Website:http://biz.LGservice.com

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : LM57D

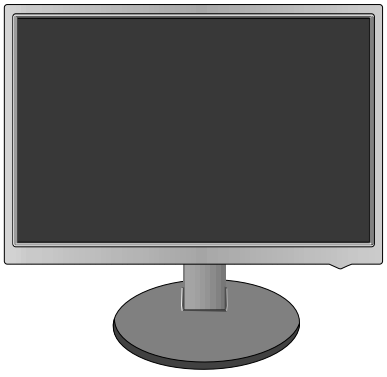
MODEL: FLATRON L196WTQ(L196WTQ-SFQ.AMQP)**

FLATRON L196WTQ(L196WTQ-BFQ.AMQP)**

( ) **Same model for Service

CAUTION

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



*To apply the **MSTAR Chip**.

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Active Display Area	: 19 inch diagonal
Pixel Pitch	: 0.285 (H) x 0.285 (V)
Size	: 427.2(H) x 277.4(V) x 15.3(D)
Color Depth	: 16.7M
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 : -88°(Typ) Right : +88°(Typ)
Top : +85°(Typ) Bottom : -85°(Typ)

2-2. Luminance : 180(Typ) (Typ. $\pm$30)
: 210(min), 300(Typ)-**6500K**
: 150(min)-**9300K**

2-3. Contrast Ratio : 500(min), 850(Typ)
DFC -> 3000 : 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 : 56 ~ 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, 0.8A

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)

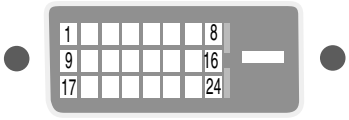
Width : 439.6 mm (17.31")
Depth : 234 mm (9.21")
Height : 384 mm (15.12")

8. WEIGHT (with TILT/SWIVEL)

Net. Weight : 4.6 kg (10.14 lbs)
Gross Weight : 6.1 kg (13.45 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

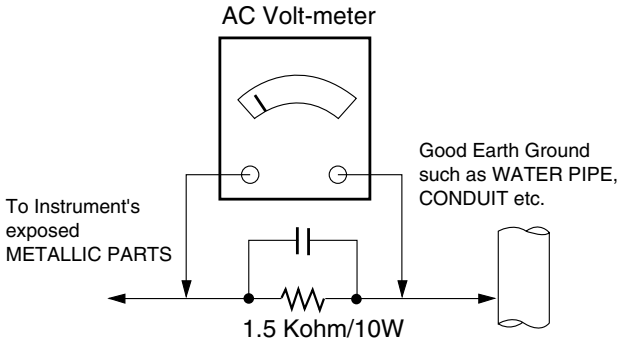
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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).

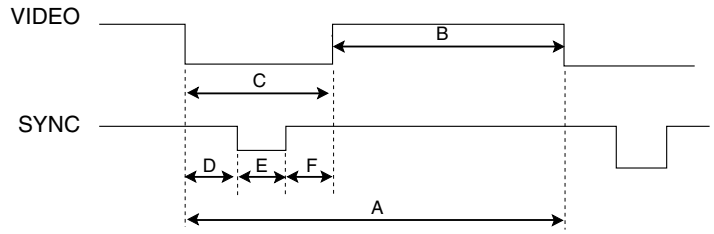
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire 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-Set

 # 1

Remove the screws.

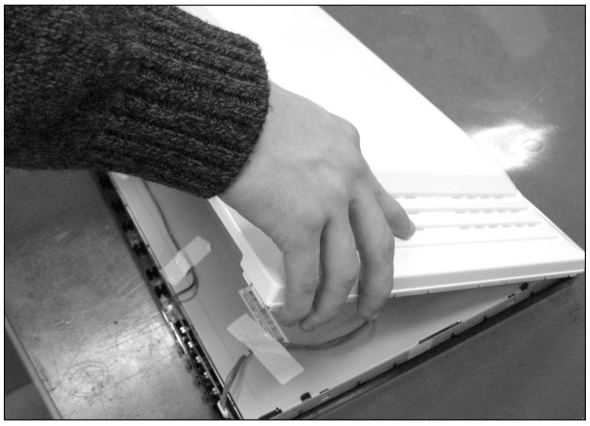
 # 2

Remove the screws.

 # 3

1. Pull the front cover upward.
2. Then, let the all latches are separated.
3. Put the front face down.

 # 4



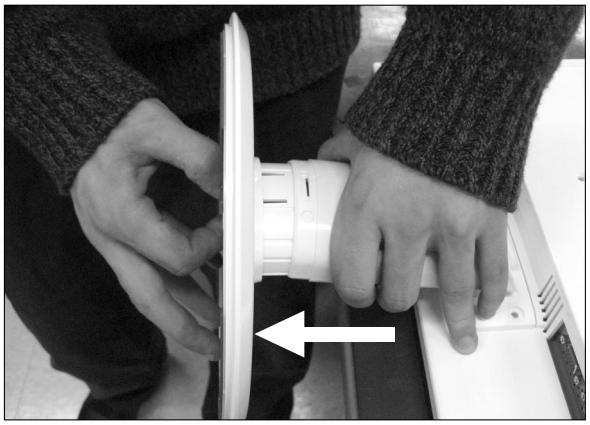
Disassemble back cover.

DISASSEMBLY-Stand

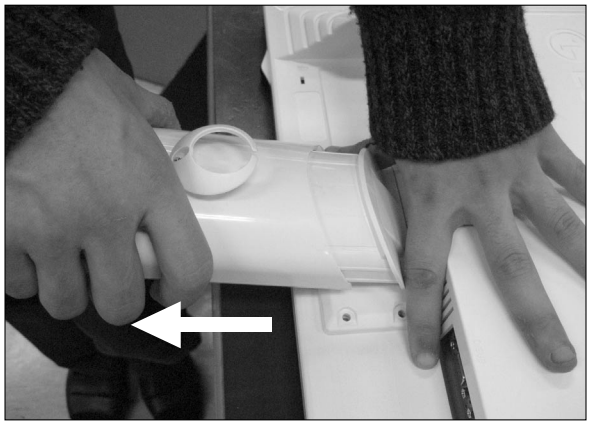
 # 1-1

Pushing Latch inside, Take the stand base from stand body. (#1-1~2)

