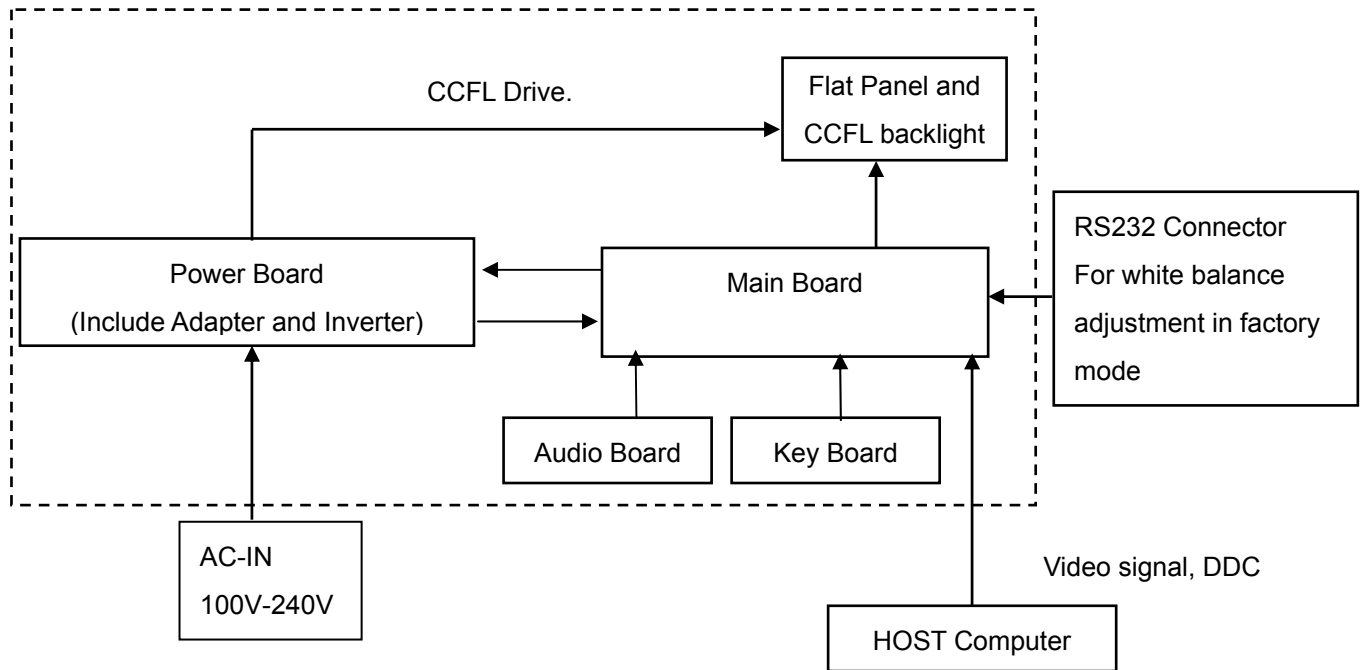
LCD Panel	Driving system	TFT Color LCD
	Size	38.1cm(15")
	Pixel pitch	0.297mm(H) × 0.297mm(V)
Input	Video	R,G,B Analog Interface
	Separate Sync.	H/V TTL
	H-Frequency	30kHz – 60kHz
	V-Frequency	55-75Hz
Display Colors		16.2M Colors
Dot Clock		80MHz
Max. Resolution		1024 × 768 @75Hz
Plug & Play		VESA DDC2B™
EPA ENERGY STAR®	ON Mode	<30W
	OFF Mode	≤1W
Input Connector		15-pin D-Sub
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive
Maximum Screen Size		Horizontal : 304.1mm Vertical :228.1mm
Power Source		100~240VAC,50~60Hz
Environmental Considerations		Operating Temp: 5° to 35°C Storage Temp.: -20° to 60°C Operating Humidity: 10% to 85%
Dimension		349(W)×355(H)×165(D)mm
Weight (N. W.)		2.8kg Unit (net)

2. LCD Monitor Description

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

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

Monitor Block Diagram



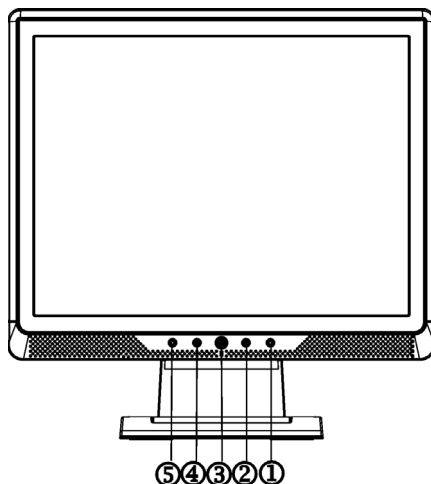
3. Operating Instructions

3.1 General Instructions

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

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor, the power indicator will light up.

3.2 Control Buttons



1.	MENU / ENTER	2.	Contrast
3.	Power Button/ LED	4.	Brightness
5.	Auto Adjust button / Exit		

- **Power Button:**

Press this button to turn the monitor ON or OFF.

- **Power Indicator:**

Green — Power On mode.

Orange — Off mode.

- **MENU / ENTER :**

Activate OSD menu when OSD is OFF or activate/de-activate adjustment function when OSD is ON or Exit OSD menu when in Brightness/ Contrast Adjust OSD status.

- **Brightness :**

Adjust brightness or function adjust.

- **Contrast :**

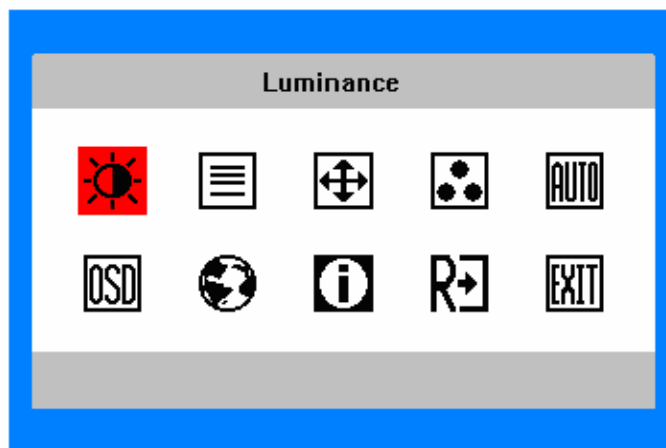
Adjust contrast or function adjust.

- **Auto Adjust button / Exit:**

1. When OSD menu is in active status, this button will act as EXIT-KEY (EXIT OSD menu).
2. When OSD menu is in off status, press this button for 2 seconds to activate the Auto Adjustment function.
The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus.




3.3 Adjusting The Pictures

1. Press the MENU-button to activate the OSD window.
2. Press ◀ or ▶ to navigate through the functions. Once the desired function is highlighted, press the MENU-button to activate it. If the function selected has a sub-menu, press ◀ or ▶ again to navigate through the sub-menu Functions. Once the desired function is highlighted, press MENU-button to activate it.
3. Press ◀ or ▶ to change the settings of the selected function.
4. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-3.



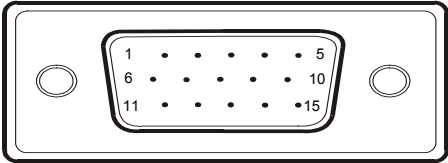
The table below describes the function of each OSD icon.

Main Menu Item	Main Menu Icon	Sub Menu Item	Sub Menu Icon	Description
Luminance		Contrast		Contrast from Digital-register.
		Brightness		Backlight Adjustment
Image Setup		Focus		Adjust Picture Phase to reduce Horizontal-Line noise
		Clock		Adjust picture Clock to reduce Vertical-Line noise.
Image Position		H. Position		Adjust the horizontal position of the picture.
		V. Position		Adjust the vertical position of the picture.
Color Temp.		C1/Warm	N/A	Recall Warm Color Temperature from EEPROM.
		C2/Cool	N/A	Recall Cool Color Temperature from EEPROM.
		sRGB	N/A	Recall sRGB Temperature from EEPROM.

		User / Red	R	Red Gain from Digital-register.
		User / Green	G	Green Gain Digital-register.
		User / Blue	B	Blue Gain from Digital-register.
		Yes	N/A	Auto Adjust the H/V Position, Focus and Clock of picture.
		No	N/A	Do not execute Auto Config, return to main menu.
		H. Position		Adjust the horizontal position of the OSD.
		V. Position		Adjust the vertical position of the OSD.
		OSD Timeout		Adjust the OSD timeout.
		Language	N/A	Set OSD language
		Information	N/A	Show the resolution, H/V frequency and input port of current input timing.
		Yes	N/A	Clear each old status of Auto-configuration.
		No	N/A	Do not execute reset, return to main menu.
		N/A	N/A	Exit OSD

4. Input/Output Specification

4.1 Input Signal Connector

Pin No.	Description	Pin No.	Description
1.	Red Video	9.	+5V
2.	Green Video	10.	Detect Cable
3.	Blue Video	11.	RXD
4.	TXD	12.	DDC-Serial Data
5.	GND	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		
VGA Connector layout			
			

4.2 Factory Preset Display Modes

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
Dos-mode	720 × 400	31.47kHz	70.0Hz
VGA	640 × 480	31.47kHz	60.0Hz
	640 × 480	37.50kHz	75.0Hz
SVGA	800 × 600	37.879kHz	60.0Hz
	800 × 600	46.875kHz	75.0Hz
XGA	1024 × 768	48.363kHz	60.0Hz
	1024 × 768	56.476kHz	70.0Hz
	1024 × 768	60.021kHz	75.0Hz

5. Panel Specification

5.1 General Characteristics

<i>Display area</i>	304.128 (W) x 228.096 (H) mm (typ.)
<i>Diagonal size of display</i>	38.0 cm (15.0 inches)
<i>Drive system</i>	a-Si TFT active matrix
<i>Display color</i>	16,777,216 colors (6bit+FRC)
<i>Pixel</i>	1,024 (H) x 768 (V) pixels
<i>Pixel arrangement</i>	RGB (Red dot、Green dot、Blue dot) vertical stripe
<i>Dot pitch</i>	0.099 (W) x 0.297 (H) mm
<i>Pixel pitch</i>	0.297 (W) x 0.297 (H) mm
<i>Module size</i>	326.50 (W) x 253.5 (H) x 11.2 (D) mm (typ.)
<i>Weight</i>	1000 g (typ.)
<i>Contrast ratio</i>	450:1 (typ.)
<i>Viewing angle</i> (At the contrast ratio 10: 1)	<ul style="list-style-type: none"> • Horizontal: 120° (typ.) • Vertical: 100° (typ.)
<i>Designed viewing direction</i>	• Viewing angle with optimum grayscale ($\gamma = 2.2$): normal axis
<i>Color gamut</i>	At LCD panel center 60 % (typ.) [against NTSC color space]
<i>Response time</i>	T_{on} (white 90% \rightarrow black 10%) + T_{off} (black 10% \rightarrow white 90%) 16 ms (typ.)
<i>Luminance</i>	At $IBL = 7.5mA_{rms} / lamp$ 250cd/m ² (typ.)
<i>Signal system</i>	LVDS 1port [RGB :8-bit, Dot clock (CLK), Data enable (DE)]
<i>Power supply voltage</i>	LCD panel signal processing board: 3.3V
<i>Backlight</i>	Edge light type: 2 cold cathode fluorescent lamps <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 0 10px; display: inline-block;"> Replaceable part • Lamp holder set: Type No. 150LHS21 </div>
<i>Power consumption</i>	At $IBL=7.5mA_{rms} / lamp$ and checkered flag pattern 9.5W (typ.)

5.2 Optical Characteristics

The optical characteristics are measured under stable conditions at $25\pm 2^{\circ}\text{C}$ (Room Temperature) :

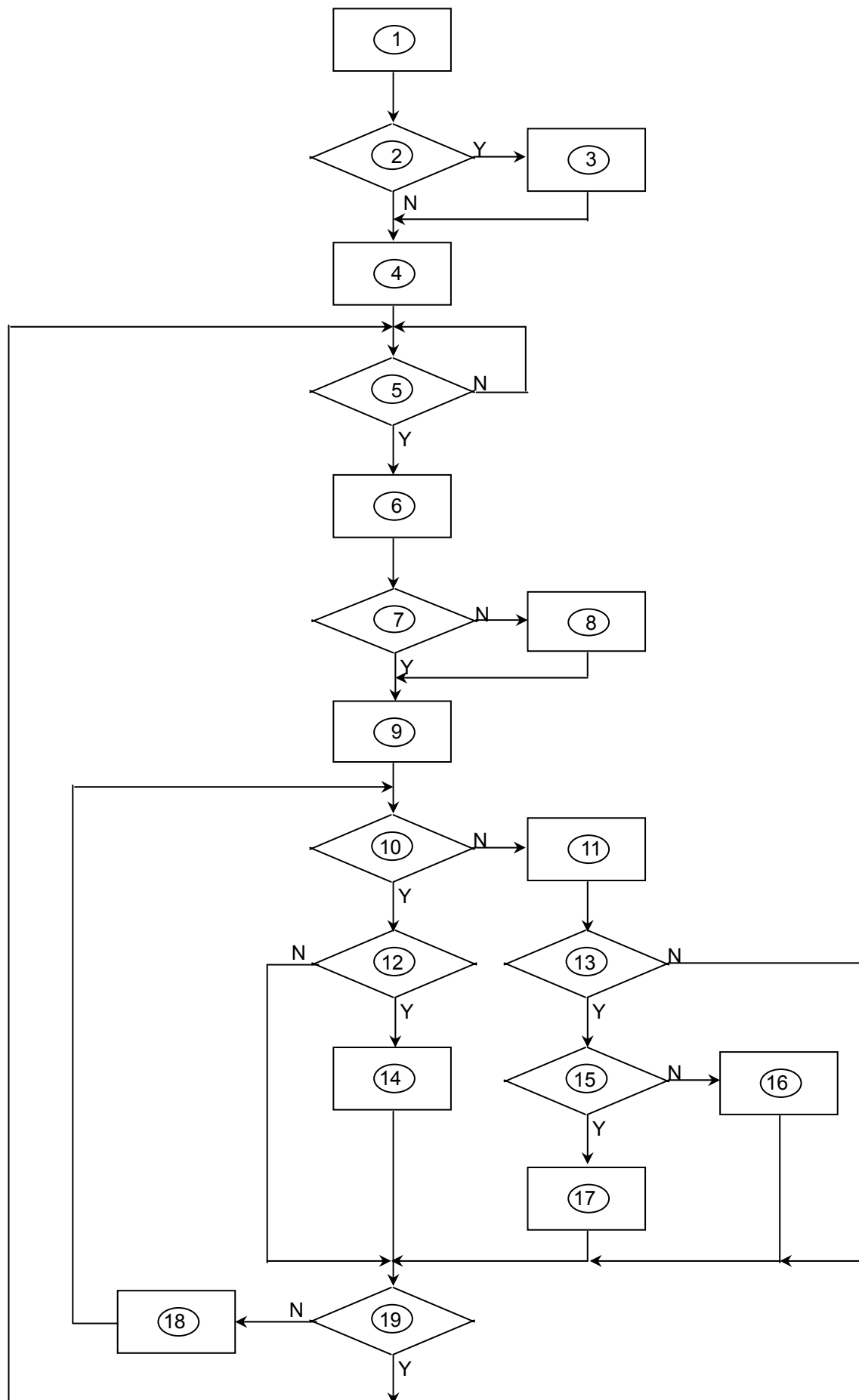
Parameter Note1		Condition	Symbol	min.	typ.	max.	Unit
Luminance		White at center R=0, L=0, U=0,D=0	L	200	250	-	cd/ m ²
Contrast ratio		White/Black at center R=0, L=0, U=0,D=0	CR	350	450	-	-
Luminance uniformity		-	LU	-	1.2	1.3	-
Chromaticity	White	X coordinate	Wx	0.283	0.313	0.343	-
		Y coordinate	Wy	0.299	0.329	0.359	-
	Red	X coordinate	Rx	-	0. 63	-	-
		Y coordinate	Ry	-	0.35		
	Green	X coordinate	Gx	-	0.30	-	-
		Y coordinate	Gy	-	0.59	-	-
	Blue	X coordinate	Bx	-	0.14	-	-
		Y coordinate	By	-	0.09	-	-
Color gamut		R=0, L=0, U=0,D=0	C	50	60	-	%
Response time		White to black	Ton	-	4	7	ms
		Black to white	Toff	-	12	18	ms
Viewing angle	Right	θU=0°, θD=0°,CR=10	θR	50	60	-	。
	Left	θU=0°, θD=0°,CR=10	θL	50	60	-	。
	Up	θR=0°, θL=0°,CR=10	θU	30	40	-	。
	Down	θR=0°, θL=0°,CR=10	θD	35	60	-	。

