Website:http://biz.LGservice.com
E-mail:http://www.LGEservice.com/techsup.html

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : LM57G

MODEL: FLATRON L194WT(L194WT-SFQ.ARQF)**

FLATRON L194WT(L194WT-BFQ.ARQF)**

( ) **Same model for Service

CAUTION

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

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Active Display Area	: 19 inch diagonal
Pixel Pitch	: 0.2835 (H) x 0.2835 (V)
Size	: 428(H) x 278(V) x 18.5(D)
Color Depth	: 16.2M(6bit + FRC) colors
Electrical Interface	: LVDS
Surface Treatment	: Anti-Glare, Hard Coating(3H)
Operating Mode	: Transmissive mode,Normally White
Backlight Unit	: 4 CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 5

Left : -85°(Typ) Right : +85°(Typ)
Top : +85°(Typ) Bottom : -75°(Typ)

2-2. Luminance : 180(Typ) (Typ. ±30)
: 230(min), 300(Typ)-**6500K**
: 150(min)-**9300K**

2-3. Contrast Ratio : 450(min), 700(Typ)
DFC -> 2000 : 1(Typ)

3. SIGNAL (Refer to the Timing Chart)

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

3-2. Video Input Signal
1) Type : R, G, B Analog
2) Voltage Level : 0~0.7 V
3) Input Impedance : 75 Ω

3-3. Operating Frequency
Horizontal : 30 ~ 83kHz
Vertical : 50 ~ 75Hz

4. MAX. RESOLUTION

Analog : 1440 x 900@75Hz
Digital : 1440 x 900@60Hz

5. POWER SUPPLY

5-1. Power Adaptor(Built-in Power)
Input : AC 100-240V~, 50/60Hz, 1.2A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 37 W(max)	BLUE
			less than 34 W(typ)	
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)
6-2. Relative Humidity : 10%~80% (Non-condensing)
6-3. MTBF : 50,000 HRS with 90% Confidence level
Lamp Life : 40,000 Hours (Min)

7. DIMENSIONS (with TILT/SWIVEL)

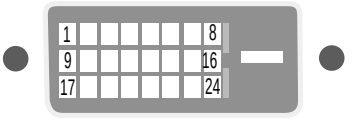
Width : 434.8 mm (17.12")
Depth : 226 mm (8.90")
Height : 369.9 mm (14.56")

8. WEIGHT (with TILT/SWIVEL)

Net. Weight : 3.6 kg (7.94 lbs)
Gross Weight : 4.8 kg (10.58 lbs)

Signal Connector Pin Assignment

• DVI-D Connector (Digital)



Pin	Signal (DVI-D)
1	T. M. D. S. Data2-
2	T. M. D. S. Data2+
3	T. M. D. S. Data2/4 Shield
4	T. M. D. S. Data4-
5	T. M. D. S. Data4+
6	DDC Clock
7	DDC Data
8	Analog Vertical Sync.
9	T. M. D. S. Data1-
10	T. M. D. S. Data1+
11	T. M. D. S. Data1/3 Shield
12	T. M. D. S. Data3-
13	T. M. D. S. Data3+
14	+5V Power
15	Ground (return for +5V, H. Sync. and V. Sync.)

Pin	Signal (DVI-D)
16	Hot Plug Detect
17	T. M. D. S. Data0-
18	T. M. D. S. Data0+
19	T. M. D. S. Data0/5 Shield
20	T. M. D. S. Data5-
21	T. M. D. S. Data5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock-

T. M. D. S. (Transition Minimized Differential Signaling)

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 ⚠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.)

⚠ CAUTION

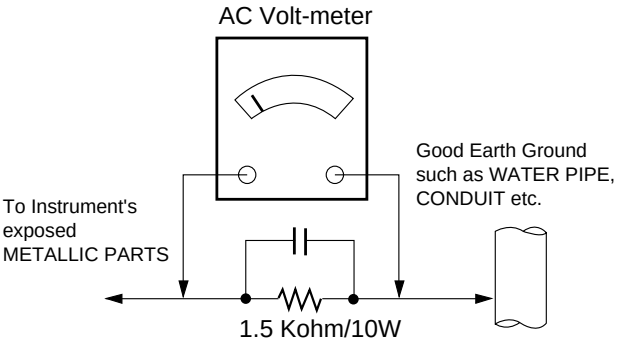
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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 in 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 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 or 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 mall 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).

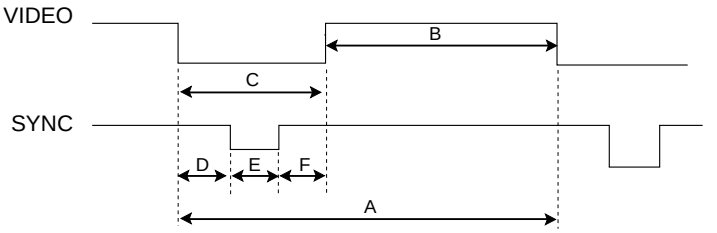
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire 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)	+	25.175	31.469	800	640	16	96	48	640 x 350
	V(Lines)	-		70.09	449	350	37	2	60	
2	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X 400
	V(Lines)	+		70.08	449	400	12	2	35	
3	H(Pixels)	-	25.175	31.469	800	640	16	96	48	640 x 480
	V(Lines)	-		59.94	525	480	10	2	33	
4	H(Pixels)	-	31.5	37.5	840	640	16	64	120	640 x 480
	V(Lines)	-		75	500	480	1	3	16	
5	H(Pixels)	+	40.0	37.879	1056	800	40	128	88	800 x 600
	V(Lines)	+		60.317	628	600	1	4	23	
6	H(Pixels)	+	49.5	46.875	1056	800	16	80	160	800 x 600
	V(Lines)	+		75.0	625	600	1	3	21	
7	H(Pixels)	+/-	57.283	49.725	1152	832	32	64	224	832 x 624
	V(Lines)	+/-		74.55	667	624	1	3	39	
8	H(Pixels)	-	65.0	48.363	1344	1024	24	136	160	1024 x 768
	V(Lines)	-		60.0	806	768	3	6	29	
9	H(Pixels)	-	78.75	60.123	1312	1024	16	96	176	1024 x 768
	V(Lines)	-		75.029	800	768	1	3	28	
10	H(Pixels)	+/-	100.0	68.681	1456	1152	32	128	144	1152 x 870
	V(Lines)	+/-		75.062	915	870	3	3	39	
11	H(Pixels)	+/-	92.978	61.805	1504	1152	18	134	200	1152 x 900
	V(Lines)	+/-		65.96	937	900	2	4	31	
12	H(Pixels)	+	108.0	63.981	1688	1280	48	112	248	1280 x 1024
	V(Lines)	+		60.02	1066	1024	1	3	38	
13	H(Pixels)	+	135.0	79.976	1688	1280	16	144	248	1280 X 1024
	V(Lines)	+		75.035	1066	1024	1	3	38	
14	H(Pixels)	+	88.750	55.5	1600	1440	48	32	80	1440 x 900
	V(Lines)	-		59.90	926	900	3	6	17	
15	H(Pixels)	-	106.500	55.935	1904	1440	80	152	232	1440x 900
	V(Lines)	+		59.887	934	900	3	6	25	
16	H(Pixels)	-	136.750	70.635	1936	1440	96	152	248	1440x 900
	V(Lines)	+		74.984	942	900	3	6	33	

DISASSEMBLY

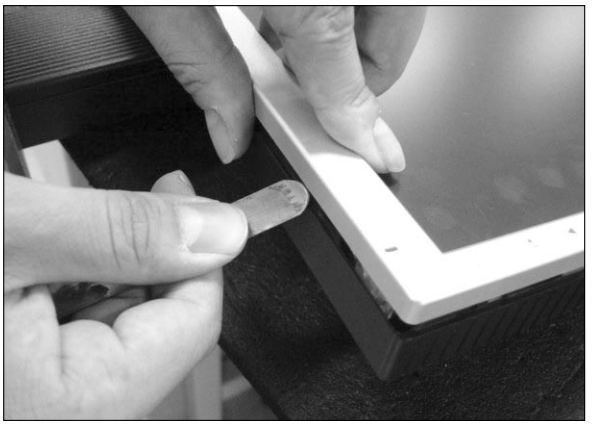
 # 1

Remove the screws.

 # 2

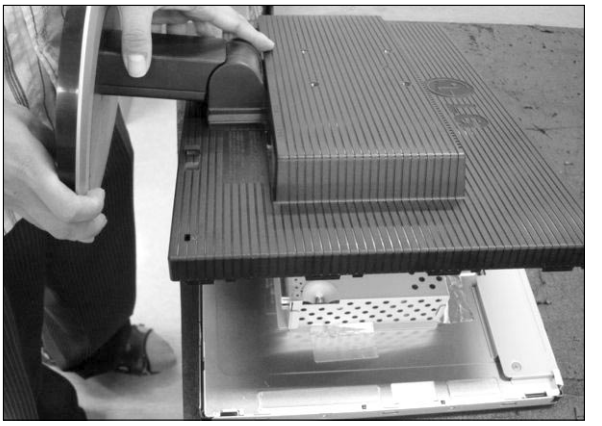
1. Pull the front cover upward.
2. Then, let the all latches are separated.