 # 1-2

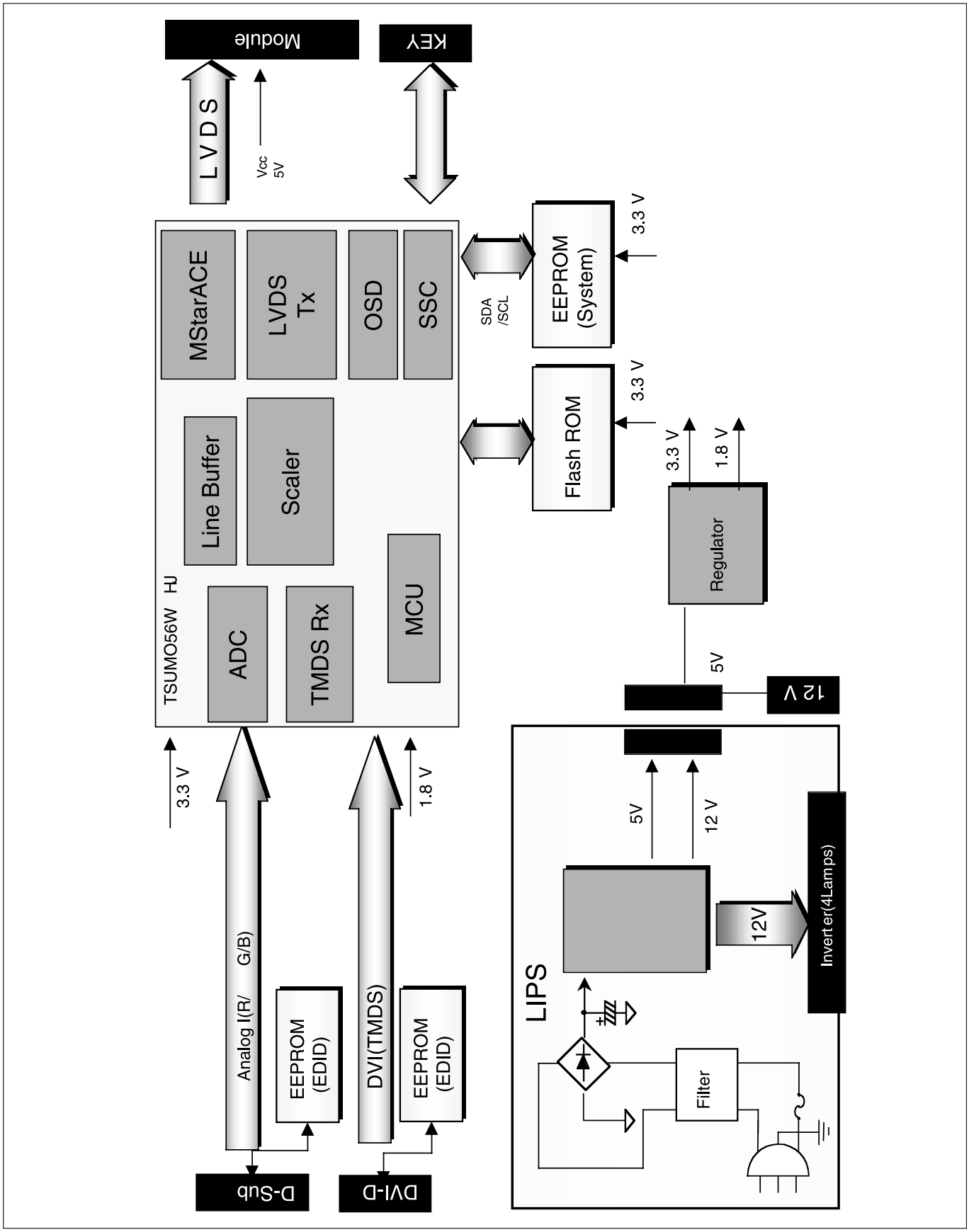


 # 2



Please pull the stand body lightly to separate it from the hinge body.

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 135MHz In L196WTQ/WTG.

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 1440X900(L196WTQ/WTG) 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 in L196WTQ/WTG.

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 820Vrms and operates back-light lamps of module in L196WTQ/WTG.

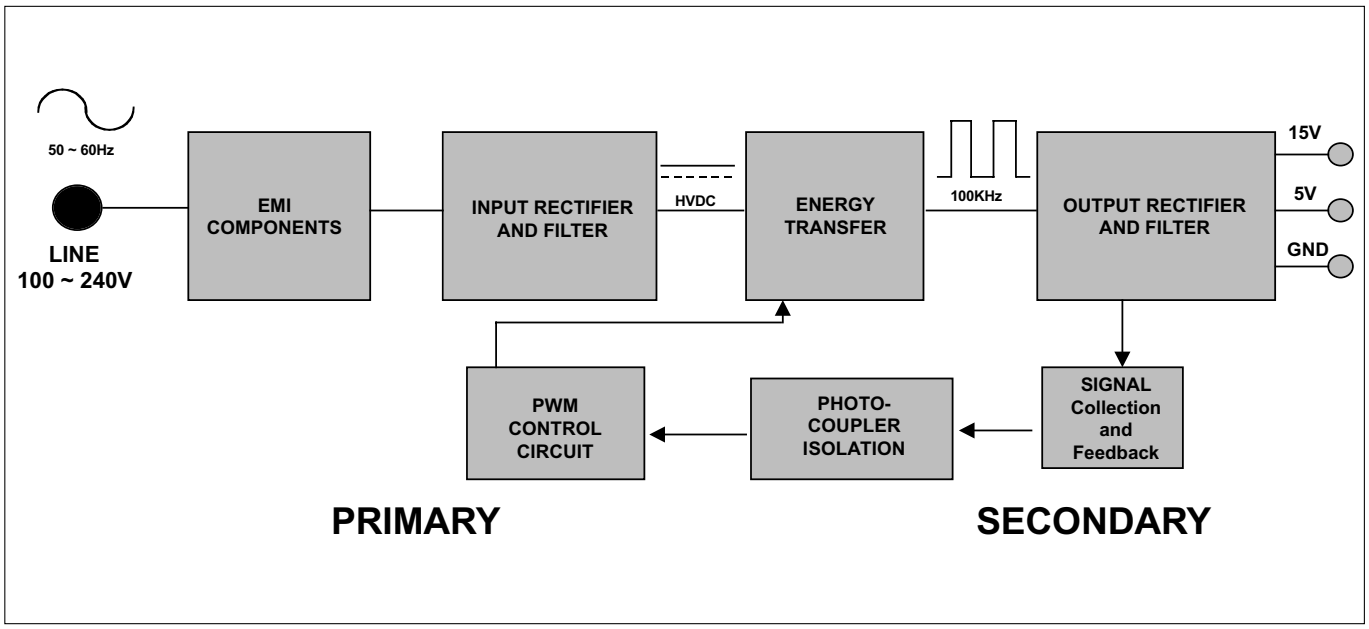
3. MICOM Part.

This part is include video controller part. And this part consists of EEPROM IC , 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.

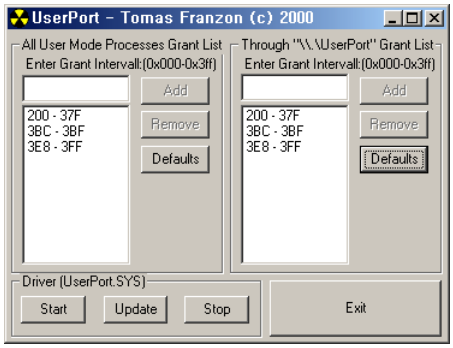
This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

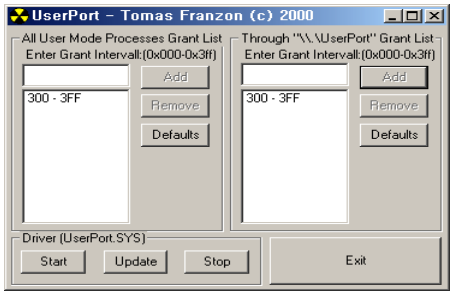
Windows EDID V1.0 User Manual

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

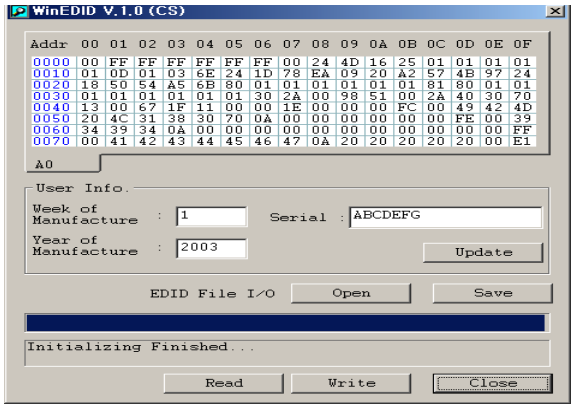


   c) Remove all default number
   d) Add 300-3FF

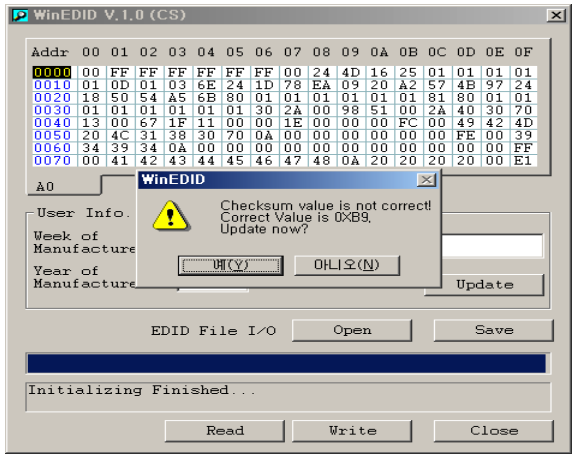


   e) Click Start button.
   f) Click Exit button.