5.3 Electrical Characteristics

Parameter	Symbol	min.	typ.	max.	Unit
Lamp current	I _I	3.5	7.5	8.0	mA _{rms}
Lamp voltage	V _I	-	560	-	V _{rms}
Lamp starting voltage Note1	V _S	1500	-	-	V _{rms}
		1300	-	-	V _{rms}
Oscillation frequency	FO	50	55	60	kHz

6. Block Diagram

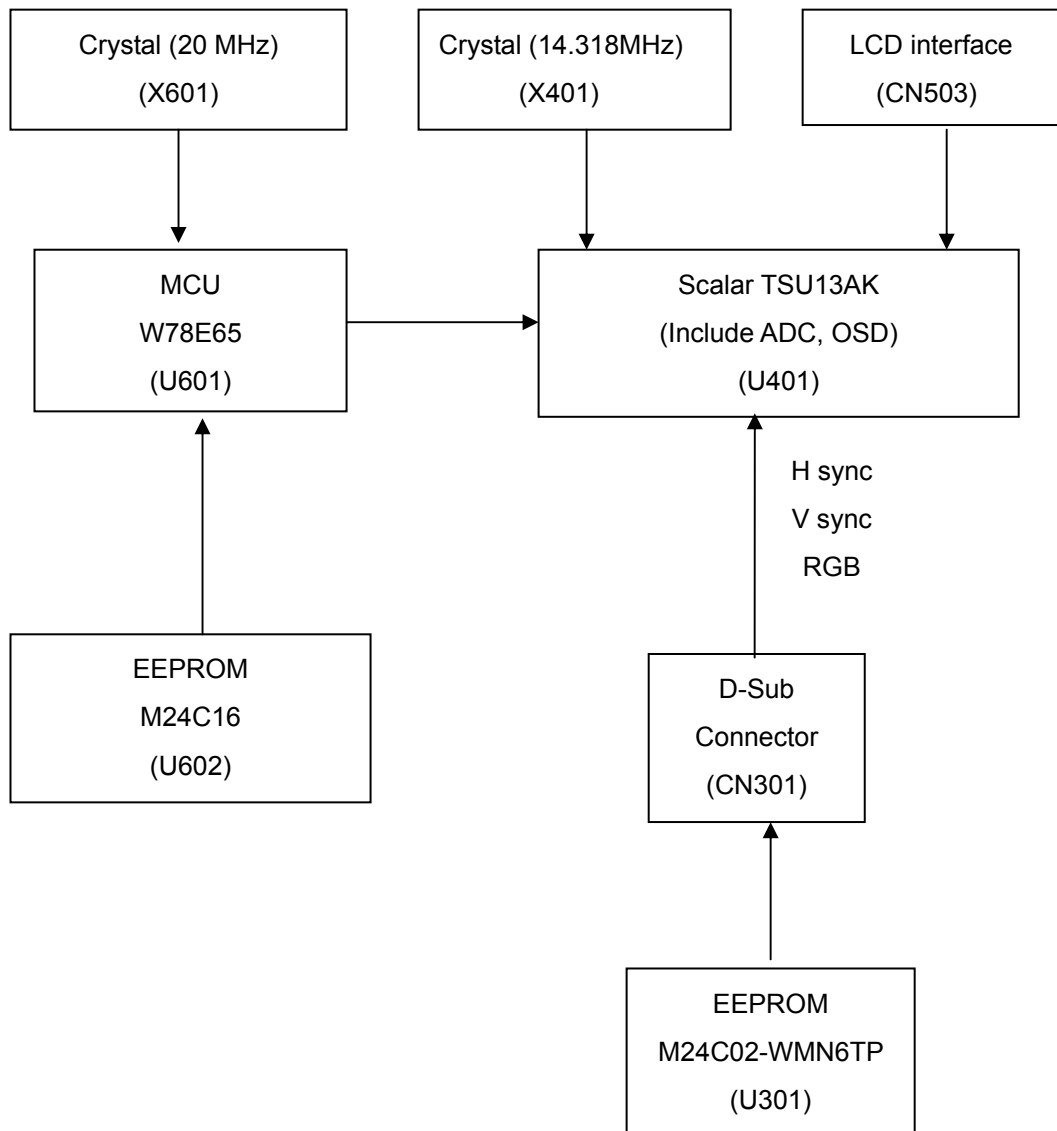
6. 1 Software Flow Chart

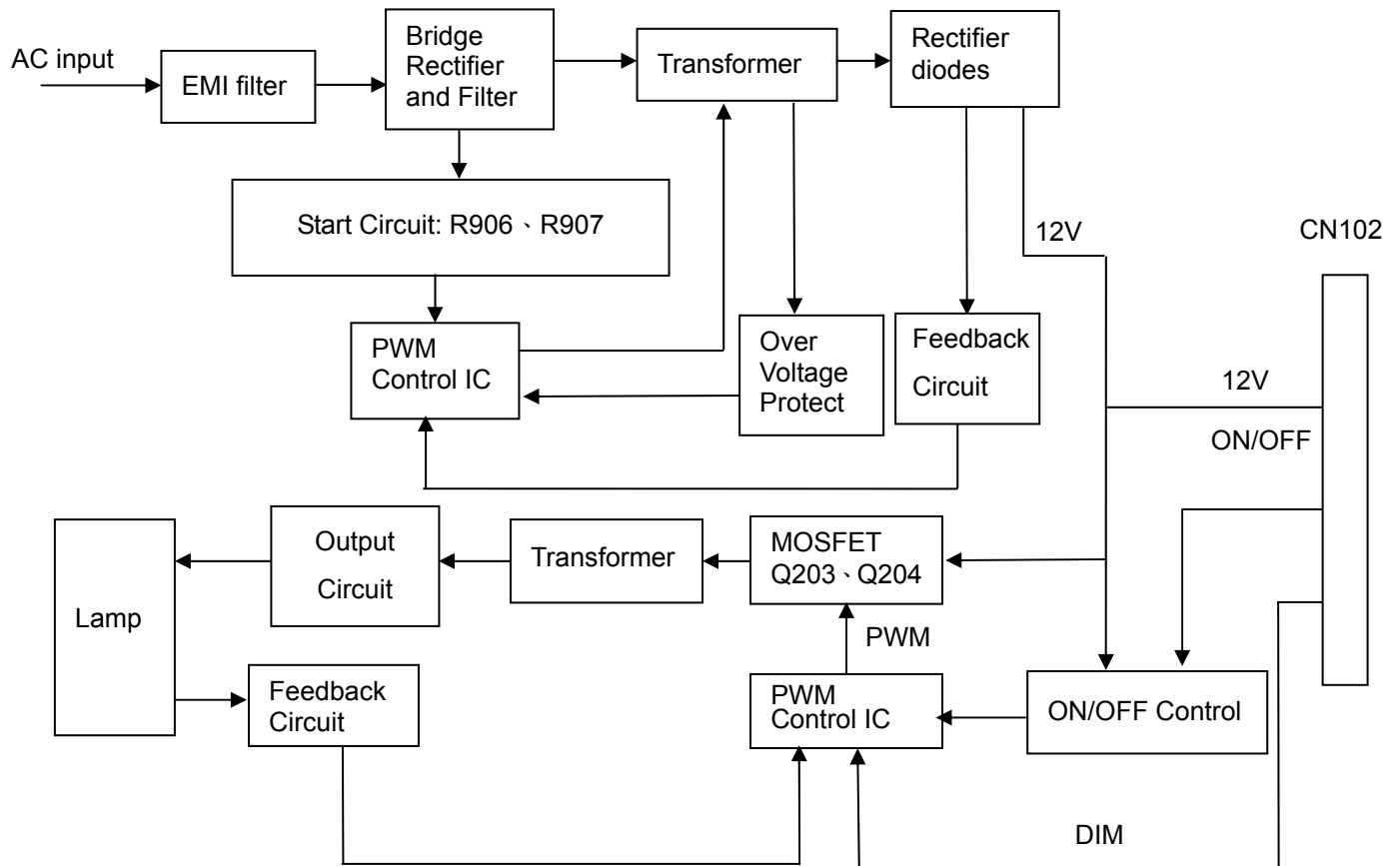


1) MCU initializes.
2) Is the EEPROM blank?
3) Program the EEPROM by default values.
4) Get the PWM value of brightness from EEPROM.
5) Is the power key pressed?
6) Clear all global flags.
7) Are the AUTO and SELECT keys pressed?
8) Enter factory mode.
9) Save the power key status into EEPROM. Turn on the LED and set it to green color. Scaler initializes.
10) In standby mode?
11) Update the lifetime of back light.
12) Check the analog port, are there any signals coming?
13) Does the scalar send out an interrupt request?
14) Wake up the scalar.
15) Are there any signals coming from analog port?
16) Display "No connection Check Signal Cable" message. And go into standby mode after the message disappears.
17) Program the scalar to be able to show the coming mode.
18) Process the OSD display.
19) Read the keyboard. Is the power key pressed?

