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

COLOR MONITOR
SERVICE MANUAL

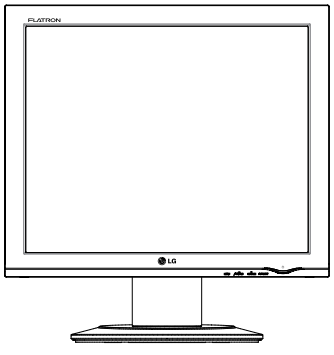
CHASSIS NO. : LM51A

MODEL:FLATRON L1932P (L1932P-DNN.AXQS)**

( ) **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
Pixel Pitch	: 0.294 (H) x 0.294 (V)
Color Depth	: 16.2M colors
Size	: 396 (H) x 324 (V) x 16.5(D)
Electrical Interface	: LVDS
Surface Treatment	: Hard-coating(3H), Anti-Glare
Operating Mode	: Normally White, Transmissive mode
Backlight Unit	: 4-CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

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

2-2. Luminance : 235(min), 300(Typ) ***-6500K***
: 150(min) ***-9300K***

2-3. Contrast Ratio : 450(min), 700(Typ)

3. SIGNAL (Refer to the Timing Chart)

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

3-2. Video Input Signal

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

3-3. Operating Frequency

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

4. Max. Resolution

D-sub Analog	: 1280 x 1024@75Hz
Digital	: 1280 x 1024@60Hz

5. POWER SUPPLY

5-1. Power : AC 100~240V, 50/60Hz, 0.6A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 39 W	BLUE
STAND-BY	OFF/ON	OFF	less than 1 W	AMBER
SUSPEND	ON/OFF	OFF	less than 1 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 1 W	AMBER
POWER S/W Off	-	-	less than 1 W	OFF

6. ENVIRONMENT

6-1. Operating Temperature	: 10°C~35°C (50°F~95°F) (Ambient)
6-2. Relative Humidity	: 10%~80% (Non-condensing)
6-3. MTBF	: 50,000 HRS with 90% Confidence
Lamp Life	: 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

Width	: 430 mm (16.93")
Depth	: 242 mm (9.53")
Height	: 445 mm (17.52")

8. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 6.4 kg (14.11 lbs)
Gross Weight	: 7.8 kg (17.20 lbs)

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠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

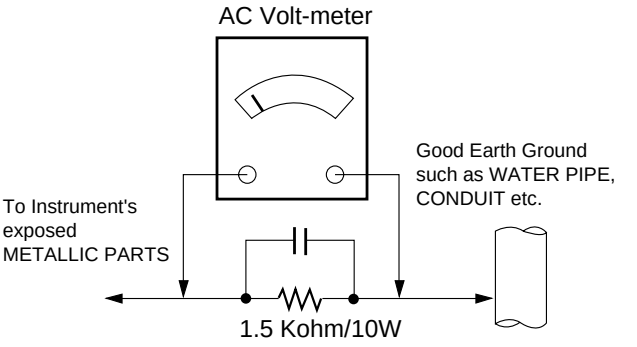
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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).

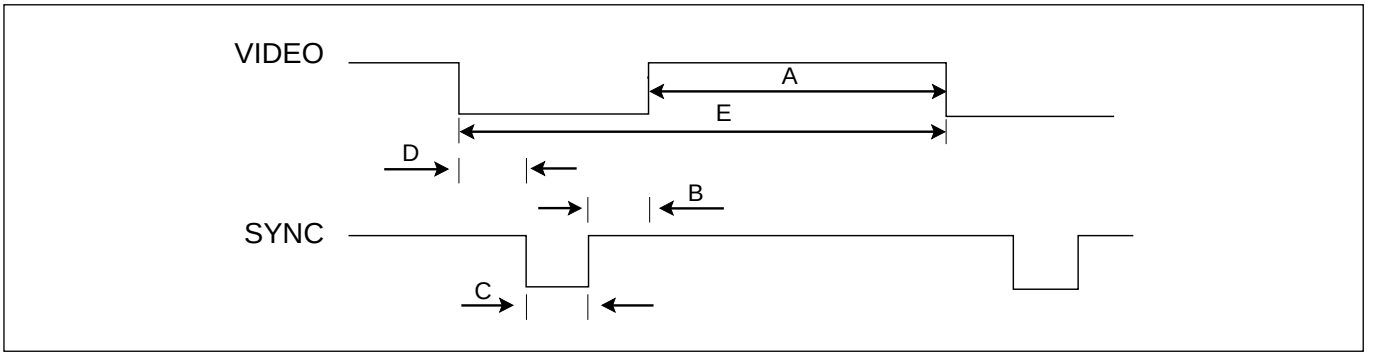
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire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

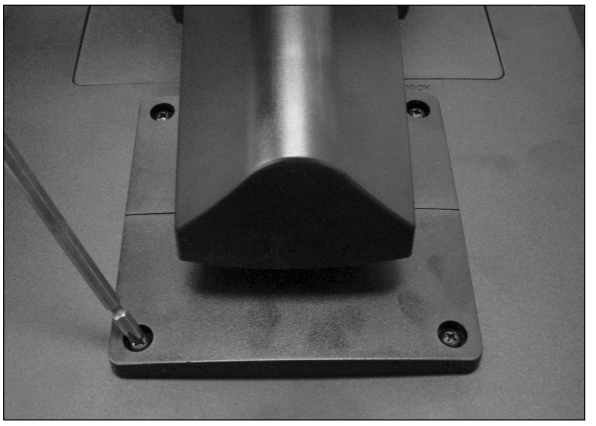
TIMING CHART



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	

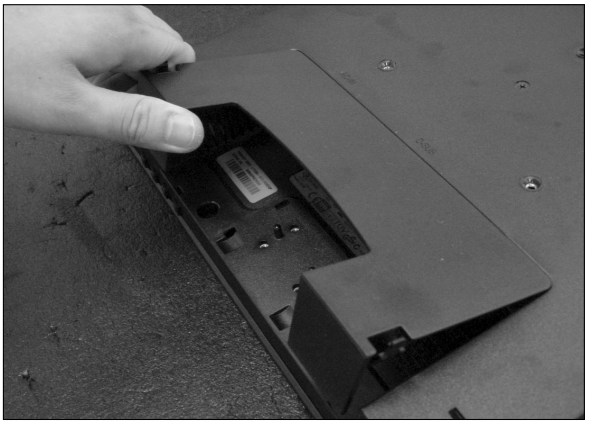
DISASSEMBLY

 # 1



Remove the screws.