 # 3



1. Open the Cabinet latch with Jig.
2. Disassemble Cabinet.
3. Put the front face down.

 # 4

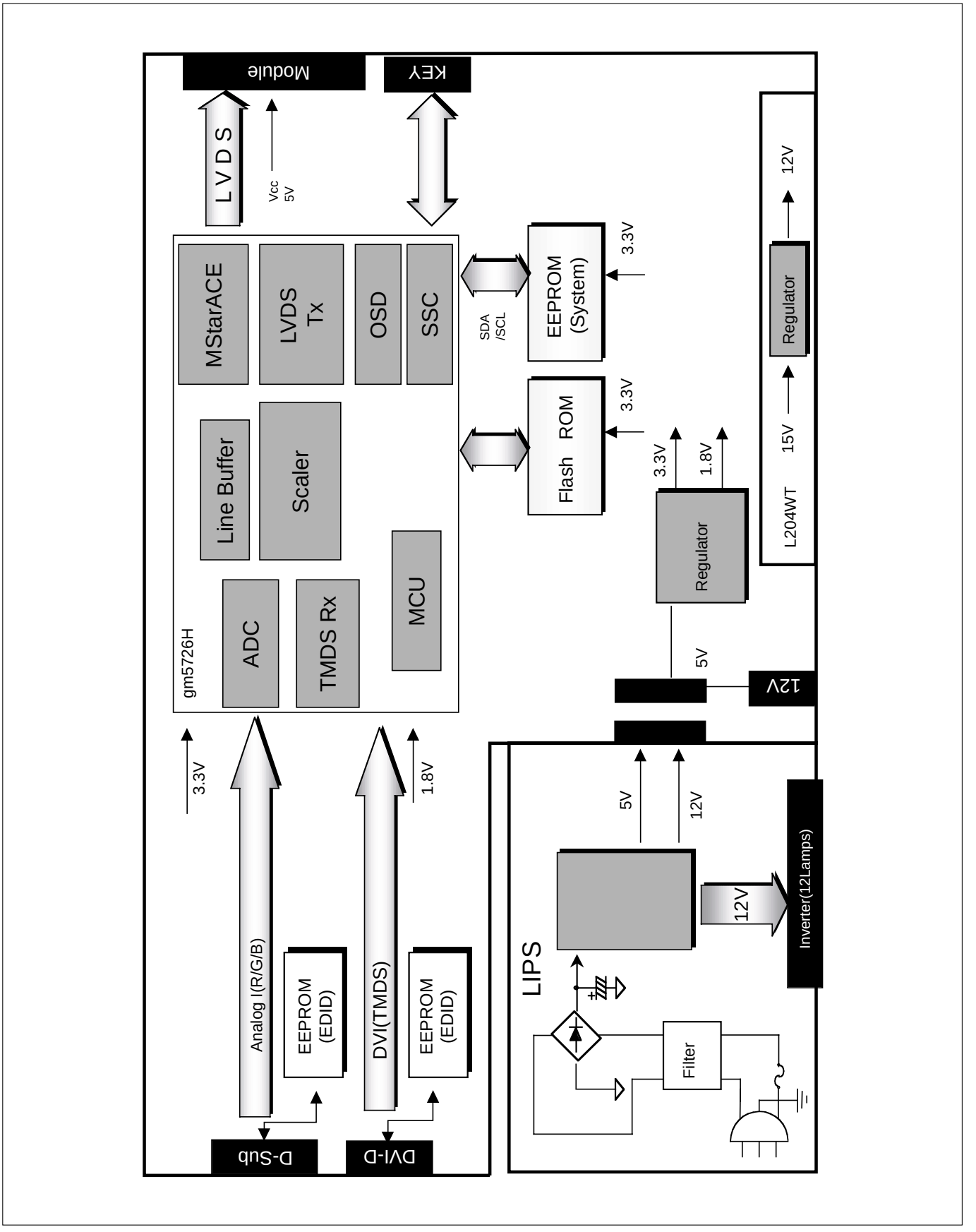


Disassemble back cover.

 # 5

Disassemble Connector.

BLOCK DIAGRAM



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 136MHz in L194WT/WTM/WTQ case(146MHz In L204WT/WTM/WTQ CASE).

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

The Scaler gets the video signal converted analog to digital, interpolates input to 1440 X 900(L194WT/WTM/WTQ),1680X1050(L204WT/WTM/WTQ) 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 and micom in L194WT/WTM/WTQ case

15V is provided for inverter in L204WT/WTM/WTQ case

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 DC12V to AC 700Vrms and operates back-light lamps of module in L194WT/WTM/WTQ case.

The inverter converts from DC15V to AC 700Vrms and operates back-light lamps of module in L204WT/WTM/WTQ case.

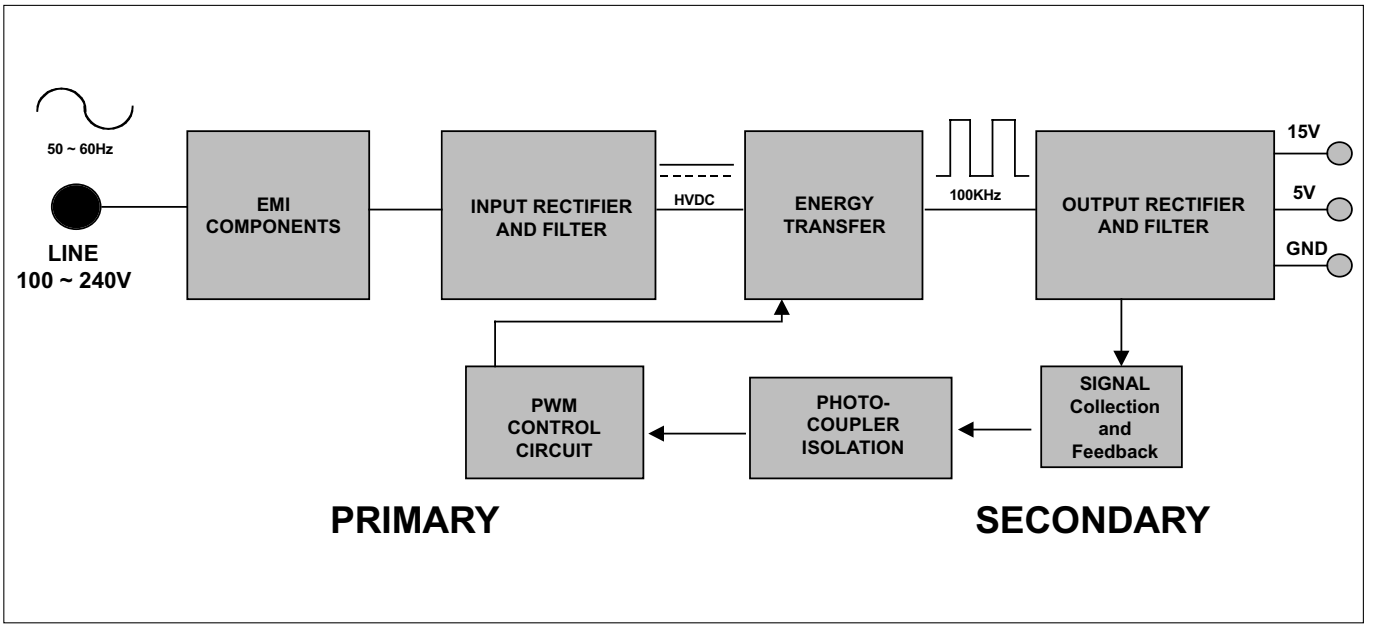
3. MICOM Part.

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

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

The controlled data of each modes is stored in EEPROM.

LIPS Board Block Diagram



Operation description_Power

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.

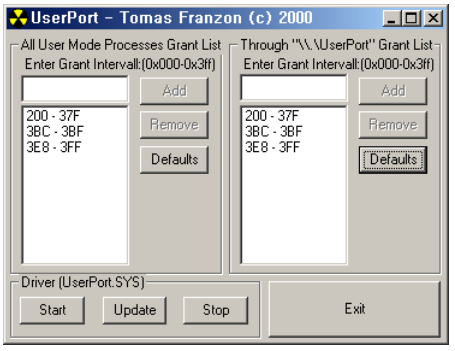
This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

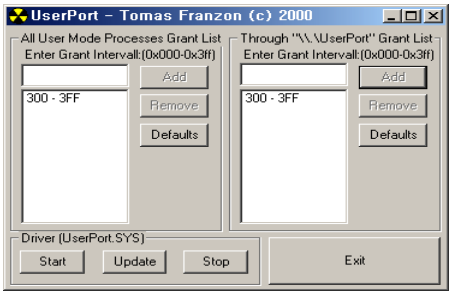
Windows EDID V1.0 User Manual

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

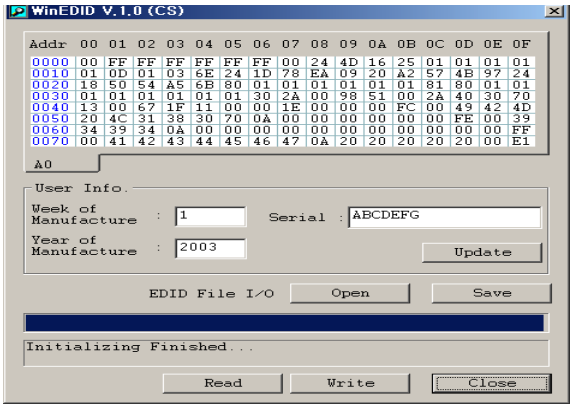


   c) Remove all default number
   d) Add 300-3FF

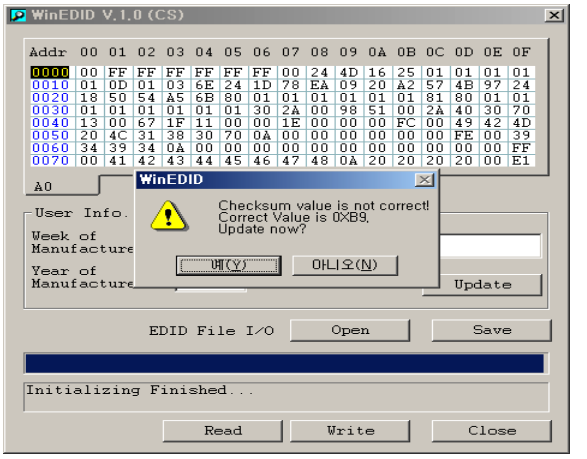


   e) Click Start button.
   f) Click Exit button.