6.2 Electrical Block Diagram

6.2.1 Main Board

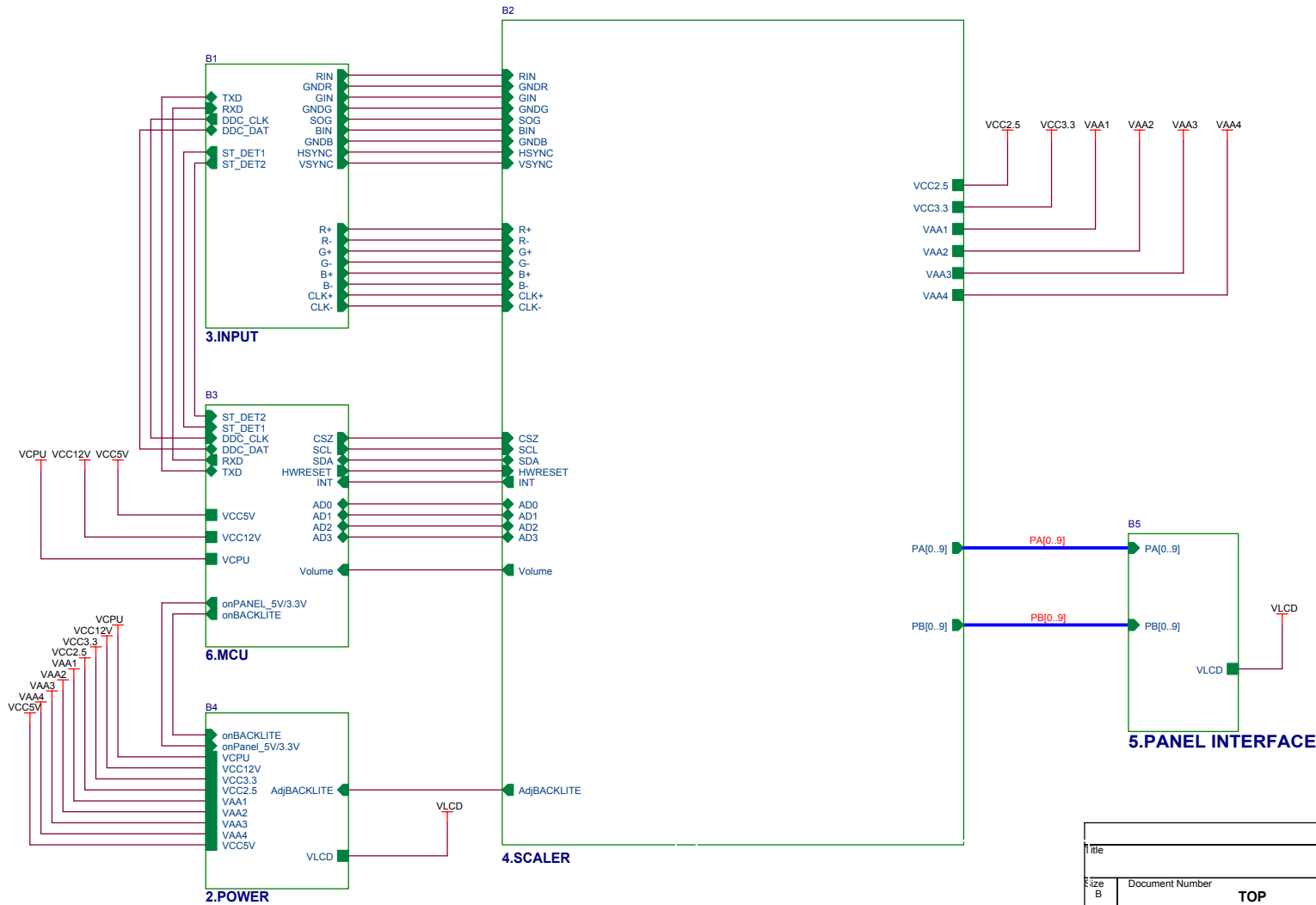


6.2.2 Power Board

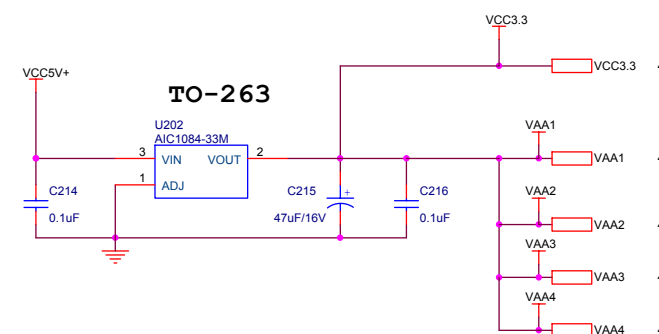
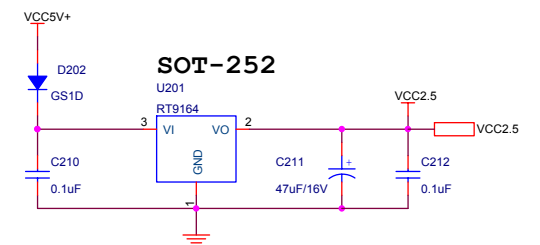
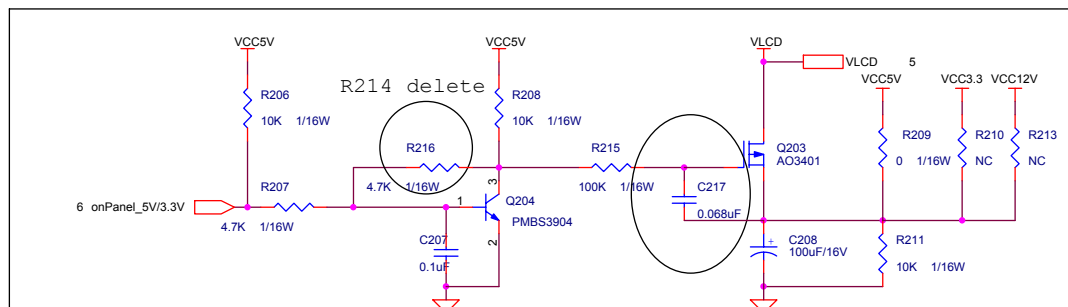
7. Schematic

7.1 Main Board

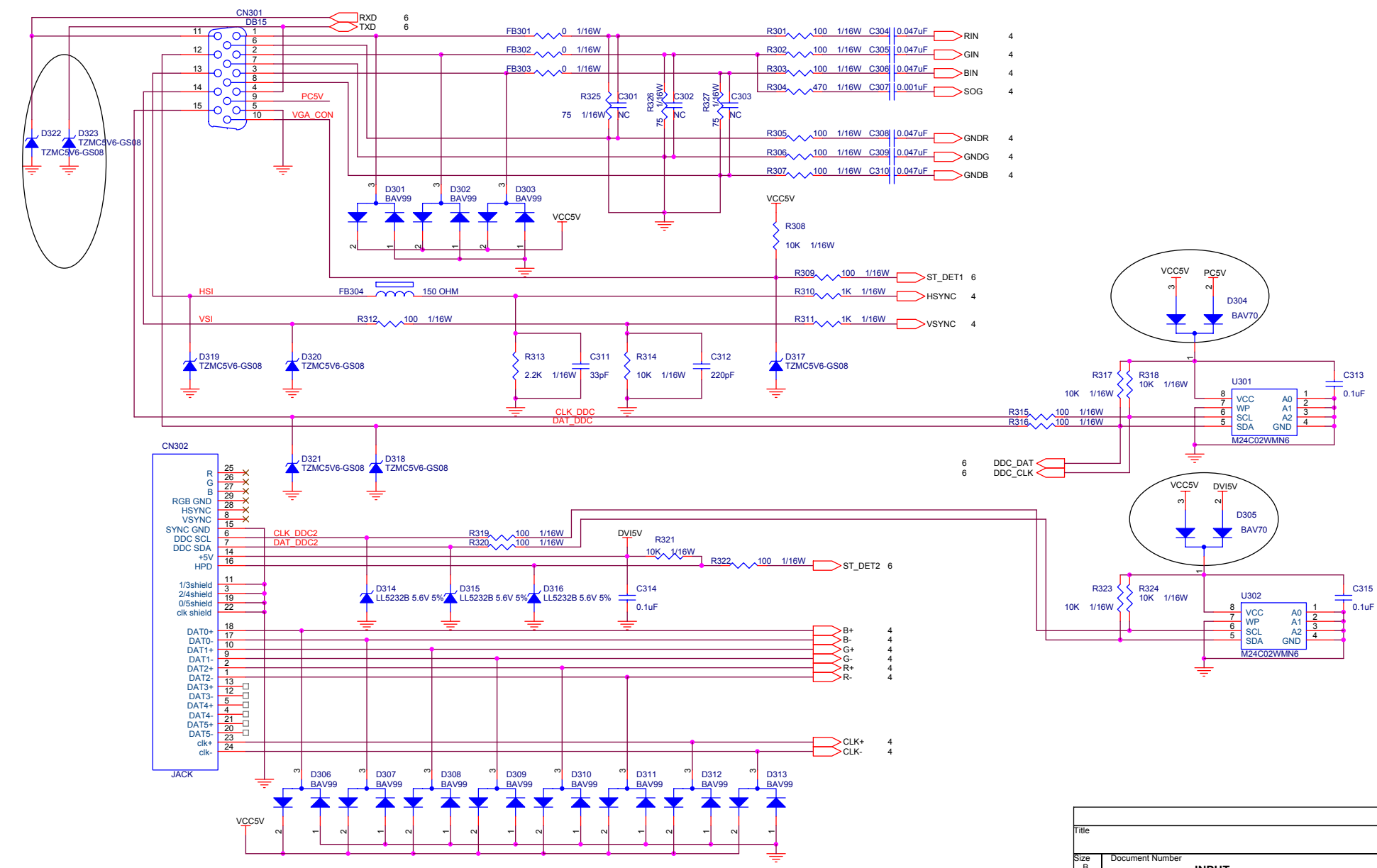
TSU56AK-LF SCHEMATIC



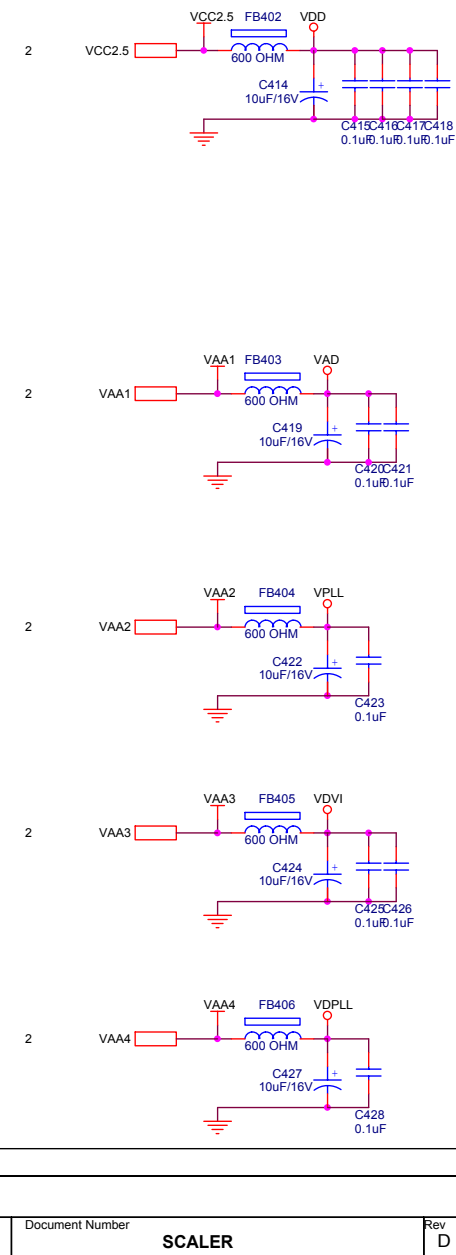
Title			
Size	Document Number	TOP	Rev D
Date:	Wednesday, April 14, 2004	Sheet 1 of 6	

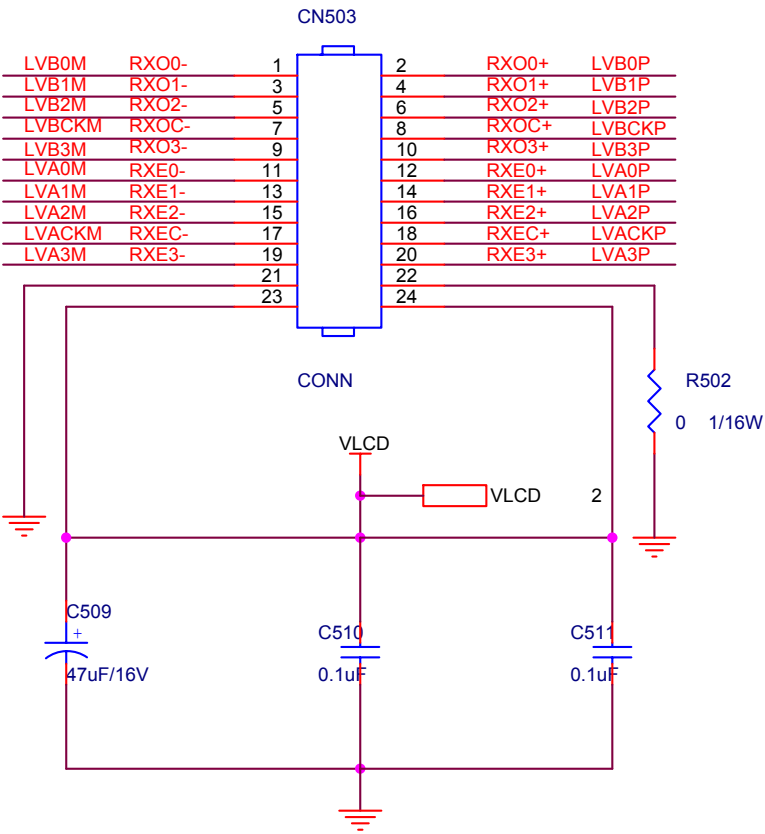
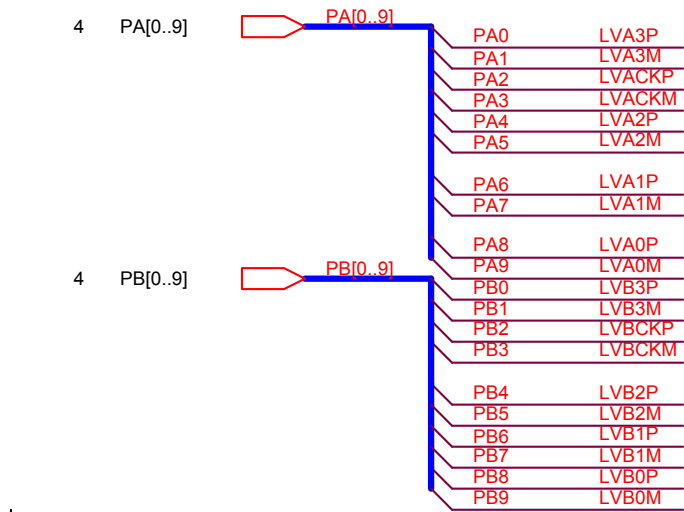
NEW
Circuit

Title									
Size B	Document Number POWER								Rev D
Date	Friday, November 26, 2004				Sheet	2 of 6			

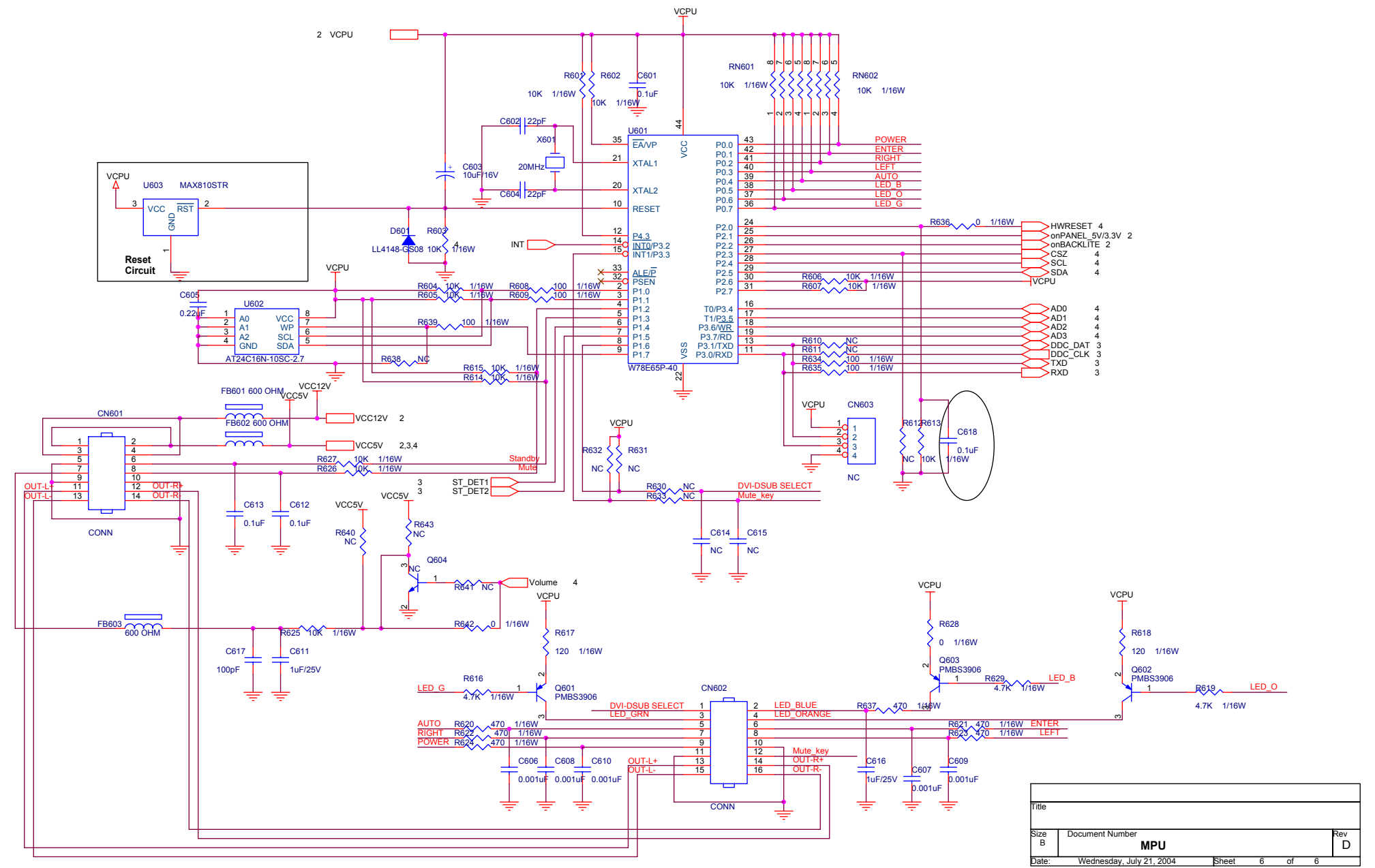


Title		
Size B	Document Number	Rev
	INPUT	D
Date:	Tuesday, November 09, 2004	Sheet 3 of 6