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)

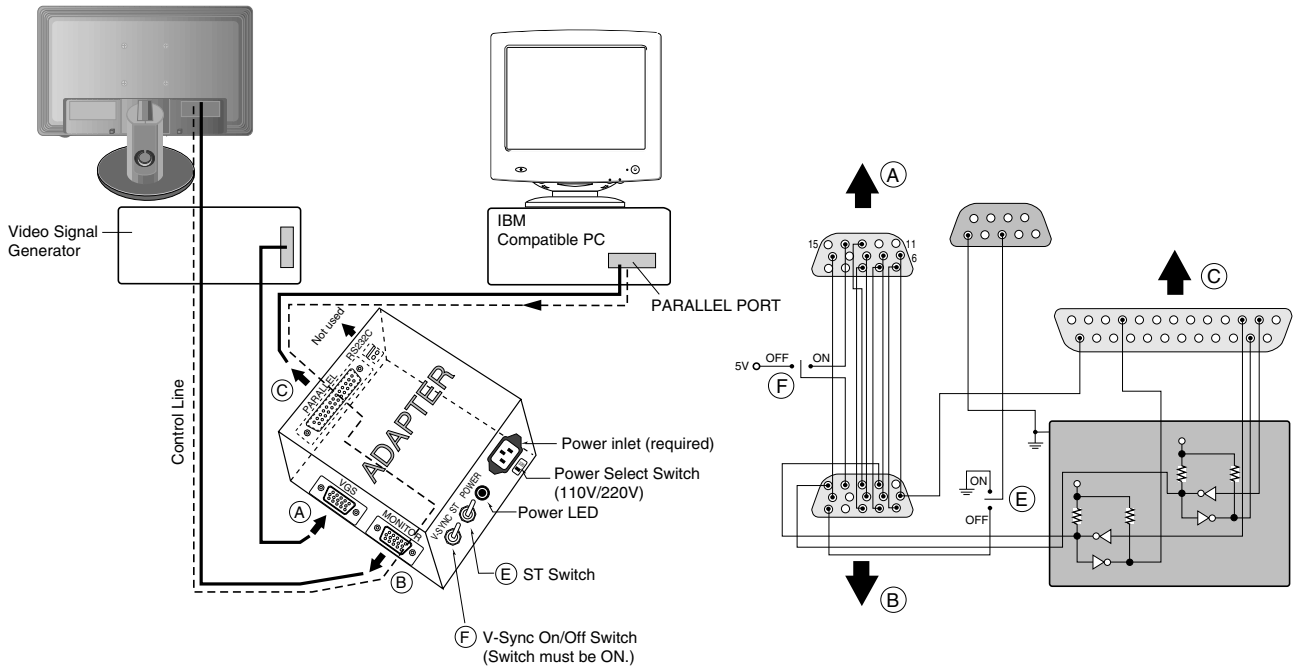
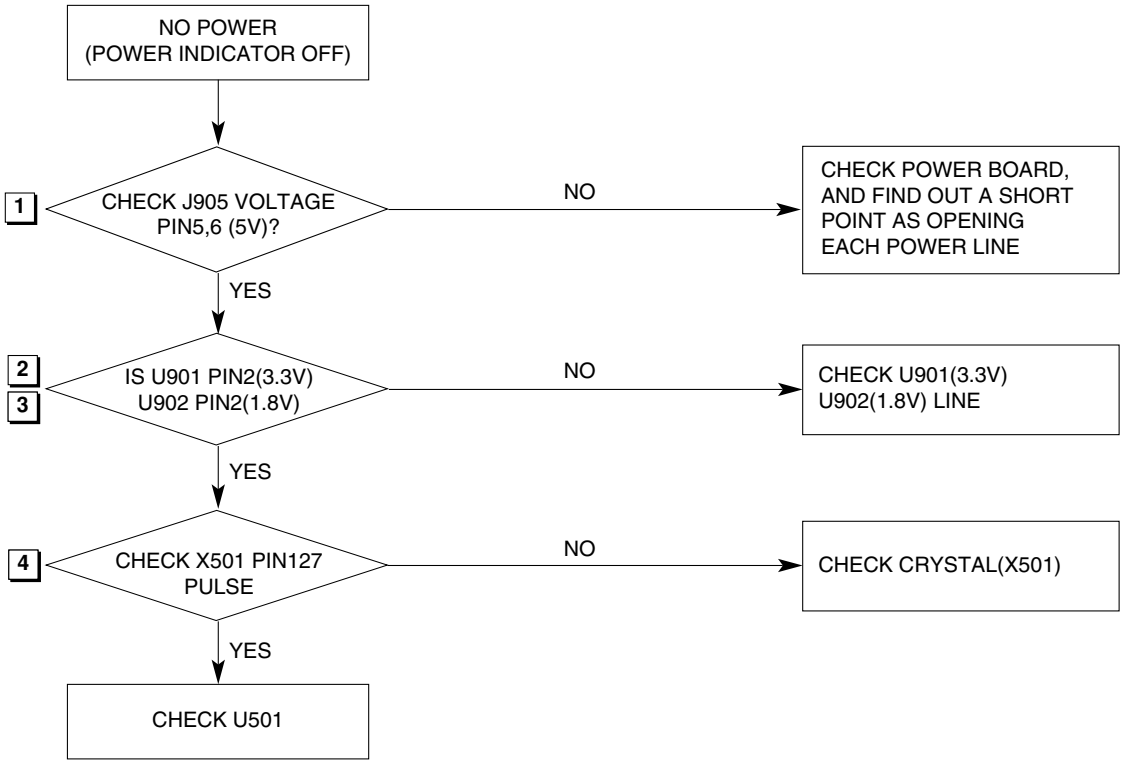


