



LG

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COLOR MONITOR **SERVICE MANUAL**

MODEL: FLATRON L224WS

(L224WS-SNQ/BNQ.AxxQQP.

xx:sales marketing, Mstar scaler, CMO Module)

CAUTION

BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.



*To apply the **MSTAR Chip**.

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SPECIFICATIONS

1. LCD CHARACTERISTICS

Type : TFT Color LCD Module
 Active Display Area : 22 inch
 Pixel Pitch : 0.282 (H) x 0.282 (V)
 Color Depth : 6bits, 16.7M colors
 Size : 493.7 (H) x 320.1 (V) x 16.5(D)
 Electrical Interface : LVDS
 Surface Treatment : Hard-coating(3H), Anti-Glare
 Operating Mode : Normally White, Transmissive mode
 Backlight Unit : 4-CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio > 10

Left : -70° min., -80°(Typ) Right : +70° min., +80°(Typ)
 Top : +60° min., +75°(Typ) Bottom : -70° min., -85°(Typ)

2-2. Luminance : 220(min), 300(Typ) (Full White pattern, 0.7V) -6500K
 : 170(min) (Full White pattern, 0.7V) -9300K

2-3. Contrast Ratio : 700(min), 1000(Typ)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal
 • Type : Separate Sync, SOG

3-2. Video Input Signal

- 1) Type : R, G, B Analog
- 2) Voltage Level : 0~0.71 V
 - a) Color 0, 0 : 0 Vp-p
 - b) Color 7, 0 : 0.467Vp-p
 - c) Color 15, 0 : 0.714Vp-p
- 3) Input Impedance : 75Ω

3-3. Operating Frequency

Horizontal : 30 ~ 83kHz
 Vertical : 56 ~ 75Hz

4. Max. Resolution

D-sub Analog : 1680 x 1050 @60Hz

5. POWER SUPPLY

5-1. Power : AC 100~240V, 50/60Hz, 1.0A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	40 W(Typical)	BLUE
STAND-BY	OFF/ON	OFF	less than 1 W	AMBER
SUSPEND	ON/OFF	OFF	less than 1 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 1 W	AMBER
POWER S/W OFF	-	-	less than 1 W	OFF

6. ENVIRONMENT

6-1. Operating Temperature : 10°C~35°C (50°F~95°F)
 (Ambient)

6-2. Relative Humidity : 10%~80% (Non-condensing)

6-3. MTBF : 50,000 HRS with 90% Confidence
 Lamp Life : 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

Width : 501.7 mm (19.75 inchs)
 Depth : 59.5 mm (2.34 inchs)
 Height : 337.4 mm (13.28 inchs)

8. WEIGHT (with TILT/SWIVEL)

Net. Weight : 5.65 kg
 (12.56 lbs)

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. **These parts are marked \triangle on the schematic diagram and the replacement parts list.** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

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 are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

\triangle CAUTION

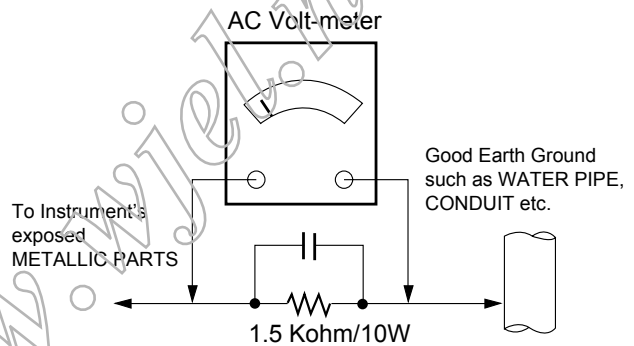
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

\triangle WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

Leakage Current Hot Check Circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the **SAFETY PRECAUTIONS** on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
 - a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
 - b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
 - d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.
Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
CAUTION: This is a flammable mixture.
Unless specified otherwise in this service manual, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
Always remove the test receiver ground lead last.

9. Use with this receiver only the test fixtures specified in this service manual.

CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices*. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range of 500° F to 600° F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.

Do not use freon-propelled spray-on cleaners.

5. Use the following unsoldering technique
 - a. Allow the soldering iron tip to reach normal temperature.
(500° F to 600° F)
 - b. Heat the component lead until the solder melts.
 - c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.

CAUTION: Work quickly to avoid overheating the circuitboard printed foil.

6. Use the following soldering technique.
 - a. Allow the soldering iron tip to reach a normal temperature (500° F to 600° F)
 - b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
 - c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

CAUTION: Work quickly to avoid overheating the circuit board printed foil.

- d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor

Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device

Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor

Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.

CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

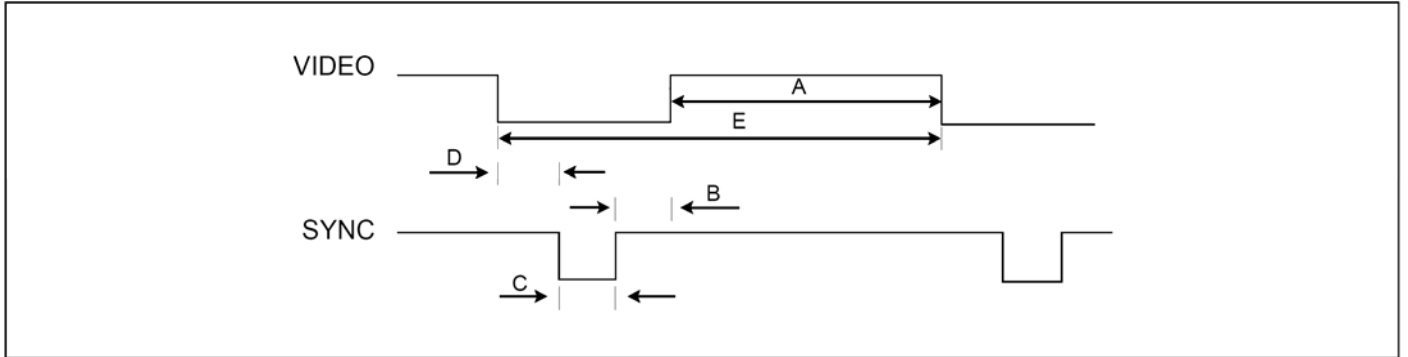
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
Carefully crimp and solder the connections.
CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

TIMING CHART



MODE	H / V	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Sync Duration (D)	Front Porch (C)	Blanking Time (B)	Resolution
1	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X 400
	V(Lines)	+		70.08	449	400	12	2	35	
2	H(Pixels)	-	25.175	31.469	800	640	16	96	48	640 x 480
	V(Lines)	-		59.94	525	480	10	2	33	
3	H(Pixels)	-	31.5	37.5	840	640	16	64	120	640 x 480
	V(Lines)	-		75	500	480	1	3	16	
4	H(Pixels)	+	40.0	37.879	1056	800	40	128	88	800 x 600
	V(Lines)	+		60.317	628	600	1	4	23	
5	H(Pixels)	+	49.5	46.875	1056	800	16	80	160	800 x 600
	V(Lines)	+		75.0	625	600	1	3	21	
6	H(Pixels)	-	65.0	48.363	1344	1024	24	136	160	1024 x 768
	V(Lines)	-		60.0	806	768	3	6	29	
7	H(Pixels)	-	78.5	60.023	1312	1024	16	96	176	1024 x 768
	V(Lines)	-		75.029	800	768	1	3	28	
8	H(Pixels)	+/-	100.0	68.681	1456	1152	32	128	144	1152 x 870
	V(Lines)	+/-		75.062	915	870	3	3	39	
9	H(Pixels)	+	108.0	63.981	1688	1280	48	112	248	1280x1024
	V(Lines)	+		60.02	1066	1024	1	3	38	
10	H(Pixels)	+	135.0	79.976	1688	1280	16	144	248	1280 x 1024
	V(Lines)	+		75.035	1066	1024	1	3	38	
11	H(Pixels)	+	119	64.674	1840	1680	32	48	160	1680x1050
	V(Lines)	-		59.883	1080	1050	6	3	30	
12	H(Pixels)	-	146.25	65.290	2240	1680	176	104	560	1680x1050
	V(Lines)	+		59.954	1089	1050	6	3	39	

DISASSEMBLY-Set

#1



Put the monitor on a soft flat.

#2



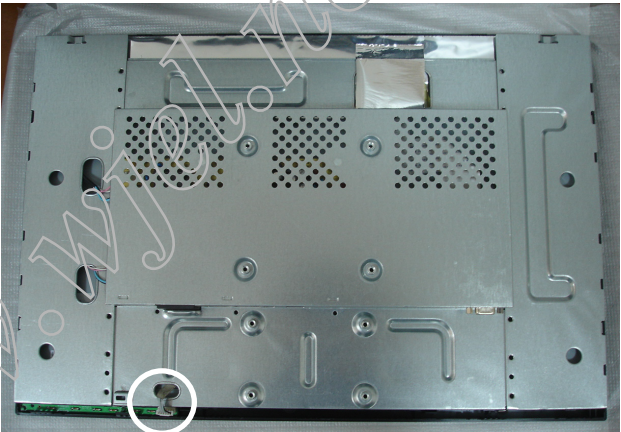
Remove the four screws and disassemble the stand.

#3



Disassemble the rear cover from the bezel with a thin card. There are 7 clips on the button & top and 5 clips on the left/right side.

#4



Disassemble the connector.

#5



Disassemble the bezel.

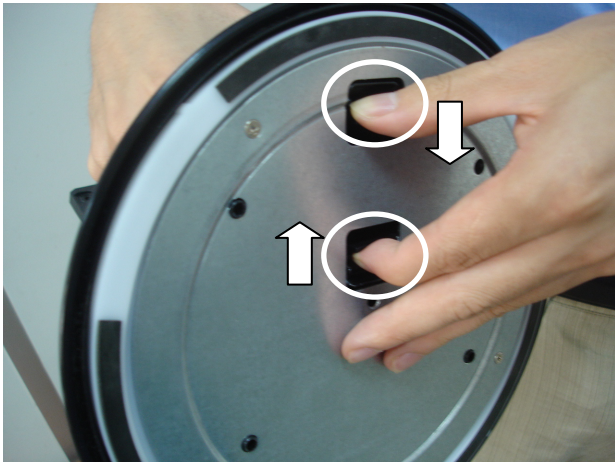
#6



Disassembly the shielding.

DISASSEMBLY-Stand

#1



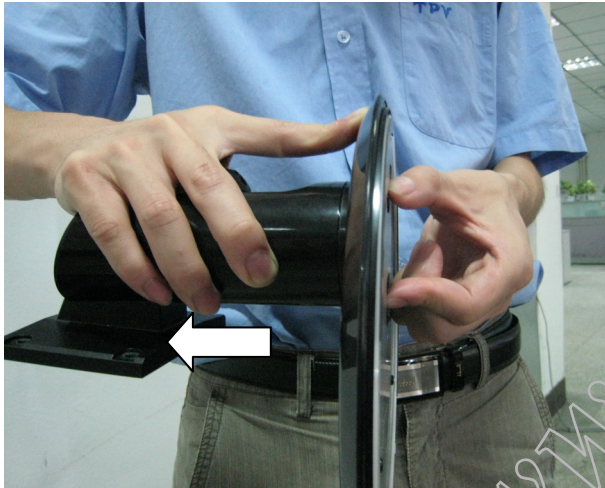
Pull the Base 2 ea Latches to inside until losing elasticity.

#2



Synchronously, take one finger to push the base.

#3



Consequently, pull the stand body directly.

#4



Separate Stand Body & Stand Base.

#5



Fix Stand Base & Stand Body.

#7



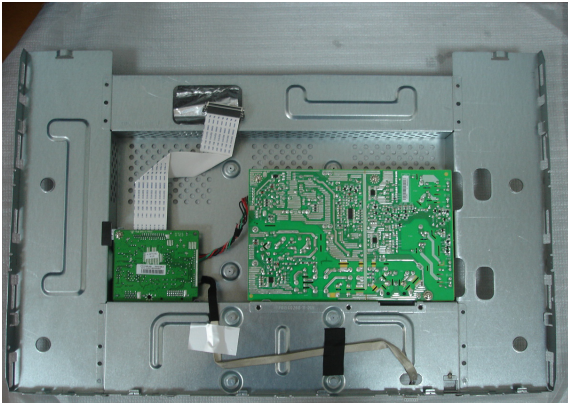
Remove the 2 screws.

#8



Disassemble the LVDS cable.