 # 2

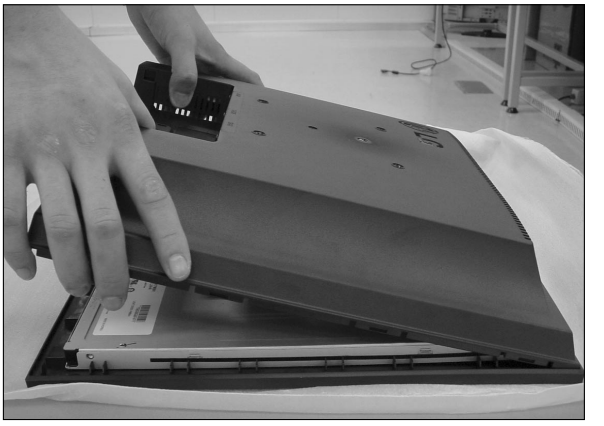


Disassembly back door.

 # 3

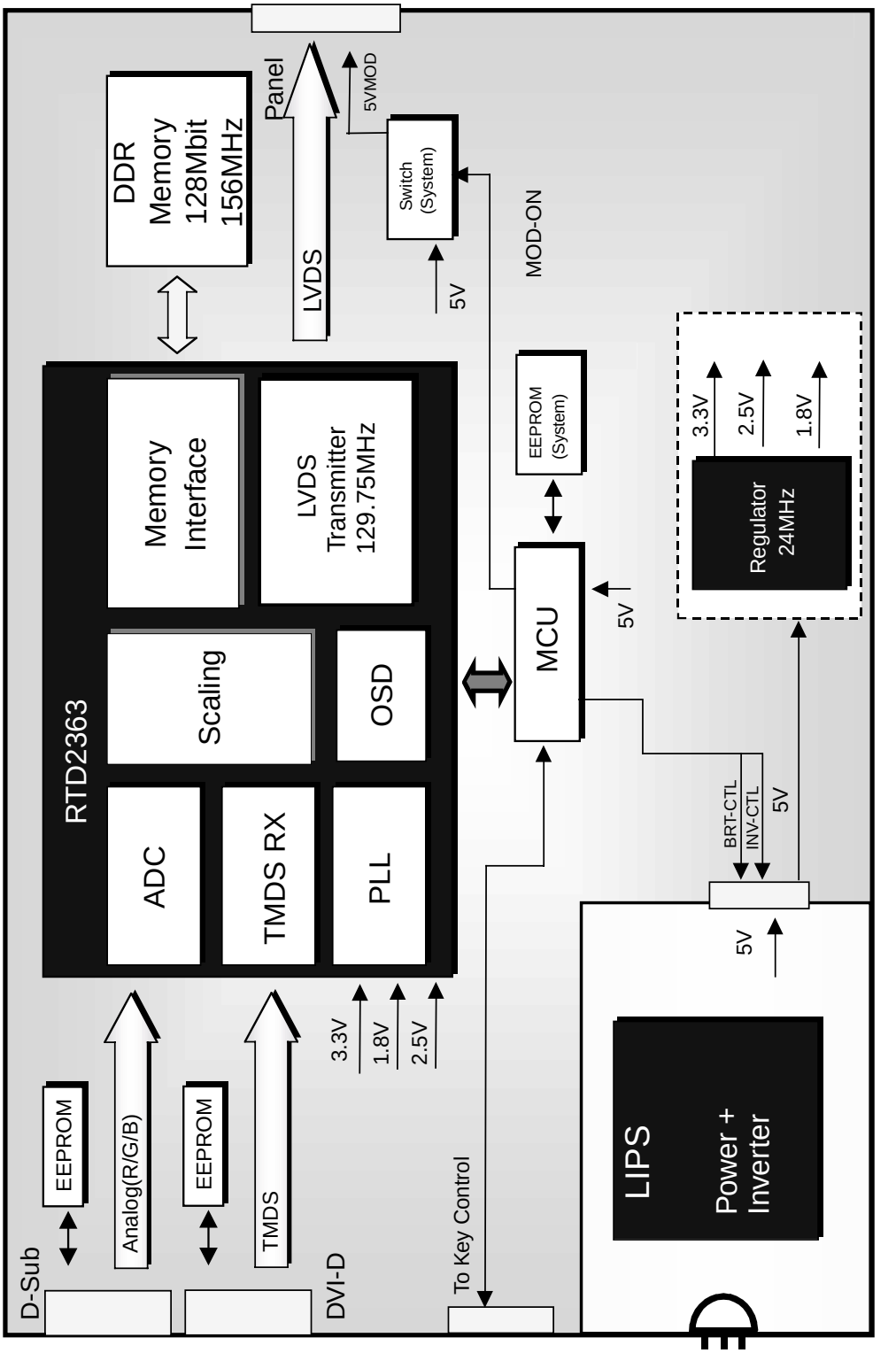
Pull up the cabinet corner side.

 # 4



Disassemble back cover.

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 135MHz.

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 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

2. Power Part.

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

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

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.

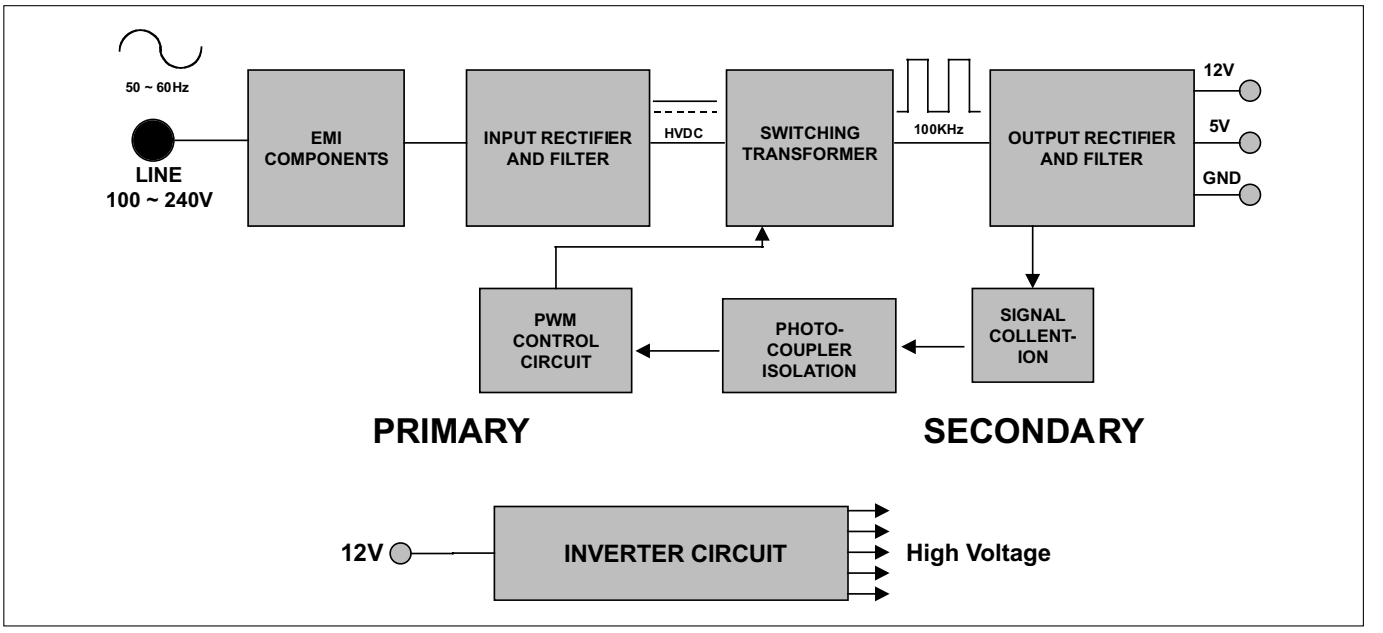
3. MICOM Part.