Figure 1. Cable Connection

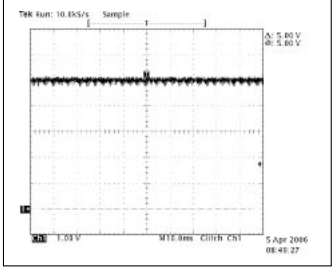
TROUBLESHOOTING GUIDE

1. NO POWER

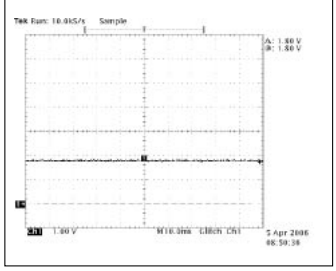


Waveforms

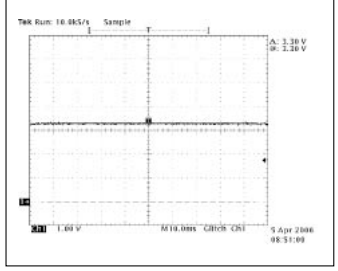
1 J905-#5,6



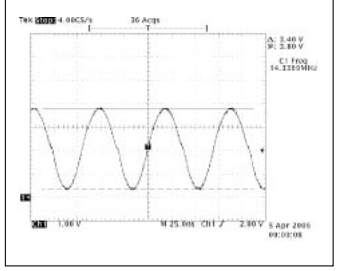
2 U901-#2



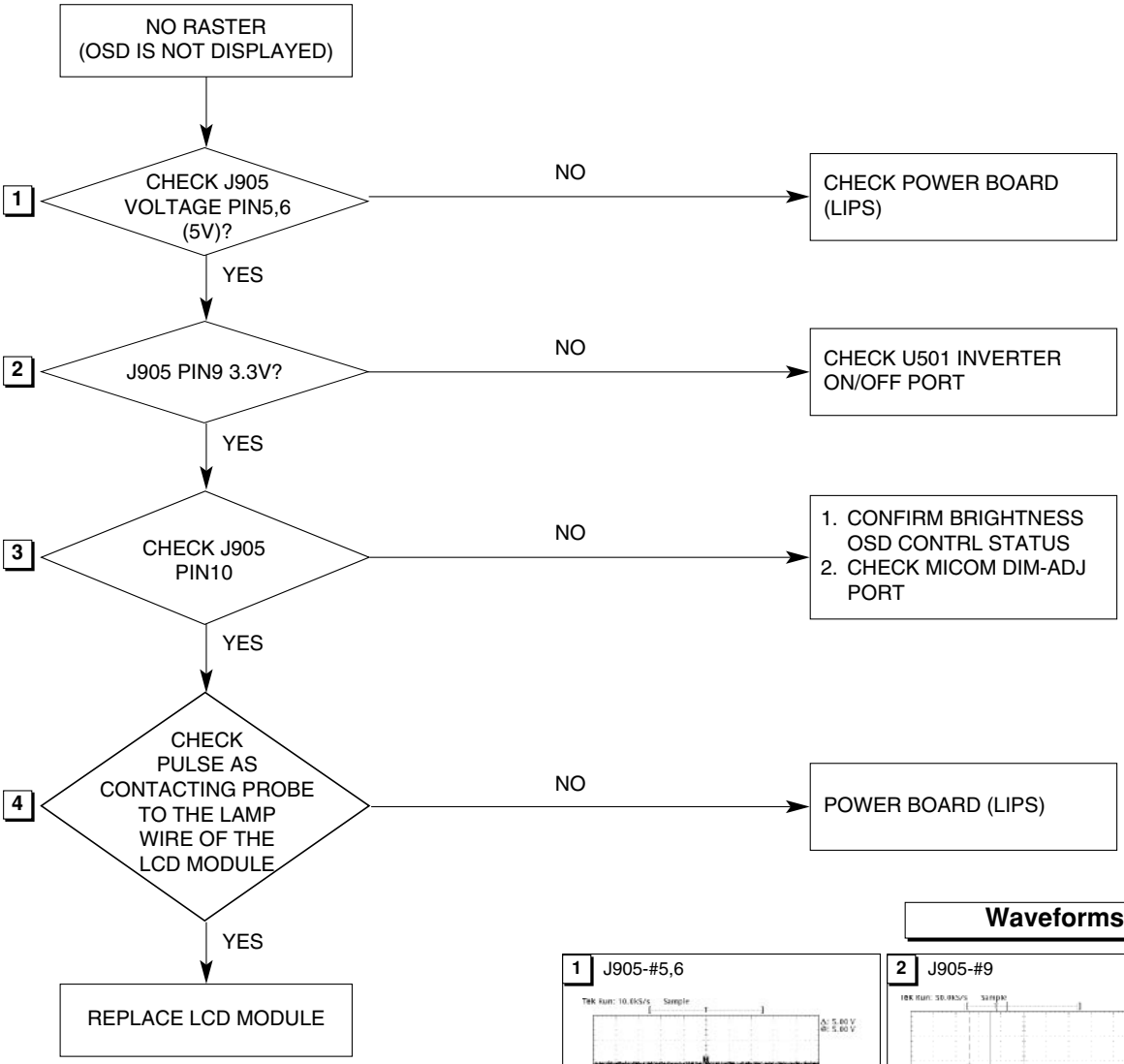
3 U902-#2



4 U501-#127

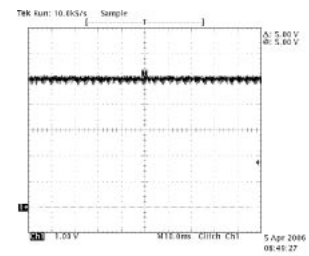


2. NO RASTER (OSD IS NOT DISPLAYED) – LIPS

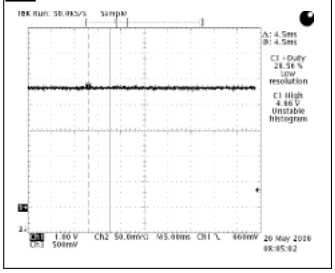


Waveforms

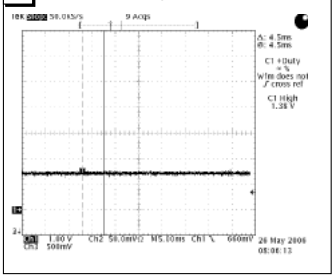
1 J905-#5,6



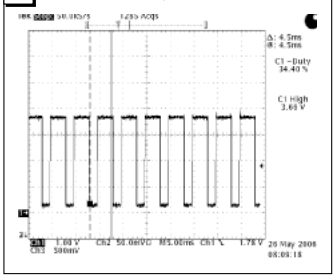
2 J905-#9



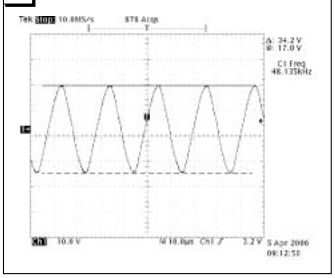
3 J905-#10 (Brightness 100)



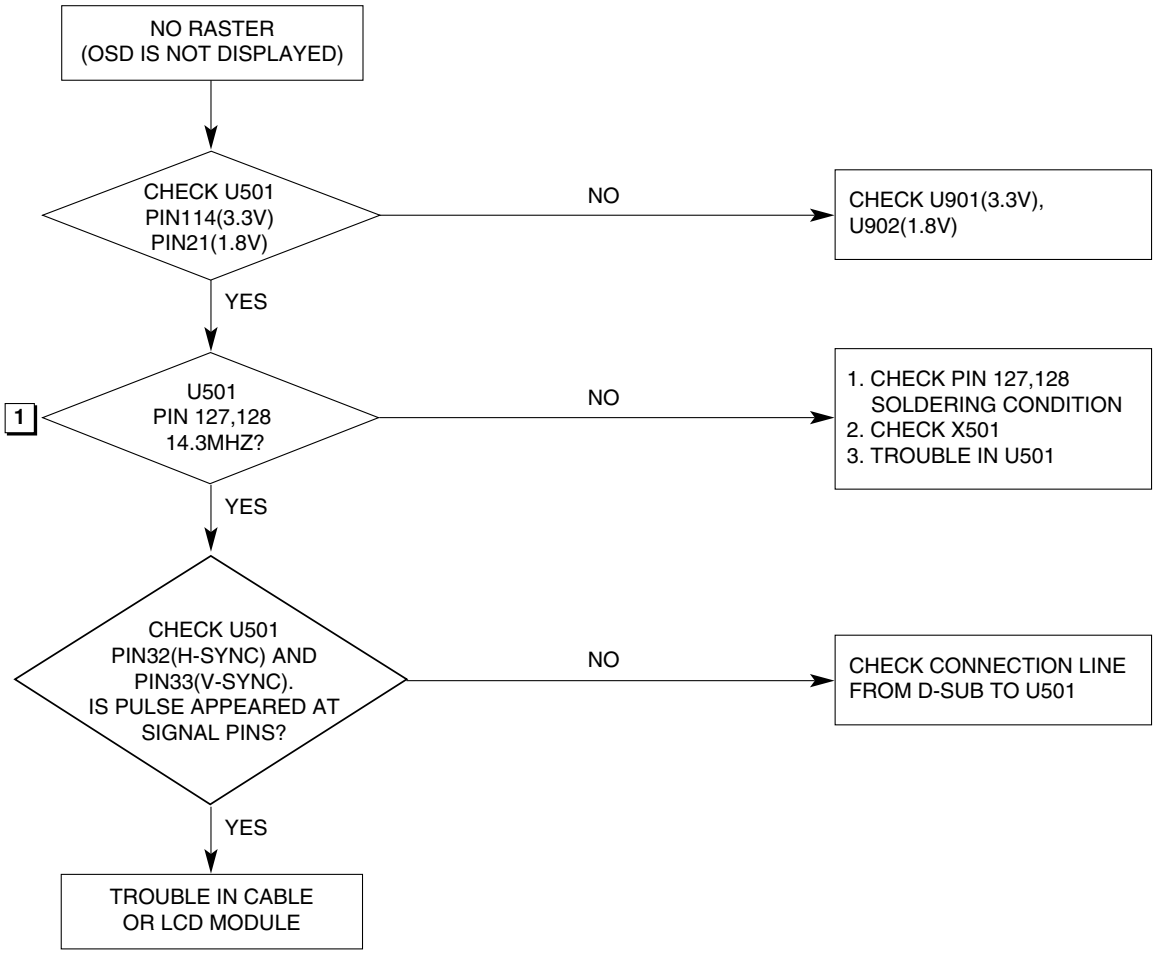
3 J905-#10 (Brightness 0)