#9



Main board & power board

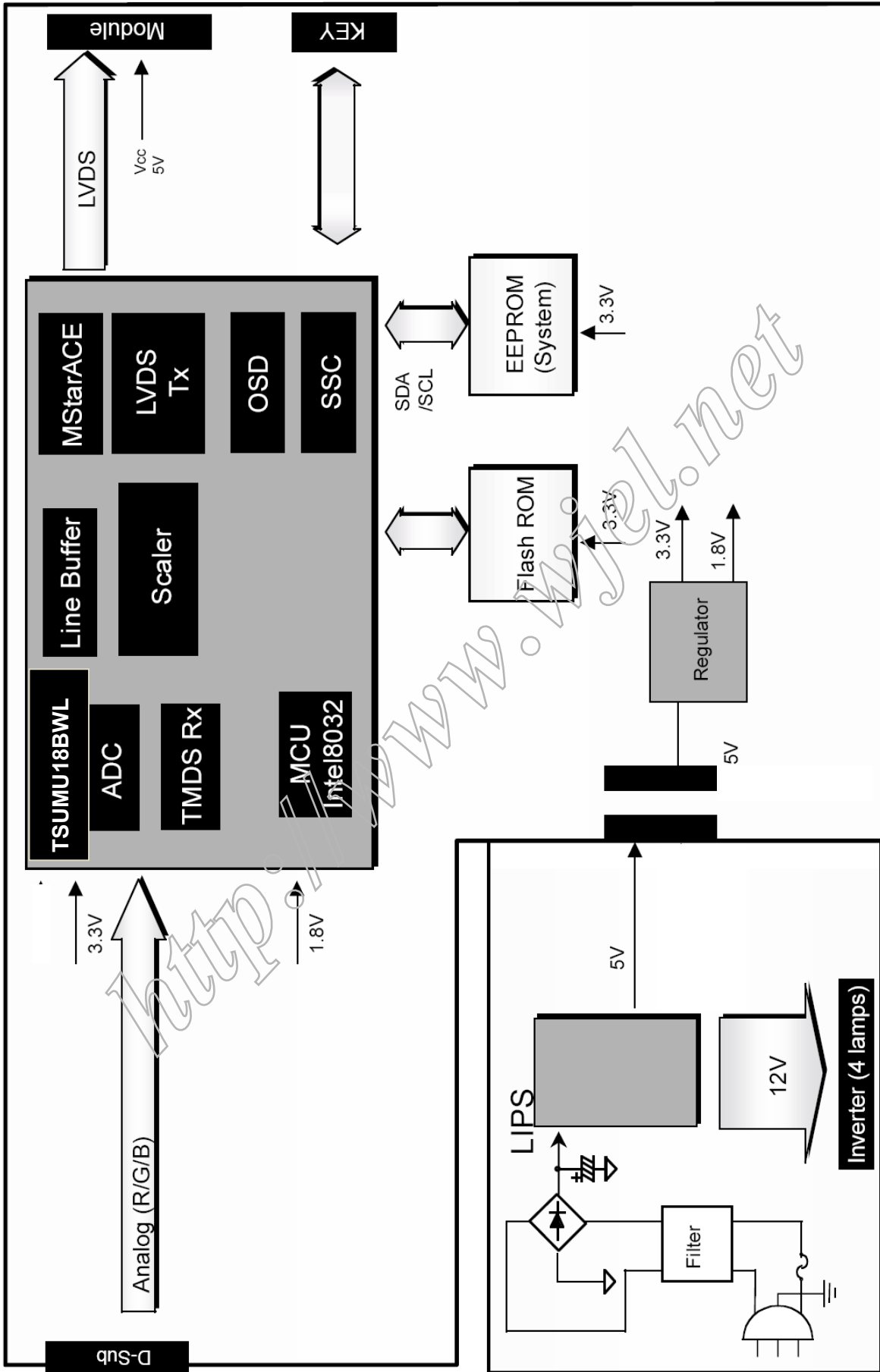
#10



The panel

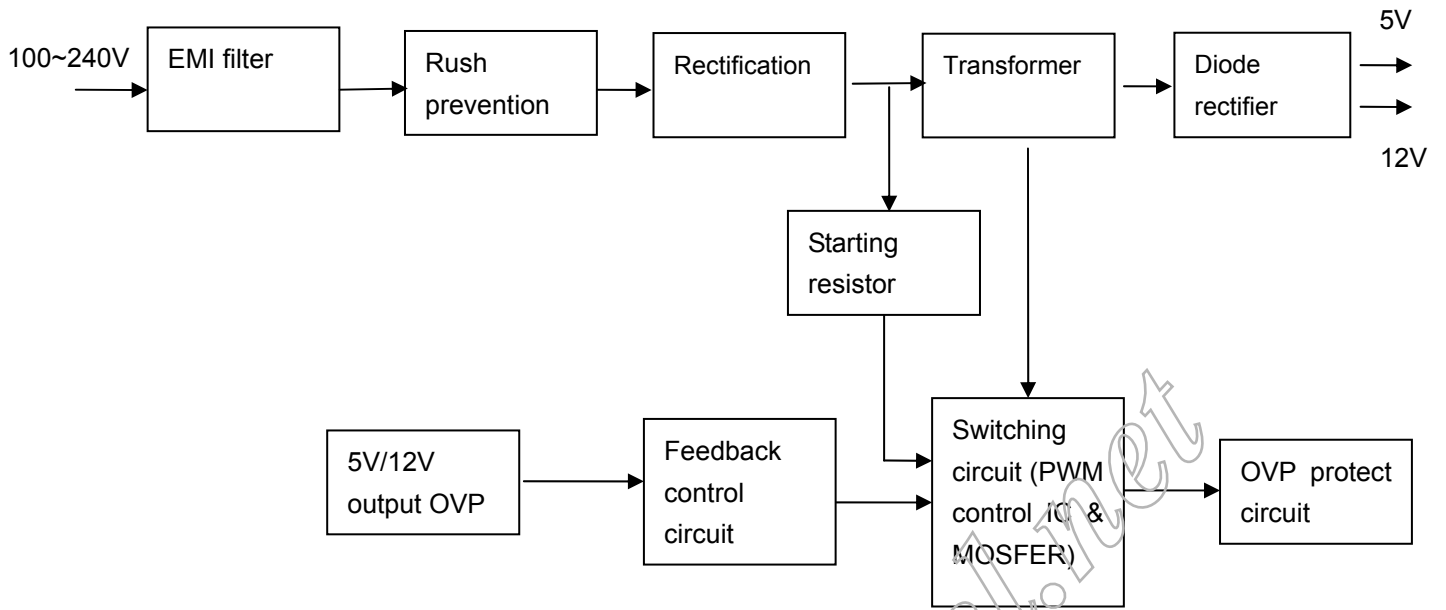
<http://www.wiel.net>

BLOCK DIAGRAM

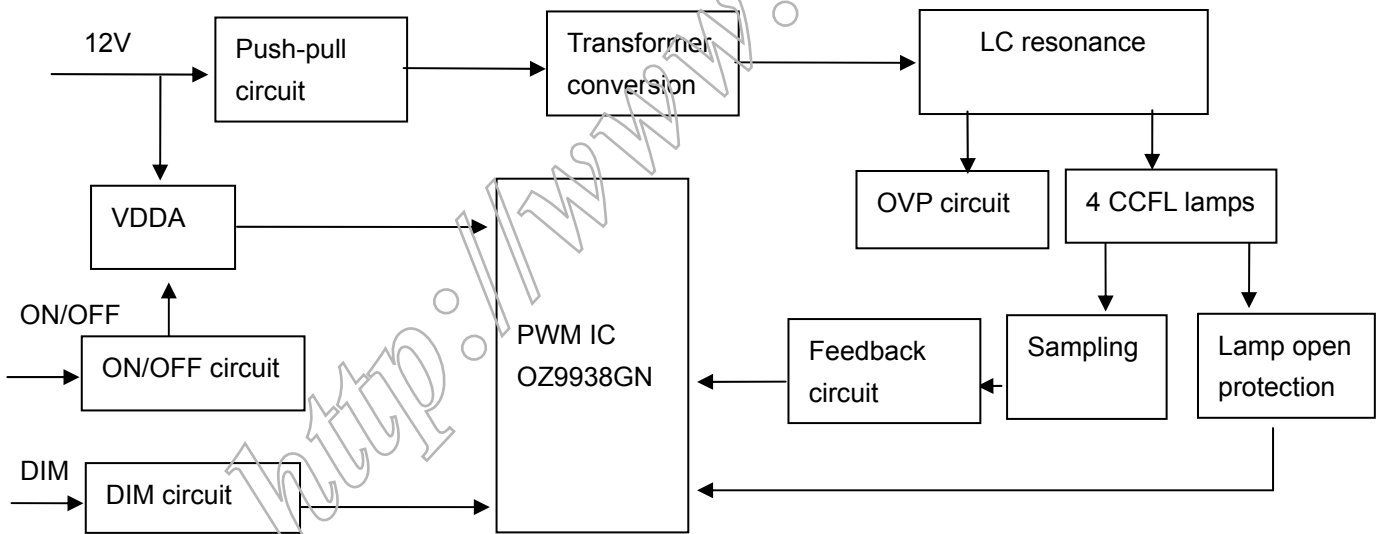


BLOCK DIAGRAM-POWER

Power



Inverter



DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.

The pixel clock for each mode is generated by the PLL.

The range of the pixel clock is from 25MHz to 135MHz.

This part consists of the Scaler, ADC converter, TMDS receiver and LVDS transmitter.

The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.

12V is provided for inverter, 5V is provided for LCD panel.

Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.

The inverter converts from DC 12V to AC 700Vrms and operates back-light lamps of module.

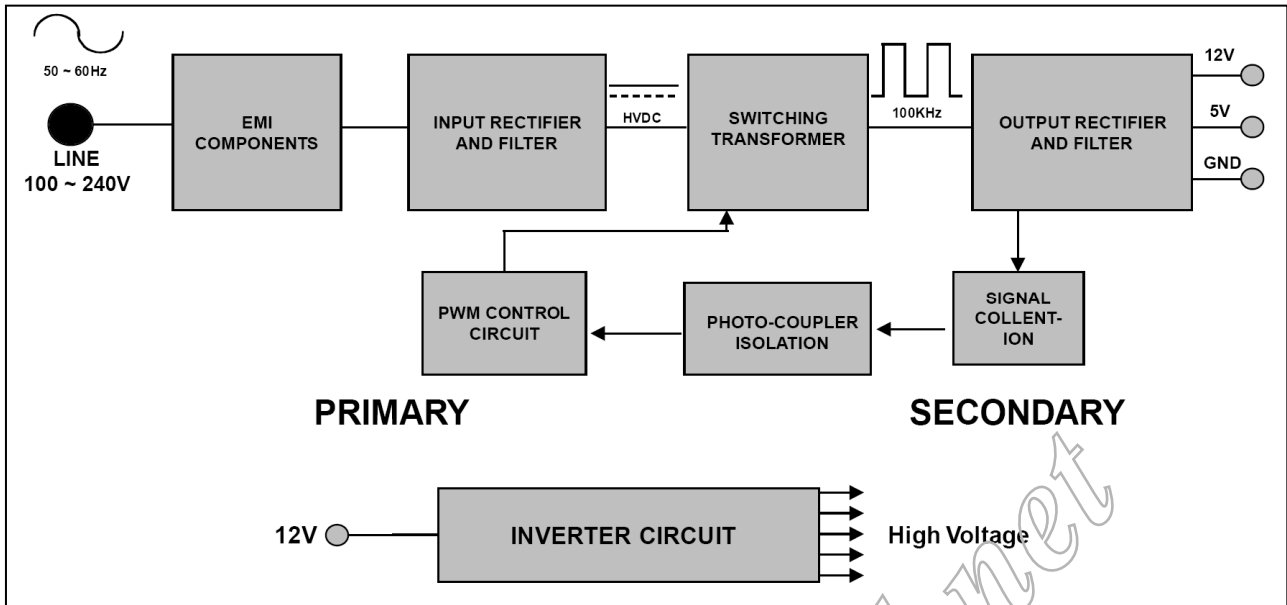
3. MICOM Part.

This part is including video controller part. And this part consists of EEPROM IC which stores control data, Reset IC and the Micom.

The Micom distinguishes polarity and frequencies of the H/V sync are supplied from signal cable.

The controlled data of each mode is stored in EEPROM.

LIPS Board Block Diagram



Operation description_LiPS

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC,VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is for transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

6. Signal collection.

This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

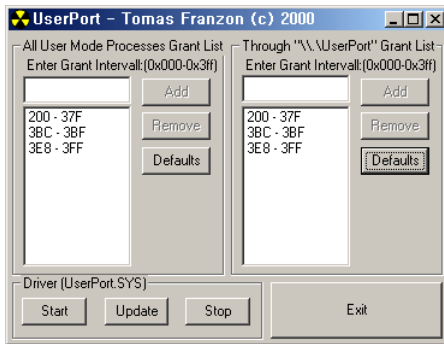
Windows EDID V1.0 User Manual

Operating System: MS Windows 98, 2000, XP
 Port Setup: Windows 98 => Doesn't need setup
 Windows 2000, XP => Need to Port Setup.

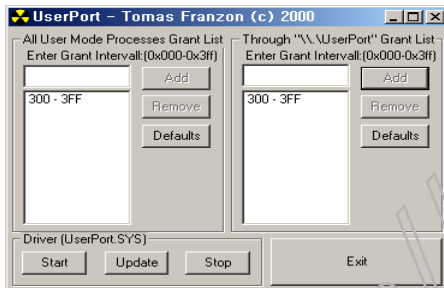
This program is available for LCD Monitor only.