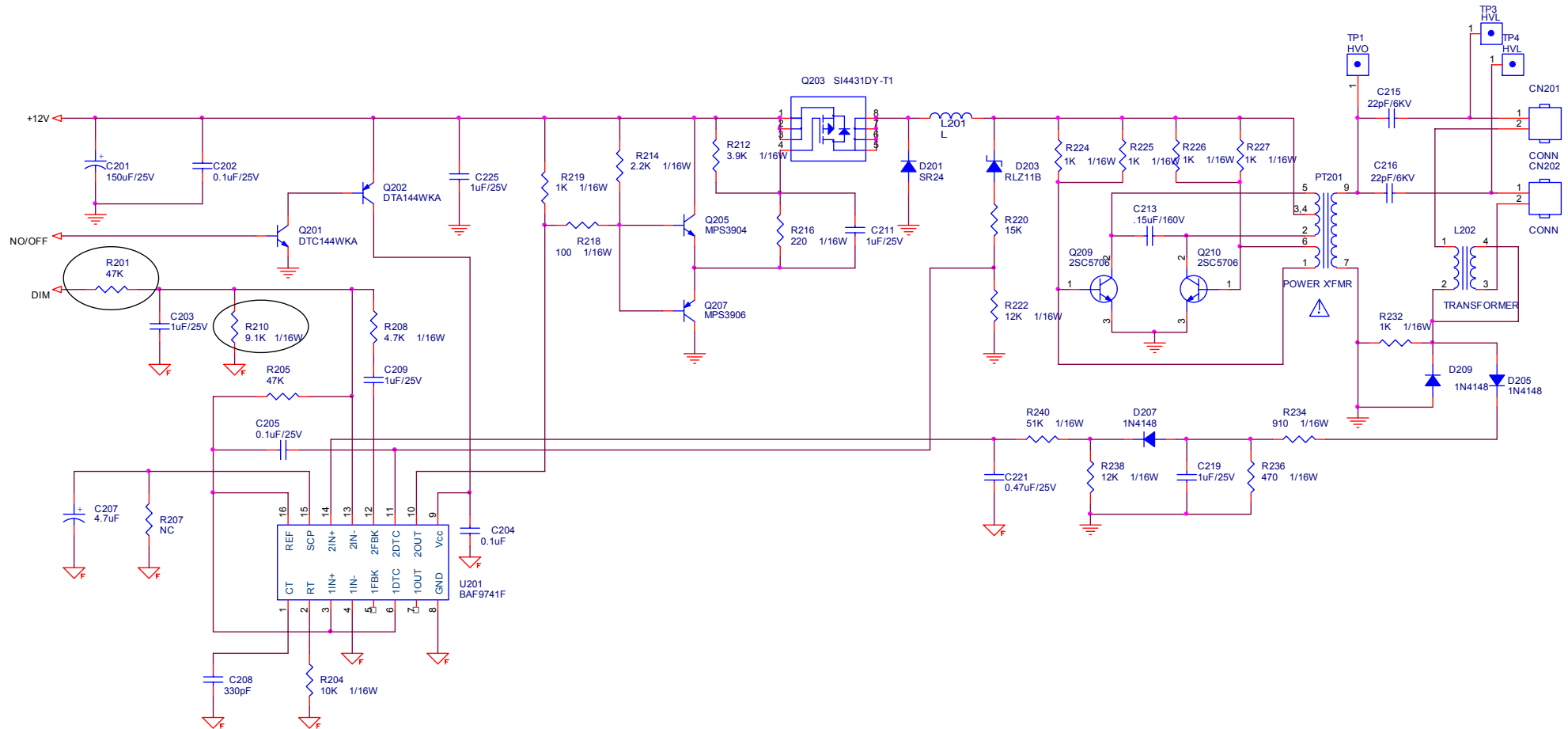




Title		
Size A	Document Number	Rev D
PANEL INTERFACE		
Date:	Wednesday, April 14, 2004	Sheet 5 of 6



7.2 Power Board



AOC (Top Victory) Electronics Co., Ltd.