4 LAMP CURRENT

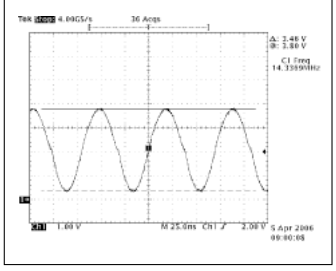


3. NO RASTER (OSD IS NOT DISPLAYED) - MAIN

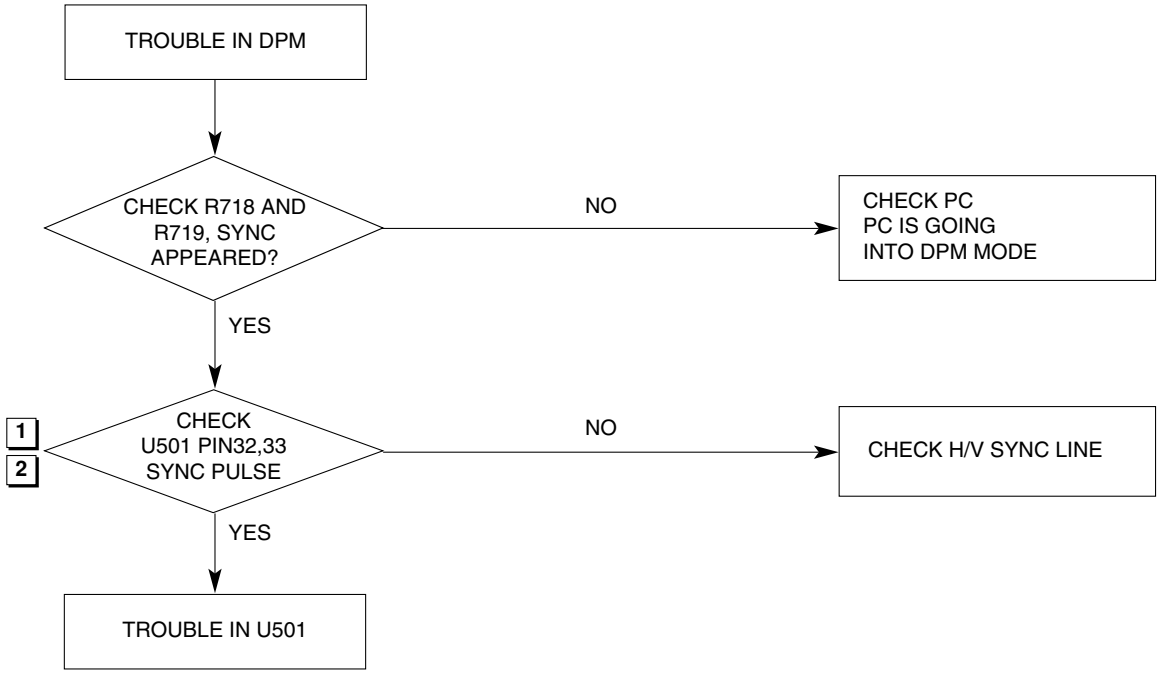


Waveforms

1 U501-#30

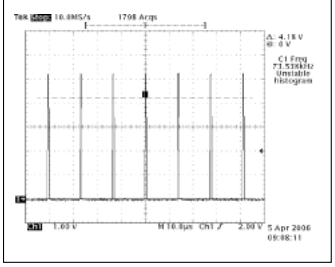


4. TROUBLE IN DPM

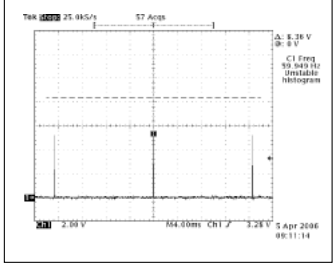


Waveforms

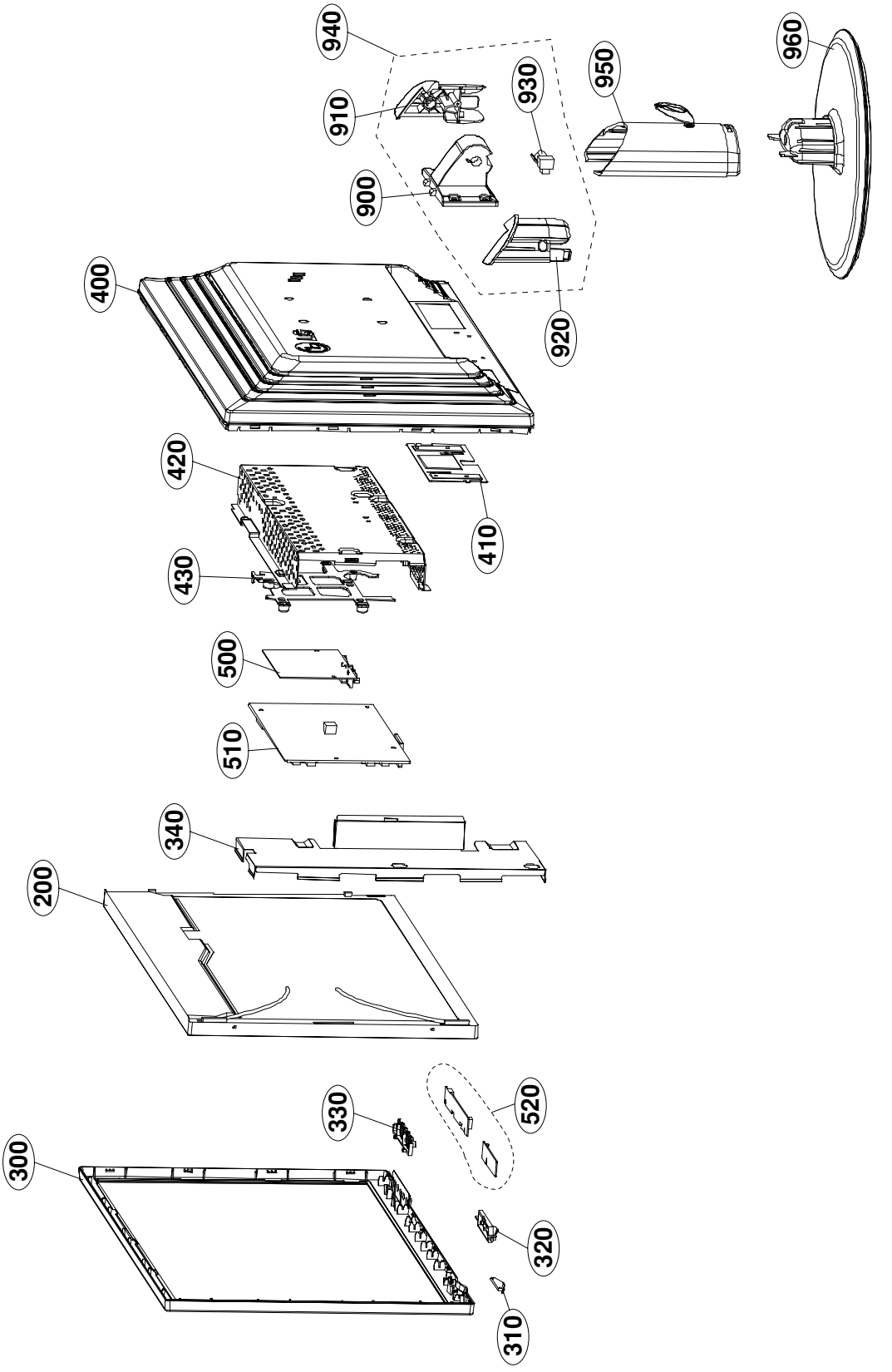
1 H-SYNC



2 V-SYNC



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

*** Note:** Safety mark

Ref. No.		Part No.	Description
200	⚠	EAJ33945401	LCD,Module-TFT, ***M190A1-L02 ZBD DRIVER 19INCH 1440X900 300CD COLOR*** 72% 16/10 850:1 ZBD 170/160 5ms CHI MEI OPTOELECTRONICS CORP
		EAJ33945402	LCD,Module-TFT, ***M190A1-L02 NON-ZBD DRIVER 19INCH 1440X900 300CD COLOR*** 72% 16/10 850:1 NON-ZBD 170/160 5ms CHI MEI OPTOELECTRONICS CORP
300	⚠	ABJ33081204	Cabinet Assembly, L196W LM62B 19" Cabinet Assy' , MT11010, **Silver**, 02-CKD
		ABJ33081203	Cabinet Assembly, L196W LM62B 19" Cabinet Assy' , MT11010, BK. 01-CKD-**BLACK**
310		MFB35938701	Lens, MOLD PMMA BenQ LENS Lx6W Eagle Eye, PMMA
320		MEY35940502	Knob, MOLD ABS HF-350 SUB 1 keys Lx6W(19"/20") Power knob , light gray(89483)-**SILVER**
		MEY35940501	Knob, MOLD ABS 380 SUB 1 keys Lx6W Power knob.-**BLACK**
330		MEY35940302	Knob, MOLD ABS HF-350 SUB 5keys Lx6W(20"/19") ABS HF 350, light gray(89483)-**SILVER**
		MEY35940301	Knob, MOLD ABS 380 SUB 5keys Lx6W(20"/19") ABS HF 380-**BLACK**
340		MDQ35942002	Frame, PRESS SPTE 0.3 L196W METAL LampWire shield. 01-CKD
400	⚠	ACQ32509905	Cover Assembly,Rear, L196WT LM62B 19" Back Cover Assy,BK, CMO, 04-CKD
410		MJH35943001	Supporter, PRESS EGI 0.8 GUIDE EGI Metal stand bracket
420		49519S0038R	Plate Assembly, ASSY L196WT CMO, DUAL, "P"-CKD
430		35509K0247A	Cover, MOLD ABS AF-320T L1752TX ABS .
500		EBU36414401	Main Total Assembly, L196WTQ-WQF BRAND LM57D-**EEMA**
		EBU36414402	Main Total Assembly, L196WTQ-WQF BRAND LM57D-**ESSP**
510	⚠	6709900027A	SMPS,AC/DC, AIVP 100VTO240V 40W 50TO60HZ UL/CSA/VDE/SEV/SEMKO/FIMKO/IMQ/OVE/BSI WORLD WIDE LIEN CHANG
520		EBR35809101	PCB Assembly,Sub, CONTROL T.T LM62B L196/206WT AXXXXFX L196/206 CONTROL ASSEMBLEY TOTALGUMI-**EEMA**
		EBR35809102	PCB Assembly,Sub, CONTROL T.T LM62B L196/206WT KWZBQFS L196/206 CONTROL ASSEMBLEY TOTAL BRAZIL CKD-**ESSP**
900		MCK35941602	Cover, MOLD ABS Lx6W ABS HF-350, Hinge Cover Body. (BK)
910		MCK35941502	Cover, MOLD ABS Lx6W ABS HF-350, Hinge Left cover. (BK)
920		MCK35941402	Cover, MOLD ABS Lx6W ABS HF-350, Hinge Right cover. (BK)
930		ABA31569202	Bracket Assembly, STAND L196W/L206W LM62B Hinge Assy
940	⚠	AAN32510104	Base Assembly, STAND L206W/L196W LM62B Stand Hinge body Assy.(BK), 03-CKD
950	⚠	AAN32533504	Base Assembly, STAND L206W/L196W LM62B stand body Assy, Black, 03-CKD
960	⚠	AAN32510204	Base Assembly, STAND L206W/L196W LM62B Stand base Assy, RAVEN BLACK, 03-CKD

REPLACEMENT PARTS LIST

DATE: 2007. 01. 17.

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		CAPACITOR
C501	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C502	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C503	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C504	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C505	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C506	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -
C507	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C508	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R
C509	0CC270CK41A	C1608C0G1H270JT 27pF 5% 50V C0G
C510	0CC270CK41A	C1608C0G1H270JT 27pF 5% 50V C0G
C511	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P
C512	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P
C513	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C514	0CK224CF56A	0603B224K160CT 220nF 10% 16V X7R
C515	0CE106CF638	SHL5.0TP16VB10M 10uF 20% 16V 0A
C516	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C517	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C518	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C519	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C520	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C521	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C522	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C523	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C524	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C525	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C526	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C527	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C528	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C529	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C530	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C531	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C532	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C533	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C534	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C535	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C536	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C537	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C538	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C701	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G
C702	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G
C703	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G
C704	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R