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_LIPS

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

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

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

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

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

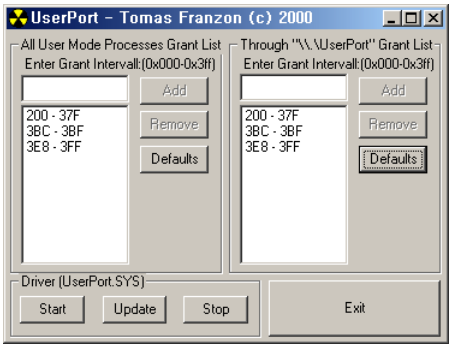
6. Signal collection.
This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

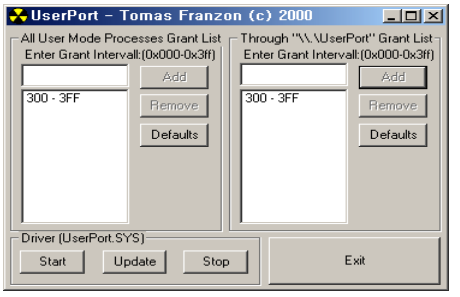
Windows EDID V1.0 User Manual

Operating System: MS Windows 98, 2000, XP
Port Setup: Windows 98 => Don't need setup
Windows 2000, XP => Need to Port Setup.
This program is available to LCD Monitor only.

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

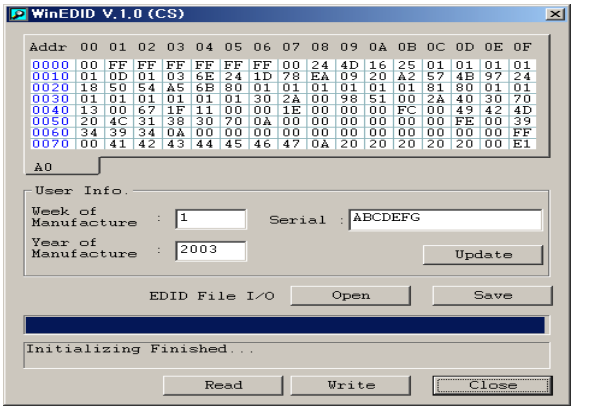


   c) Remove all default number
   d) Add 300-3FF

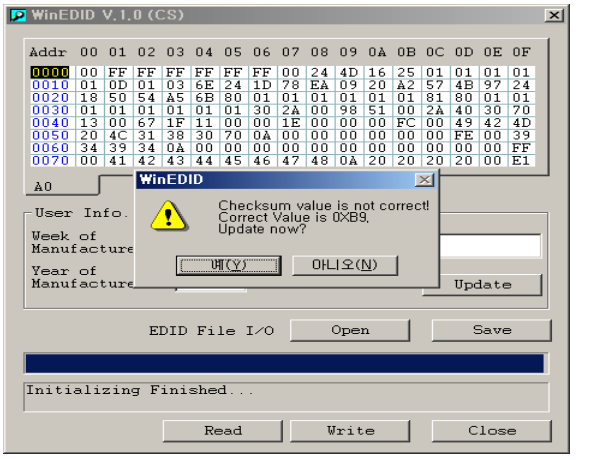


   e) Click Start button.
   f) Click Exit button.

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 front side of the display.

2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.

3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

a) Auto Color : W/B balance and Automatically sets the gain and offset value.
b) NVRAM INIT : EEPROM initialize.(24C08)
c) CLEAR ETI : To initialize using time.
d) AGING : Select Aging mode(on/off).
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)
i) MODULE : To select applied module.