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 OSD

1) Turn off the power switch at the right side of the display.

2) Wait for about 5 seconds and press MENU, POWER switch for 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.
c) Auto Color : W/B balance and Automatically sets the gain and offset value.
(press key for over 3 sec)
d) AGING : Select Aging mode(on/off).
b) Module : To select applied module.
d) NVRAM INIT : EEPROM initialize.(24C16, press key for over 3 sec)
e) R/G/B-9300K : Allows you to set the R/G/B-9300K value manually.
f) R/G/B-6500K : Allows you to set the R/G/B-6500K value manually.
g) R/G/B-Offset : Allows you to set the R/G/B-Offset value manually.(Analog Only)
h) R/G/B-Gain : Allows you to set the R/G/B-Gain value manually.(Analog Only)

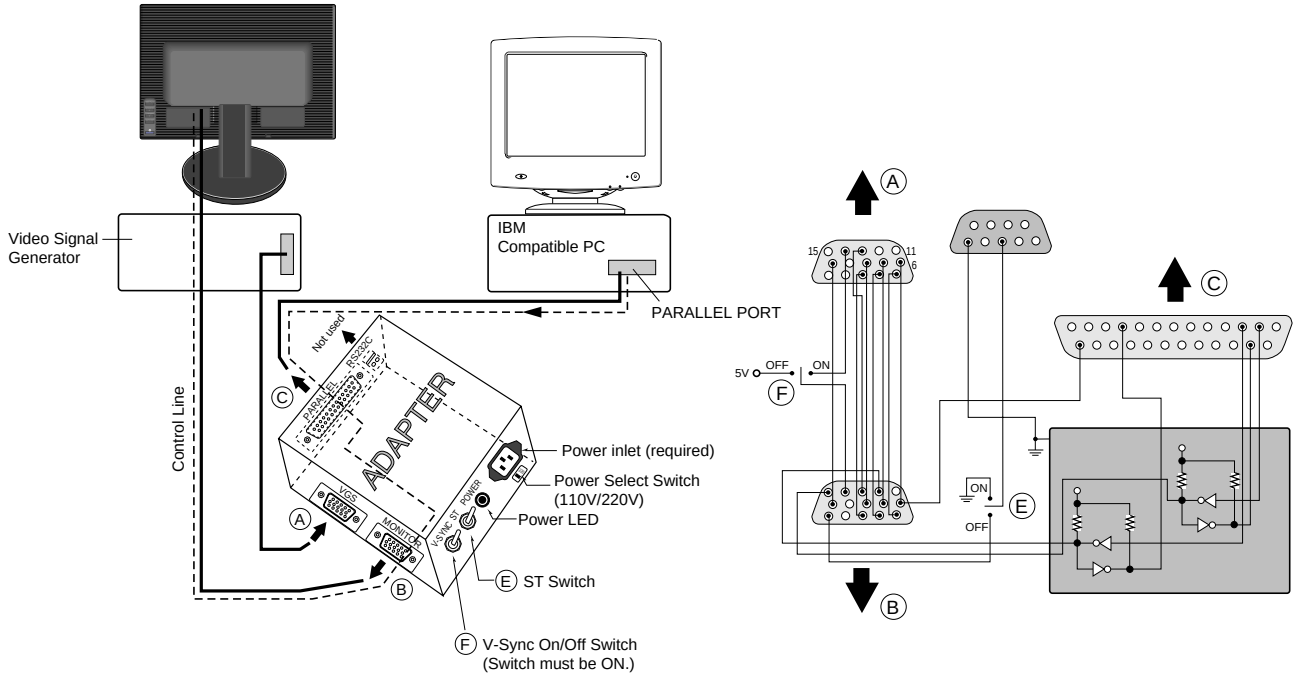
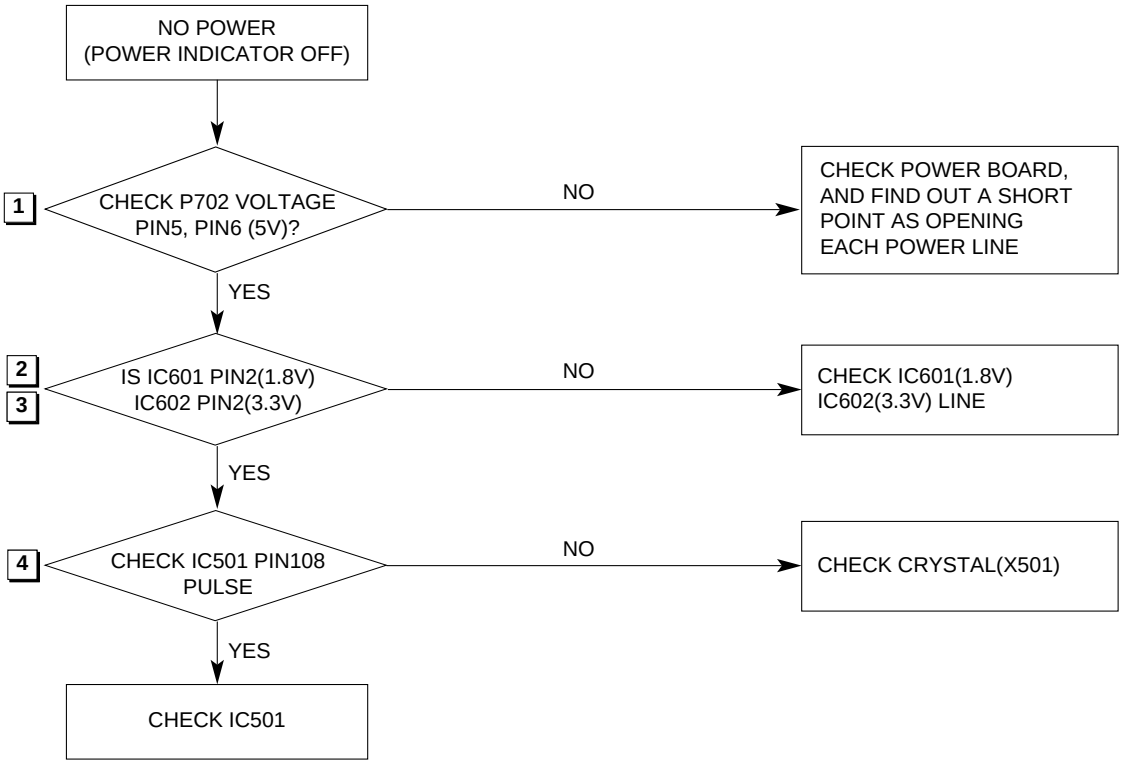