C705	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G
C706	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C707	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C708	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C709	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C710	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C711	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C712	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C713	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C714	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G
C715	0CC680CK41A	C1608C0G1H680JT 68pF 5% 50V C0G
C716	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C717	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C718	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C719	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C720	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C723	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R
C724	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R
C725	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G
C901	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA
C902	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P
C903	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -
C904	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R
C905	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA
C906	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA
C907	0CE107EF610	KMG16VB100M 100uF 20% 16V 125MA
C908	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R
C909	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R
C910	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R
C911	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -
C912	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -
C913	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -
C914	0CE227EF610	KMG16VB220M 220uF 20% 16V 213MA
		CONNECTORs & WAFERs
C1	6631900109A	"Harness,Single",(FOOSUNG)DCE153B-
C2	6631T20023J	"Harness,Single",11P(2.0MM) SMH200-11
C3	6631T12002H	"Harness,Single",6P(1.25MM) 12505HS-06P
C4	6631V12031G	"Harness,Single",12505HS-0400 12505HS-
J1	6602T12005E	"Connector,Wafer",12505WR-06A00 6P
J2	6602T12005C	"Connector,Wafer",12505WR-04A00 4P
J3	6602T12005C	"Connector,Wafer",12505WR-04A00 4P
J901	6630TGA005B	"Connector,DSUB",QH11121-DN0-D DVI 24P
J902	6630TGA004F	"Connector,DSUB",KCN-DS-3-0062 D-SUB
J905	6602T20008K	"Connector,Wafer",SMW200-11P 11P 2.00MM
J906	6630V90219A	"Connector,Wafer",SMW200-28C 28P 2.0MM
J907	6602T12004E	"Connector,Wafer",12505WS-06A00 6P
		DIODEs
D701	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D702	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D703	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D704	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
D705	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D706	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D707	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D708	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D709	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D710	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D711	0DS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 1
D712	0DSON00138A	MMBD301LT1G 600MV 30V - - 1.5pF
D713	0DD184009AA	KDS184 KDS184 TP KEC - 85V - - -
D714	0DSON00138A	MMBD301LT1G 600MV 30V - - 1.5pF
D715	0DD184009AA	KDS184 KDS184 TP KEC - 85V - - -
ZD1	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD2	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD3	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD4	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD701	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD702	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD703	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD704	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD705	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD708	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD709	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
ZD710	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OH
FILTERs		
L901	0LCML00003B	MLB-201209-0120P-N2 120OHM 2X1.2
L902	0LCML00003B	MLB-201209-0120P-N2 120OHM 2X1.2
L903	0LCML00003B	MLB-201209-0120P-N2 120OHM 2X1.2
ICs		
U501	0IPRP00784B	"TSUMO5PWHJ-LF 3VTO3.6V,1.5VTO1.9"
U502	EAN36412701	L196WTQ-WQF.AEUQQPX
U503	0IMMRSG036B	M24C16-WMN6TP 16KBIT 2KX8BIT 2.5
U701	0IMMR00014A	M24C02-RMN6TP 2KBIT 256X8BIT 1.8
U702	0IMMR00014A	M24C02-RMN6TP 2KBIT 256X8BIT 1.8
U901	0IPMGFA003G	FAN1117AS33X 4.8TO10.3V 3.3V - S
U902	0IPMGSG016A	LD1086D2T18TR 3.4TO30V 1.8V - D2
RESISTORs		
R1	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 16
R2	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 16
R3	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10W 16
R4	0RJ1801D677	MCR03EZPJ182 1.8KOHM 5% 1/10W 16
R5	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10W 16
R501	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R502	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608
R503	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R504	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608
R505	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 160
R506	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R507	0RJ0562D677	MCR03EZPJ560 56OHM 5% 1/10W 1608