Title
FOR NEC INVERTER

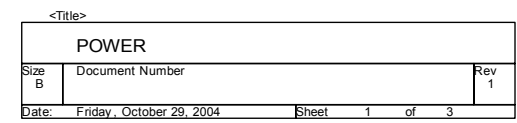
Size B Document Number

Rev A

Date: Friday, October 29, 2004 Sheet 2 of 2

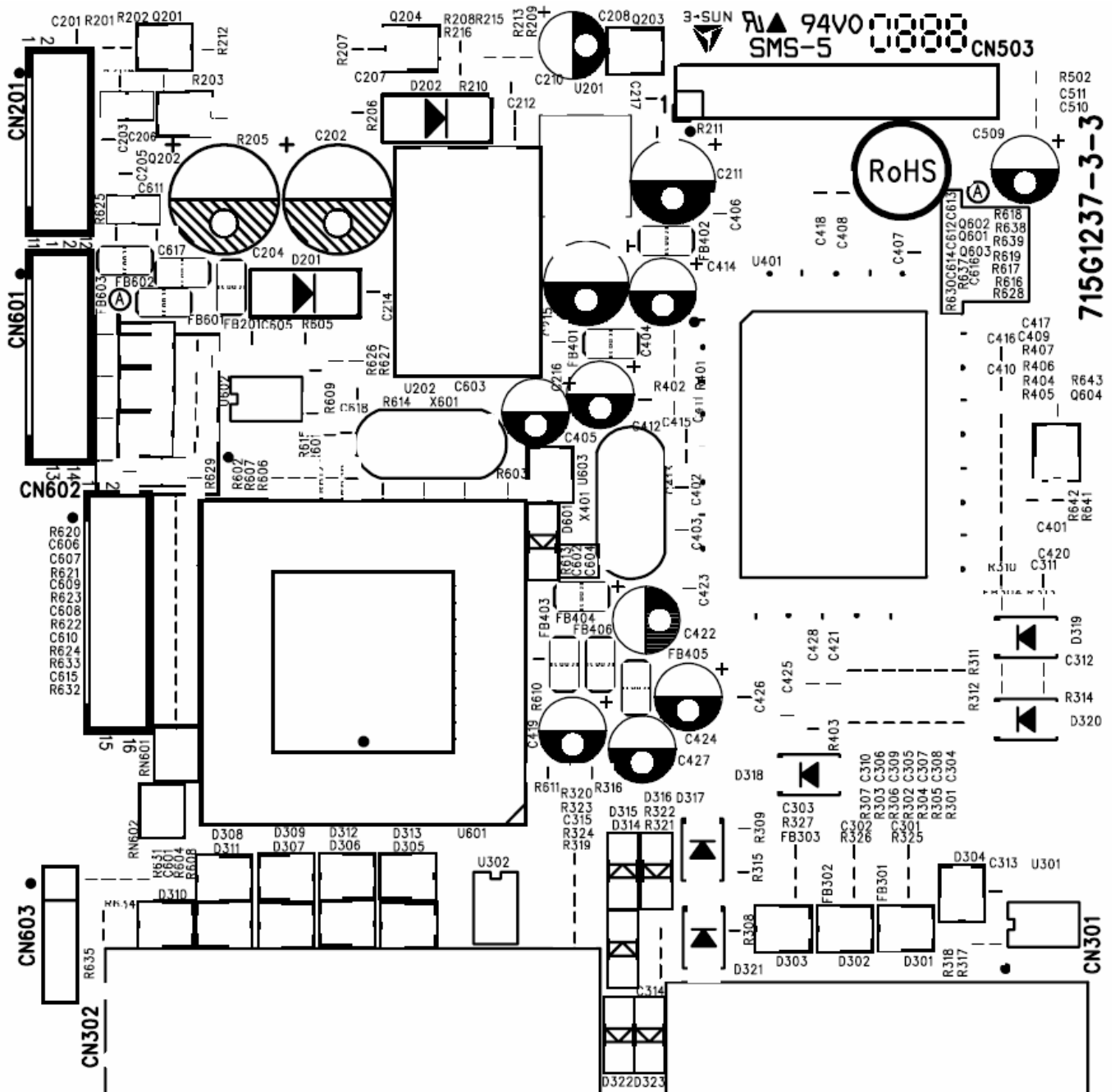
is power GND

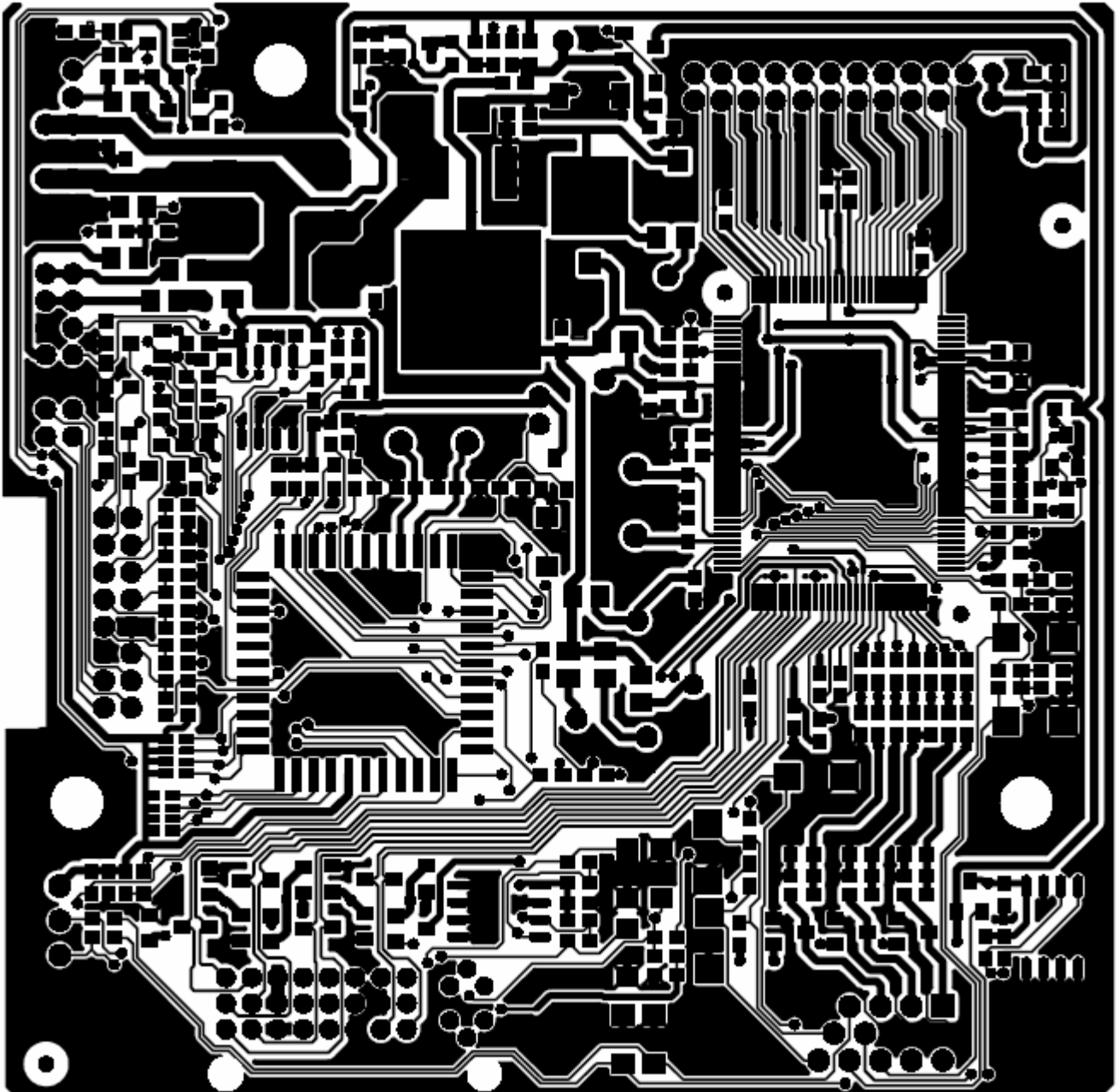
is signal GND

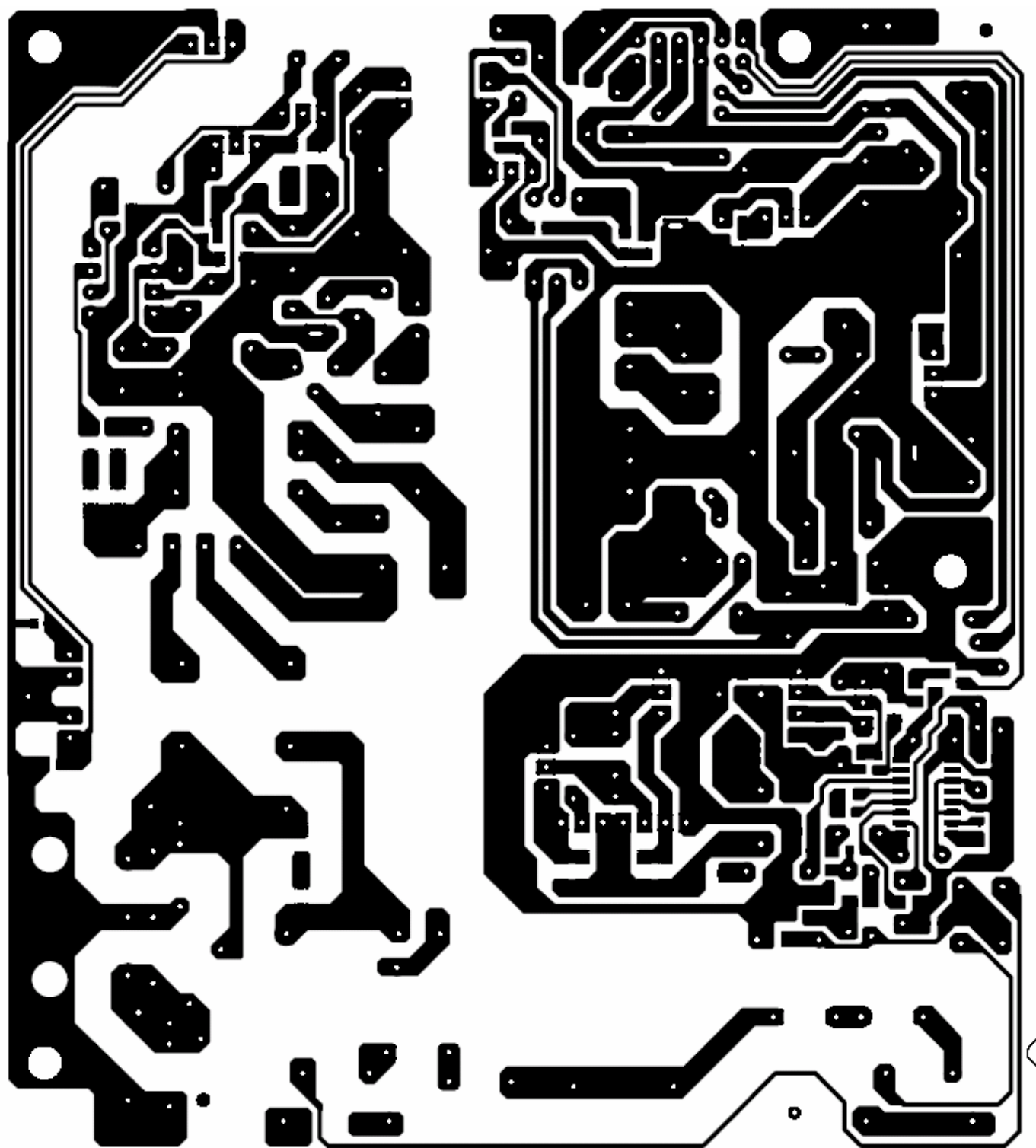


8. PCB Layout

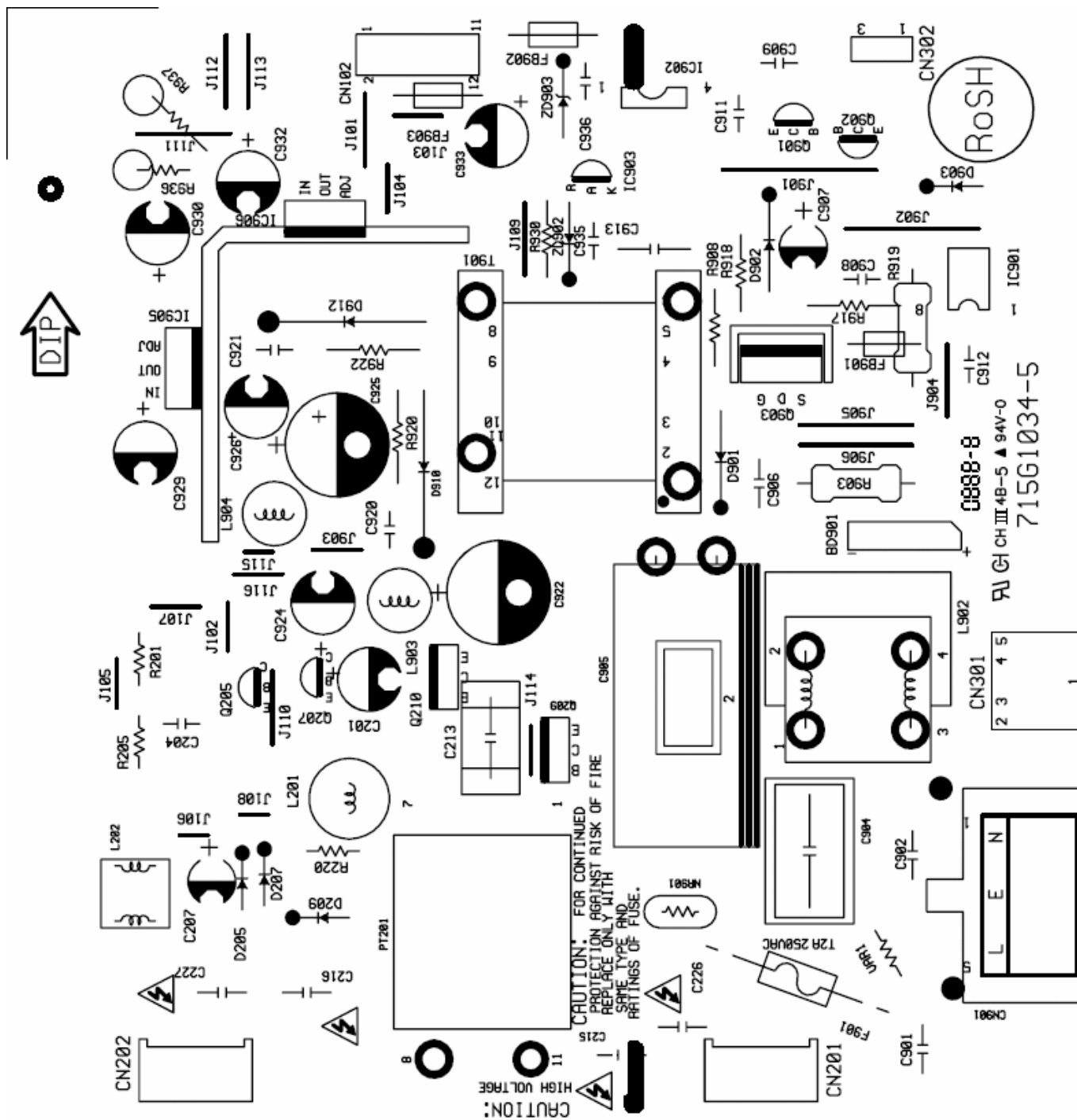
8.1 Main Board



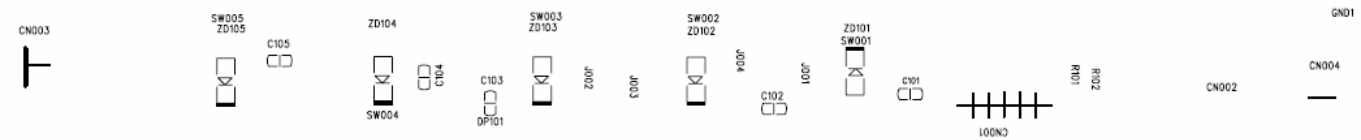
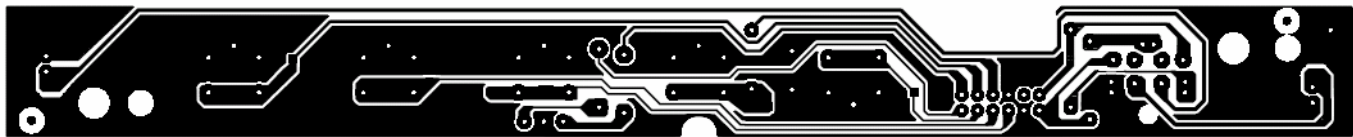


8.2 Power Board





8.3 Key Board



9. Maintainability

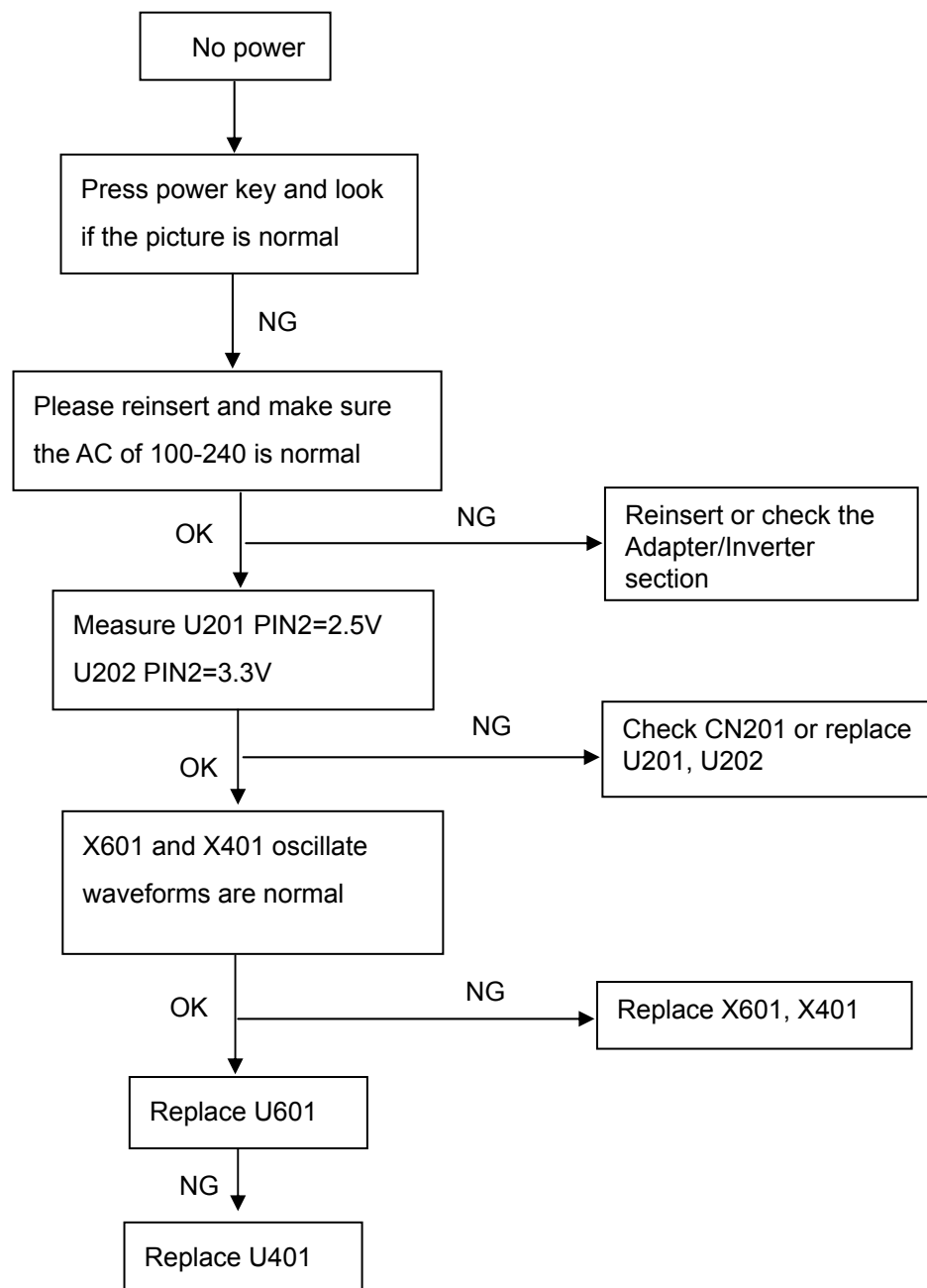
9.1 Equipment and Tools Requirement

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.