1. Port Setup

- a) Copy "UserPort.sys" file to "c:\WINNT\system32\drivers" folder
- b) Run Userport.exe



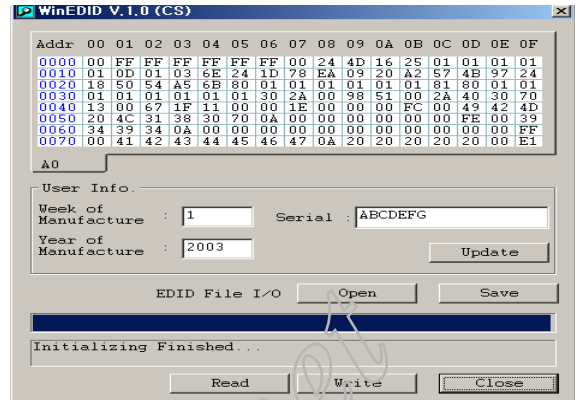
- c) Remove all default number
- d) Add 300-3FF



- e) Click Start button.
- f) Click Exit button.

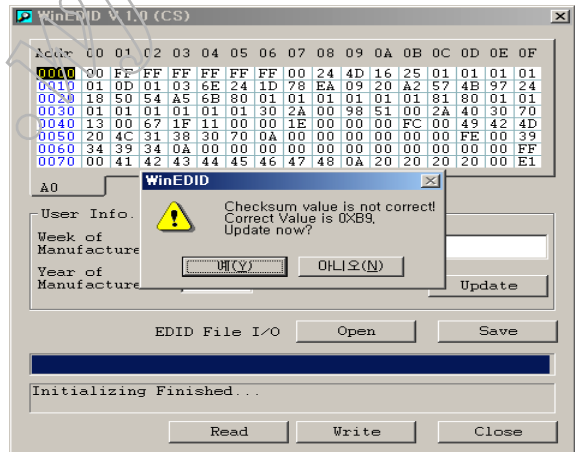
2. EDID Read & Write

1) Run WinEDID.exe



2) Edit Week of Manufacture, Year of Manufacture, Serial Number

- a) Input User Info Data
- b) Click "Update" button
- c) Click "Write" button



SERVICE MODE

- 1) Turn off the power switch at the front side of the display.
- 2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.
- 3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

- a) CLEAR ETI: To initialize using time.
- b) Auto Color: W/B balance and automatically sets the gain and offset value.
- c) AGING: Select Aging mode (on/off).
- d) PANEL: used panel type
- e) NVRAM INIT: EEPROM initialize.
- f) R/G/B-9300K: Allows you to set the R/G/B-9300K value manually.
- g) R/G/B-6500K: Allows you to set the R/G/B-6500K value manually.
- h) R/G/B-Offset: Allows you to set the R/G/B-Offset value manually. (Analog Only)
- i) R/G/B-Gain: Allows you to set the R/G/B-Gain value manually. (Analog Only)

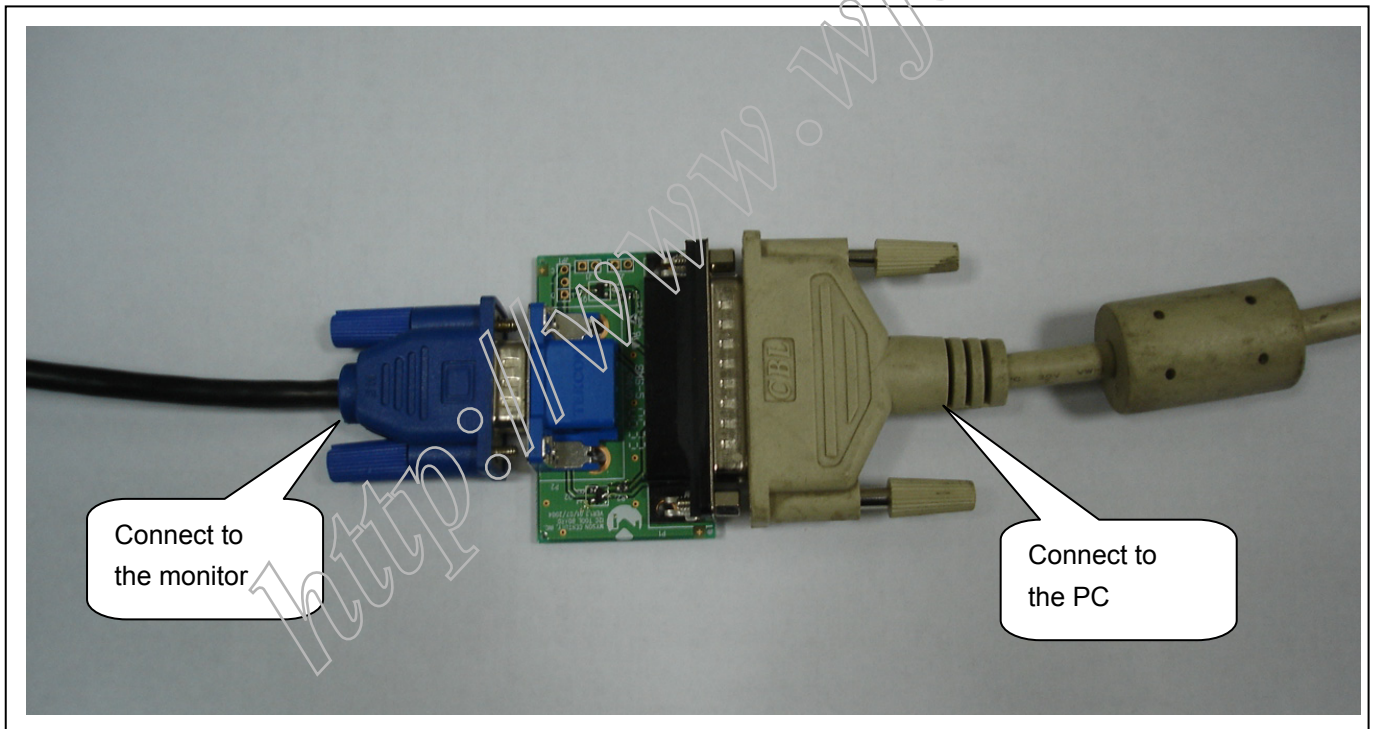
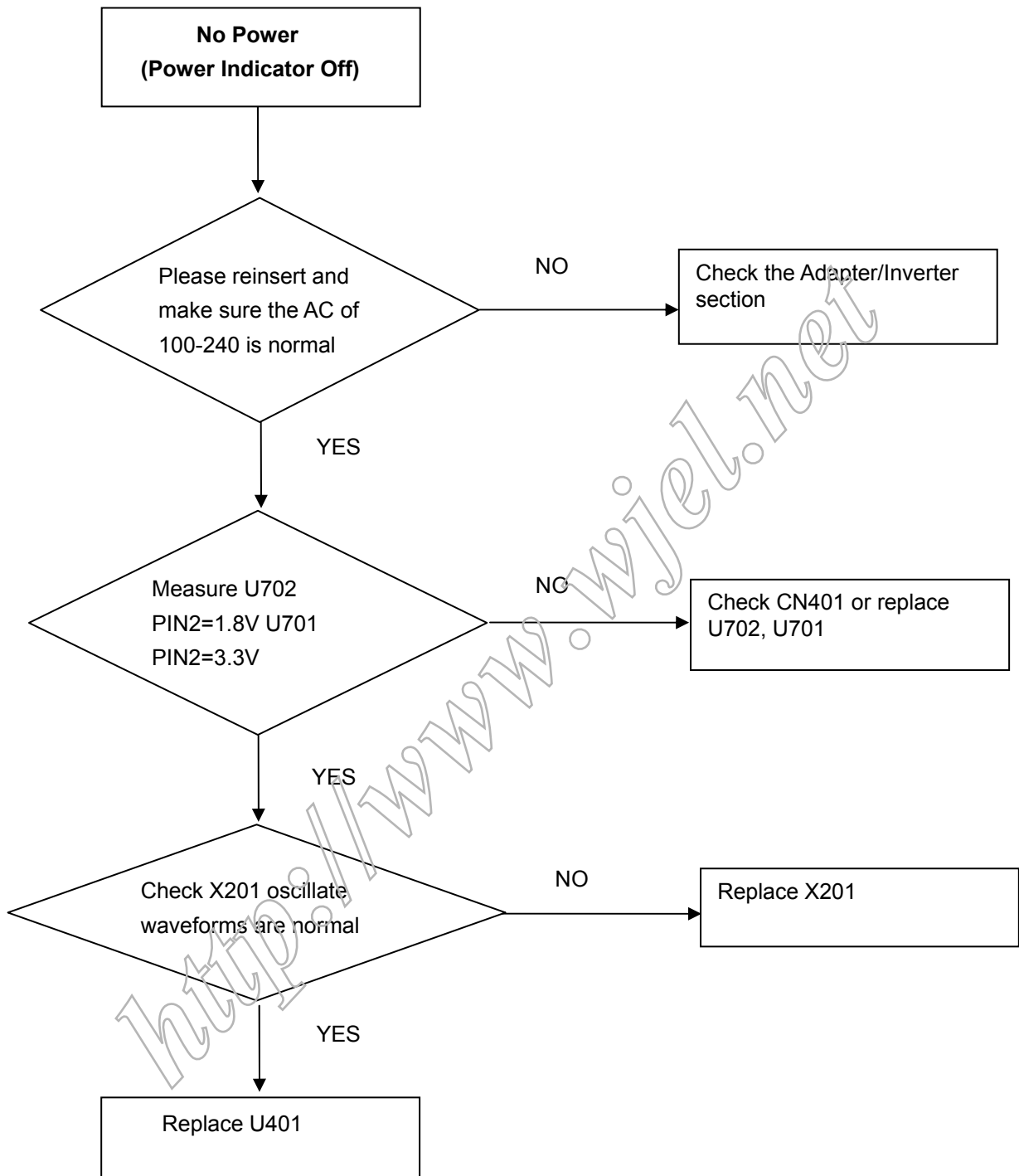


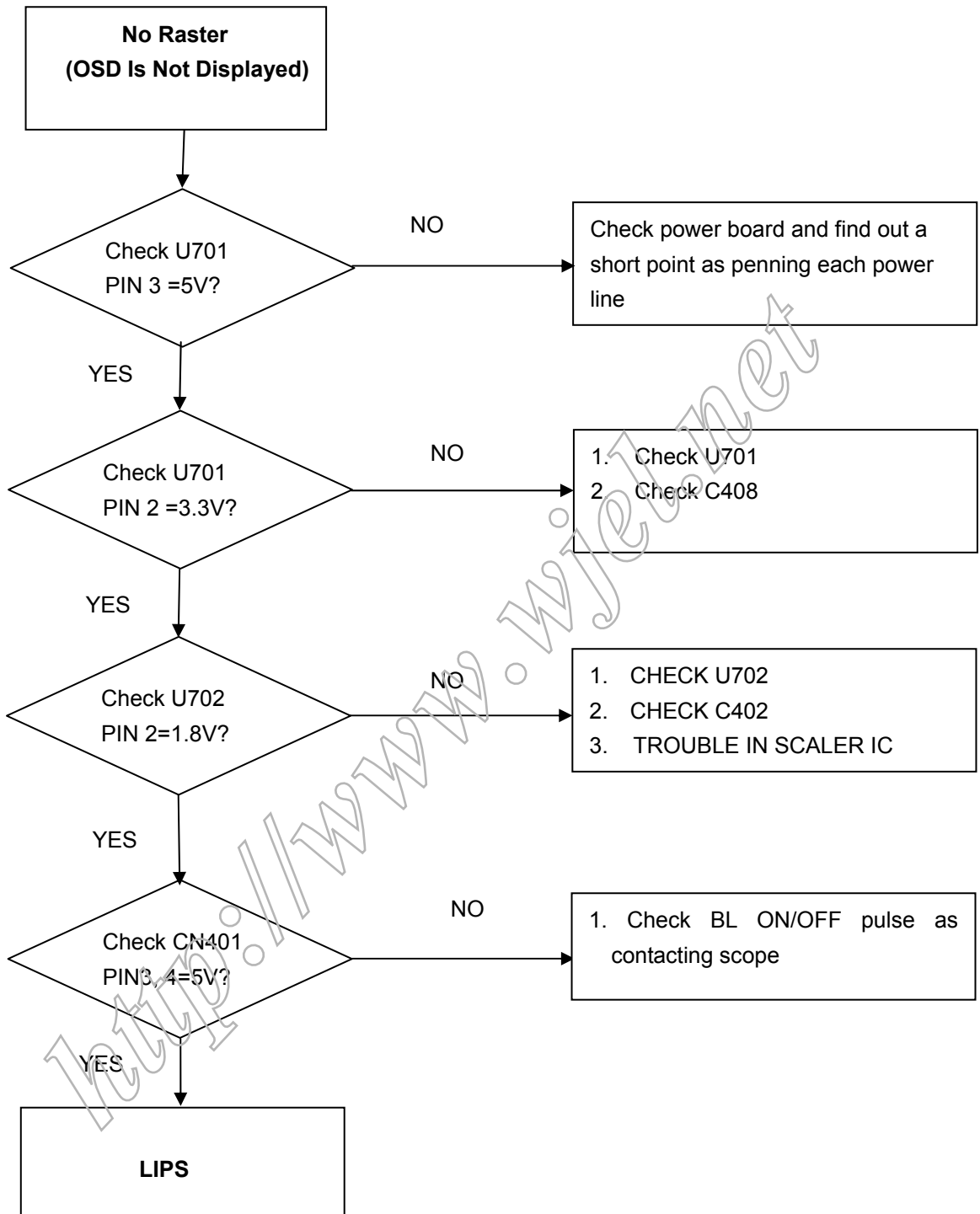
Figure 1. Cable Connection for Micom uploading