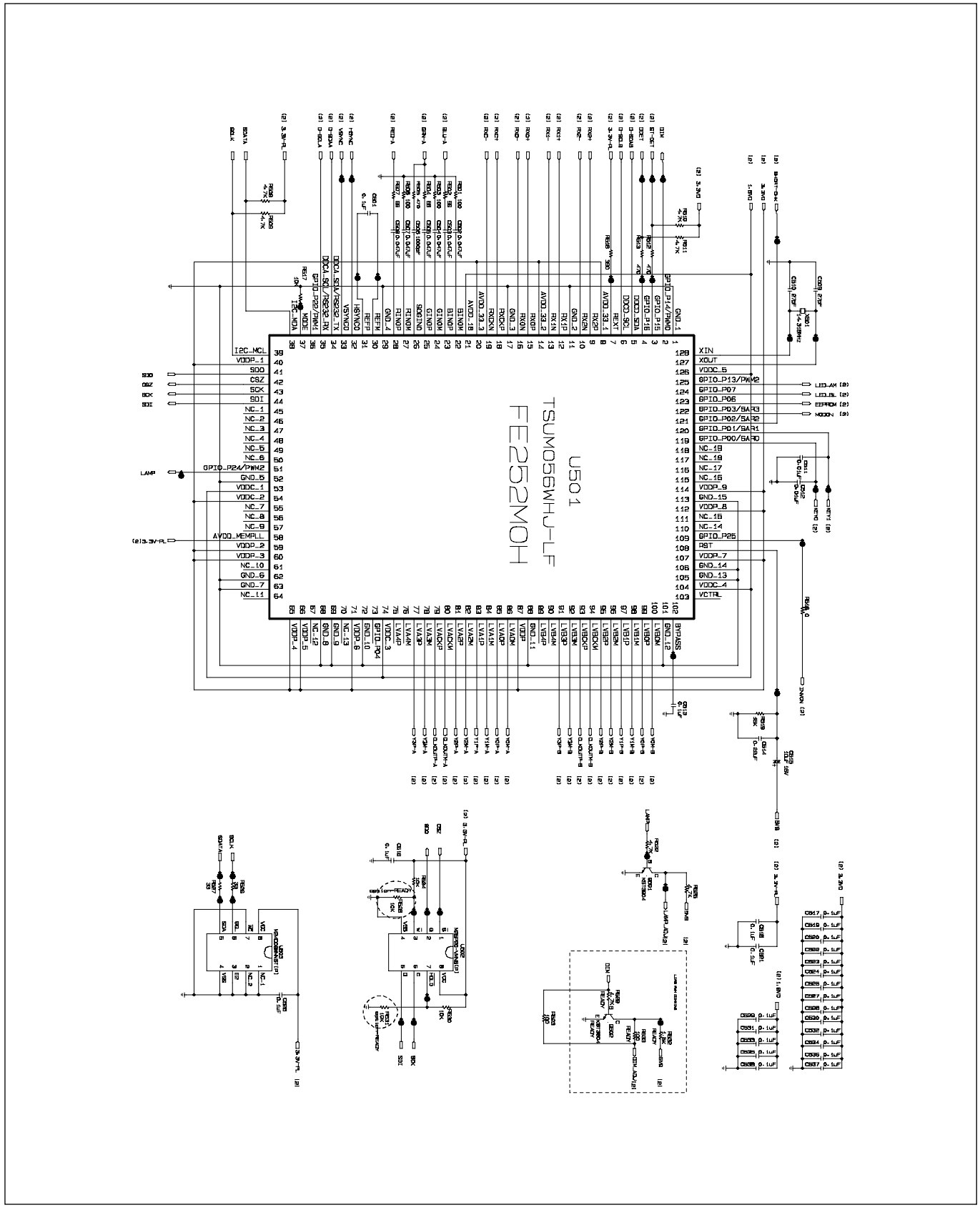
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R508	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R509	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R510	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R511	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R512	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 160
R513	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 160
R516	0RJ3900D677	MCR03EZPJ391 390OHM 5% 1/10W 160
R517	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 160
R518	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
R519	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 160
R522	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R523	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R524	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 160
R525	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R526	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R527	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R530	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 160
R6	0RJ1801D677	MCR03EZPJ182 1.8KOHM 5% 1/10W 16
R701	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R702	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R703	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R704	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R705	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R706	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R707	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R708	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R709	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R710	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R711	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
R712	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R713	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W 1608
R714	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608
R715	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
R716	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R717	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608
R718	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608
R719	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608
R720	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608
R721	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608
R722	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608
R723	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
R724	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R725	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R726	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R727	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R728	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R729	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R730	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 160
R731	0RJ0392D677	MCR03EZPJ390 39OHM 5% 1/10W 1608
R732	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R733	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 160
R735	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608
R736	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R737	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R738	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R739	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 16
R903	0RJ5600D677	MCR03EZPJ561 560OHM 5% 1/10W 160
R904	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 160
R905	0RJ2702D677	MCR03EZPJ273 27KOHM 5% 1/10W 160
R907	0RX0331K668	RSD02F4J3R30 3.3OHM 5% 2W 12.0X4
R909	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
R910	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608
SWITCHs		
Q501	0TR390409AE	KST3904 NPN 6V 60V 40V 200MA 50N
Q701	0TR390609FA	KST3906-MTF PNP -5V -40V -40V -0
Q702	0TR390609FA	KST3906-MTF PNP -5V -40V -40V -0
TRANSISTORs		
SW1	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
SW2	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
SW3	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
SW4	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
SW5	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
SW6	6600R00004C	JTP1127WEM 1C1P 15VDC 0.05A HORI
MISCELLANEOUSs		
B1	MAY36541101	Box,BOX SW-A 482 173 353 2 COLOR L19
D1	0DLBE0048AA	"LED,Chip" BL-HKBB533B-TRB SUPER
P1	3918TKK038R	Packing,COMPLEX 1070*955 SW -
P2	MFZ35944901	Packing,"MOLD EPS L196W EPS 19"" Monitor
Q901	0TFVI80067A	FET,SI3865BDV(E3) N-CHANNEL MOSFET 8
X501	6212AA2004F	Crystal,HC-49/U 14.31818MHZ 30PPM(TXC)
ACCESSORIEs		
A1	SAB30647601	S/W Package,"L196WT, L206WT SERIES
A2	6410TEW010A	Power Cord,"CEE,LP-34A&H05VV-FX3C,LS-
A3	3171TZ1099M	S/W Package,3171tz1099M Forte Manager
A4	68509J0004A	"Cable,Assembly",DVI-D TO DVI-D UL20276
A5	6850TD9007D	"Cable,Assembly",6850TD9007D D-SUB

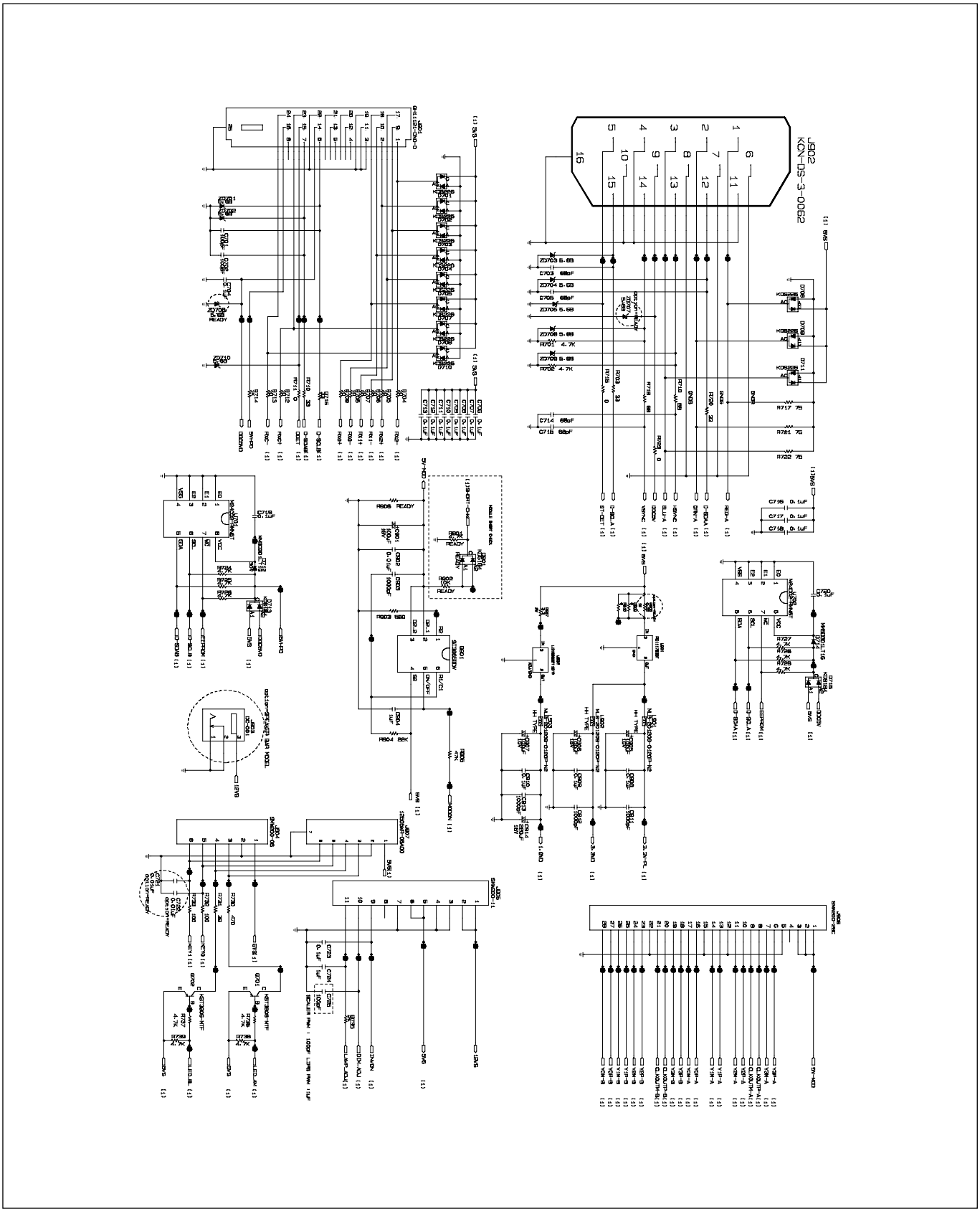
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION