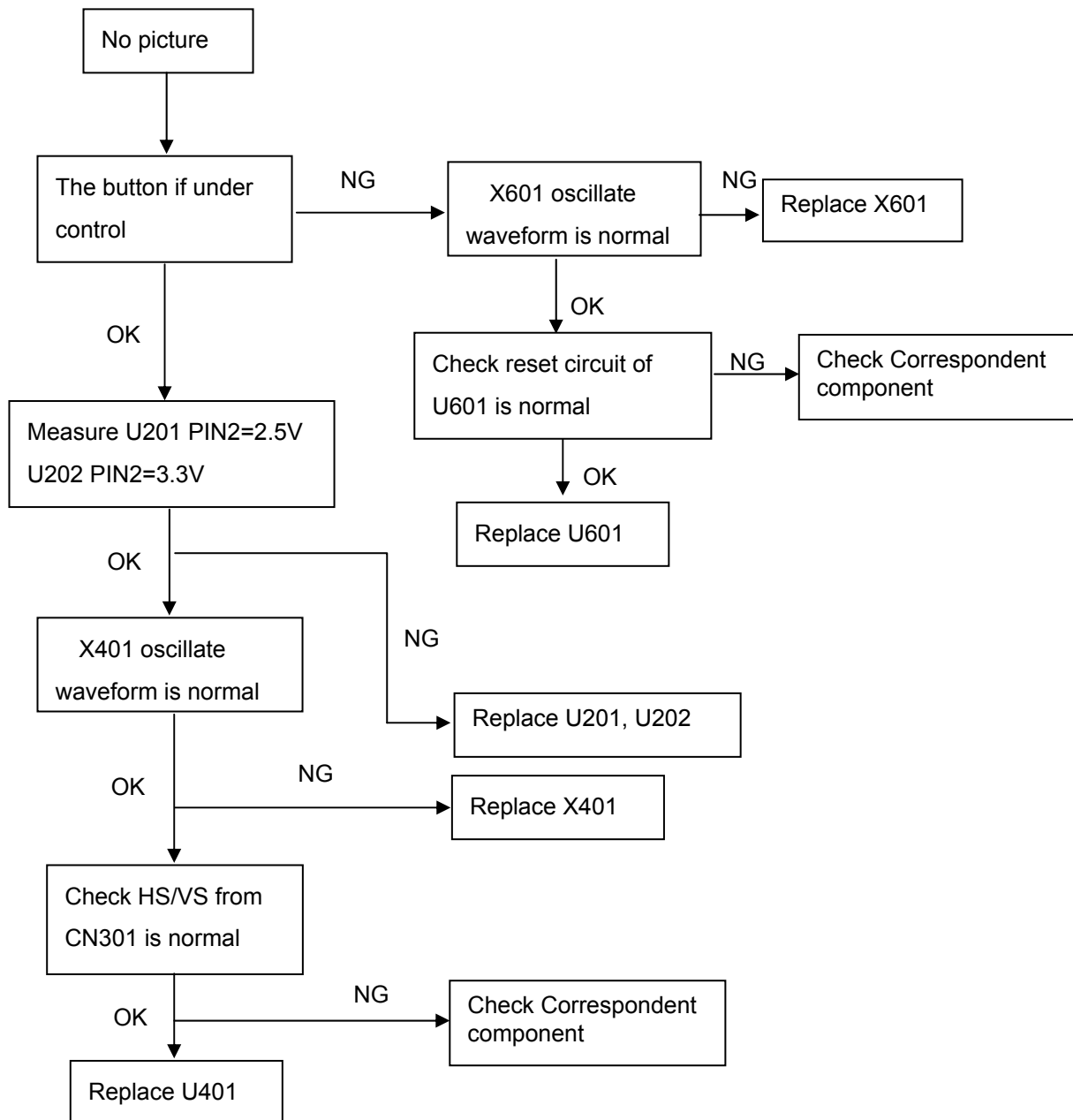
9.2 Trouble Shooting

9.2.1 Main Board

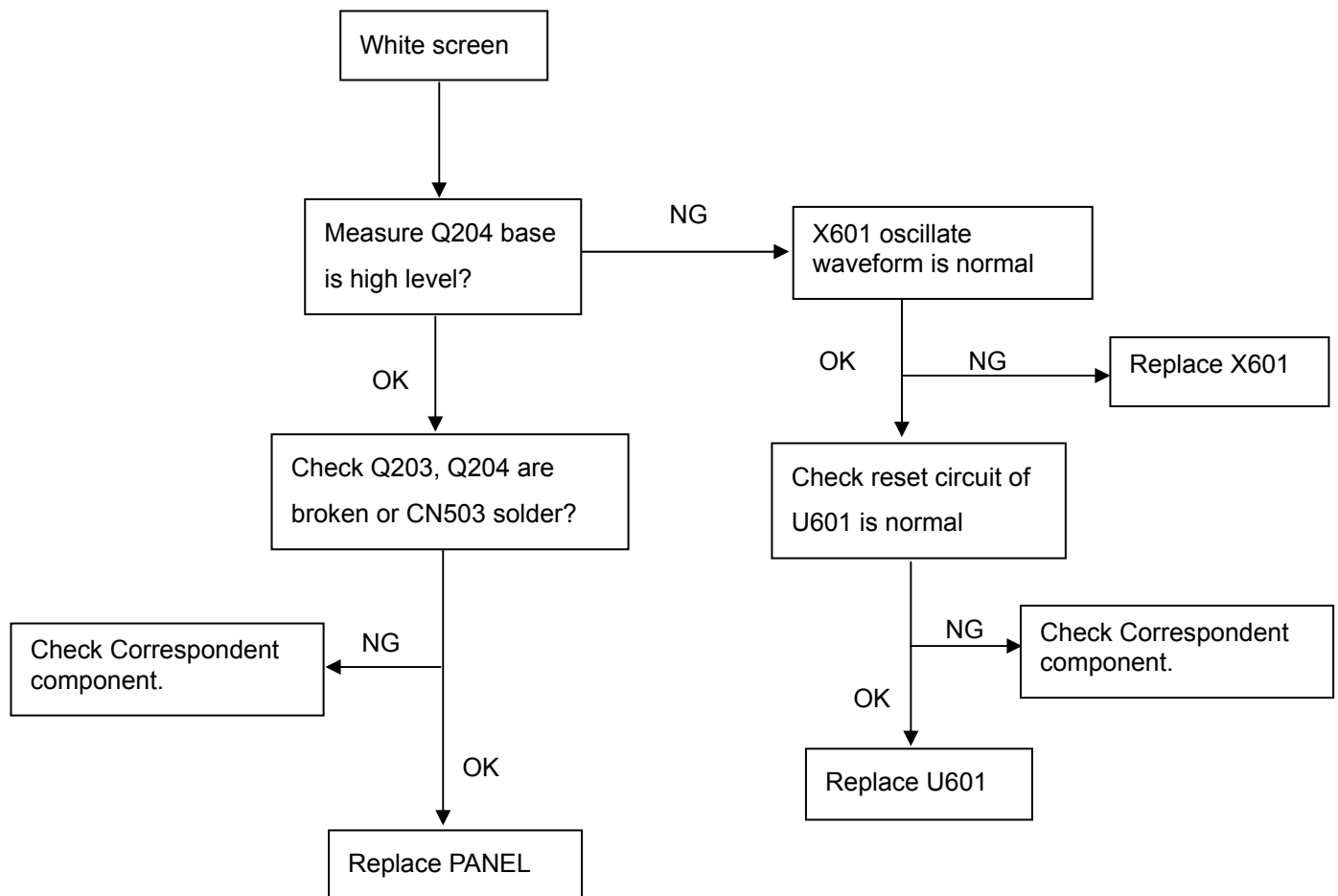
No Power

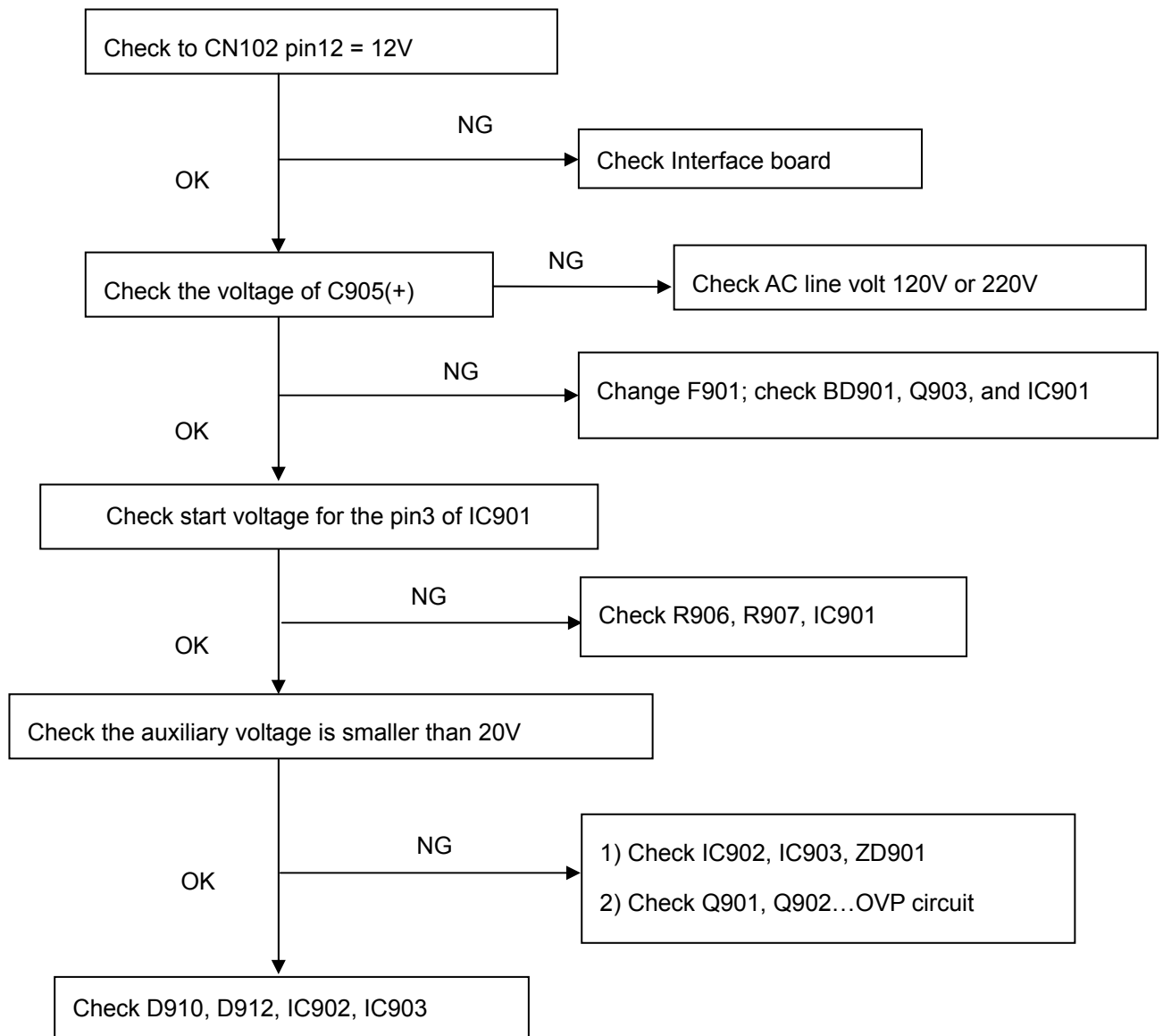


No Picture (LED orange)

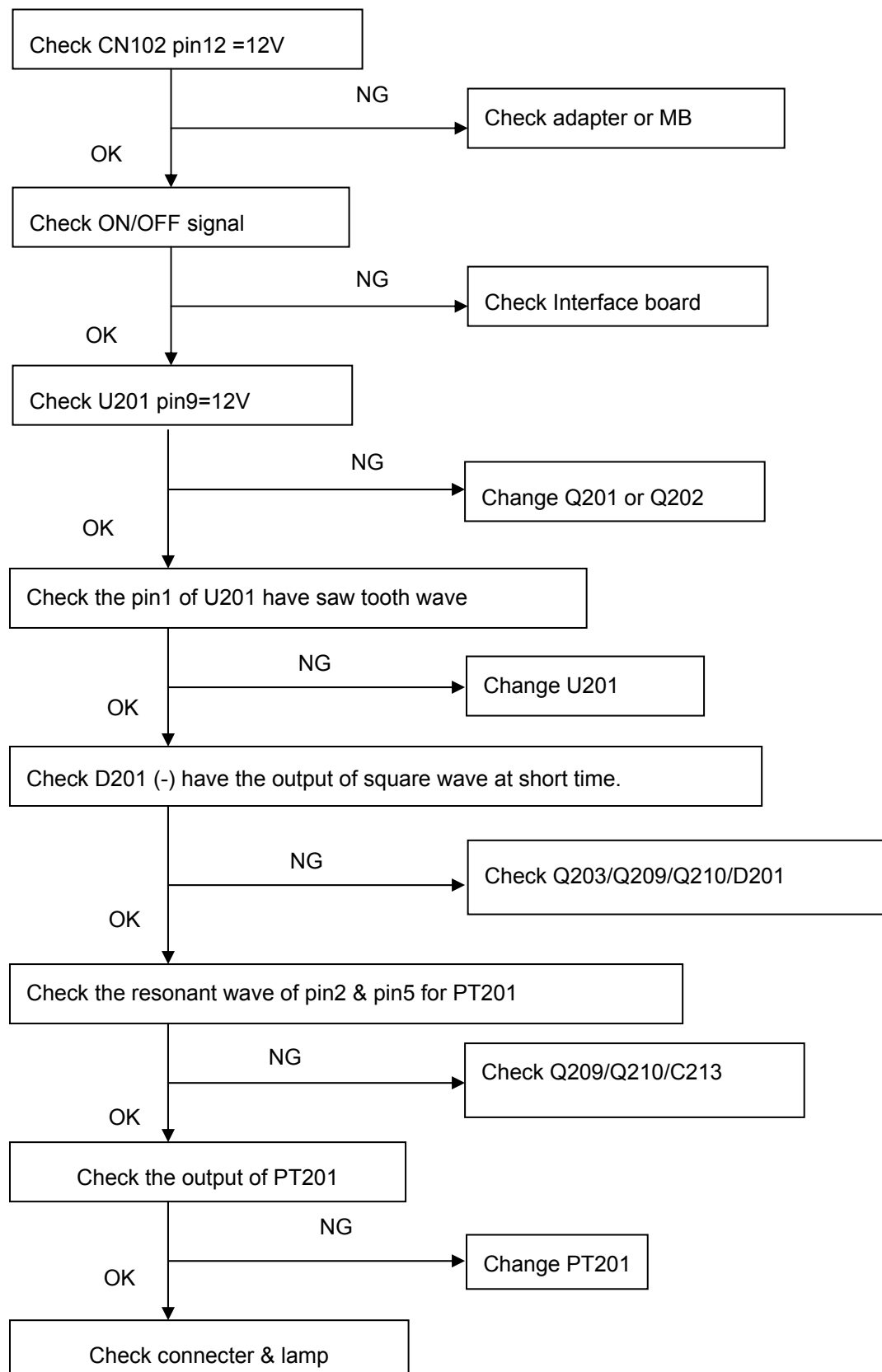


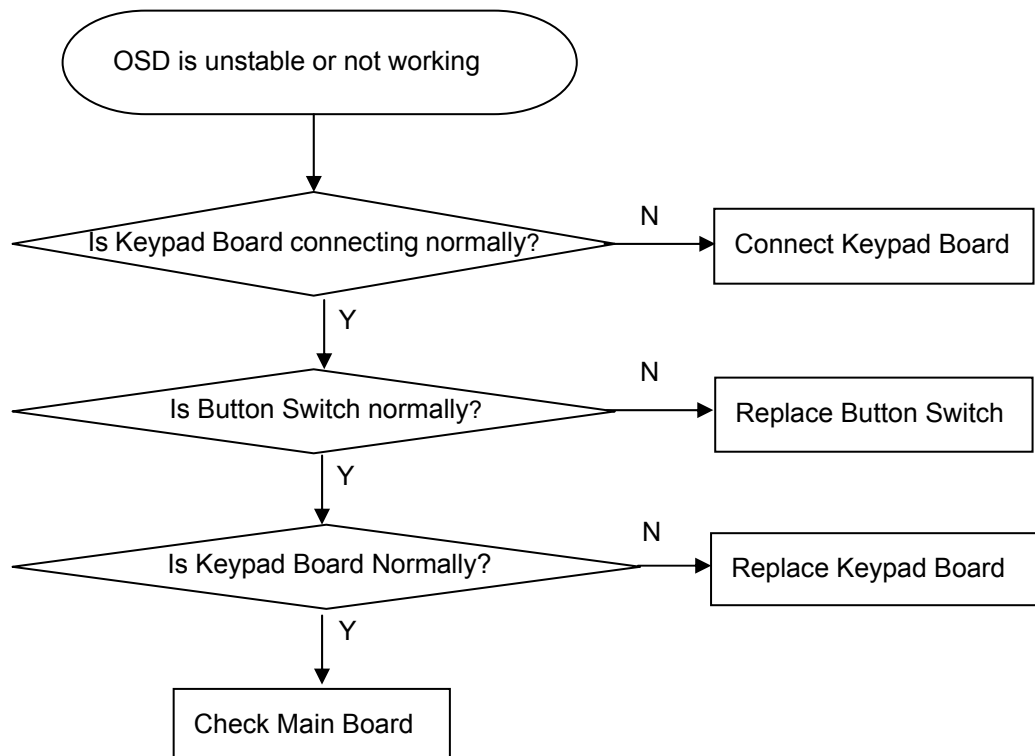
White Screen



9.2.2 Power Board

2.) W / LED, No Backlight



9.2.3 Key Board

10. White- Balance, Luminance Adjustment

Approximately 30 minutes should be allowed for warm up before proceeding White-Balance adjustment.

1. How to do the Chroma-7120 MEM. Channel setting

A. Reference to chroma 7120 user guide

B. Use “**SC**” key and “**NEXT**” key to modify x, y, Y value and use “**ID**” key to modify the TEXT description Following is the procedure to do white-balance adjust

2. Setting the color temp. you want

A. MEM.CHANNEL 3 (7800 color):

7800 color temp. parameter is $x = 296 \pm 20$, $y = 311 \pm 20$, $Y = 180 \text{ cd/m}^2$.