TROUBLESHOOTING GUIDE

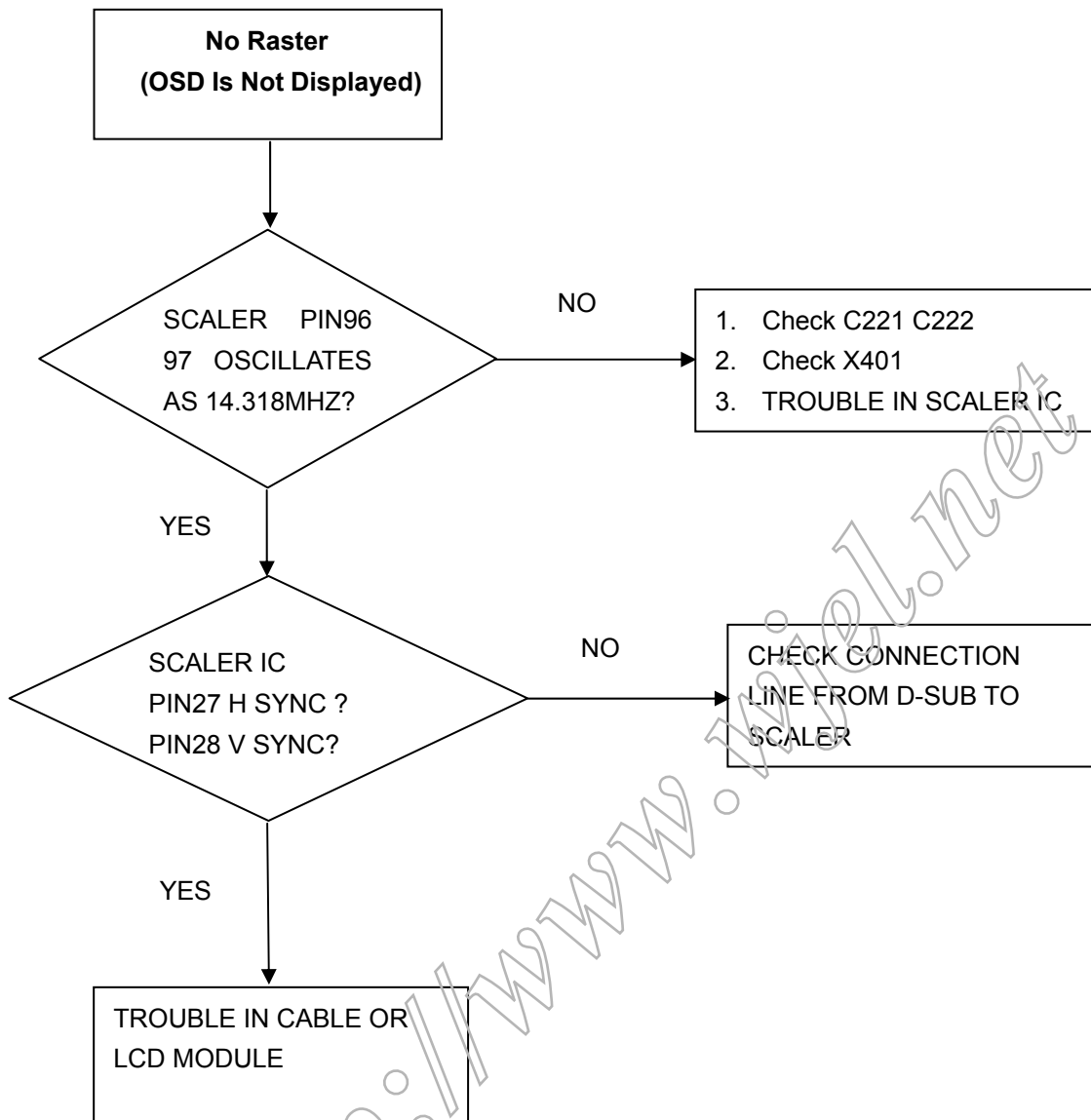
1. NO POWER



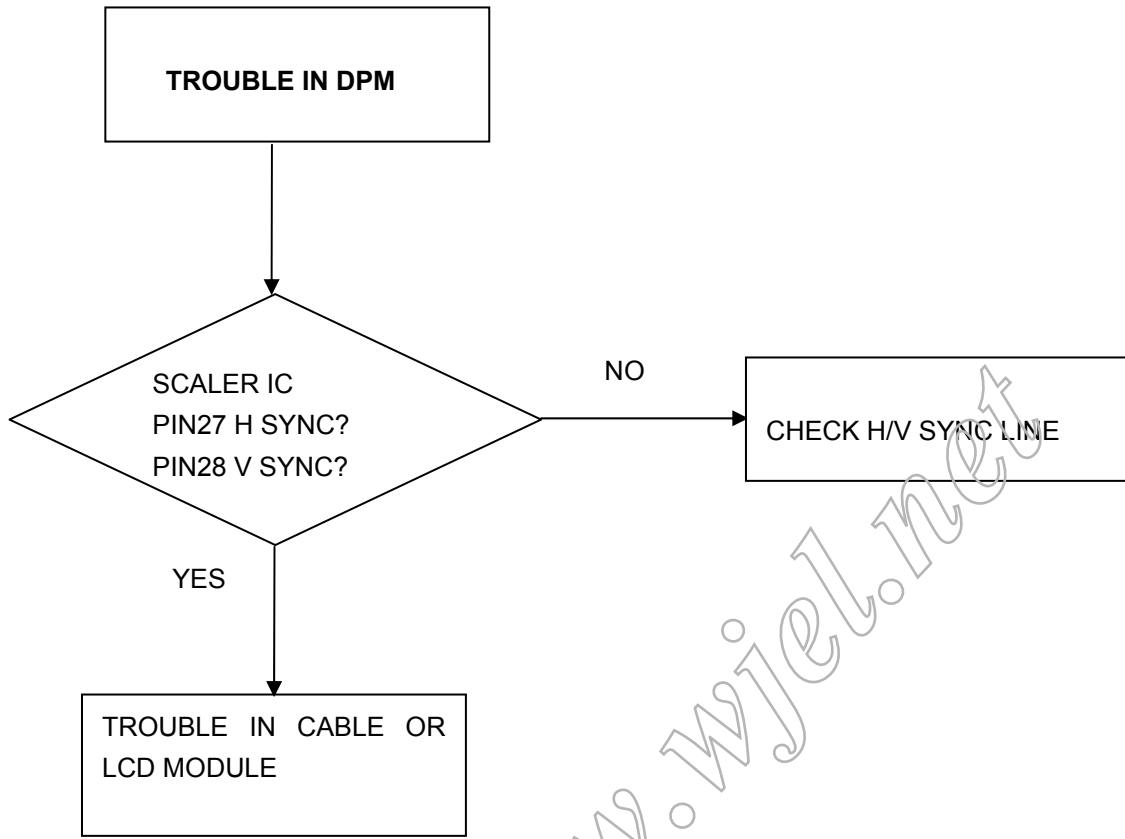
2. NO RASTER (OSD IS NOT DISPLAY)-LIPS



2. NO RASTER (OSD IS NOT DISPLAY)-MSTAR

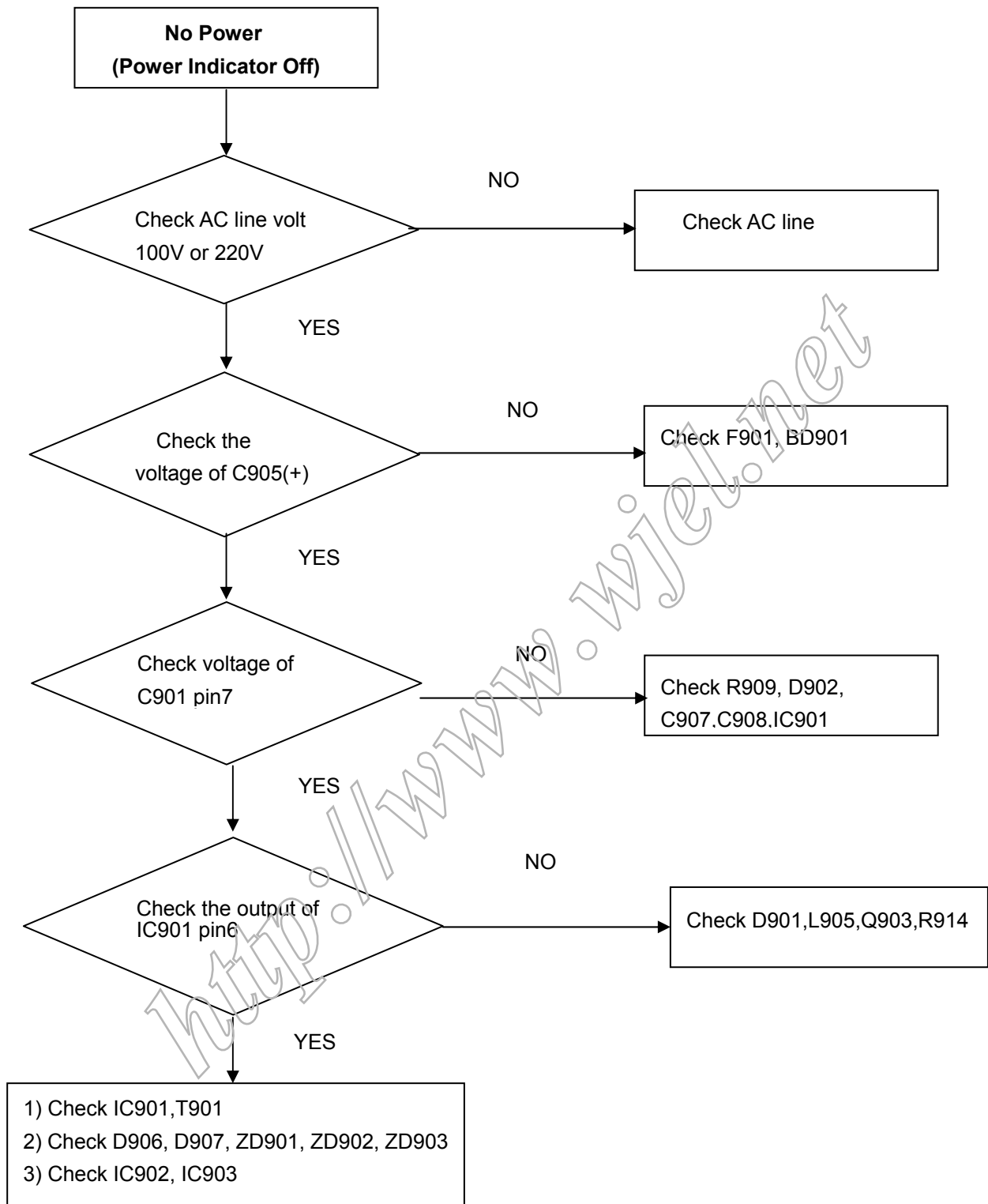


4. TROUBLE IN DPM

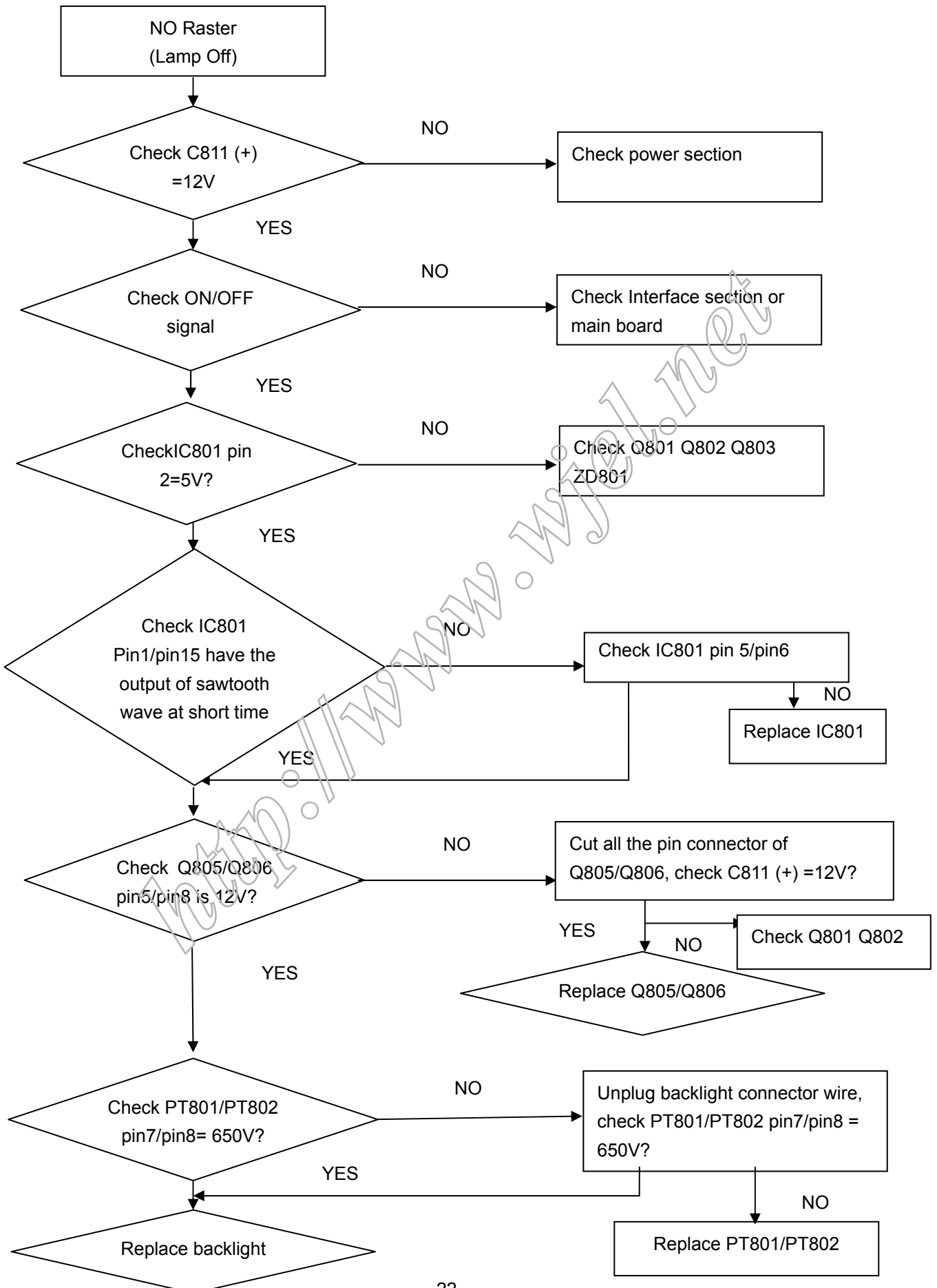


<http://www.wjel.net>

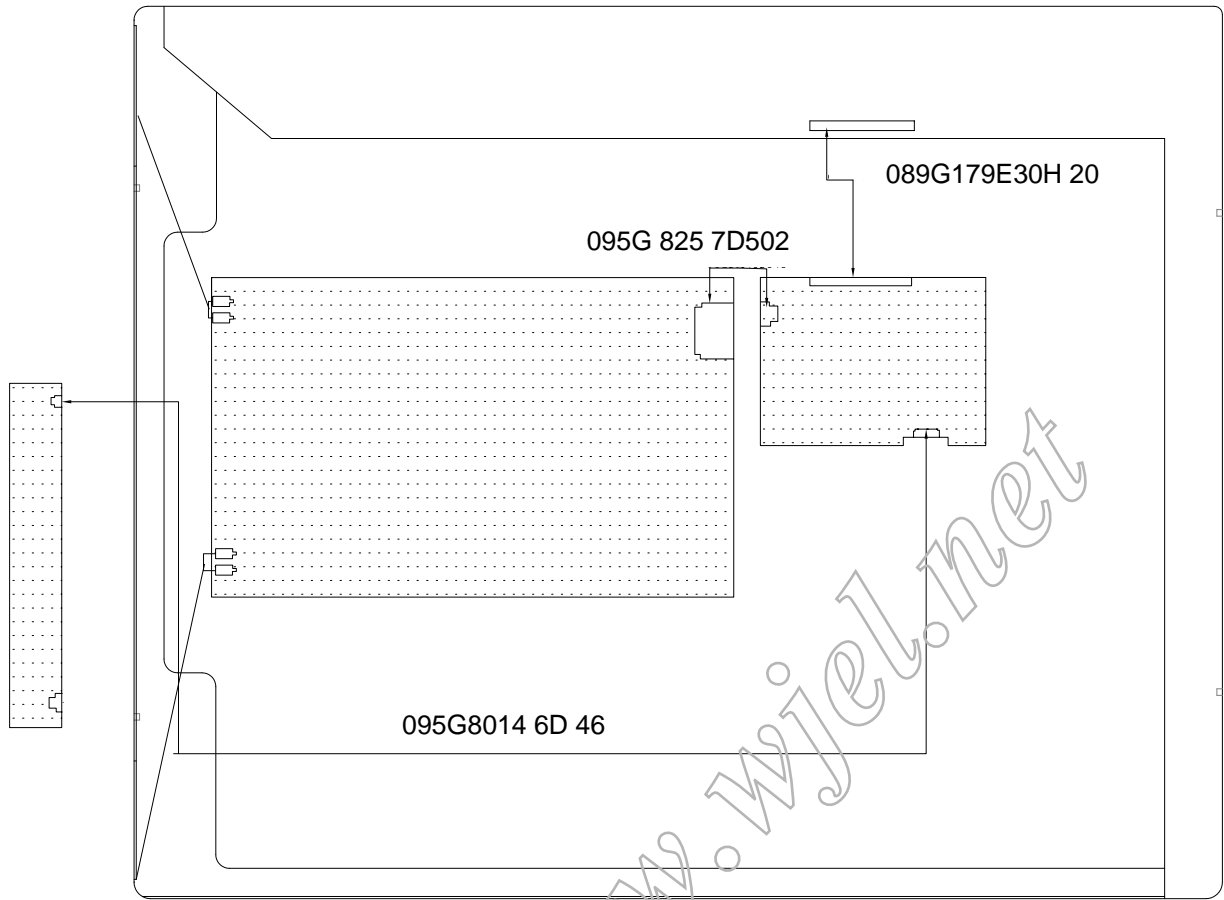
5. POWER



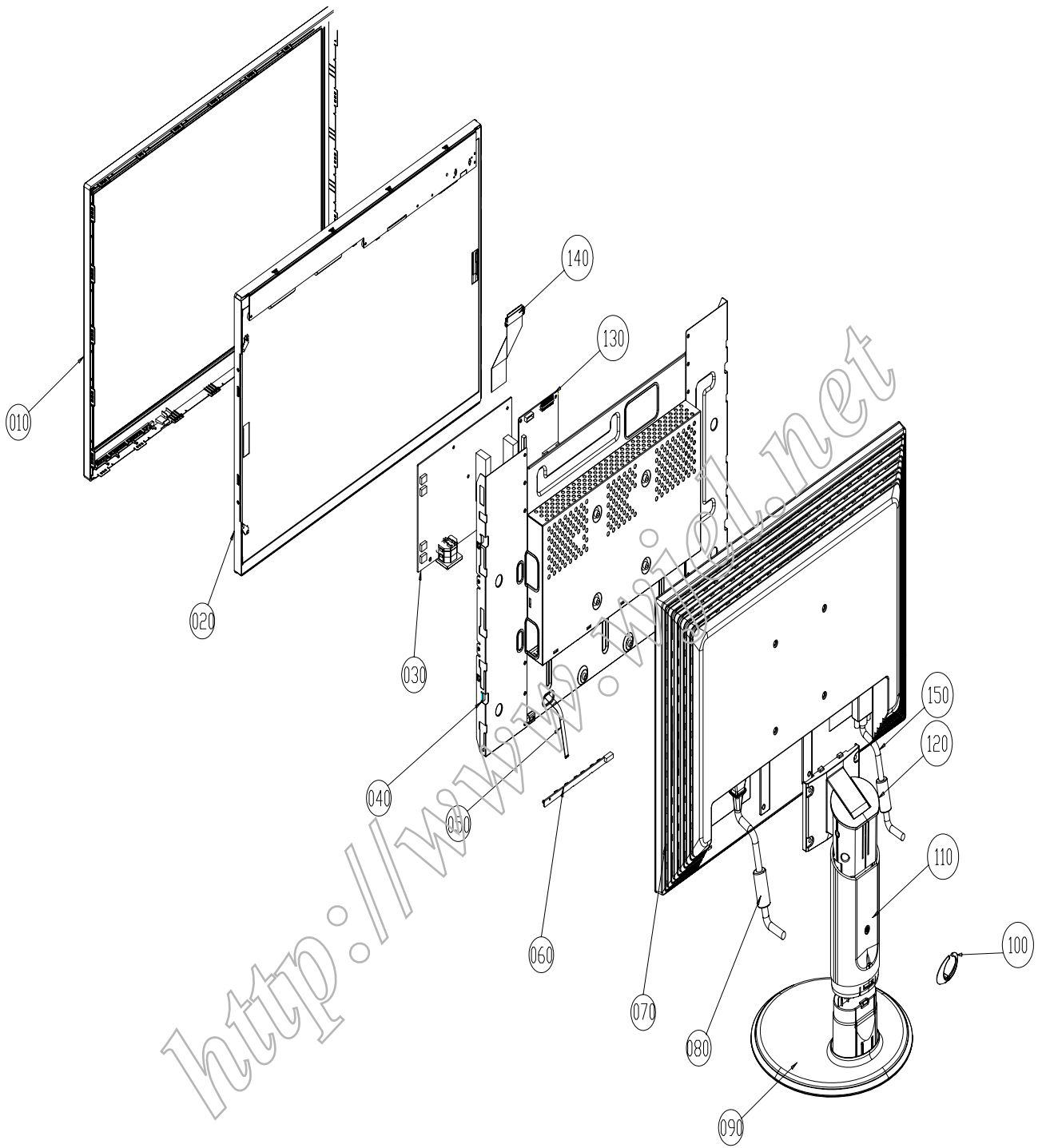
6. RASTER



WIRING DIAGRAM



EXPLODED VIEW




EXPLODED VIEW PARTS LIST

Ref. No.	TPV part no.	LGE part no.	Description
010	A34G0801ABNA1B0130	ACQ35565304	Bezel (Front cabinet) Silver color
	A34G0801 B6A1B0130	ACQ35565303	Bezel (Front cabinet) Black color
020	750GLMC0Z1312N	COV30024801	CMO PANEL M220Z1 L03 C1 NB
030	PWPC7C42CQA1	EBU41368102	CMO POWER BOARD(L224WS LIPS)
040	A15G0259102	ADV35565701	MAIN METAL FRAME FOR L224WS CMO
050	095G8014 6D 46	EBU41368401	KEY BOARD HARNESS(Main to control connector)