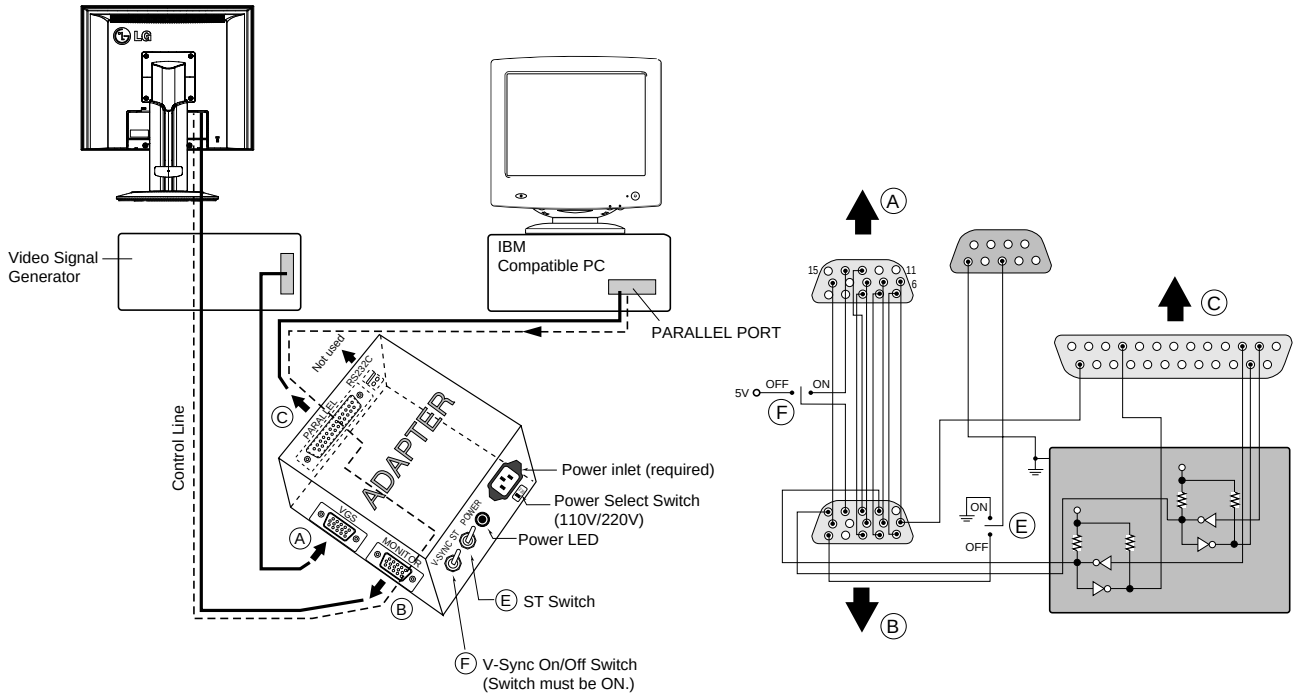
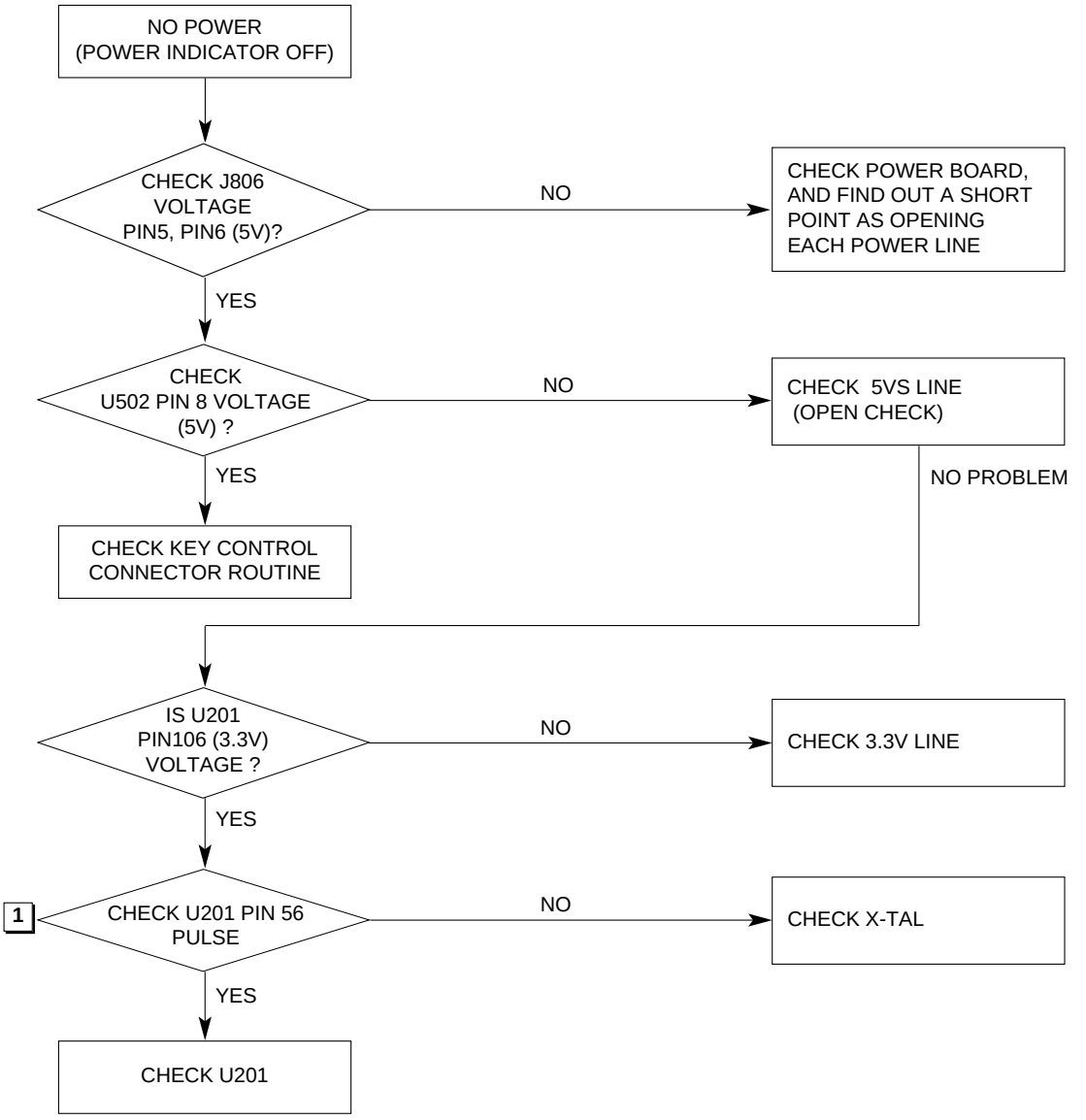