B. MEM.CHANNEL 4 (6500 color):

6500 color temp. parameter is $x = 313 \pm 20$, $y = 329 \pm 20$, $Y = 180 \text{ cd/m}^2$

3. Into factory mode of LM560s

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

4. Bias adjustment:

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

5. Gain adjustment:

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

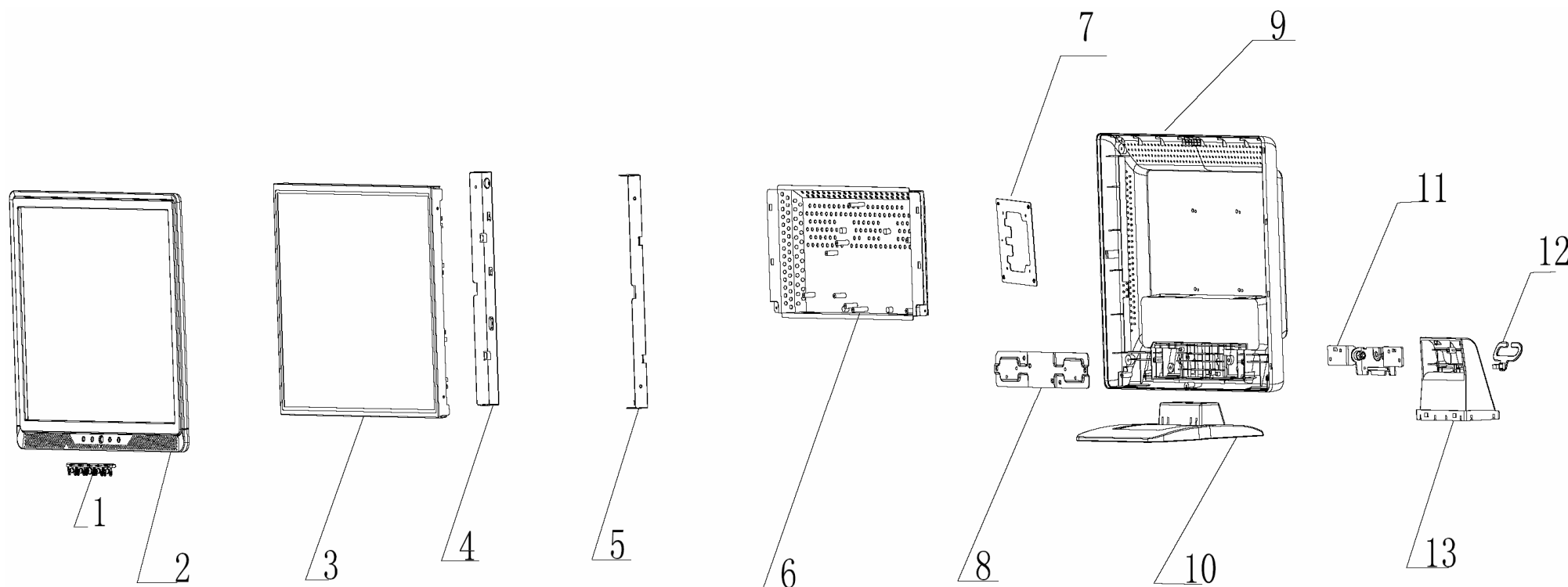
A. Adjust C2 (7800) color-temperature

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 $x = 296 \pm 20$, $y = 311 \pm 20$, $Y = 180 \text{ cd/m}^2$
4. Adjust the RED of color1 on factory window until chroma 7120 indicator reached the value $R=100$
5. Adjust the GREEN of color1 on factory window until chroma 7120 indicator reached the value $G=100$
6. Adjust the BLUE of color1 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 $=100 \pm 5$

B. Adjust C1 (6500) 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 $x = 313 \pm 20$, $y = 329 \pm 20$, $Y = 180 \text{ cd/m}^2$
4. Adjust the RED of color3 on factory window until chroma 7120 indicator reached the value $R=100$
5. Adjust the GREEN of color3 on factory window until chroma 7120 indicator reached the value $G=100$
6. Adjust the BLUE of color3 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 $=100 \pm 5$

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

11. Monitor Exploded View

NO.	DESCRIPTION	PART NO.	NO.	DESCRIPTION	PART NO.
1	KEY PAD	33G4848 Q1 K	8	HINGE BKT	15G6204 1
2	BEZEL	34G6198AGM 2K	9	REAR COVER	34G6199 GM 2K
3	PANEL	750GLD504TB81V	10	BASE	34G6200 GM K 20
4	PANEL-BKT-L	15G6208 L 1	11	HINGE	37G6033 1
5	PANEL-BKT-R	15G6208 R 1	12	CLAMP	33G4695 1 C
6	SHIELD	85G6118 2	13	STAND	34G1546 GM K
7	NA	NA			

12. BOM List

Location	Part No.	Description
	CBPC560KV4A1P	MAIN BOARD
	KEPC560KF4P	KEY BOARD
	PWPC5215A1E9	POWER BOARD FOR T562K*
PE095	S95G801820544	LVDS HARNESS
	15G5908 3	BRACKET
	26G 800504 3H	BARCODE
	40G 15N615 8A	ID LABEL
	40G 457786 3A	TCO99 LABEL
	40G 58162461A	EPA LABEL
	41G 68615 4B	TCO'99 CARD
	41G780061513B	INPUT NOT SUPPORT CARD
	41G780061532C	SA CENTER LIST
	44G3582 1	EPS (L)
	44G3582 2	EPS (R)
	50G 600 2	HANDLE1
	50G 600 3	HANDLE2
	52G 1185	MIDDLE TAPE
	52G 1186	SMALL TAPE
	52G6025 11840	INSULATE SHEET
	85G6118 2	SHIELD
	89G 715CAA D2	SIGNAL CABLE
	89G402A15N IS	POWER CORD
	95G8014 16E15	WIRE HARNESS 12P-16P 16
	M1G 330 4120	SCREW
	M1G 330 4120	SCREW
	M1G 330 6 47 CR3	SCREW 3X6mm
	M1G 340 8 47 CR3	SCREW
	M1G1730 6120	SCREW
	M1G1740 6128 CR3	SCREW
	Q1G 330 6120	SCREW M3X6mm
	705L560KB34125	LCD BACK COVER ASS'Y
	705L560KF34005	15" LCD ASS'Y
	705L560KP34005	15" LCD ASS'Y
	750GLD504TB81N	PANEL 150XG04TB Q SVA
	H41G1500615 4B	MANUAL
	H44G3582615 3F	CARTON
	H45G 87 1 1H R	PE BAG
	H45G 87 4 H R	PE BAG FOR BASE

	H45G 87 4 H R	PE BAG FOR BASE
CN201	33G8027 12	WAFER 2*6P 2.0MM R/A
CN503	33G8027 14 H	WAFER
CN602	33G8027 16	WAFER 16PIN 2.0mm DIP
	40G 457624 1B	CPU LABEL
	40G 45762412B	CBPC LABEL
C204	67G215B221 4H	ELCAP 220UF +-20% 25V 1
C208	67G305V100 3	ELCAP 10UF +-20% 16V 10
C405	67G305V100 3	ELCAP 10UF +-20% 16V 10
C414	67G305V100 3	ELCAP 10UF +-20% 16V 10
C419	67G305V100 3	ELCAP 10UF +-20% 16V 10
C422	67G305V100 3	ELCAP 10UF +-20% 16V 10
C424	67G305V100 3	ELCAP 10UF +-20% 16V 10
C427	67G305V100 3	ELCAP 10UF +-20% 16V 10
C211	67G305V470 3	ELCAP 47UF +-20% 16V 10
C215	67G305V470 3	ELCAP 47UF +-20% 16V 10
CN301	88G 35315F HJ	SOC SUBD H 15P F
U401	90G6077 1	HEAT SZIVK
X401	93G 22 53 J	14.31818MHZ/32PF/49US
X601	93G 22 55 J	20MHz/20PF/49US
U401	56G 562 88	TSU13AK BY MST
U202	56G 563 7	AIC1084-33PM
U201	56G 563 31	AZ1117D-1.8-E1
U603	56G 643 9	EM6353BZ2SP3B-2.9 SOT23
U601	56G1125137EAA	W78E65 BY WINBOND
U301	56G1133 34	M24C02-WMN6TP
U602	56G1133 56	M24C16-WMN6TP
Q201	57G 417 4	PMBS3904/PHILIPS-SMT(04
Q202	57G 417 4	PMBS3904/PHILIPS-SMT(04
Q204	57G 417 4	PMBS3904/PHILIPS-SMT(04
Q601	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q602	57G 417 6	PMBS3906/PHILIPS-SMT(06
Q203	57G 763 1	AO3401L SOT23 BY AOS(A1
RN601	61G 125472 8	RST CHIPR 4.7KOHM +-5%
RN602	61G 125472 8	RST CHIPR 4.7KOHM +-5%
FB301	61G0603000	RST CHIPR 0 OHM +-5% 1/
FB302	61G0603000	RST CHIPR 0 OHM +-5% 1/
FB303	61G0603000	RST CHIPR 0 OHM +-5% 1/
R210	61G0603000	RST CHIPR 0 OHM +-5% 1/
R502	61G0603000	RST CHIPR 0 OHM +-5% 1/

R642	61G0603000	RST CHIPR 0 OHM +-5% 1/
R301	61G0603101	RST CHIPR 100 OHM +-5%
R302	61G0603101	RST CHIPR 100 OHM +-5%
R303	61G0603101	RST CHIPR 100 OHM +-5%
R305	61G0603101	RST CHIPR 100 OHM +-5%
R306	61G0603101	RST CHIPR 100 OHM +-5%
R307	61G0603101	RST CHIPR 100 OHM +-5%
R309	61G0603101	RST CHIPR 100 OHM +-5%
R312	61G0603101	RST CHIPR 100 OHM +-5%
R315	61G0603101	RST CHIPR 100 OHM +-5%
R316	61G0603101	RST CHIPR 100 OHM +-5%
R402	61G0603101	RST CHIPR 100 OHM +-5%
R608	61G0603101	RST CHIPR 100 OHM +-5%
R609	61G0603101	RST CHIPR 100 OHM +-5%
R634	61G0603101	RST CHIPR 100 OHM +-5%
R635	61G0603101	RST CHIPR 100 OHM +-5%
R636	61G0603101	RST CHIPR 100 OHM +-5%
R639	61G0603101	RST CHIPR 100 OHM +-5%
R203	61G0603102	RST CHIPR 1KOHM +-5% 1/
R310	61G0603102	RST CHIPR 1KOHM +-5% 1/
R311	61G0603102	RST CHIPR 1KOHM +-5% 1/
R624	61G0603102	RST CHIPR 1KOHM +-5% 1/
R202	61G0603103	RST CHIPR 10KOHM +-5% 1
R204	61G0603103	RST CHIPR 10KOHM +-5% 1
R206	61G0603103	RST CHIPR 10KOHM +-5% 1
R208	61G0603103	RST CHIPR 10KOHM +-5% 1
R211	61G0603103	RST CHIPR 10KOHM +-5% 1
R308	61G0603103	RST CHIPR 10KOHM +-5% 1
R314	61G0603103	RST CHIPR 10KOHM +-5% 1
R404	61G0603103	RST CHIPR 10KOHM +-5% 1
R405	61G0603103	RST CHIPR 10KOHM +-5% 1
R406	61G0603103	RST CHIPR 10KOHM +-5% 1
R407	61G0603103	RST CHIPR 10KOHM +-5% 1
R601	61G0603103	RST CHIPR 10KOHM +-5% 1
R602	61G0603103	RST CHIPR 10KOHM +-5% 1
R604	61G0603103	RST CHIPR 10KOHM +-5% 1
R605	61G0603103	RST CHIPR 10KOHM +-5% 1
R606	61G0603103	RST CHIPR 10KOHM +-5% 1
R607	61G0603103	RST CHIPR 10KOHM +-5% 1
R613	61G0603103	RST CHIPR 10KOHM +-5% 1

R614	61G0603103	RST CHIPR 10KOHM +-5% 1
R615	61G0603103	RST CHIPR 10KOHM +-5% 1
R215	61G0603104	RST CHIPR 100KOHM +-5%
R617	61G0603121	RST CHIPR 120 OHM +-5%
R618	61G0603121	RST CHIPR 120 OHM +-5%
R313	61G0603222	RST CHIPR 2.2KOHM +-5%
R403	61G0603390 0F	RST CHIPR 390 OHM +-1%
C510	61G0603391	RST CHIPR 390 OHM +-5%
R304	61G0603471	RST CHIPR 470 OHM +-5%
R620	61G0603471	RST CHIPR 470 OHM +-5%
R621	61G0603471	RST CHIPR 470 OHM +-5%
R622	61G0603471	RST CHIPR 470 OHM +-5%
R623	61G0603471	RST CHIPR 470 OHM +-5%
R201	61G0603472	RST CHIPR 4.7KOHM +-5%
R205	61G0603472	RST CHIPR 4.7KOHM +-5%
R207	61G0603472	RST CHIPR 4.7KOHM +-5%
R212	61G0603472	RST CHIPR 4.7KOHM +-5%
R317	61G0603472	RST CHIPR 4.7KOHM +-5%
R318	61G0603472	RST CHIPR 4.7KOHM +-5%
R616	61G0603472	RST CHIPR 4.7KOHM +-5%
R619	61G0603472	RST CHIPR 4.7KOHM +-5%
R325	61G0603750	RST CHIPR 75 OHM +-5% 1
R326	61G0603750	RST CHIPR 75 OHM +-5% 1
R327	61G0603750	RST CHIPR 75 OHM +-5% 1
C307	65G0603102 32	1000PF +-10% 50V X7R
C606	65G0603102 32	1000PF +-10% 50V X7R
C607	65G0603102 32	1000PF +-10% 50V X7R
C608	65G0603102 32	1000PF +-10% 50V X7R
C609	65G0603102 32	1000PF +-10% 50V X7R
C610	65G0603102 32	1000PF +-10% 50V X7R
C201	65G0603104 32	CHIP 0.1UF 50V X7R
C205	65G0603104 32	CHIP 0.1UF 50V X7R
C207	65G0603104 32	CHIP 0.1UF 50V X7R
C210	65G0603104 32	CHIP 0.1UF 50V X7R
C212	65G0603104 32	CHIP 0.1UF 50V X7R
C214	65G0603104 32	CHIP 0.1UF 50V X7R
C216	65G0603104 32	CHIP 0.1UF 50V X7R
C401	65G0603104 32	CHIP 0.1UF 50V X7R
C404	65G0603104 32	CHIP 0.1UF 50V X7R
C406	65G0603104 32	CHIP 0.1UF 50V X7R