060	KEPC7QG9	EBU41368201	KEY BOARD(CONTROL PCBA)
070	A34G0463 B6 1B0100	ACQ35565801	REAR COVER(BACK COVER)
080	089G421A18N IS	6410TEW003A	PWRCORD BLK 6FT For Europe/Thailand/Vietnam/Russia/U.A.E
	089G402A18NIS	6410TUW008A	PWR CORD BLK 6FT For USA/Mexico/Panama/Canada
	089G410A-18N-IS	6410TBW004A	PWR CORD 10A/250V BLK 6FT UK for UK/Malaysia
	089G420A-18N-IS	6410TTW001A	PWR CORD BLK 6ft For Taiwan
	089G412A-18N-IS3	6410TSW003A	PWR CORD BLK 6ft For Australia
	089G419A-18N-IS	6410TAW001A	PWR CORD BLK 6ft For South Africa
090	705GQ7CS019	AAN35565901	STAND BASE ASS'Y
100	A33G0263 B6 1L0100	MEG41030301	CABLE CLIP
110	A34G0467 B6 1B0100	MCK41030401	STAND BODY
120	A37G0049 1	ACQ35566001	HINGE ASS'Y
130	CBPC8MMGLMQ1	COV30024501	CMO MAIN B/D (MAIN PCBA)
140	089G179E30H 20	EBU41368601	LVDS CABLE
150	089G728HAA 2G	EBU41369001	SIGNAL CABLE

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
MAIN BOARD AND POWER BOARD PARTS ARE DIFFERENT.