SCHEMATIC DIAGRAM

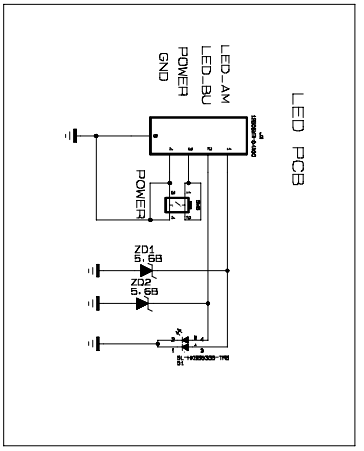
1. SCALER

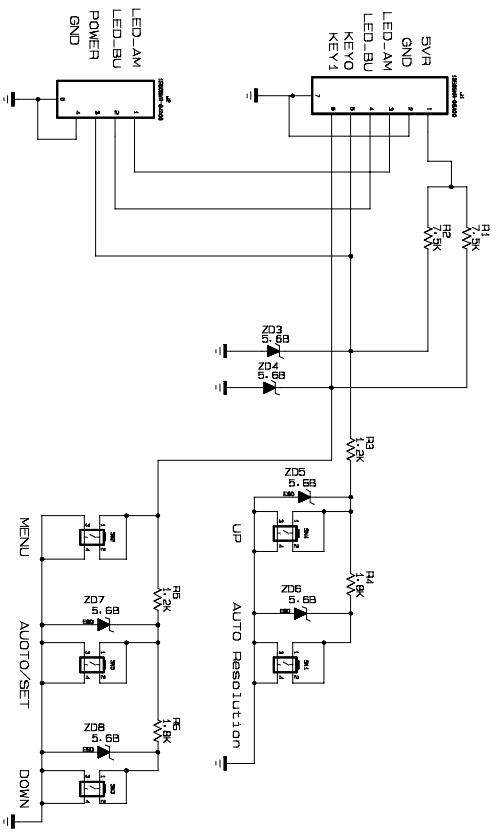


2. POWER & WAFER



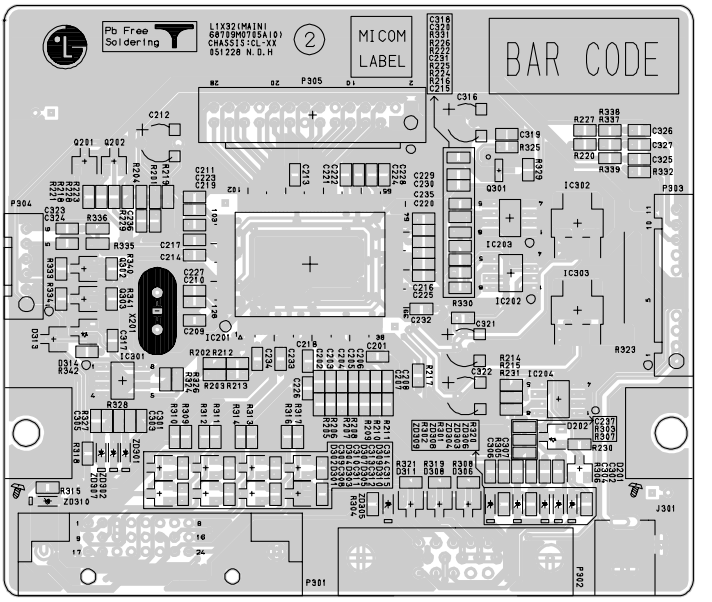
3. CONTROL


LED PCB
LED_AM
LED_BU
POWER
GND
POWER
ZD1
5.6B
ZD2
5.6B

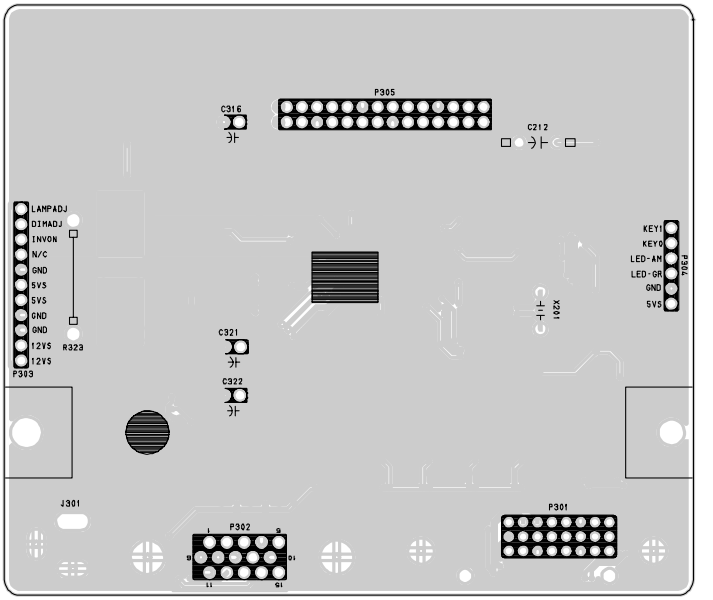

LED_AM
LED_BU
POWER
GND
5VR
GND
LED_AM
LED_BU
KEY0
KEY1
R1
5K
R2
5K
ZD3
5.6B
ZD4
5.6B
R3
1.2K
ZD5
5.6B
MENU
UP
R4
1.8K
R5
1.2K
ZD7
5.6B
AUTO/SET
ZD6
5.6B
AUTO Resolution
R6
1.5K
ZD8
5.6B
DOWN

PRINTED CIRCUIT BOARD

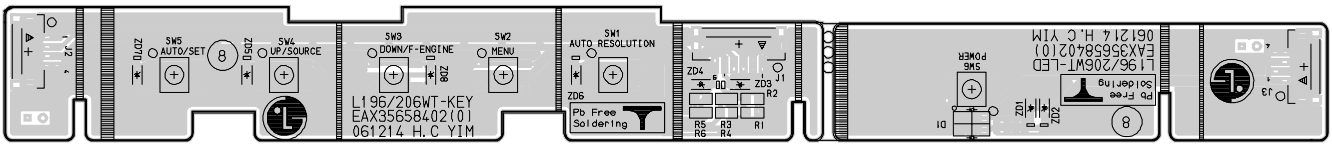
MAIN (TOP)



MAIN (BOTTOM)



CONTROL (TOP)



J2
SW5
AUTO/SET
ZD10
ZD5
SW4
UP/SOURCE
SW3
DOWN/F-ENGINE
ZD8
SW2
MENU
L196/206WT-KEY
EAX35658402(0)
061214 H.C YIM
SW1
AUTO RESOLUTION
ZD6
Pb Free
Soldering
ZD4
ZD3
J1
R2
R5
R6
R3
R4
R1
061214 H.C YIM
EAX35658402(0)
L196/206WT-LED
SW6
POWER
D1
ZD1
ZD2
Pb Free
Soldering
J3

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