C407	65G0603104 32	CHIP 0.1UF 50V X7R
C408	65G0603104 32	CHIP 0.1UF 50V X7R
C409	65G0603104 32	CHIP 0.1UF 50V X7R
C410	65G0603104 32	CHIP 0.1UF 50V X7R
C411	65G0603104 32	CHIP 0.1UF 50V X7R
C412	65G0603104 32	CHIP 0.1UF 50V X7R
C413	65G0603104 32	CHIP 0.1UF 50V X7R
C415	65G0603104 32	CHIP 0.1UF 50V X7R
C416	65G0603104 32	CHIP 0.1UF 50V X7R
C417	65G0603104 32	CHIP 0.1UF 50V X7R
C418	65G0603104 32	CHIP 0.1UF 50V X7R
C420	65G0603104 32	CHIP 0.1UF 50V X7R
C421	65G0603104 32	CHIP 0.1UF 50V X7R
C423	65G0603104 32	CHIP 0.1UF 50V X7R
C425	65G0603104 32	CHIP 0.1UF 50V X7R
C426	65G0603104 32	CHIP 0.1UF 50V X7R
C428	65G0603104 32	CHIP 0.1UF 50V X7R
C511	65G0603104 32	CHIP 0.1UF 50V X7R
C601	65G0603104 32	CHIP 0.1UF 50V X7R
C618	65G0603104 32	CHIP 0.1UF 50V X7R
C402	65G0603220 31	CHIP 22PF 50V NPO
C403	65G0603220 31	CHIP 22PF 50V NPO
C602	65G0603220 31	CHIP 22PF 50V NPO
C604	65G0603220 31	CHIP 22PF 50V NPO
C312	65G0603221 31	CAP:CER 220PF 5% 50V SM
C313	65G0603224 17	CAP:CER 0.22UF-20%-80%
C605	65G0603224 17	CAP:CER 0.22UF-20%-80%
C311	65G0603330 31	33PF+-5% 50V NPO
C304	65G0603473 32	CHIP 0.047UF 50V X7R
C305	65G0603473 32	CHIP 0.047UF 50V X7R
C306	65G0603473 32	CHIP 0.047UF 50V X7R
C308	65G0603473 32	CHIP 0.047UF 50V X7R
C309	65G0603473 32	CHIP 0.047UF 50V X7R
C310	65G0603473 32	CHIP 0.047UF 50V X7R
C217	65G0603683 32	CHIP 0.068UF 50L X7R
C206	65G0805105 22	CHIP 1UF 25V X7R 0805
FB304	71G 56G151 A	TB160808G151
FB201	71G 56Z601	CHIP BEAD 600 OHM 0805
FB401	71G 56Z601	CHIP BEAD 600 OHM 0805
FB402	71G 56Z601	CHIP BEAD 600 OHM 0805

FB403	71G 56Z601	CHIP BEAD 600 OHM 0805
FB404	71G 56Z601	CHIP BEAD 600 OHM 0805
FB405	71G 56Z601	CHIP BEAD 600 OHM 0805
FB406	71G 56Z601	CHIP BEAD 600 OHM 0805
D317	93G 39147SEM	ZMM5V6ST
D318	93G 39147SEM	ZMM5V6ST
D319	93G 39147SEM	ZMM5V6ST
D320	93G 39147SEM	ZMM5V6ST
D321	93G 39147SEM	ZMM5V6ST
D322	93G 39147SEM	ZMM5V6ST
D323	93G 39147SEM	ZMM5V6ST
D304	93G 64 42 P	BAV70 SOT-23
D301	93G 6433P	BAV99
D302	93G 6433P	BAV99
D303	93G 6433P	BAV99
D201	93G1004 3	SS14
D202	93G1020 1 S	GS1D
	715G1237 3 3	MAIN BOARD PCB
CN001	33G8027 12 H	PIN HEADER 2*6 R/A
SW001	77G 600 1GCJ	TACT SWITCH TSPB-2
SW002	77G 600 1GCJ	TACT SWITCH TSPB-2
SW003	77G 600 1GCJ	TACT SWITCH TSPB-2
SW004	77G 600 1GCJ	TACT SWITCH TSPB-2
SW005	77G 600 1GCJ	TACT SWITCH TSPB-2
DP101	81G 12 1F GP	LED
	715G1496 4	KEY BOARD PCB
J001	95G 90 23	TINCOATEDCOPPER
J002	95G 90 23	TINCOATEDCOPPER
J003	95G 90 23	TINCOATEDCOPPER
J004	95G 90 23	TINCOATEDCOPPER
L202	S73G17430VA	TRANSFORMER
L902	S73L17426VG	COMMON CHOKE
PT201	S80LL15T7VG	TRANSFORMER
T901	S80LL17T2VGW	X'FMR
CN201	33G8020 2D U	WAFER
CN202	33G8020 2D U	WAFER
	40G 45762412B	CBPC LABEL
PP051	51G 6 4500	RTV 胶
IC902	56G 139 3A	PC123Y22FZOF
R919	61G 2J398 64	RST WWR 0.39 OHM +-5% 2

NR901	61G 58080 WT	RST NTCR 8 OHM
R903	61G152M10464L	RST MOFR 100KOHM +-5% 2
C904	63G107K474 US	0.47UF +-10%
C215	65G 3J2206ET	22PF 5% SL 3KV TDK
C227	65G 3J2206ET	22PF 5% SL 3KV TDK
C901	65G305M1022E3 H	1000PF. M.250VAC.Y2
C902	65G305M1022E3 H	1000PF. M.250VAC.Y2
C913	65G306M4722BP	4700PF +-20% 400VAC
C922	67G215V102 3R	ELCAP 1000UF +-20% 16V
C925	67G215V102 3R	ELCAP 1000UF +-20% 16V
C905	67G215Z10115K	ELCAP 100UF +-20% 450V
L903	73G 253 91 H	CHOKE COIL
L904	73G 253 91 H	CHOKE COIL
L201	73G 253139 HA	CHOKE COIL
CN102	95G8021 12512	WIRE HARNESS
	705L 560 57 24	Q903 ASS'Y
	705L 780 57 02	CN901 ASS'Y
IC901	56G 379 77	IC LD7552BPN DIP-8
Q209	57G 761501	BTC5706I3
Q210	57G 761501	BTC5706I3
C906	65G 2K152 5E6921	1500 PF 10% 2KV Y5P
F901	84G 7H200 SL	250V/2A LIHEL FUSE
BD901	93G 50460502	KBP206G
D912	93G3006 1	31DQ06FC
D910	93G3010 1	31DQ10FC
U201	56G 608 1	TL1451ACD
Q201	57G 760 5	DTC144WKA BY ROHM SMT
Q202	57G 760 4B	PDTA144WK SOT346
Q203	57G 763 3B	AM9435P-T1-PF SO-8
R208	61G0603000	RST CHIPR 0 OHM +-5% 1/
R929	61G0603000	RST CHIPR 0 OHM +-5% 1/
R218	61G0603101	RST CHIPR 100 OHM +-5%
R931	61G0603102	RST CHIPR 1KOHM +-5% 1/
R204	61G0603103	RST CHIPR 10KOHM +-5% 1
R222	61G0603123	RST CHIPR 12KOHM +-5% 1
R238	61G0603123	RST CHIPR 12KOHM +-5% 1
R210	61G0603183	RST CHIPR 18KOHM +-5% 1
R216	61G0603221	RST CHIPR 220 OHM +-5%
R214	61G0603222	RST CHIPR 2.2KOHM +-5%
R212	61G0603392	RST CHIPR 3.9KOHM +-5%

R236	61G0603471	RST CHIPR 470 OHM +-5%
R240	61G0603513	RST CHIPR 51KOHM +-5% 1
R234	61G0603681	RST CHIPR 680 OHM +-5%
R916	61G0805100 3F	RST CHIPR 100KOHM +-1%
R928	61G0805102	RST CHIPR 1KOHM +-5% 1/
R926	61G0805240 1F	RST CHIPR 2.4KOHM +-1%
R925	61G0805261 1F	RST CHIPR 2.61KOHM +-1%
R912	61G1206101	RST CHIPR 100 OHM +-5%
R219	61G1206102	RST CHIPR 1KOHM +-5% 1/
R232	61G1206102	RST CHIPR 1KOHM +-5% 1/
R915	61G1206103	RST CHIPR 10KOHM +-5% 1
R901	61G1206105	RST CHIPR 1MOHM +-5% 1/
R902	61G1206105	RST CHIPR 1MOHM +-5% 1/
R904	61G1206105	RST CHIPR 1MOHM +-5% 1/
R905	61G1206105	RST CHIPR 1MOHM +-5% 1/
R224	61G1206152	RST CHIPR 1.5KOHM +-5%
R225	61G1206152	RST CHIPR 1.5KOHM +-5%
R226	61G1206152	RST CHIPR 1.5KOHM +-5%
R227	61G1206152	RST CHIPR 1.5KOHM +-5%
R909	61G1206472	RST CHIPR 4.7KOHM +-5%
R910	61G1206472	RST CHIPR 4.7KOHM +-5%
R911	61G1206472	RST CHIPR 4.7KOHM +-5%
R906	61G1206684	RST CHIPR 680KOHM +-5%
R907	61G1206684	RST CHIPR 680KOHM +-5%
C202	65G0805104 22	0.1UF +-10% 25V X7R 080
C205	65G0805104 22	0.1UF +-10% 25V X7R 080
C910	65G0805104 32	CHIP 0.1U 50V X7R
C927	65G0805104 32	CHIP 0.1U 50V X7R
C928	65G0805104 32	CHIP 0.1U 50V X7R
C203	65G0805105 27	CHIP 1UF Y5V 0805
C209	65G0805105 27	CHIP 1UF Y5V 0805
C211	65G0805105 27	CHIP 1UF Y5V 0805
C219	65G0805105 27	CHIP 1UF Y5V 0805
C225	65G0805105 27	CHIP 1UF Y5V 0805
C208	65G0805331 31	CHIP 330pF 50V NPO
C221	65G0805474 27	CHIP 0.47UF 25V Y5V
D203	93G 39S 3 T	BZT52-C11
ZD904	93G 39S 19 T	PTZ7.5B
ZD901	93G 39S 20 T	RLZ22B LLDS
D201	93G2004 3	SSM24

C905	6G 31502	1.5MM RIVET
L902	6G 31502	1.5MM RIVET
PT201	6G 31502	1.5MM RIVET
T901	6G 31502	1.5MM RIVET
	715G1034 5	POWER BOARD PCB
C216	95G 90 23	TINCOATEDCOPPER
C226	95G 90 23	TINCOATEDCOPPER
FB902	95G 90 23	TINCOATEDCOPPER
J101	95G 90 23	TINCOATEDCOPPER
J102	95G 90 23	TINCOATEDCOPPER
J105	95G 90 23	TINCOATEDCOPPER
J106	95G 90 23	TINCOATEDCOPPER
J107	95G 90 23	TINCOATEDCOPPER
J108	95G 90 23	TINCOATEDCOPPER
J109	95G 90 23	TINCOATEDCOPPER
J110	95G 90 23	TINCOATEDCOPPER
J111	95G 90 23	TINCOATEDCOPPER
J112	95G 90 23	TINCOATEDCOPPER
J113	95G 90 23	TINCOATEDCOPPER
J114	95G 90 23	TINCOATEDCOPPER
J115	95G 90 23	TINCOATEDCOPPER
J116	95G 90 23	TINCOATEDCOPPER
J901	95G 90 23	TINCOATEDCOPPER
J902	95G 90 23	TINCOATEDCOPPER
J903	95G 90 23	TINCOATEDCOPPER
J904	95G 90 23	TINCOATEDCOPPER
J905	95G 90 23	TINCOATEDCOPPER
J906	95G 90 23	TINCOATEDCOPPER
R917	61G 17210052T	RST CFR 10 0HM +-5% 1/4
R930	61G 17210152T	RST CFR 100 0HM +-5% 1/
R918	61G 17210352T	RST CFR 10K0HM +-5% 1/4
R908	61G 17268952T	RST CFR 6.8 0HM +-5% 1/
R920	61G 20747052T	RST MOFR 47 OHM +-5% 1/
R922	61G 20747052T	RST MOFR 47 OHM +-5% 1/
R220	61G 60215352T	RST CFR 15KOHM +-5% 1/6
R205	61G 60247352T	RST CFR 47KOHM +-5% 1/6
R201	61G 60275352T	RST CFR 75KOHM +-5% 1/6
FB903	71G 55 19 T	FERRITE BEAD D9X3. 5X0.
FB901	71G 55 29	FERRITE BEAD
D901	93G 6026W52T	FR107

D902	93G 6038P52T	PS102R
D205	93G 64 1152T	1N4148 DO-35
D207	93G 64 1152T	1N4148 DO-35
D209	93G 64 1152T	1N4148 DO-35
D903	93G 64 1152T	1N4148 DO-35
IC903	56G 158 4 T	H431BA
Q207	57G 414 2	MPS3906
Q205	57G 417 3 T	MPS3904
Q902	57G 419 PP T	2PC945P
Q901	57G 420 PP T	2PA733P
C911	64G700J1020AT	1000PF 50V PEN
C204	64G700J1040AT	0.1UF 50V PEN
C909	64G700J1040AT	0.1UF 50V PEN
C936	64G700J1040AT	0.1UF 50V PEN
C908	65G 450104 7T	0.1UF +80-20% 50V Y5V
C920	65G517K102 5T6921	1000PF +-10% 500V Y5P
C921	65G517K102 5T6921	1000PF +-10% 500V Y5P
C907	67G 2152207NT	ELCAP 22UF +-20% 50V 10
C207	67G 3053307XT	ELCAP 33UF +-20% 50V 10
C924	67G215B4713HT	ELCAP 470UF +-20% 16V 1
C926	67G215B4713HT	ELCAP 470UF +-20% 16V 1
C201	67G215C1514HT	ELCAP 150UF +-20% 25V 1
Q903	57G 724 4A	STP9NK60ZFP
	90G 411501	HEAT SINK
	AM1G1730 8120	SCREW
CN901	87G 501 12 CJ	AC SOCKET
	95G205S354022	HARNESS
	96G 29 6	SHRINK TUBE UL/CSA
	33F 206 14	DF11-14DS-2C
	33F 206 14	DF11-14DS-2C
	33F206T 24	DF11-2428SCF
	33F206T 24	DF11-2428SCF
	33F303SM24H20	P240420
	33F303SM24H20	P240420
	33F303STM24T2	2404PS-2
	33F303STM24T2	2404PS-2
	71F 100511 HS	10*5.5*20+热缩套管
	71F 100511 HS	10*5.5*20+热缩套管
	15G6204 1	HINGE-BKT
	34G6199 GM 2B	REAR COVER

	Q1G 140 6120	SCREW
	H52G6025 16 10	INSULATE SHEET
	33G4848 AS L	KEY PAD
	33G4849 1	LENS
	34G6198AAS 2B	BEZEL
	33G4695 1 C	CLAMP
	34G1546 GM B	STAND
	34G6200 GM B 33	BASE
	37G6033 1	HINGE
	AQ1G1740 12120	SCREW