* NOTE : **S** SAFETY Mark 
AL ALTERNATIVE PARTS

DATE: 2008. 03. 27

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION
MAIN BOARD				
CAPACITORS				
		C220	067G305V100 3	10UF +-20% 16V
		C202	067G305V100 3	10UF +-20% 16V
		C303	067G305V101 3	100UF M 16V
		C402	067G305V101 3	100UF M 16V
		C407	067G405V101 3P	CAP 105 100UF M 16V
		C408	067G405V101 3P	CAP 105 100UF M 16V
		C106	065G0402102 32	1000PF +-10% 50V X7R
		C217	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C219	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C223	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C225	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C226	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C227	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C228	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C229	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C231	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C301	065G040268315T	MLCC 0402 68NF K 16V X5R
		C302	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C401	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C405	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C409	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C410	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C411	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C216	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C112	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C114	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C118	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C201	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C203	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C204	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C205	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C206	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C207	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C208	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C210	065G0402104 15	MLCC 0402 0.1UF K 16V X5R

		C211	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C212	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C213	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C214	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C215	065G0402104 15	MLCC 0402 0.1UF K 16V X5R
		C222	065G0402220 31	CHIP 22PF 50V NPO
		C221	065G0402220 31	CHIP 22PF 50V NPO
		C103	065G0402220 31	CHIP 22PF 50V NPO
		C102	065G0402220 31	CHIP 22PF 50V NPO
		C218	065G0402224 17	CAP CER 0.22UF -20%-80%
		C224	065G0402224 17	CAP CER 0.22UF -20%-80%
		C113	065G0402473 12	CHIP 0.047uF 16V X7R
		C110	065G0402473 12	CHIP 0.047uF 16V X7R
		C109	065G0402473 12	CHIP 0.047uF 16V X7R
		C107	065G0402473 12	CHIP 0.047uF 16V X7R
		C105	065G0402473 12	CHIP 0.047uF 16V X7R
		C101	065G0402473 12	CHIP 0.047uF 16V X7R
		C104	065G0402509 31	CHIP 5pF 50V NPO
		C108	065G0402509 31	CHIP 5pF 50V NPO
		C111	065G0402509 31	CHIP 5pF 50V NPO
DIODEs				
		D102	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D103	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D104	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D105	093G 64 42 P	BAV70 SOT23 BY PAN JIT
		ZD106	093G 39GA01 T	RLZ5.6B
		ZD105	093G 39GA01 T	RLZ5.6B
		ZD104	093G 39GA01 T	RLZ5.6B
		ZD103	093G 39GA01 T	RLZ5.6B
		ZD102	093G 39GA01 T	RLZ5.6B
		ZD101	093G 39GA01 T	RLZ5.6B
IC				
		U401	056G 562185	IC TSUMU18BWL-LF PQFP-100
		U702	056G 56327A	IC AP1117E18LA SOT223-3L ANACHIP
		U701	056G 585 4A	AP1117E33LA
		U101	056G1133 84	AF24BC02-S1
		U204	056G1133104	IC AF24BC04-SI 4K SOIC-8
		U402	056G1133713	IC PM25LV010A-100SCE SOIC-8
TRANSISTOR				
		Q201	057G 417 12 T	KEC 2N3904S-RTK/PS
		Q403	057G 417 12 T	KEC 2N3904S-RTK/PS
		Q202	057G 417 13 T	KEC 2N3906S-RTK/PS
		Q203	057G 417 13 T	KEC 2N3906S-RTK/PS
		Q301	057G 417 13 T	KEC 2N3906S-RTK/PS
		Q302	057G 763 1	A03401 SOT23 BY AOS(A1)

RESISTORS				
		R402	061G152M479 64	RST MOFR 4.7 OHM +-5% 2WS
		R201	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R101	061G0402000	RST CHIPR 0 OHM +-5% 1/16W
		R225	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R224	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R222	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R215	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R214	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R213	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R207	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R117	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R115	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R114	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R113	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R111	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R110	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R108	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R104	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R103	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R102	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R406	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R405	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R403	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R401	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R301	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R234	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R232	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R231	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R230	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R227	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R226	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R118	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R137	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R203	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R205	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R209	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R210	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R211	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R220	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R223	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R219	061G0402104	RST CHIPR 100 KOHM +-5% 1/16W
		R105	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R106	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R202	061G0402223	RST CHIPR 22 KOHM +-5% 1/16W

		R204	061G0402390 0F	RST CHIP 390R 1/16W 1%
		R228	061G0402392	RST CHIP 3.9K 1/16W 5%
		R229	061G0402392	RST CHIP 3.9K 1/16W 5%
		R109	061G0402471	RST CHIPR 470 OHM +-5% 1/16W
		R404	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R303	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R218	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R217	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R121	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R120	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R304	061G0402473	RST CHIPR 47 KOHM +-5% 1/16W
		R216	061G0402560	RST CHIP 56R 1/16W 5%
		R233	061G0402682	RST CHIP 6K8 1/16W 5%
		R208	061G0402682	RST CHIP 6K8 1/16W 5%
		R139	061G0402682	RST CHIP 6K8 1/16W 5%
		R305	061G0402393	RST CHIP 39K 1/16W 5%
		R212	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R107	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%
		R112	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%
		R116	061G0402750 9F	RST CHIP 75 OHM 1/16W 1%
		R302	061G0805471	RST CHIPR 470 OHM +-5% 1/8W
COILs & FILTERs				
		FB205	061G0805000	0 OHM 1/10W
		FB206	061G0805000	0 OHM 1/10W
		FB301	061G0805000	0 OHM 1/10W
		FB201	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 bullwill
		FB203	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 bullwill
		FB204	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 bullwill
		FB103	071G 59K190 B	19 OHM BEAD
		FB102	071G 59K190 B	19 OHM BEAD
		FB101	071G 59K190 B	19 OHM BEAD
OTHERs				
		X201	093G 22 53	CRYSTAL 14.318MHzHC-49US
		CN201	033G3802 6	WAFER
		CN401	033G3802 7	WAFER 9P RIGHT ANELE PITCH
		CN301	033G801930F BH U	CONNECTOR 30PIN
		CN101	088G 35315F H	D-SUB 15PIN
POWER BOARD				
CAPACITORS				
		C903	063G 10747410V	0.47UF 275VAC ARCO
		C825	065G 3J1206ET	12PF 5% SL 3KV TDK
		C816	065G 3J1206ET	12PF 5% SL 3KV TDK
		C824	065G 3J3096ET	3PF,J,3KV,Z5P
		C826	065G 3J3096ET	3PF,J,3KV,Z5P
		C901	065G306M2222BP	2200PF +-20% 400VAC

		C902	065G306M2222BP	2200PF +-20% 400VAC
		C926	065G306M3322BP	3300PF 20%
		C905	067G 31510115K	EC 105 100UF M 450V KINGNICH
		C923	067G215V1023HS	CAP L105 1000UF M 16V
		C922	067G215V471 3H	CAP L105 470UF M 16V
		C921	067G215V471 4H	CAP 105 470UF M 25V
		C815	067G215V471 4H	CAP 105 470UF M 25V
		C811	067G215V471 4H	CAP 105 470UF M 25V
		C915	067G215V471 6N	CAP 105 470UF M 35V
		C920	067G215V471 6N	CAP 105 470UF M 35V
		C808	061G0805184	RST CHIPR 180 KOHM +-5% 1/8W
		C833	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C834	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C835	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C836	065G060347141J W	CAP CHIP 0603 470PF J 100V NPO
		C813	065G0805102 31	1000PF 50V NPO
		C812	065G0805102 31	1000PF 50V NPO
		C807	065G0805103 32	10NF/50V/0805/X7R
		C910	065G0805103 32	10NF/50V/0805/X7R
		C919	065G0805104 32	CHIP 0.1U 50V X7R
		C918	065G0805104 32	CHIP 0.1U 50V X7R
		C913	065G0805104 32	CHIP 0.1U 50V X7R
		C908	065G0805104 32	CHIP 0.1U 50V X7R
		C904	065G0805104 32	CHIP 0.1U 50V X7R
		C832	065G0805104 32	CHIP 0.1U 50V X7R
		C829	065G0805104 32	CHIP 0.1U 50V X7R
		C801	065G0805104 32	CHIP 0.1U 50V X7R
		C802	065G0805104 32	CHIP 0.1U 50V X7R
		C817	065G0805104 32	CHIP 0.1U 50V X7R
		C821	065G0805104 32	CHIP 0.1U 50V X7R
		C822	065G0805104 32	CHIP 0.1U 50V X7R
		C828	065G0805104 32	CHIP 0.1U 50V X7R
		C804	065G0805105 22	CHIP 1UF 25V X7R 0805
		C806	065G0805105 22	CHIP 1UF 25V X7R 0805
		C830	065G0805105 22	CHIP 1UF 25V X7R 0805
		C814	065G0805105 22	CHIP 1UF 25V X7R 0805
		C909	065G0805221 31	220PF 50V NPO
		C805	065G0805222 31	0805 2200PF
		C810	065G080547131G	CHIP 0805 470PF G 50V NPO
		C820	065G0805472 32	4700PF/50V/0805/X7R
		C827	065G0805472 32	4700PF/50V/0805/X7R
		C809	065G0805473 32	CHIP 0.047UF 50V X7R
		C819	065G0805473 32	CHIP 0.047UF 50V X7R
		C905	006G 31502	1.5MM RIVET
		C903	006G 31502	1.5MM RIVET

		C934	065G 2K152 1T GP	CERAMIC CAP
		C931	065G 2K152 1T GP	CERAMIC CAP
		C930	065G 2K152 1T GP	CERAMIC CAP
		C914	065G 2K152 1T GP	CERAMIC CAP
		C912	065G 2K152 1T GP	CERAMIC CAP
		C907	067G 5152207HT	CAP 105 22UF M 50V
		C925	067G215S10915T3964	EC CAP 1.0uF 450V 8*11mm
DIODEs				
		BD901	093G 50460900	BRIDGE DIODE GBU408 LITEON
		D907	093G 60288	DIODE MBRF10100CT 10A/100V ITO-220AB
		D906	093G 60526	SCHOTTKY MBRF1060CT ITO-220AB
		D806	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D805	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D804	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D803	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D802	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D801	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D807	093G 6432S	IN4148W
		D808	093G 6432S	IN4148W
		D809	093G 6432S	IN4148W
		D810	093G 6432S	IN4148W
		D811	093G 6432S	IN4148W
		D904	093G 6432S	IN4148W
		ZD904	093G 39GA31 T	ZENER DIODE RLZ18B SEMTECH
		ZD801	093G 39S 24 T	RLZ 5.6B LLDS
		ZD902	093G 39S 24 T	RLZ 5.6B LLDS
		ZD903	093G 39S 38 T	PTZ 9.1B
		ZD901	093G 39S 40 T	RLZ 13B LLDS
		ZD906	093G 39S 42 T	RLZ27B LLDS
		D905	093G 5212T52T	DIODE 1N4007 DO-41
		D901	093G 6026W52T	FR107
		D902	093G 6038T52T	FR103
TRANSISTORS & Ics				
		Q903	057G 667516	FET 2SK3673 TO-220 FUJI
		Q801	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q802	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q803	057G 417 4	PMBS3904/PHILIPS-SMT(04)
		Q804	057G 759 2	RK7002
		Q807	057G 759 2	RK7002
		Q808	057G 759 2	RK7002
		Q809	057G 759 2	RK7002
		Q810	057G 759 2	RK7002
		Q805	057G 763 14	AM9945N
		Q806	057G 763 14	AM9945N
		Q903	006G 31502	1.5MM RIVET