Figure 1. Cable Connection

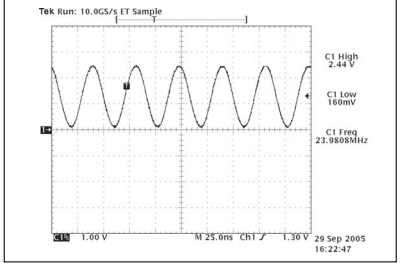
TROUBLESHOOTING GUIDE

1. NO POWER

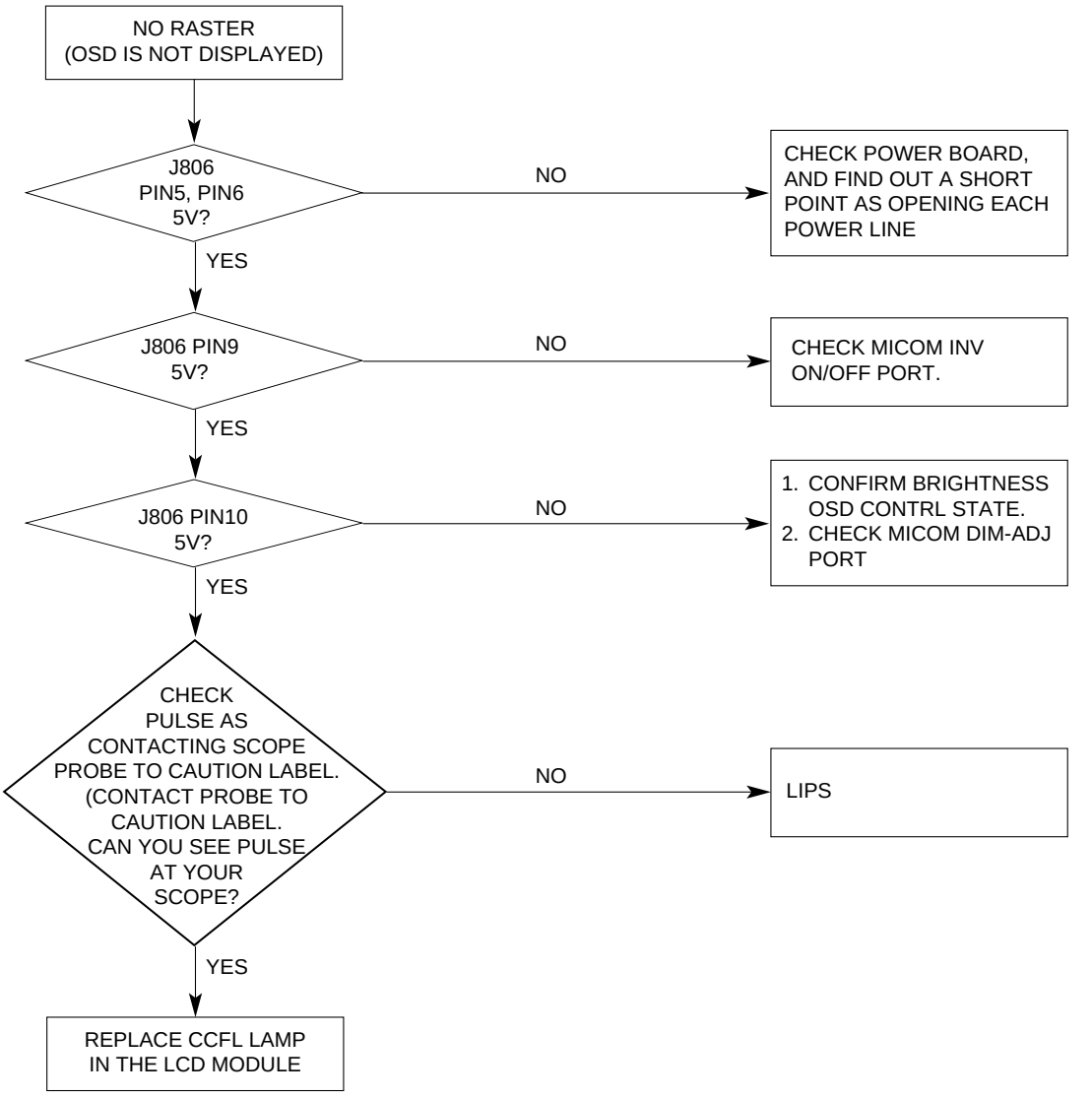


Waveforms

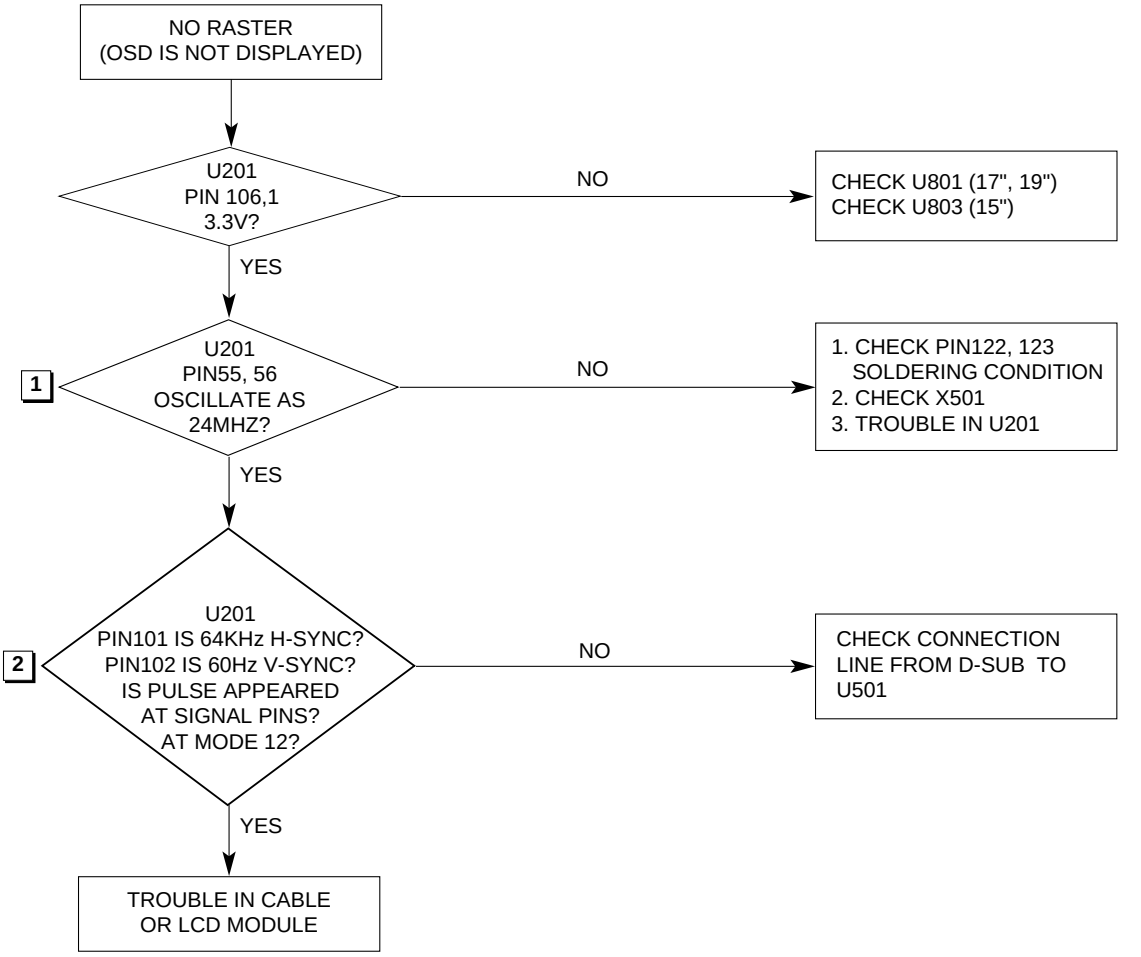
1 U201-#56



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

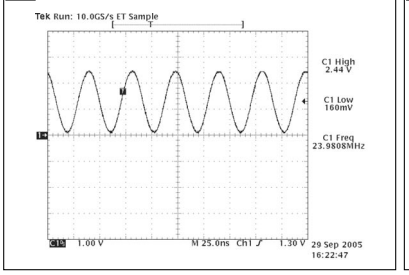


3. NO RASTER (OSD IS NOT DISPLAYED) – MSTAR

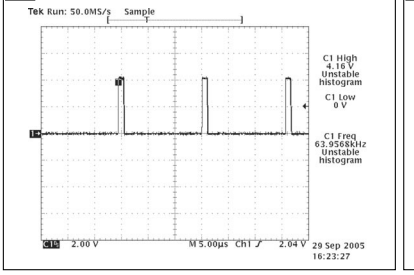


Waveforms

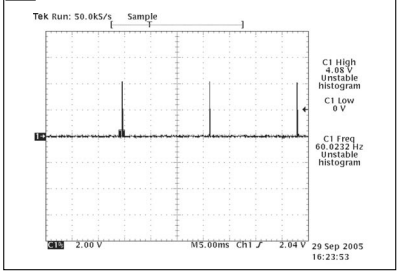
1 U201-#55,56



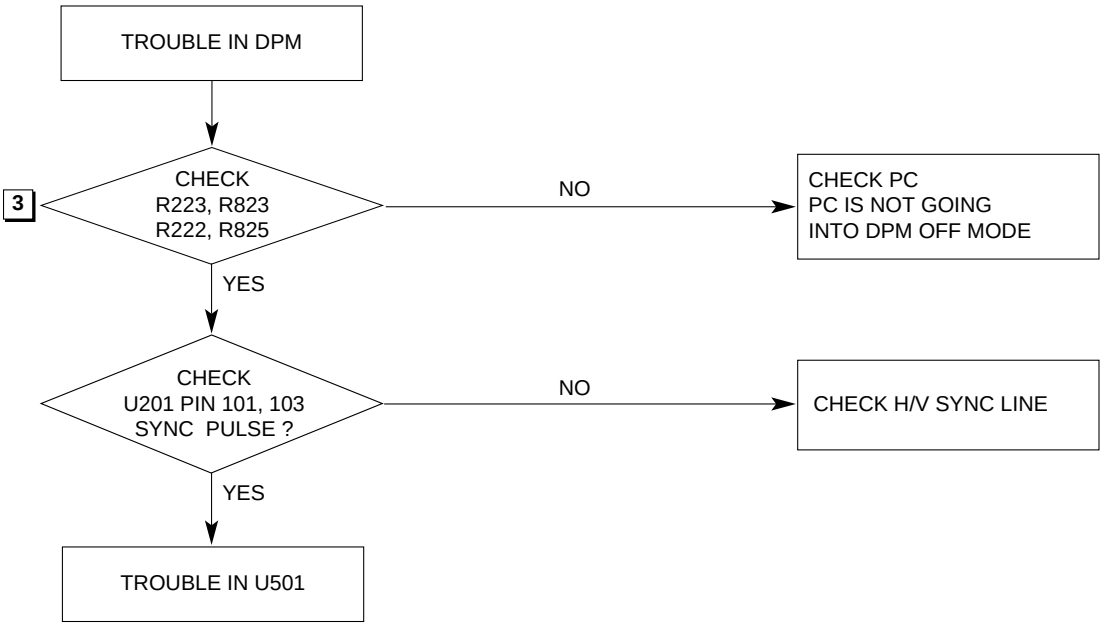
2 U201-#101 H-SYNC



2 U201-#102 V-SYNC

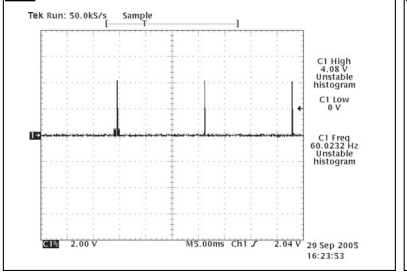


4. TROUBLE IN DPM

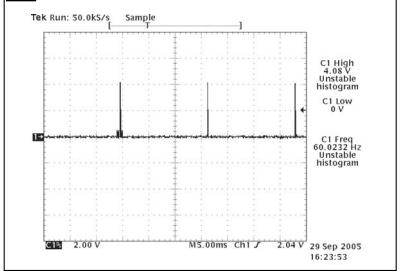


Waveforms

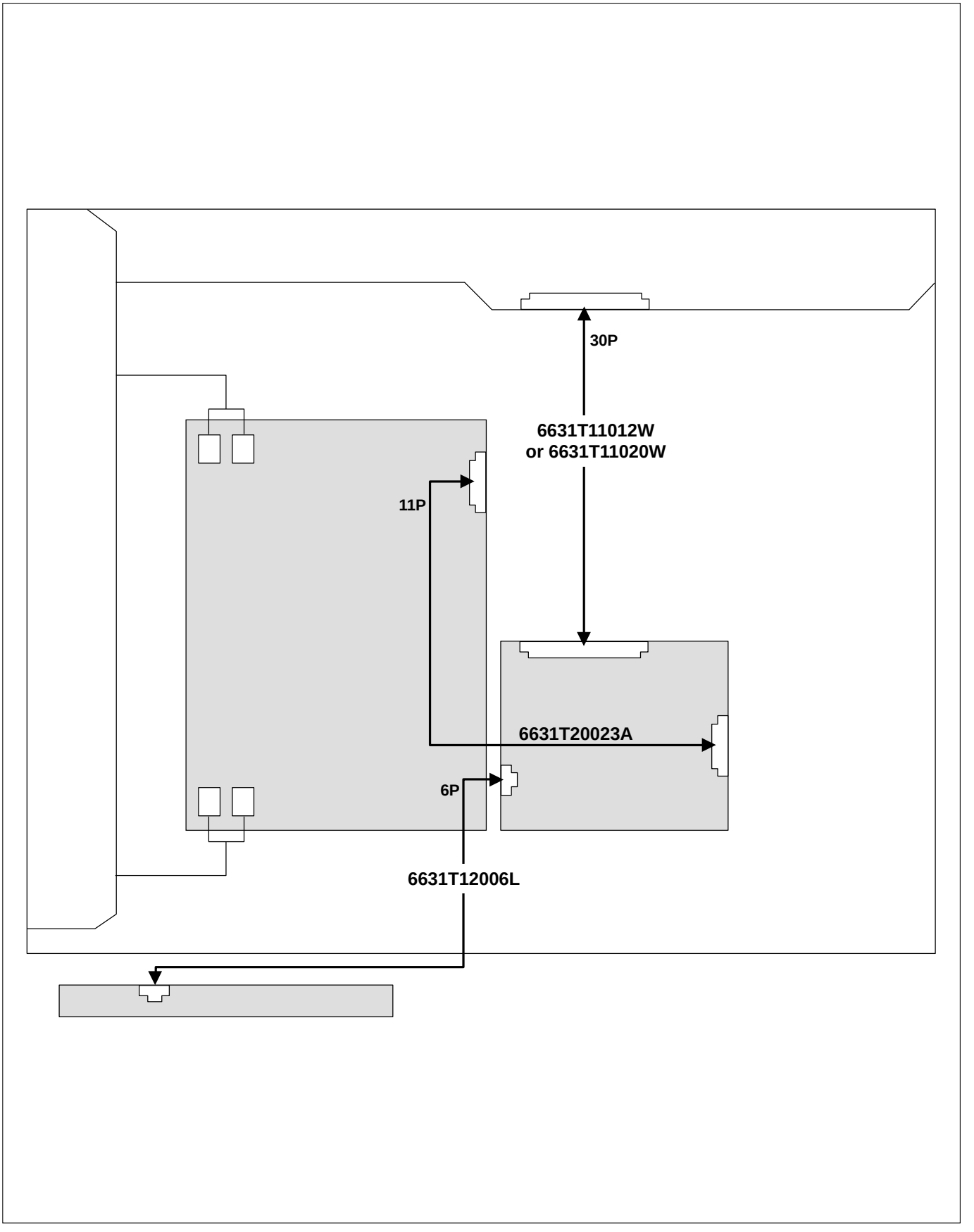
3 R223, R823 H-Sync



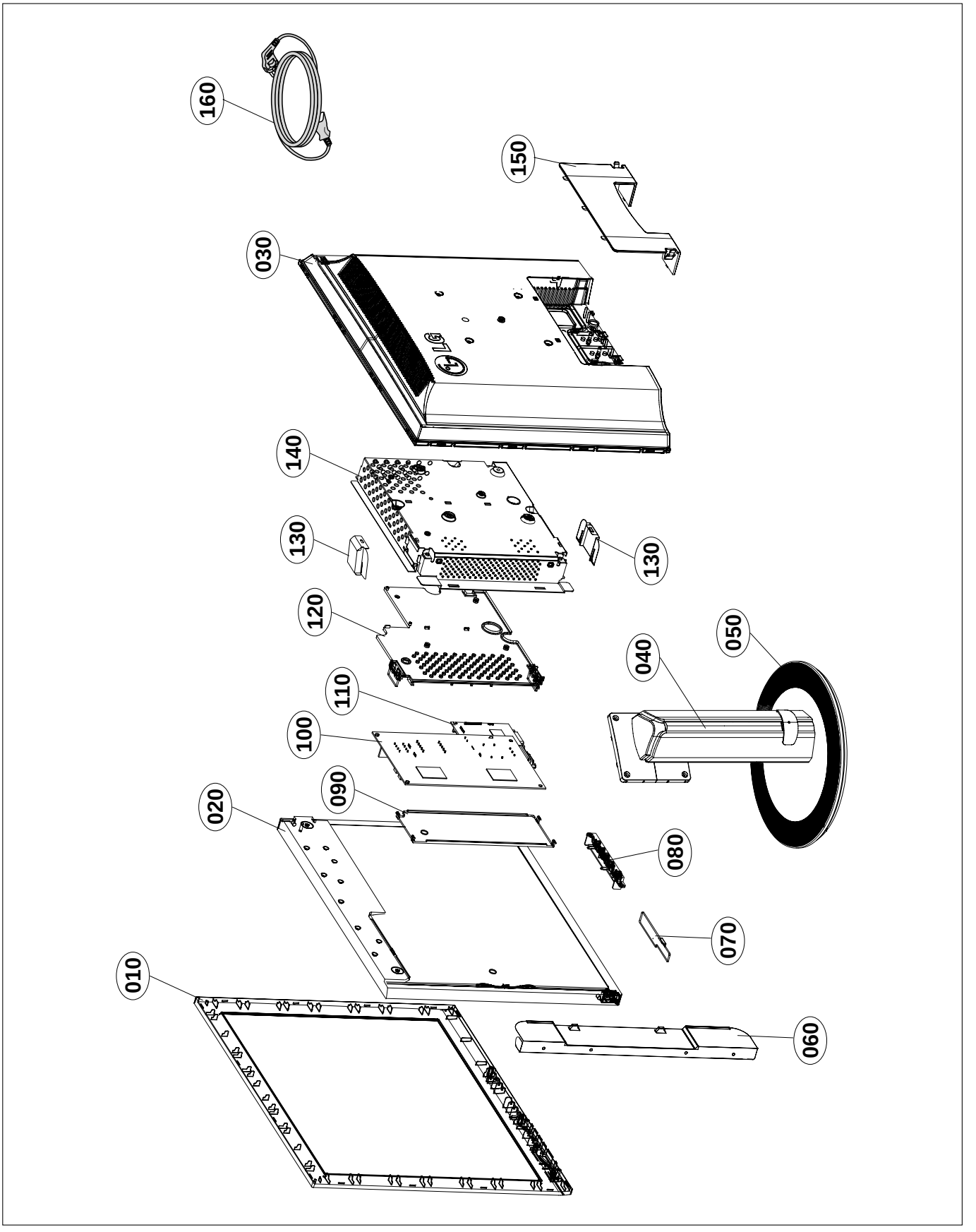
3 R222, R825 V-Sync



WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