Figure 1. Cable Connection

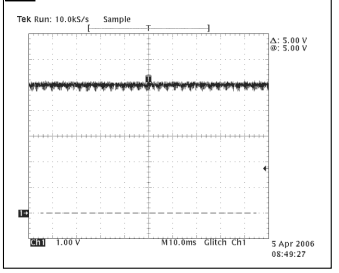
TROUBLESHOOTING GUIDE

1. NO POWER

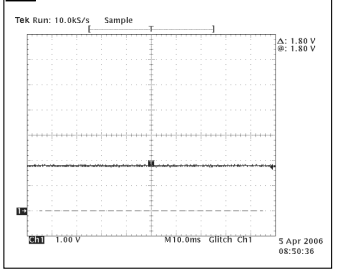


Waveforms

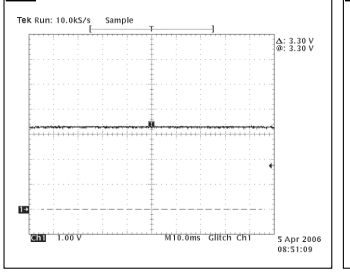
1 P702-#5,6



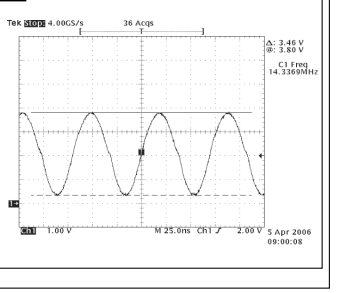
2 IC601-#2



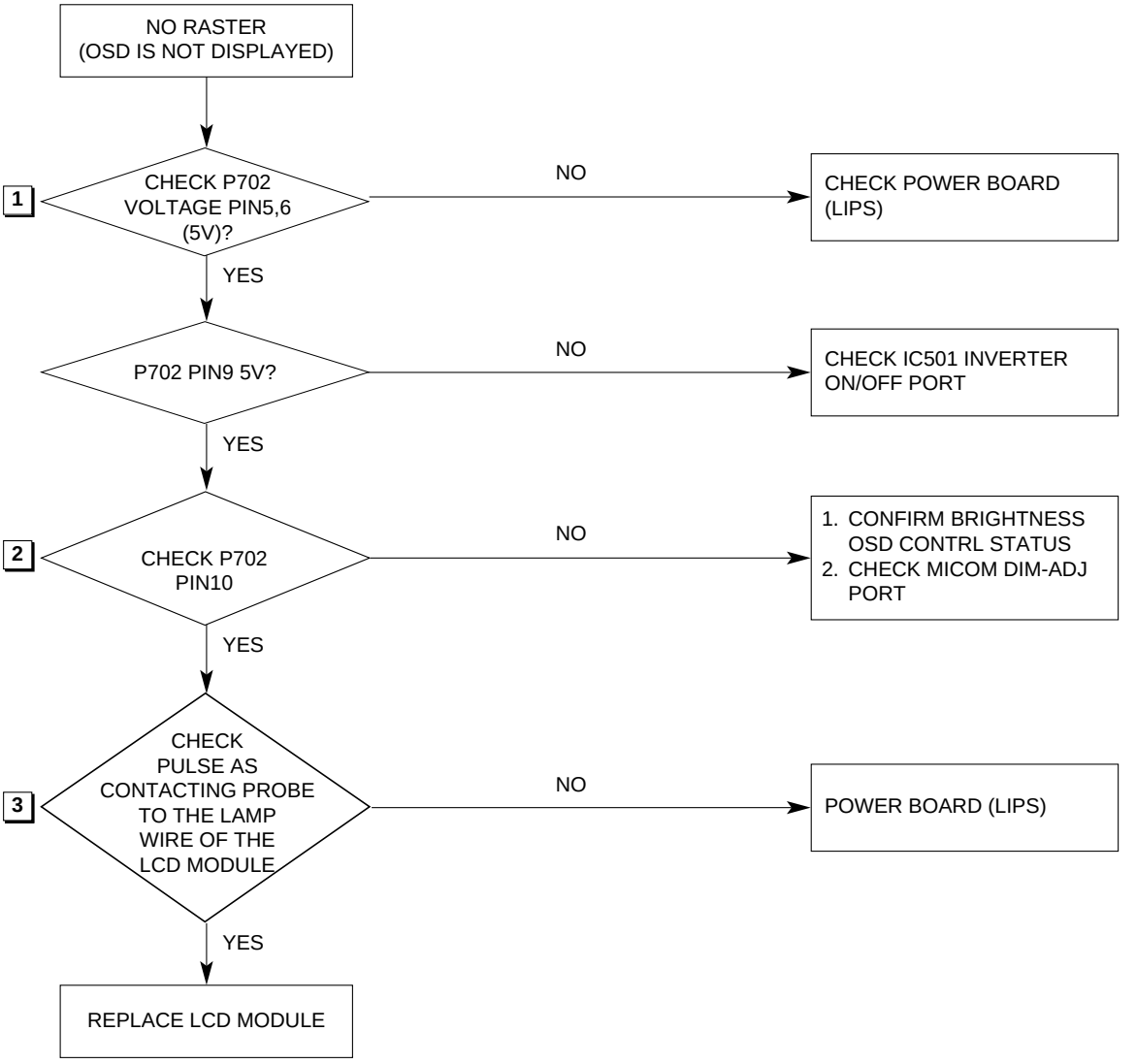
3 IC602-#2



4 IC501-#108

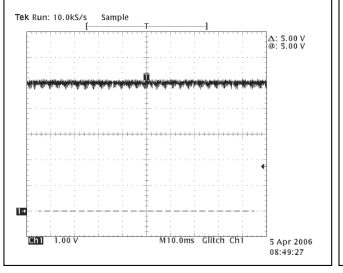


2. NO RASTER (OSD IS NOT DISPLAYED) – LIPS

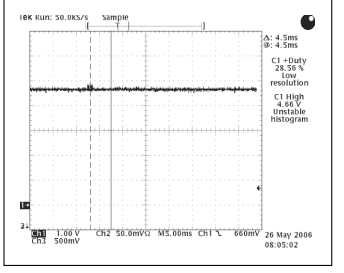


Waveforms

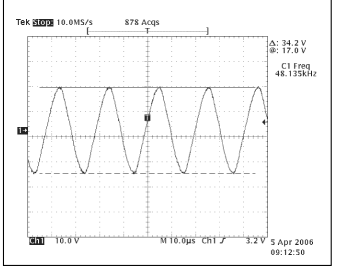
1 P702-#5,6



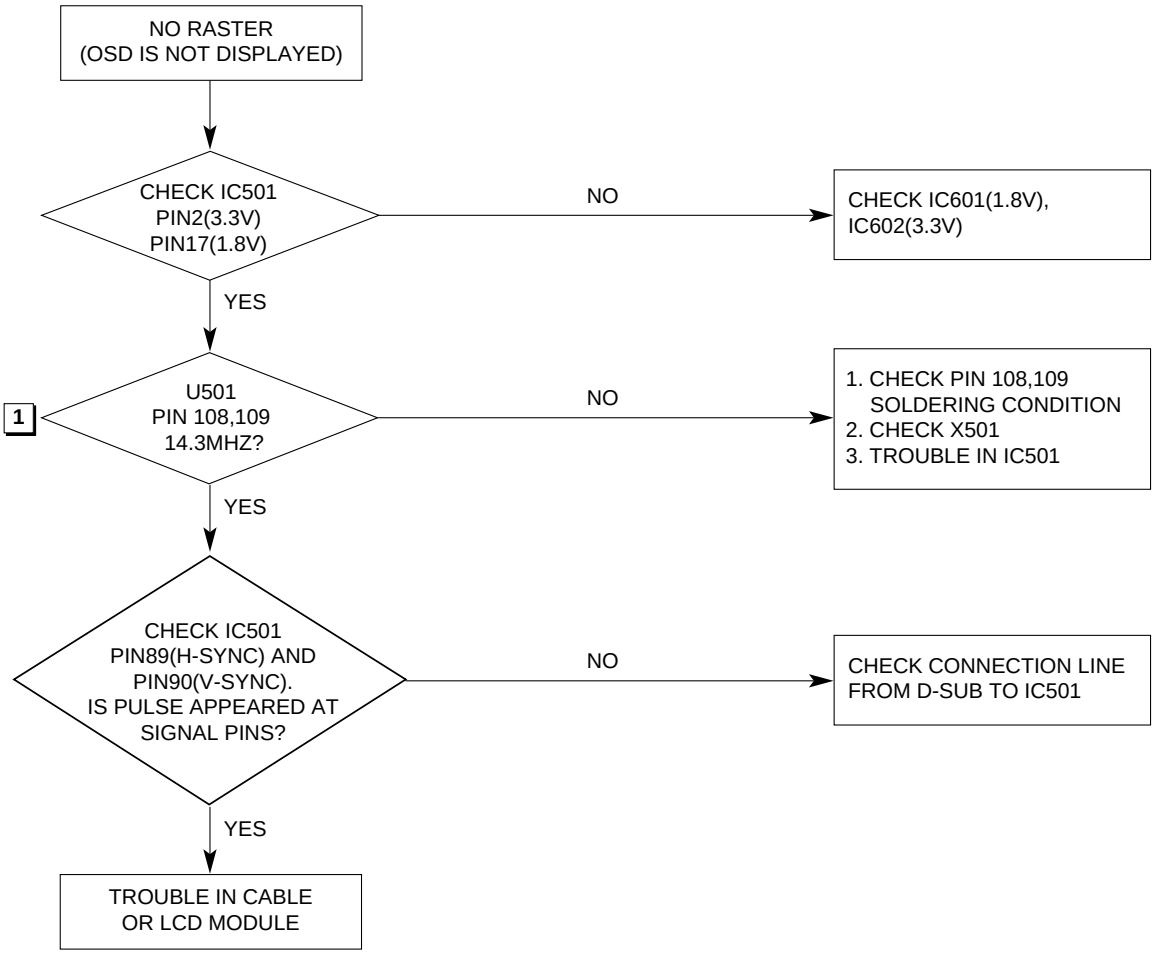
2 P702-#10



3 LAMP CURRENT

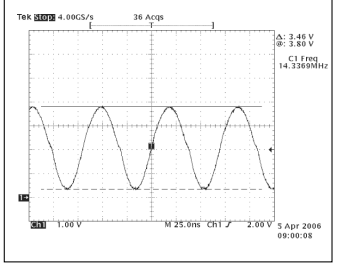


3. NO RASTER (OSD IS NOT DISPLAYED) - MAIN

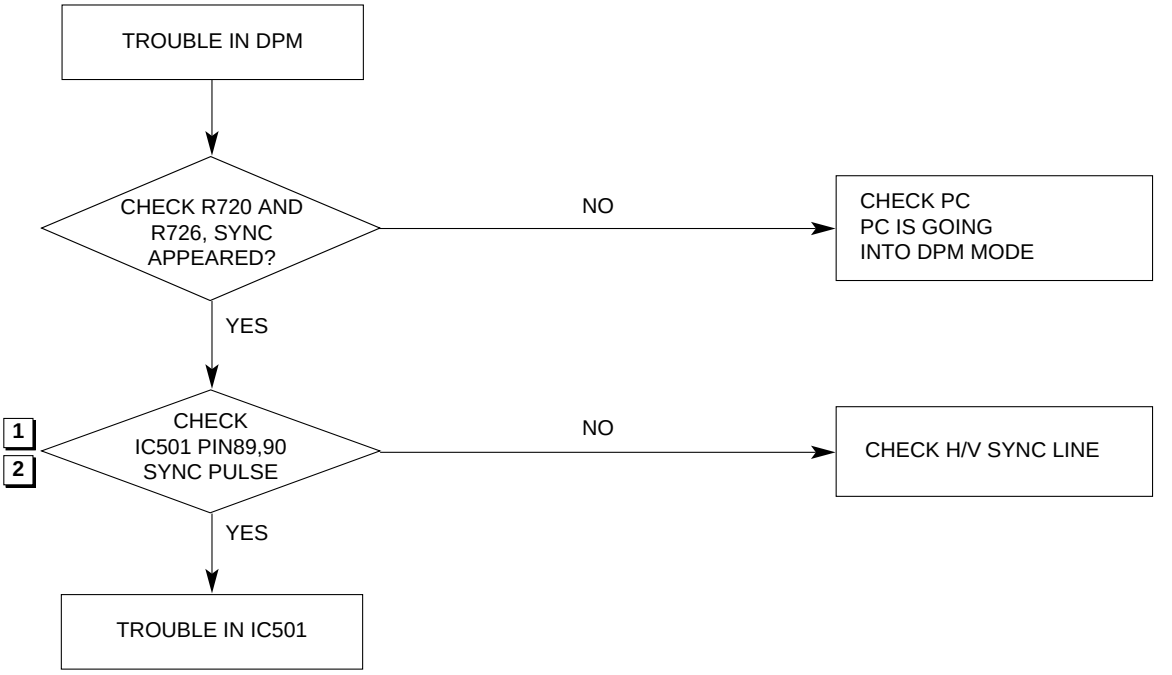


Waveforms

4 IC501-#108

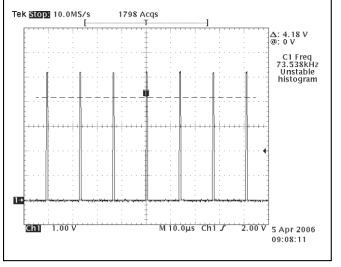


4. TROUBLE IN DPM

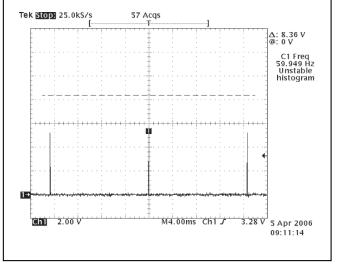


Waveforms

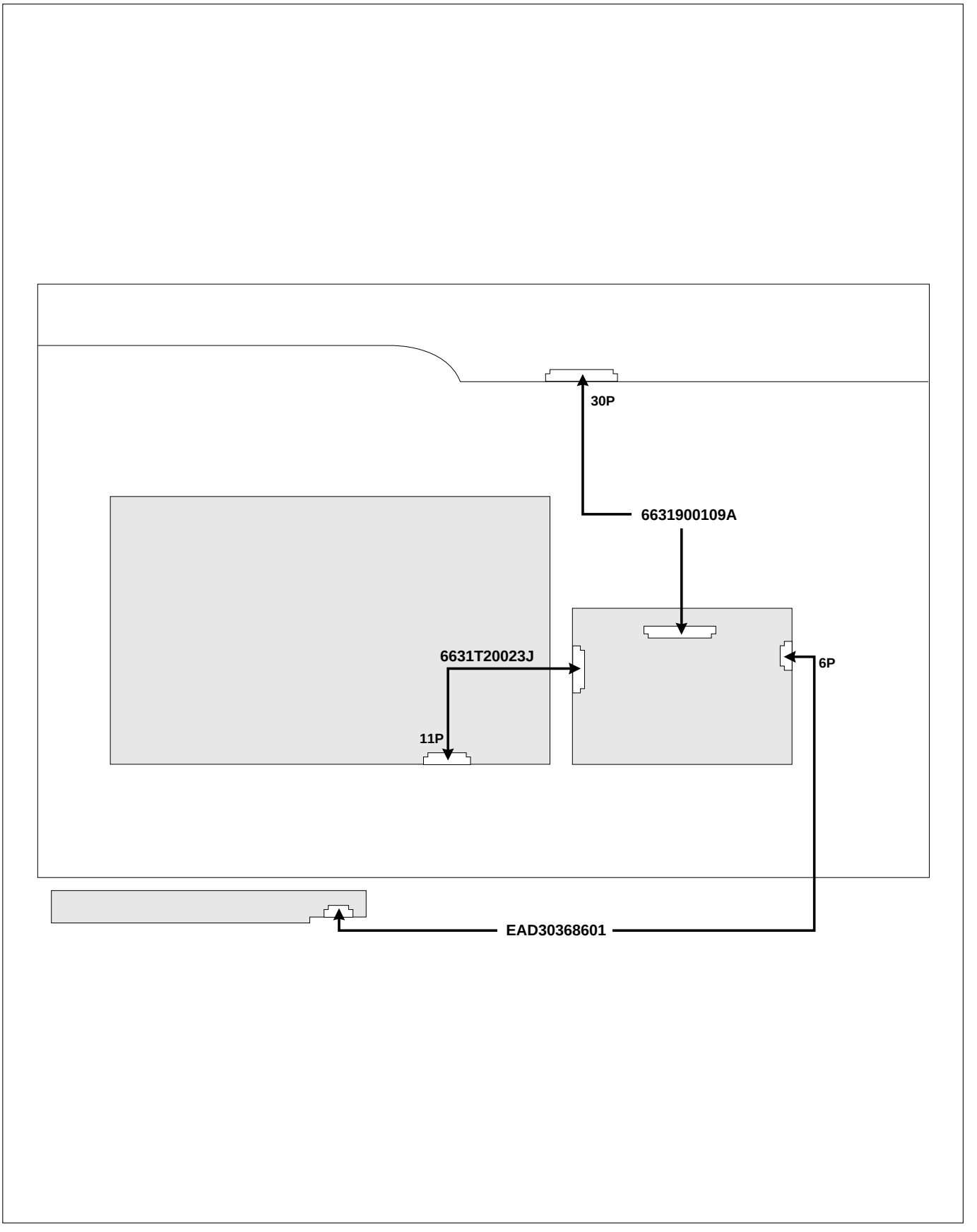
1 H-SYNC



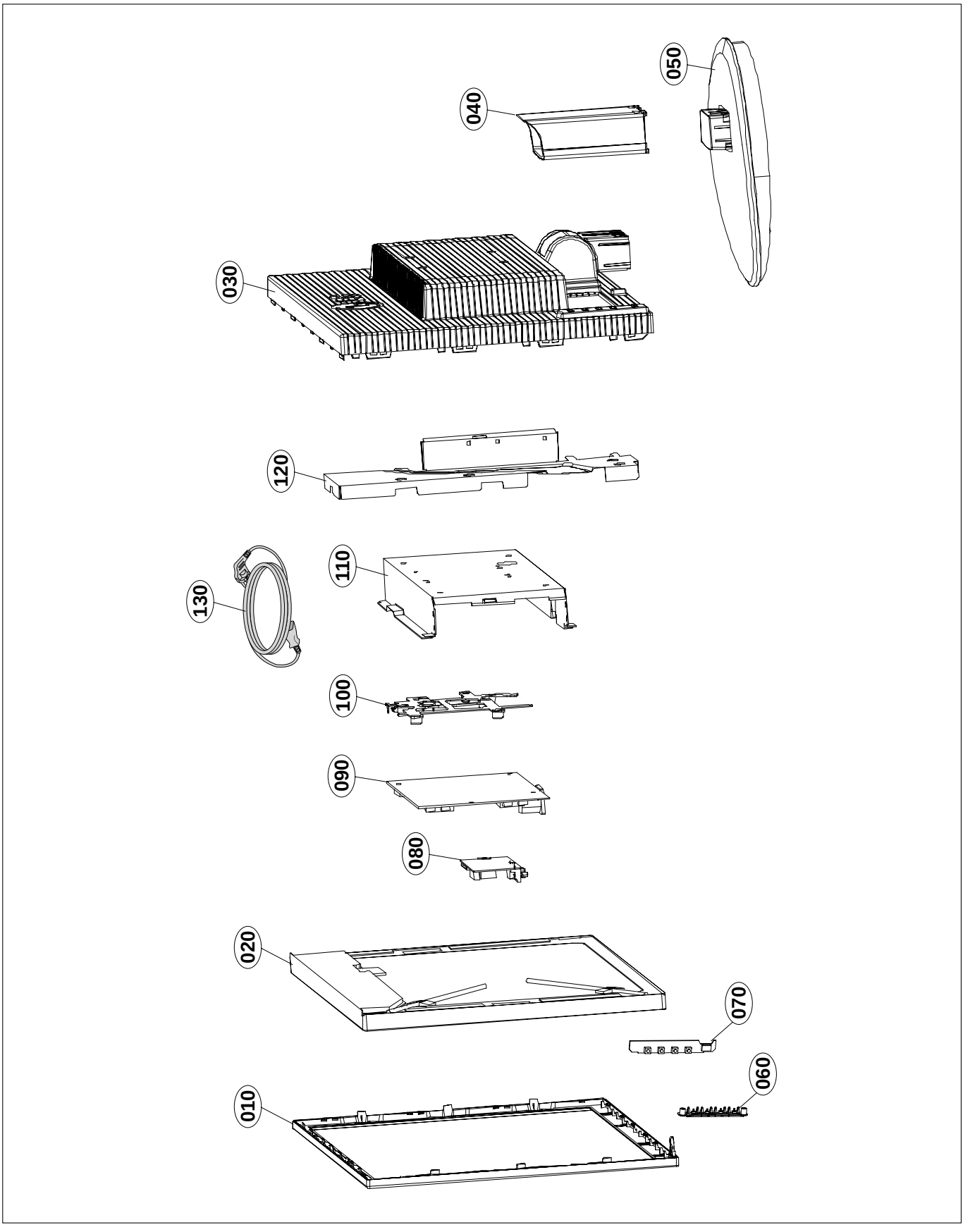
2 V-SYNC



WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

*** Note:** Safety mark

Ref. No.		Part No.	Description
010	⚠	30919L0034F	Cover Assembly, L194WT/WTM ML57G 19" **SILVER**,BRAND,SET,**CHNIA**-ONLY
		30919L0034B	Cover Assembly, L194WT/WTM ML57G 19" **SILVER**,BRAND,SET-**For Australia,U.S.A**
		30919L0034E	Cover Assembly, L194WT/WTM ML57G 19" **BLACK**,BRAND,SET,**CHNIA**-ONLY
		30919L0034A	Cover Assembly, L194WT/WTM LM57G 19" **BLACK**,BRAND,SET-**For Canada**
020	⚠	EAJ30235301	LCD,Module-TFT, HSD190MGW1-A DRIVER 19INCH 1440X900 300CD COLOR 72% 16/10 700:1 WXGA+,5MS,160/160,4LAMP
030	⚠	3809900218A	Cover Assembly, L194W NON BLACK ABS
040	⚠	35509K0346A	Cover, L204 STAND BODY ABS
050	⚠	AAN30377501	Base Assembly, STAND L204WT LM57A SILVER Best-buy-**SILVER**
		3043900057A	Base Assembly, L204 ... ABS-**BLACK**
060		ACQ30549401	Cover Assembly, L194WT . 21" L194WT/L204WT
070		EBR30204401	PCB Assembly, SUB S.T LM57G L204WT-BFQ KRDBQFN CONTORL TOTAL COMMON L294WT
080		EBU30205103	Main Total Assembly, L194WTM-BFQ BRAND LM57G
090	⚠	68719PT298A	PCB Assembly,Power, POWER T.T LM57A L1752S KNRDQPT TOTAL
		or 6709900027A	SMPS,AC/DC, AIVP 100.0VTO240.0V 40W 50TO60HZ UL/CSA/VDE/SEV/SEMKO/FIMKO/IMQ/OVE/BSI WORLD WIDE
100		35509K0247A	Cover, LX52 PIECE COVER VESA
110		49509S0034B	Plate, SHIELD LX52 REAR SHIELD-DUAL
120		49509K0352A	Plate, SHIELD GUIDE L194W
130		6410TCW007A	Power Cord, CCC,LSG-31&RVA18N<F10A&LS-70_1.87M_BLK LSG-31 LS-70 1.87M - 250V 10A RVV 3X0.75MM2 BLACK CCC N-**For China**
		or 64109CP004A	Power Cord, CZHZ20050922008 DTII-3P-L DTII-3P-04 1.87M - 250V 10A RVV3G0.75 BLACK BSI VDE N-**For China**
		6410TSW003A	Power Cord, LP-23A+SAG18N<B10A&LS-13_1.87M_BLK LP-23A LS-13 1.87M - 250V 7.5A GFC-3R 3X0.75MM2 BLACK SAA N-**For Australia**
		6410TUW008A	Power Cord, UL_CSA,LP-31 & SVT 18X3C, LS-13_1.87M_BLK LP-31 LS-13 1.87M - 125V 10A SVT 3XAWG18 BLACK UL CSA N-**For U.S.A**