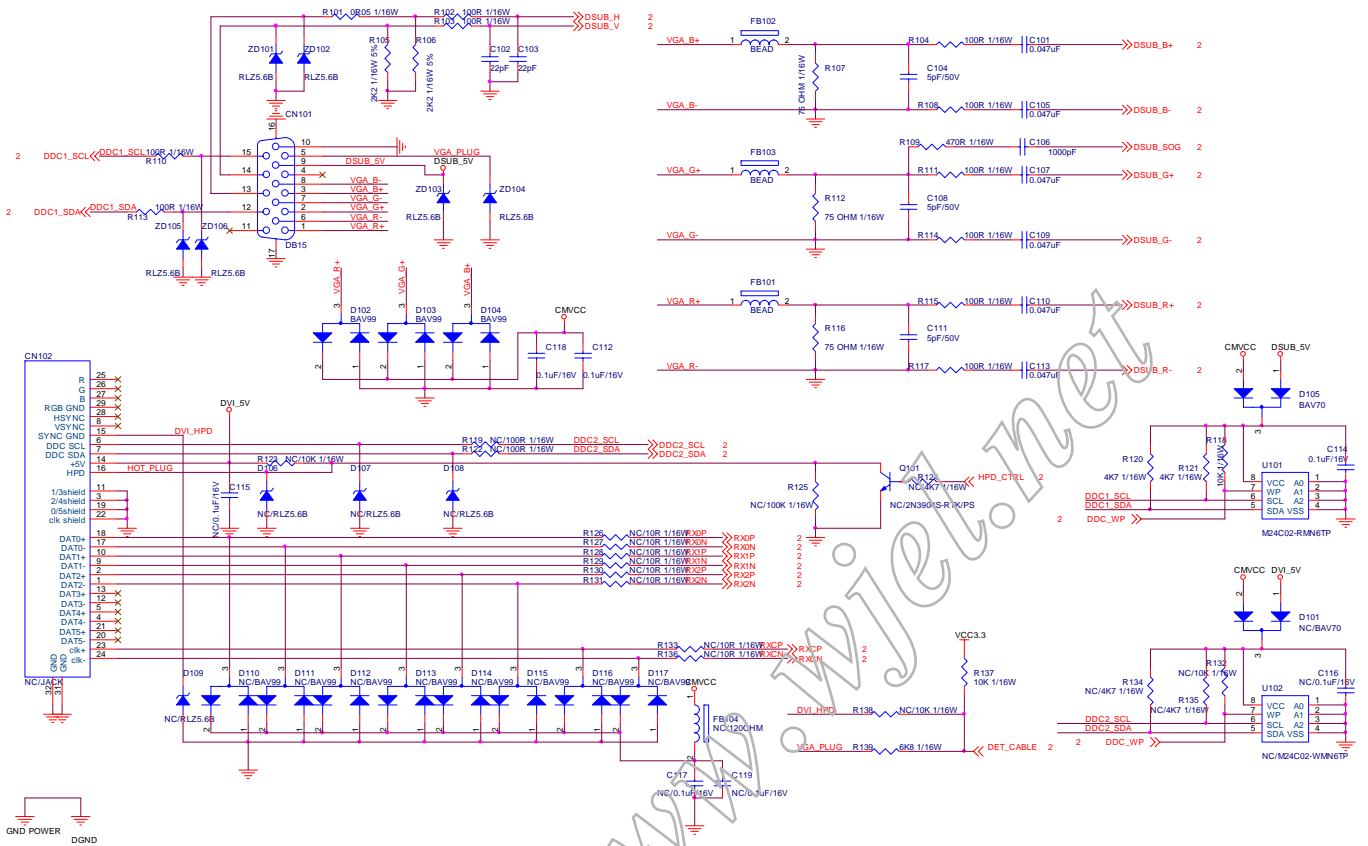
		IC902	056G 139 7 1	IC EL817MA M-TYPE
		IC901	056G 379 79	IC LD7522PS SOP-8
		IC801	056G 608 10	IC OZ9938GN-B SOIC-16
		IC903	056G 158 7	AP431V TO-92BY ATC
RESISTORs				
		R905	061G152M10452T	RST MOFR 100KOHM +-5% 2WS
		R914	061G152M43852T	RST MOF 0R47 5% 2W
		R822	065G 3J3096ET	3PF,J,3KV,Z5P
		R832	065G 3J3096ET	3PF,J,3KV,Z5P
		NR901	061G 58005 W	RST NTCR 5 OHM 3A THINKING
		JR821	061G0805000	0 OHM 1/10W
		JR801	061G0805000	0 OHM 1/10W
		R836	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R843	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R921	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R922	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R926	061G0805102	RST CHIPR 1KOHM +-5% 1/8W
		R812	061G0805103	10 KOHM 1/10W
		R927	061G0805103	10 KOHM 1/10W
		R806	061G0805103	10 KOHM 1/10W
		R804	061G0805103	10 KOHM 1/10W
		R803	061G0805103	10 KOHM 1/10W
		R815	061G0805104	RST CHIP 100K 1/8W 5%
		R844	061G0805105	1MOHM 1/10W
		R840	061G0805105	1MOHM 1/10W
		R839	061G0805105	1MOHM 1/10W
		R838	061G0805105	1MOHM 1/10W
		R820	061G0805105	1MOHM 1/10W
		R816	061G0805105	1MOHM 1/10W
		R813	061G0805105	1MOHM 1/10W
		R810	061G0805105	1MOHM 1/10W
		R913	061G0805124	RST CHIPR 120 KOHM +-5% 1/8W
		R908	061G0805202	RST CHIP 2K 1/8W 5%
		R924	061G0805240 1F	RST CHIPR 2.4KOHM +-1% 1/8W
		R920	061G0805302	RST CHIPR 3 KOHM +-5% 1/8W
		R802	061G0805304	RST CHIPR 300 KOHM +-5% 1/8W
		R923	061G0805330 2F	RST CHIPR 33 KOHM +-1% 1/8W
		R925	061G0805360 1F	RST CHIPR 3.6KOHM +-1% 1/8W
		R826	061G0805361	RST CHIPR 360 OHM +-5% 1/8W
		R841	061G0805430 0F	RST CHIPR 430 OHM +-1% 1/8W
		R817	061G0805430 2F	RST CHIPR 43 KOHM +-1% 1/8W
		R808	061G0805473	RST CHIPR 47 KOHM +-5% 1/8W
		R825	061G0805513	RST CHIPR 51 KOHM +-5% 1/8W
		R917	061G0805683	68K&8 1/10W
		R824	061G0805751	RST CHIPR 750 OHM +-5% 1/8W

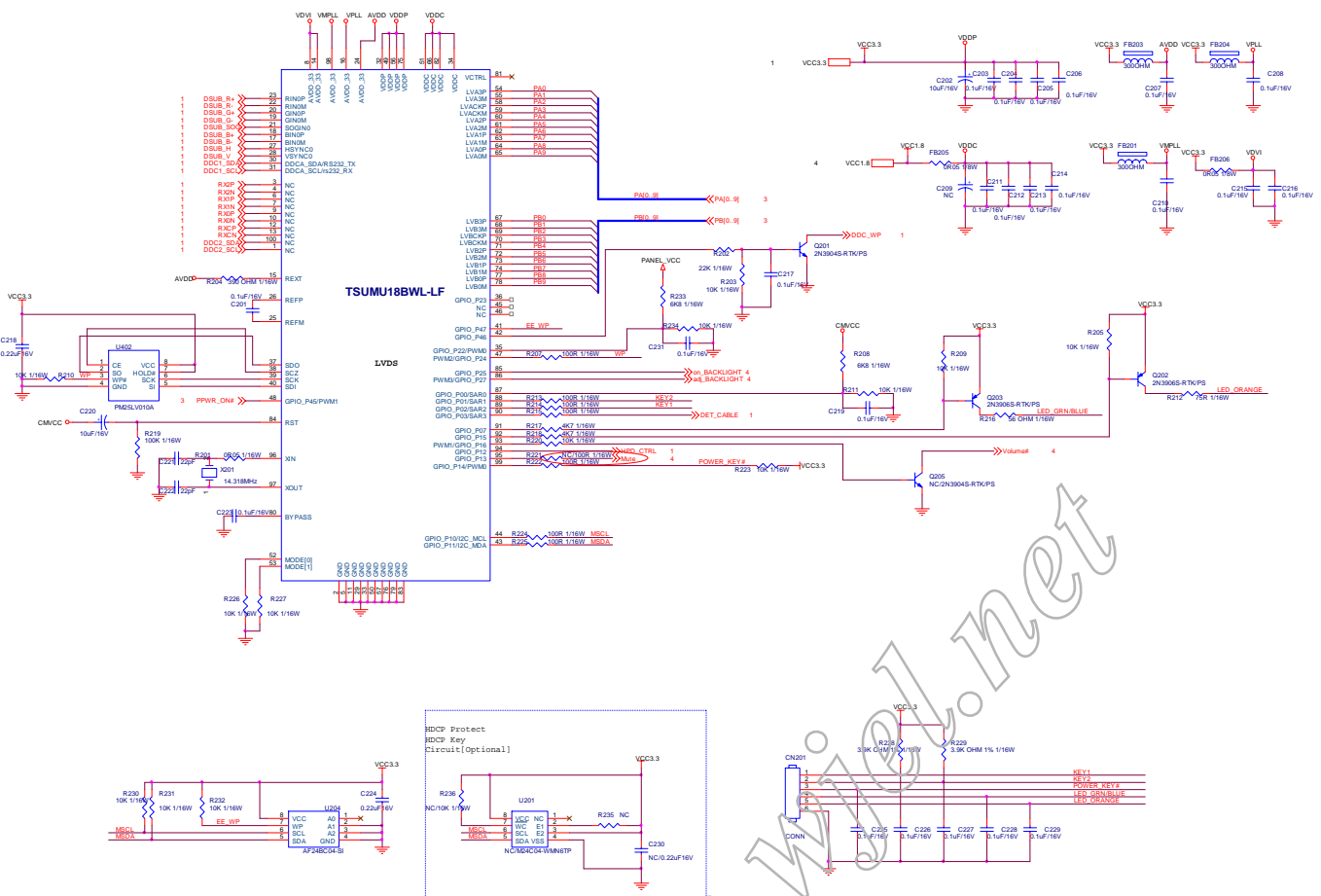
		R858	061G0805751	RST CHIPR 750 OHM +-5% 1/8W
		R814	061G0805754	RST CHIPR 750 KOHM +-5% 1/8W
		JR802	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR902	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR824	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR823	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR822	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		JR820	061G1206000	RST CHIPR 0 OHM +-5% 1/4W
		R910	061G1206100	RST CHIP 10R 1/4W 5%
		R906	061G1206101	100 1206
		R916	061G1206101	100 1206
		R930	061G1206101	100 1206
		R931	061G1206101	100 1206
		R932	061G1206101	100 1206
		R933	061G1206101	100 1206
		R912	061G1206103	RST CHIPR 10 KOHM +-5% 1/4W
		R919	061G1206151	RST CHIPR 150 OHM +-5% 1/4W
		R904	061G1206154	RST CHIP 150K 1/4W 5%
		R907	061G1206154	RST CHIP 150K 1/4W 5%
		R915	061G1206154	RST CHIP 150K 1/4W 5%
		R807	061G1206220	RST CHIPR 22 OHM +-5% 1/4W
		R911	061G1206221	RST CHIPR 220 OHM +-5% 1/4W
		R909	061G1206249	RST CHIPR 2.4 OHM +-5% 1/4W
		R928	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R929	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R934	061G1206335	RST CHIPR 3.3MOHM +-5% 1/4W
		R805	061G1206471	470 1206
		R835	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R834	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R833	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R828	061G1206472	RST CHIPR 4.7 KOHM +-5% 1/4W
		R837	061G1206519	RST CHIPR 5.1 OHM +-5% 1/4W
		R842	061G1206519	RST CHIPR 5.1 OHM +-5% 1/4W
		R901	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R902	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R903	061G1206684	RST CHIPR 680 KOHM +-5% 1/4W
		R818	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R801	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R829	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R819	061G1206820	RST CHIPR 82 OHM +-5% 1/4W
		R827	065G0805472 32	4700PF/50V/0805/X7R
		R831	065G0805472 32	4700PF/50V/0805/X7R
		NR901	006G 31502	1.5MM RIVET
TRANSFORMER				
		PT802	080GL22T 1 DN	X'FMR 86.7uH TK.2003U.101

		PT801	080GL22T 1 DN	X'FMR 86.7uH TK.2003U.101
		T901	080GL22T 2 LS	X'FMR 510uH PAO7001EL0-0
		T901	006G 31502	1.5MM RIVET
		PT802	006G 31502	1.5MM RIVET
		PT801	006G 31502	1.5MM RIVET
OTHERs				
		CN801	033G8021 2E AC	WAFER
		CN802	033G8021 2E AC	WAFER
		CN803	033G8021 2E AC	WAFER
		CN804	033G8021 2E AC	WAFER
		CN901	087G 501 32 S	AC SOCKET
		CN902	095G 825 7D501	Wire Harness 9P-7P(SCN) 80MM
		CN901	006G 31500	EYELET
		L904	073G 253 91 LS	CHOKE BY LI SHIN
		L903	073G 253 91 LS	CHOKE BY LI SHIN
		L902	073L 174 40 HG	GBQM4.778.391
		L901	073L 174 53 LG GP	CHOKE
		L902	006G 31502	1.5MM RIVET
		L901	006G 31502	1.5MM RIVET
		L905	071G 55 29	FERRITE BEAD
		L906	071G 55 29	FERRITE BEAD
		FB901	071G 55 29	FERRITE BEAD
		F901	084G 33 10	FUSE CLIP
		F901	084G 41 3	3.15AH/250V