*** Note:** Safety mark

Ref. No.	Part No.		Description
010	⚠	30919C0024P	Cover Assembly, L1932P BRAND 160A ABS GRAY, TCO03+4MS+EPA, N-CKD
020	⚠	6304FLP310A	LCD,Module-TFT, LM190E03-TLB5 DRIVER 19.0INCH 1280X1024 300CD COLOR - - - -
		or 6304FLP355A	LCD Panel, LM190E03-TLBC LG PHILIPS TFT COLOR DOT FREE OF LM190E03-TLB7,P4,645CH,300NITS,TN,8MS,LPL NJ,PB FREE,EGI,NEC S D-IC,SXGA,LVDS
		or 6304FLP337A	LCD,Module-TFT, LM190E03-TLBB DRIVER 19.0INCH 1280X1024 300CD COLOR - - - -
		or 6304FLP336A	LCD,Module-TFT, LM190E03-TLBA DRIVER 19.0INCH 1280X1024 300CD COLOR - - - -
		or 6304FLP313A	LCD,Module-TFT, LM190E03-TLB8 DRIVER 19.0INCH 1280X1024 300CD COLOR - - - -
		or 6304FLP312A	LCD,Module-TFT, LM190E03-TLB7 DRIVER 19.0INCH 1280X1024 300CD COLOR - - - -
030	⚠	3809TKL129U	Cover Assembly, L1932P NON GRAY, ABS, DUAL CORE, P-TYPE CORE,T-CKD
040	⚠	3043TKK190T	Base Assembly, L1932P . STAND BODY GRAY CKD