		6410TUW008A	Power Cord, UL_CSA,LP-31 & SVT 18X3C, LS-13_1.87M_BLK LP-31 LS-13 1.87M - 125V 10A SVT 3XAWG18 BLACK UL CSA N-**For Canada**

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
* NOTE : **S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

DATE: 2006. 06. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C502	0CC080CK11A	C1608C0G1H080DT 8pF 0.5PF 50
		C503	0CC080CK11A	C1608C0G1H080DT 8pF 0.5PF 50
		C504	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C505	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C506	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C507	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C508	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C509	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C510	0CC221CK41A	C1608C0G1H221JT 220pF 5% 50V
		C511	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C512	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C513	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C514	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C515	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C516	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C517	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C518	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C519	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C520	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C521	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C522	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C523	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C524	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C525	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C526	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C527	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C528	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C529	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C530	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C531	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C532	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V
		C535	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V
		C561	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C601	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V
		C602	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C
		C603	0CE227EF638	KMG5.0TP16VB220M 220uF 20% 1
		C604	0CE107EF610	KMG16VB100M 100uF 20% 16V 12
		C605	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C606	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C607	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C608	0CE107EF610	KMG16VB100M 100uF 20% 16V 12
		C609	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C610	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C701	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C703	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C704	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C705	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C706	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C707	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C708	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C709	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C710	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V