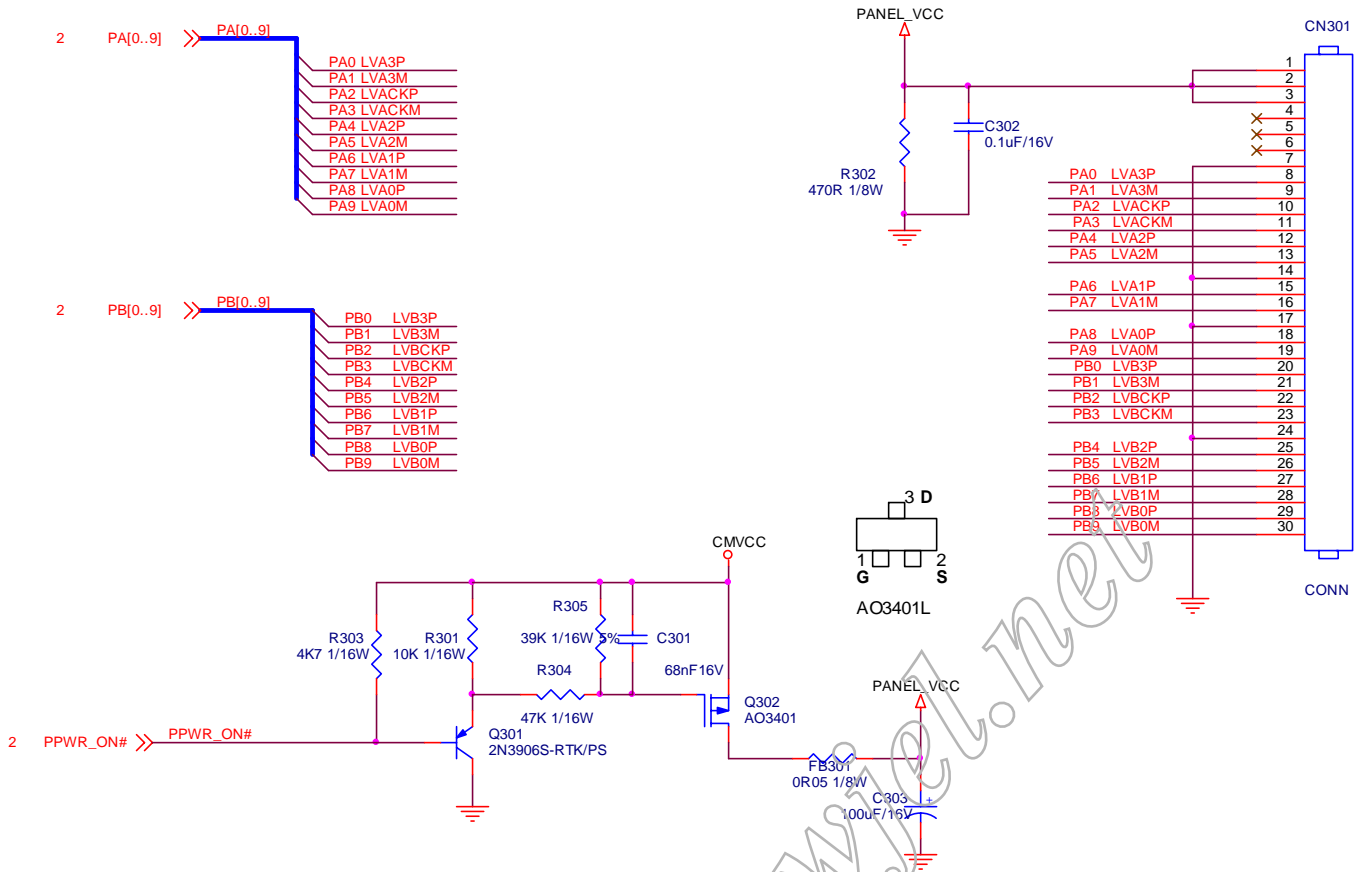
SCHEMATIC DIAGRAM

1. SCALER

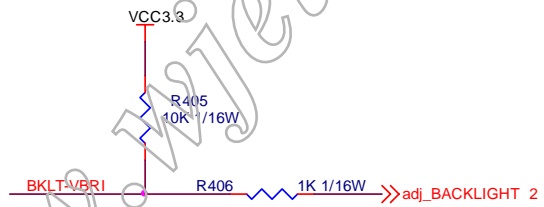
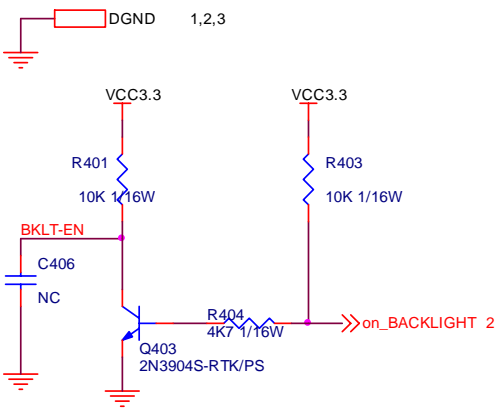
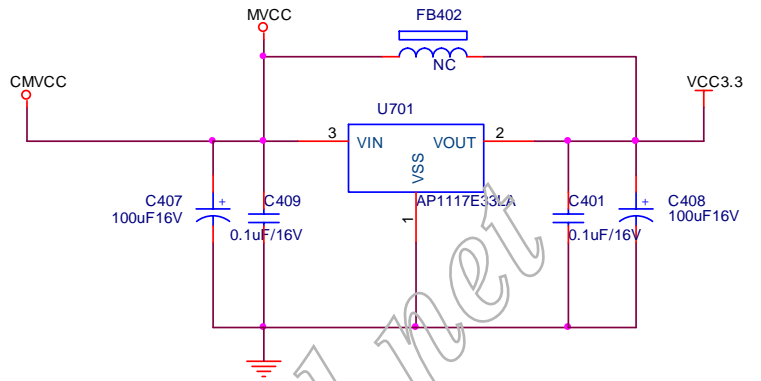
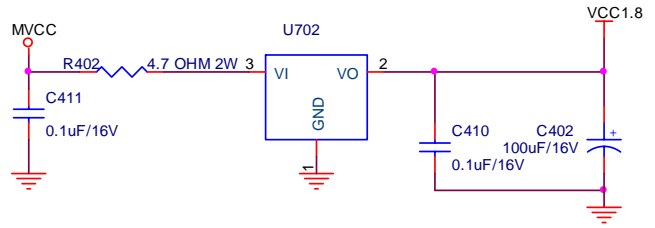
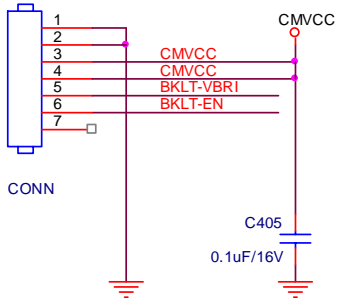




<http://www.wjw1.net>

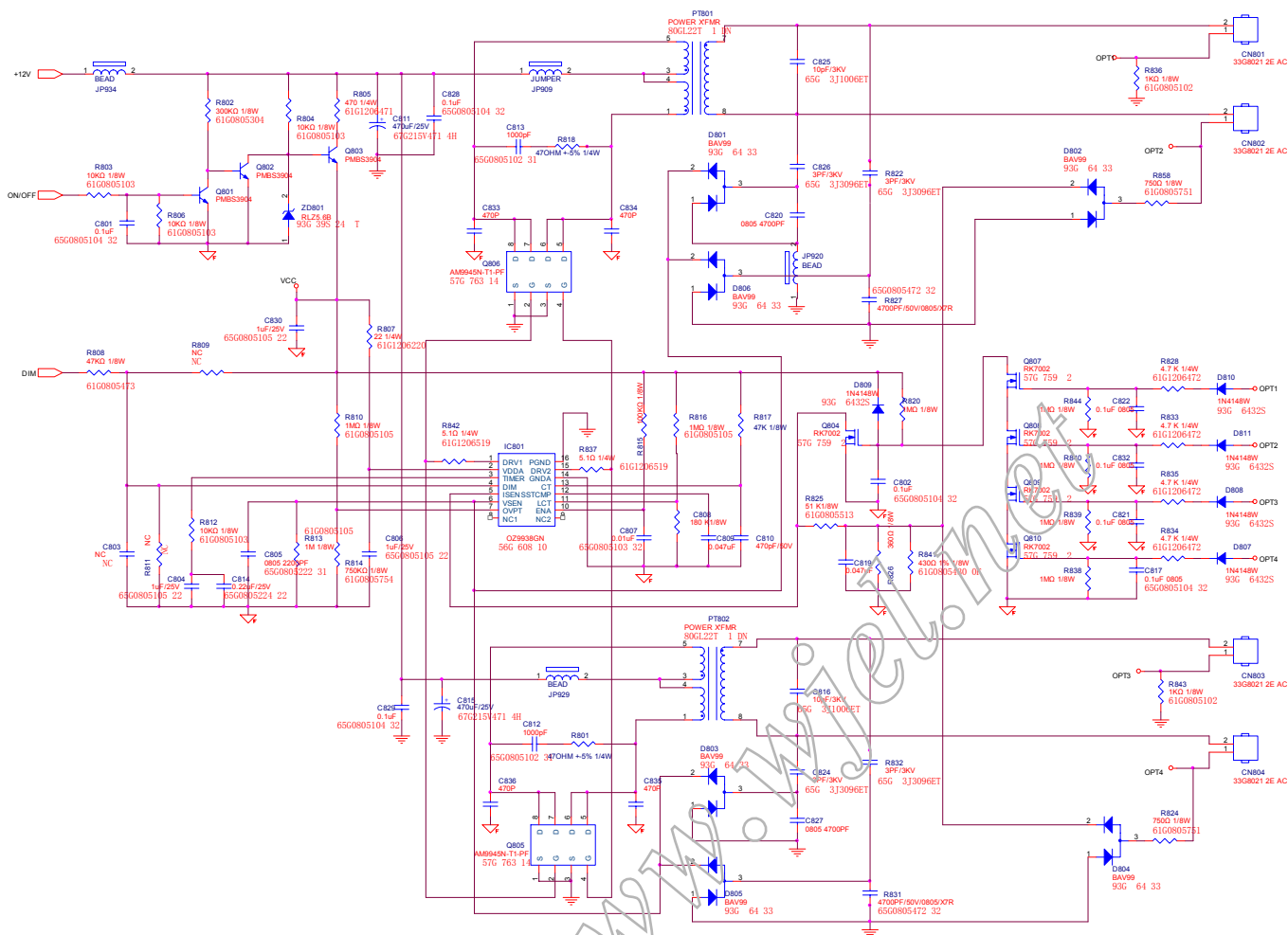


CN401



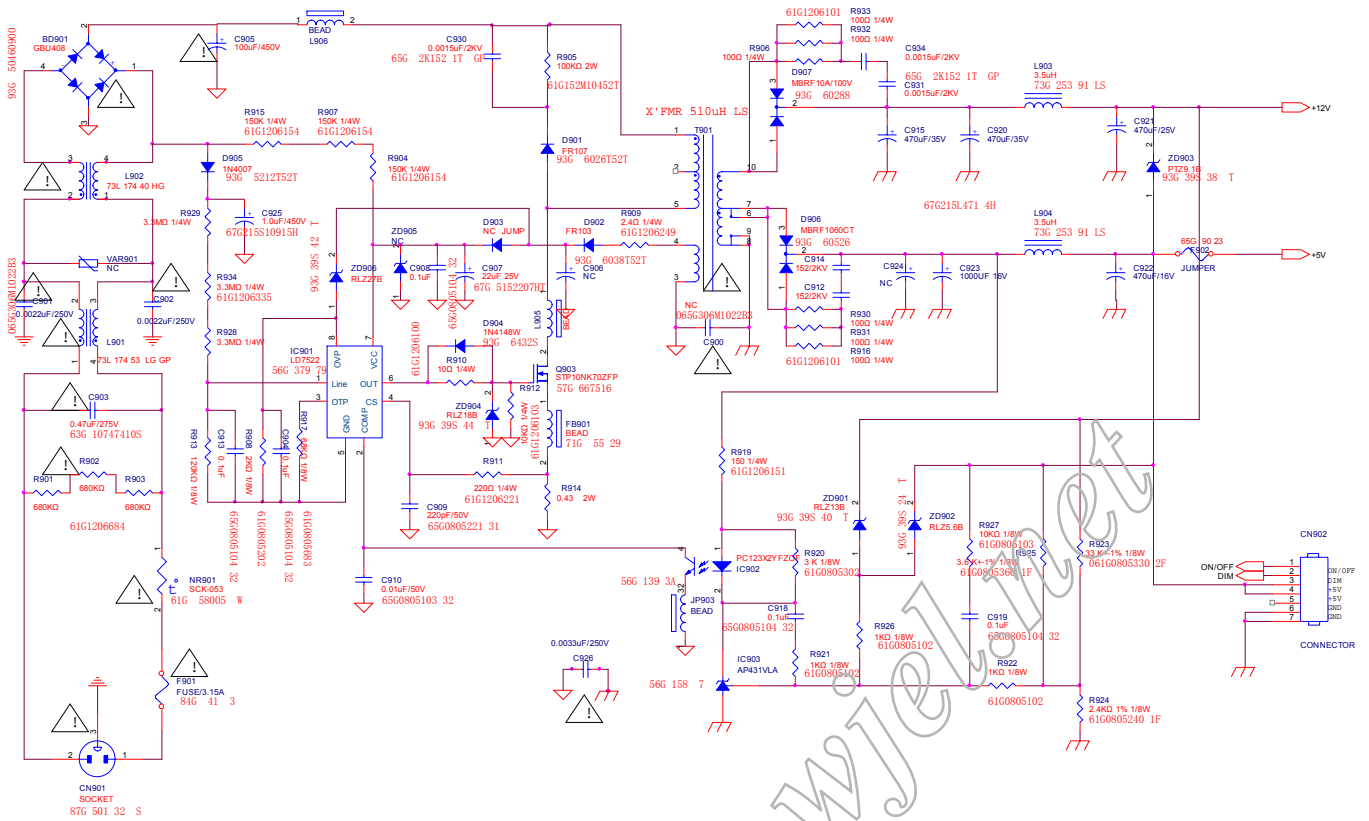
<http://www.wjcl.net>

2. INVERTER



http://www.WWWElectronics.com

3. POWER





<http://www.wjel.net>

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Mar. 2008
Printed in China