050	⚠	3043TKK191H	Base Assembly, L1932P , STAND BASE GRAY CKD
060		49509K0017B	Plate, PRESS SPTE T0.3 SHIELD L1932 CHASSIS BRACKET-CKD
070		68719ST941E	PCB Assembly,Sub, SUB T.T LM51A L17/1932P-DNN ONLY SXEUQSP MA SKD
080		4940TKT272C	Knob, TACT CONTROL 5KEY LX32 GRAY
090		3550TKK989B	Cover, MOLD ABS LXX32 PIECE INSULATOR LIPS-CKD
100	⚠	6871TPT312B	PCB Assembly,Power, L1750** UNION POWER TOTAL BRAND 4-LAMP(17/19) SOCKET TYPE
110		33139L9020A	Main Total Assembly, L1932P-SNN RTD2363 BRAND CL-83 LF
120		3550TKK995B	Cover, MOLD ABS LXX32 PIECE INSULATOR VESA-CKD
130		48149K0001B	Plate, PRESS SPTE T0.3 SIDE LXX32 CAP -CKD
140		4951TKS242H	Plate Assembly, SHIELD ASSY L1932P DUAL-CKD
150		35509K0008C	Cover, L1932 BACK DOOR GRAY-CKD
160		6410TEW010A	Power Cord, CEE,LP-34A&H05VV-FX3C,LS-60_1.87M_BLK LP-34A LS-60 1.87M NONE 250V 16A H05VV-F 3X0.75MM2 BLACK VDE SEMKO N