DATE: 2006. 06. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C711	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V
		C712	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C713	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C714	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C715	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C716	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C717	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C718	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C719	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C720	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C721	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C722	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V
		C723	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V
		C724	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C725	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		DIODEs		
		D701	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D702	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D703	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D704	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D705	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D706	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D707	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D708	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D709	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D710	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D711	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NS
		D712	0DD184009AA	KDS184 KDS184 TP KEC - 85V -
		D713	0DD184009AA	KDS184 KDS184 TP KEC - 85V -
		D714	0DSON00138A	MMBD301LT1G 600MV 30V - - 1.
		D715	0DSON00138A	MMBD301LT1G 600MV 30V - - 1.
		ZD701	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD702	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD704	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD707	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD708	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD709	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD710	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD720	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ICs		
		IC501	EAN30386101	FE252GH-LF(GM5726H-LF-AB) 1.
		IC502	0IMMRSG036B	M24C16-WMN6TP 16KBIT 2KX8BIT
		IC504	0IKE704200H	KIA7042AP -0.3TO15V 4.2V 400
		IC601	0IPMGSG020A	LD1117DT18TR 3.3TO8V 1.8V 12
		IC602	0IPMGA0010A	AZ1117H-3.3 4.75TO10V 3.3V 0
		IC701	0IMMR00014A	M24C02-RMN6TP 2KBIT 256X8BIT
		IC702	0IMMR00014A	M24C02-RMN6TP 2KBIT 256X8BIT
		TRANSISTOR		
		Q502	0TRDI80002A	MMBT3904-(F) NPN 6V 60V 40V

DATE: 2006. 06. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		Q701	0TR390609FA	KST3906-MTF PNP -5V -40V -40
		Q702	0TR390609FA	KST3906-MTF PNP -5V -40V -40
		RESISTORs		
		R502	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R504	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R507	0RJ2702D677	MCR03EZPJ273 27KOHM 5% 1/10W
		R508	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R509	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R511	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R514	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R515	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R516	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R517	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R518	0RJ2400D677	MCR03EZPJ241 240OHM 5% 1/10W
		R519	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R520	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R521	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R522	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R523	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W
		R524	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W
		R525	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W
		R526	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R527	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R533	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R551	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R563	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R564	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R571	0RJ5601D677	MCR03EZPJ562 5.6KOHM 5% 1/10
		R572	0RJ1102D677	MCR03EZPJ113 11KOHM 5% 1/10W
		R574	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R601	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W
		R602	0RX0331K668	RSD02F4J3R30 3.3OHM 5% 2W 12
		R604	0RJ5600D677	MCR03EZPJ561 560OHM 5% 1/10W
		R620	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R621	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R623	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R624	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R704	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R705	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R706	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R707	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R708	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R709	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R710	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R711	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R712	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R713	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R714	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W
		R715	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R716	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R717	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R719	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R720	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W
		R721	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R722	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R723	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R726	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W
		R727	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R728	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R729	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R730	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R731	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R732	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R733	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R734	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R735	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R736	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R737	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R738	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R739	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R740	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R741	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R742	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R743	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R751	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R752	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R753	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R761	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		OTHERs		
		Q601	0TFVI80067A	SI3865BDV(E3) N-CHANNEL MOSF
		X501	6212AA2004F	HC-49/U 14.31818MHZ 30PPM 14
		POWER BOARD		
		CAPACITORS		
		C101	0CZZ9ST017A	EKM107M2WL35P6 100uF 20% 450
		C102	0CKZTTA002Q	DCH222M46YRN65L0A0 2200pF 20
		C103	0CZZ9ST014A	EGF336R1HE11TCSA 33uF 20% 50
		C104	0CH5271K416	0805N271J500LT 270pF 5% 50V
		C105	0CZZ9ST013A	EKM474M1HD11TC 470nF 20% 50V
		C106	0CK222DK4DA	UMK212CG222JG-T 2.2nF 5% 50V
		C107	0CK1040K945	DCS104Z30Y5VF6FJ5A 100nF -20
		C201	0CKZTTA002E	DG3AHR102K959 1nF 10% 1000V
		C202	0CZZ9ST021A	EGF108M1EG20TCSA 1000uF 20%
		C203	0CZZ9ST020A	EGF687M1EG20TCSA 680uF 20% 2
		C204	0CZZ9ST018A	0CZZ9ST018A(LGE) 1000uF 20%
		C205	0CZZ9ST018A	0CZZ9ST018A(LGE) 1000uF 20%
		C206	0CZZ9ST021A	EGF108M1EG20TCSA 1000uF 20%
		C207	0CZZ9ST019A	EGF477M1EG16TCSA 470uF 20% 2
		C208	0CKZTTA002B	DG3AHR331K959 330pF 10% 1000
		C210	0CH3104K566	0805B104K500CT 100nF 10% 50V
		C301	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V
		C303	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V
		C304	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V
		C305	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V
		C306	0CK224DH56A	0805B224K250CT 220nF 10% 25V
		C307	0CH3104K566	0805B104K500CT 100nF 10% 50V
		C308	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X
		C309	0CK224DH56A	0805B224K250CT 220nF 10% 25V
		C310	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X
		C313	0CH2393K516	0805B393K500CT 39nF 10% 50V
		C314	0CK152DK51A	UMK212 B152KG-T 1.5nF 10% 50
		C315	0CH3103K516	C2012Y5P1H103KT 10nF 10% 50V
		C317	0CH5221K416	0805N221J500LT 220pF 5% 50V
		C320	0CZZTCT006D	C3216X7R1E225M 2.2uF 20% 25V
		C402	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10%
		C403	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S
		C404	0CH2153K516	0805B153K500CT 15nF 10% 50V
		C405	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10%
		C406	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C407	0CH2153K516	0805B153K500CT 15nF 10% 50V
		C409	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10%
		C410	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S
		C411	0CH2153K516	0805B153K500CT 15nF 10% 50V
		C412	0CK22201510	DCH222K43Y5PN6DK0A 2.2nF 10%
		C413	0CZZ9ST028A	ECO3J100J09BS1 10pF 5% 6KV S
		C414	0CH2153K516	0805B153K500CT 15nF 10% 50V
		C415	0CH2222K516	0805B222K500CT 2.2nF 10% 50V
		C417	0CH2222K516	0805B222K500CT 2.2nF 10% 50V
		C418	0CH2222K516	0805B222K500CT 2.2nF 10% 50V
		C419	0CH2222K516	0805B222K500CT 2.2nF 10% 50V
		CX101	0CZZ9ST025A	PCX233712474 470nF 10% 275V
		CY101	0CZZ9ST024A	DCF101K26Y5PG63L0E0 100pF 10
		CY102	0CZZ9ST024A	DCF101K26Y5PG63L0E0 100pF 10
		CY104	0CZZ9ST023A	DCF472M46Y5VG63L0E0 4.7nF 20
	DIODEs			
		BD101	0DRTW00121A	D2SB60-1121 600V 1.05V 10UA
		D101	0DRDI00234A	PR1007 1KV 1.3V 5UA 30A 500N
		D102	0DRDI00244A	IN4007/L 1KV 1V 5UA 30A 500N
		D103	0DSGF00019A	1N4148 1V 100V 150MA 500MA 4
		D306	0DSGD00048A	MM4148 1V 75V 150MA 500MA 4N
		D401	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D402	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D403	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D404	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D405	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D406	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D407	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		D408	0DSDI00038A	BAV99-(F) 1.25V 100V 300MA 2
		ZD101	0DZ330009CC	MTZJ3.3B 3.3V 3.32TO3.5V 120
		ZD301	0DZGD00128A	ZMM5231B 5.1V 4.85TO5.35V 17
	ICs			
		PC201	0IPMG78432A	LTV-817M-V(C) 6V 6V 200MW DI
		U101	0IPMG78425A	FAN7601 20V 5V 1W DIP BK 8P
		U201	0IPMG78424A	AZ431-A 20V_40V 2.5V 1W TO-9
		U301	0IPMG78426A	OZL68GN 4.7V_5.5V 5V 1W SOP
	COILs & FILTERs			
		L202	61409B0009A	HL-1520S 7.0uH 5V 2A 8X15.5M
		FB101	6210TCE003G	BRS3550T0 55TO100OHM 7.25X3.
		LF101	6200J000154	13.0*710*23680 20MH 13X10X23
	TRANSISTOR			
		Q301	0TR144009AI	DTA144EK PNP -40V -0.1V -50V
		Q302	0TR144009AH	DTC144EK NPN 40V 100MV 50V 1
		Q303	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA
		Q304	0TR390609DC	2N3906S-RTK PNP -5V -40V -40
		Q307	0TR390609DC	2N3906S-RTK PNP -5V -40V -40
		Q308	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA
	RESISTORs			
		R101	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W
		R102	0RJ6801E472	RC98TRF6K80 6.8KOHM 1% 1/8W
		R103	0RH1004D622	MCR10EZHJ105 1MOHM 5% 1/8W 2
		R104	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2

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		R105	0RD0912Q609	RDM94T1J91R0 91OHM 5% 1/4W 3
		R106	0RH2201D622	MCR10EZHJ222 2.2KOHM 5% 1/8W
		R107	0RD8203A609	RDM92T1J820K 820KOHM 5% 1/2W
		R108	0RD4702A609	RDM92T1J47K0 47KOHM 5% 1/2W
		R109	0RX0560J609	RSD01T1JR560 560MOHM 5% 1W 9
		R110	0RX1003K607	RSD02T3J100K 100KOHM 5% 2W 1
		R111	0RD0471Q609	RDM94T1J4R70 4.7OHM 5% 1/4W
		R112	0RJ1302E472	MCR10EZHF 1302 13KOHM 1% 1/8
		R115	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W
		R116	0RJ4703G676	MCR18EZHJ474 470KOHM 5% 1/4W
		R117	0RH2403D622	MCR10EZHJ244 240KOHM 5% 1/8W
		R118	0RH2403D622	MCR10EZHJ244 240KOHM 5% 1/8W
		R202	0RX0242K665	RSD02F4J24R0 24OHM 5% 2W 12.
		R204	0RN3002F409	RN-96T1F30K0 30KOHM 1% 1/6W
		R205	0RN2201F409	RN-96T1F2K20 2.2KOHM 1% 1/6W
		R206	0RJ1601E472	MCR10EZHF162 1.6KOHM 1% 1/8W
		R207	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2
		R208	0RH6800D622	MCR10EZHJ681 680OHM 5% 1/8W
		R209	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2
		R211	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W
		R301	0RD1001Q609	RDM94T1J1K00 1KOHM 5% 1/4W 3
		R303	0RH0222D622	MCR10EZHJ220 22OHM 5% 1/8W 2
		R304	0RD1002Q609	RDM94T1J10K0 10KOHM 5% 1/4W
		R309	0RN1502F409	RN-96T1F15K0 15KOHM 1% 1/6W
		R310	0RH1004D622	MCR10EZHJ105 1MOHM 5% 1/8W 2
		R311	0RH1502D422	MCR10EZHF1502 15KOHM 1% 1/8W
		R313	0RJ6202E472	MCR10EZHF 6202 62KOHM 1% 1/8
		R315	0RH2001D622	MCR10EZHJ202 2KOHM 5% 1/8W 2
		R316	0RH2001D622	MCR10EZHJ202 2KOHM 5% 1/8W 2
		R317	0RJ3303E472	MCR10EFPF3303 330KOHM 1% 1/8
		R318	0RJ1503E472	MCR10EZHF1503 150KOHM 1% 1/8
		R319	0RH1303D622	MCR10EZHJ134 130KOHM 5% 1/8W
		R320	0RH1502D422	MCR10EZHF1502 15KOHM 1% 1/8W
		R321	0RH1002D422	MCR10EZHF103 10KOHM 1% 1/8W
		R401	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W
		R402	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W
		R403	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W
		R404	0RJ1001G476	MCR18EZHF1001 1KOHM 1% 1/4W
		R406	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W
		R407	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W
		R408	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W
		R409	0RJ3600E472	MCR10EZHF361 360OHM 1% 1/8W
	OTHERs			
		Q305	0TFDI80001A	2N7002 N-CHANNEL EMFET 60V +
		Q306	0TFDI80001A	2N7002 N-CHANNEL EMFET 60V +
		T101	61709MC011A	EER3016 430uH 7.6uH 0.2OHM 0
		T301	61709MC010A	NY0538FC EFD-2124 95uH 1.7H
		T302	61709MC010A	NY0538FC EFD-2124 95uH 1.7H
		TH101	6322A00035A	10D2-07 10OHM 15% 275V 2.3A
	CONTROL BOARD			
		LED1	0DLBE0048AA	BL-HKBB533B-TRB SUPER YELLOW
		C1	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C2	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		R1	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10
		R2	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10
		R3	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10
		R4	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10
		R5	0RJ1801D677	MCR03EZPJ182 1.8KOHM 5% 1/10

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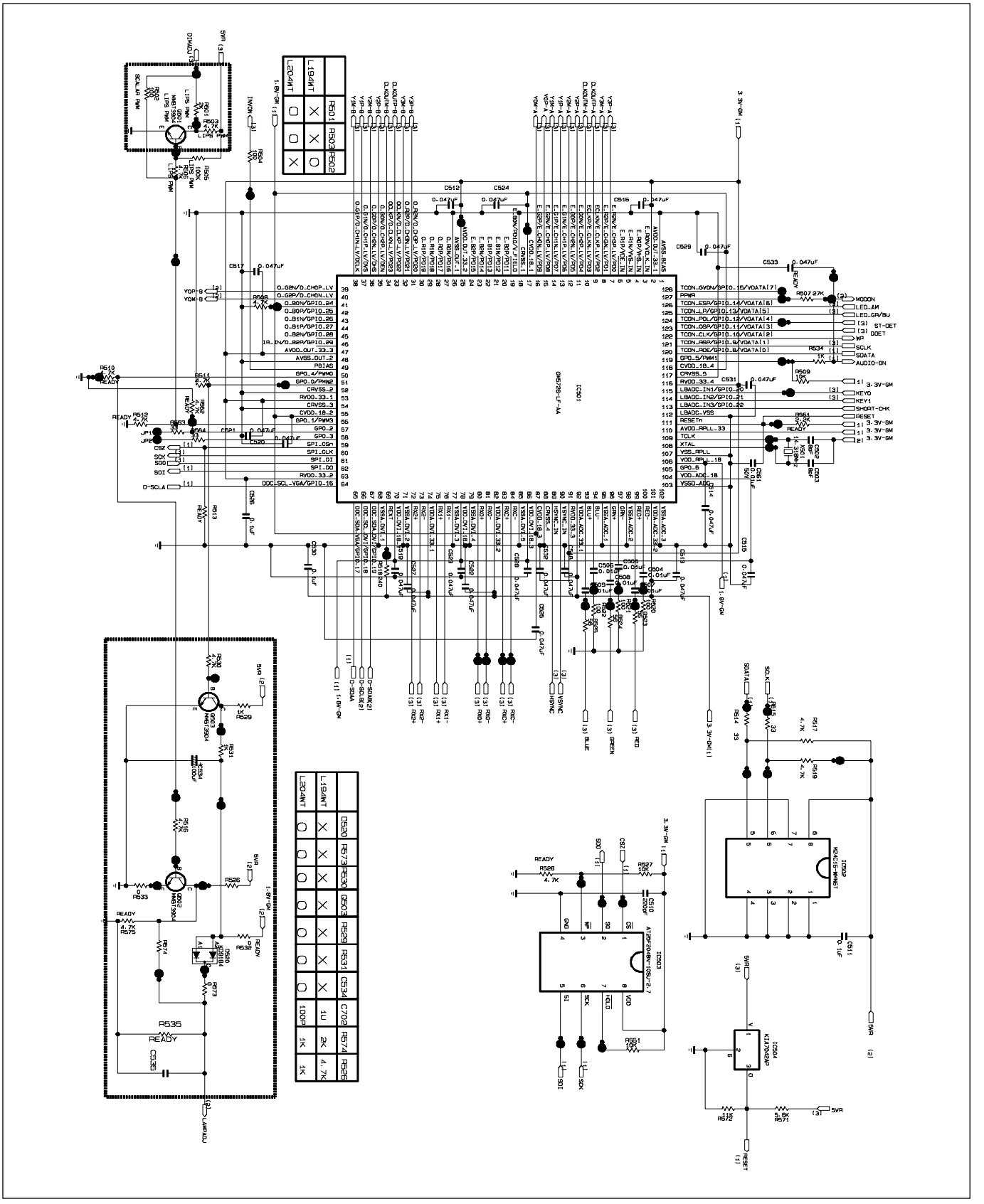
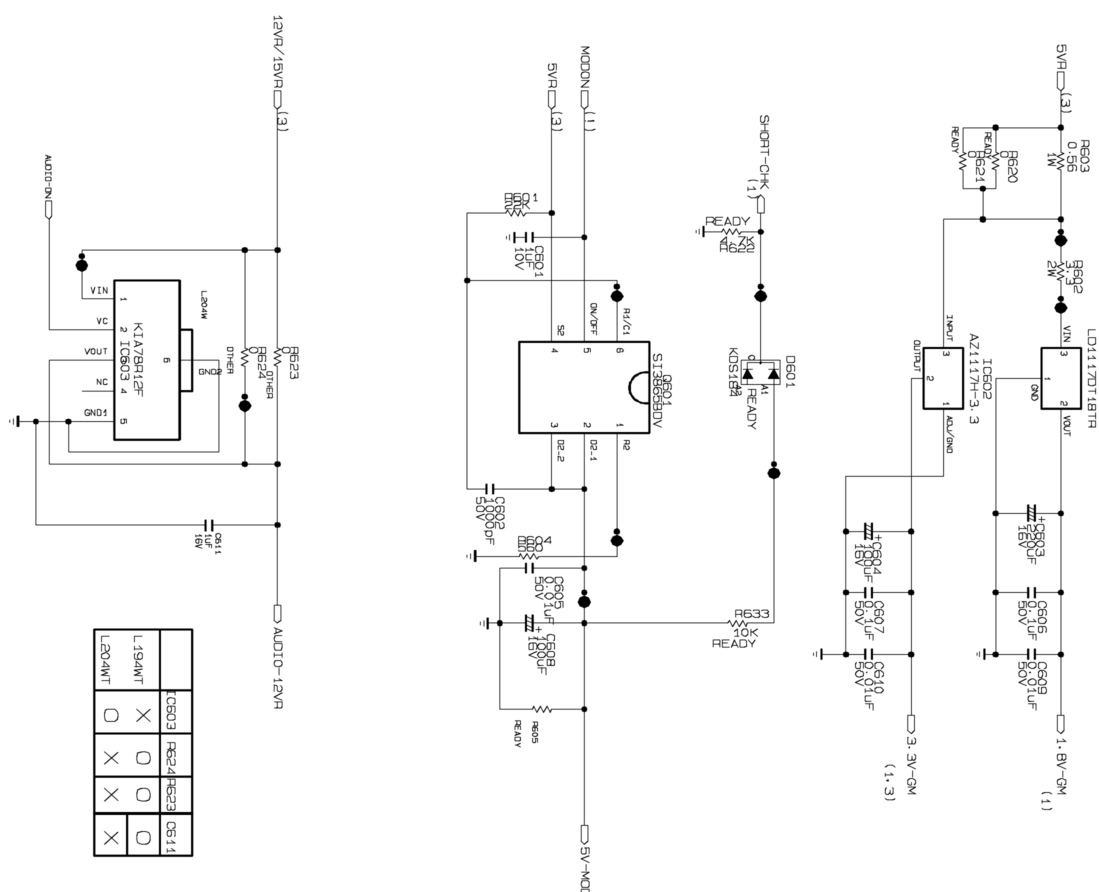
		SW1	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A
		SW2	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A
		SW3	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A
		SW4	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A
		SW5	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A

SCHEMATIC DIAGRAM

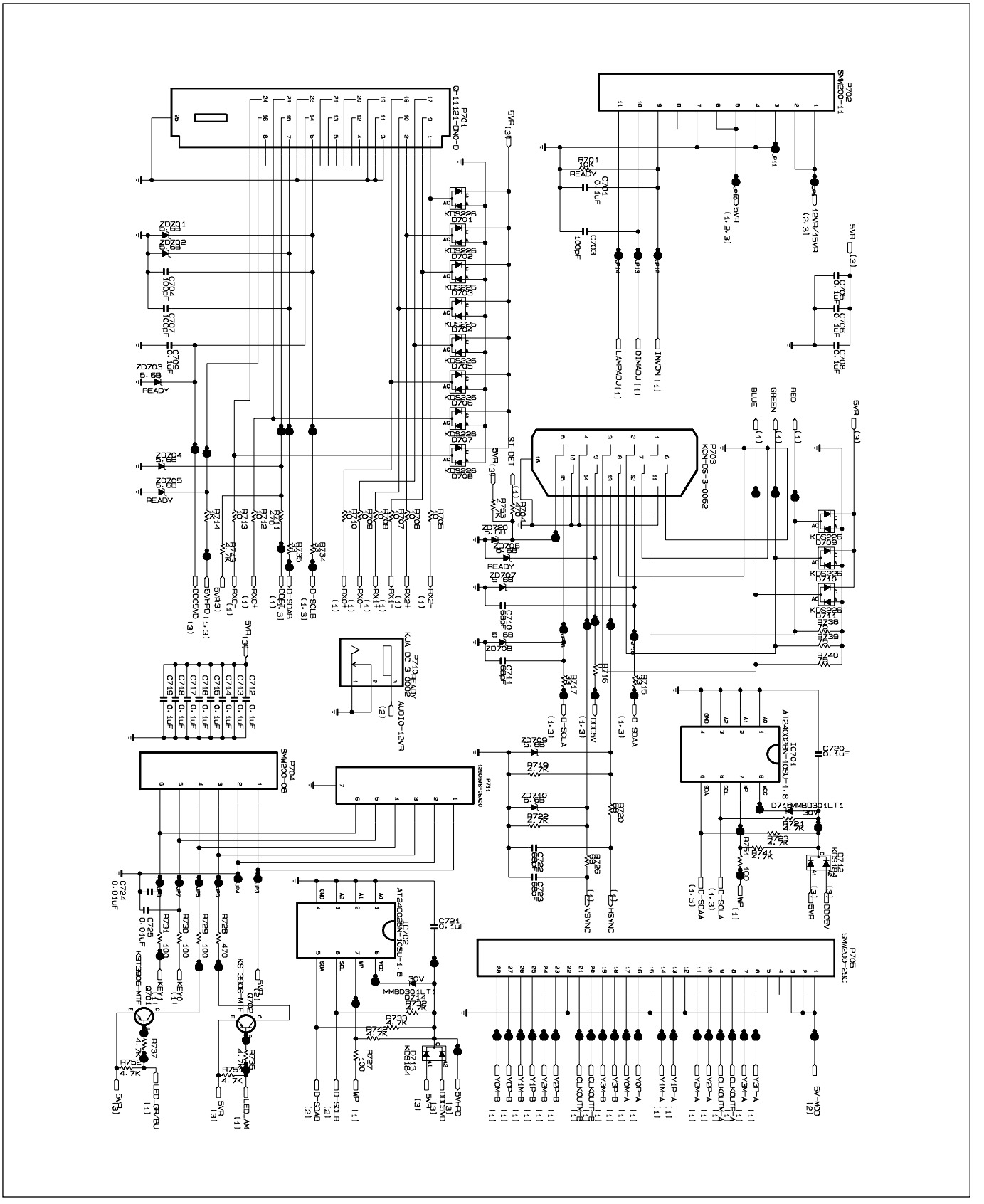
1. SCALER



2. POWER


12VR/15VR
AUDIO-ON
KIA78R12F
IC603
AUDIO-12VR
5VR
MODON
SI3865BDV
Q601
5V-MOD
SHORT-CHK
D601
KDS184
READY
R633
10K
IC602
AZ1117H-3.3
IC601
LD1117DT18TR
3.3V-GM
1.8V-GM
IC603
R624
R623
C611
L194WT
L204WT

3. WAFER



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