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. 04. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C203	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C204	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C205	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C206	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C207	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C208	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C209	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C210	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C211	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C212	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C213	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V
		C214	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V
		C215	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C216	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C217	0CC100CK41A	C1608C0G1H100JT 10pF 5% 50V
		C218	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C219	0CC100CK41A	C1608C0G1H100JT 10pF 5% 50V
		C220	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C221	0CC100CK41A	C1608C0G1H100JT 10pF 5% 50V
		C223	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C224	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C225	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C227	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C229	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C230	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C231	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C232	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C233	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C234	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C235	0CK473CK56A	C1608X7R1H473KT 47nF 10% 50V
		C236	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C237	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C238	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C239	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C242	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C243	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C244	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C245	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C246	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C247	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C248	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C249	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C501	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C502	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C503	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C504	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C505	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C506	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C507	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C508	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C509	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C510	0CK103CK56A	0603B103K500CT 10nF 10% 50V

DATE: 2006. 04. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C511	0CC030CK01A	0603N3R0C500LT 3pF 0.25PF 50
		C512	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V
		C513	0CH8106F611	MV4.0TP16VC10M 10uF 20% 16V
		C514	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C515	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C516	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C702	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C703	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C704	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C705	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C706	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C707	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C708	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C709	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C710	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C711	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C712	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C713	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C714	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C715	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C716	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C717	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C718	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C719	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C720	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V
		C801	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C802	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C803	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C804	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C805	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C806	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C807	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C808	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V
		C810	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C811	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C812	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C813	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C814	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C815	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C816	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C817	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C819	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C820	0CC120CK41A	C1608C0G1H120JT 12pF 5% 50V
		C821	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V
		C822	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C827	0CK103CK56A	0603B103K500CT 10nF 10% 50V
		C828	0CK103CK56A	0603B103K500CT 10nF 10% 50V
		C832	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C833	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C834	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C836	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V
		C837	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V
		C838	0CK103CK56A	0603B103K500CT 10nF 10% 50V
		C901	0CE107EF610	KMG16VB100M 100uF 20% 16V 12

DATE: 2006. 04. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C902	0CK103CK51A	0603B103K500CT 10nF 10% 50V
		C903	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C
		C904	0CE107EF610	KMG16VB100M 100uF 20% 16V 12
		C905	0CE227EF638	KMG5.0TP16VB220M 220uF 20% 1
		C906	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C907	0CE227EF638	KMG5.0TP16VB220M 220uF 20% 1
		C908	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C909	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V
		C910	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C911	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C912	0CK104CF56A	0603B104K160CT 100nF 10% 16V
		C914	0CE107EF610	KMG16VB100M 100uF 20% 16V 12
	DIODEs			
		D801	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D802	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D803	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D804	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D805	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D806	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D807	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D808	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D809	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D810	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D811	0DSIH00018A	ENKMC2837-T112 1.2V 85V 300M
		D812	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA
		D813	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA
		D814	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA
		D815	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA
		ZD801	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD802	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD803	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD804	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD805	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD806	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD807	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD808	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
		ZD809	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V
	ICs			
		Q507	0IKE704200J	KIA7042AF -0.3TO15V 4.2V 500
		U201	0IPRP00662A	RTD2363-LF 3.3V_1.8V - - QFP
		U501	0ICS240813B	CAT24WC08J-TE13 8KBIT 1KX8BI
		U502	0IZZ9H0081A	0IZZ9H0081A MYSON PLCC 44PIN
		U701	0IMMRHY051B	HY5DU283222AQP-4 128MBIT 1MX
		U801	0IMMRSG036A	M24C02-WMN6TP 2KBIT 256X8BIT
		U802	0IMMRSG036A	M24C02-WMN6TP 2KBIT 256X8BIT
		U803	0ISTLTI047A	SN74LV4052APWR 2TO5.5V 0.02m
		U901	0IPMGKE011A	KIA78D33F 4TO10V 3.3V 1.3W D
		U902	0IPMGFA003F	FAN1117AS25X 4TO9.5V 2.5V -
		U903	0IPMGSG016A	LD1086D2T18TR 3.4TO30V 1.8V
		U904	0IPMGFA003F	FAN1117AS25X 4TO9.5V 2.5V -
	FILTERs			
		L701	6210TCE001P	HB-1S2012-121JT 120OHM 2X1.2
		L702	6210TCE001P	HB-1S2012-121JT 120OHM 2X1.2

DATE: 2006. 04. 01.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
	RESISTORs			
		Q502	0TRIH80001A	RT1C3904-T112 NPN 6V 60V 40V
		Q503	0TRIH80001A	RT1C3904-T112 NPN 6V 60V 40V
		Q506	0TRIH80001A	RT1C3904-T112 NPN 6V 60V 40V
		Q508	0TRIH80001A	RT1C3904-T112 NPN 6V 60V 40V
		Q804	0TR390609FA	KST3906-MTF PNP -5V -40V -40
		Q805	0TR390609FA	KST3906-MTF PNP -5V -40V -40
	TRANSISTOR			
		AR701	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR702	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR703	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR704	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR705	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR706	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR707	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR708	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR709	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR710	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR711	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		AR712	0RJ0472C687	RCA86TRJ47R0 47OHM 5% 1/16W
		R202	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W
		R204	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R206	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R208	0RJ1004D677	MCR03EZPJ105 1MOHM 5% 1/10W
		R209	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R210	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R211	0RJ1200D677	MCR03EZPJ121 120OHM 5% 1/10W
		R212	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R213	0RJ1200D677	MCR03EZPJ121 120OHM 5% 1/10W
		R214	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R215	0RJ1200D677	MCR03EZPJ121 120OHM 5% 1/10W
		R216	0RJ0512D677	MCR03EZPJ510 51OHM 5% 1/10W
		R222	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R223	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R224	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R225	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R501	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R502	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R523	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R524	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R533	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R534	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R539	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R540	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R541	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R542	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R543	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R547	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R548	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R549	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R550	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R551	0RJ3301D677	MCR03EZPJ332 3.3KOHM 5% 1/10
		R552	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R553	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R554	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R555	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R556	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R557	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R558	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R559	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W

DATE: 2006. 04. 01.

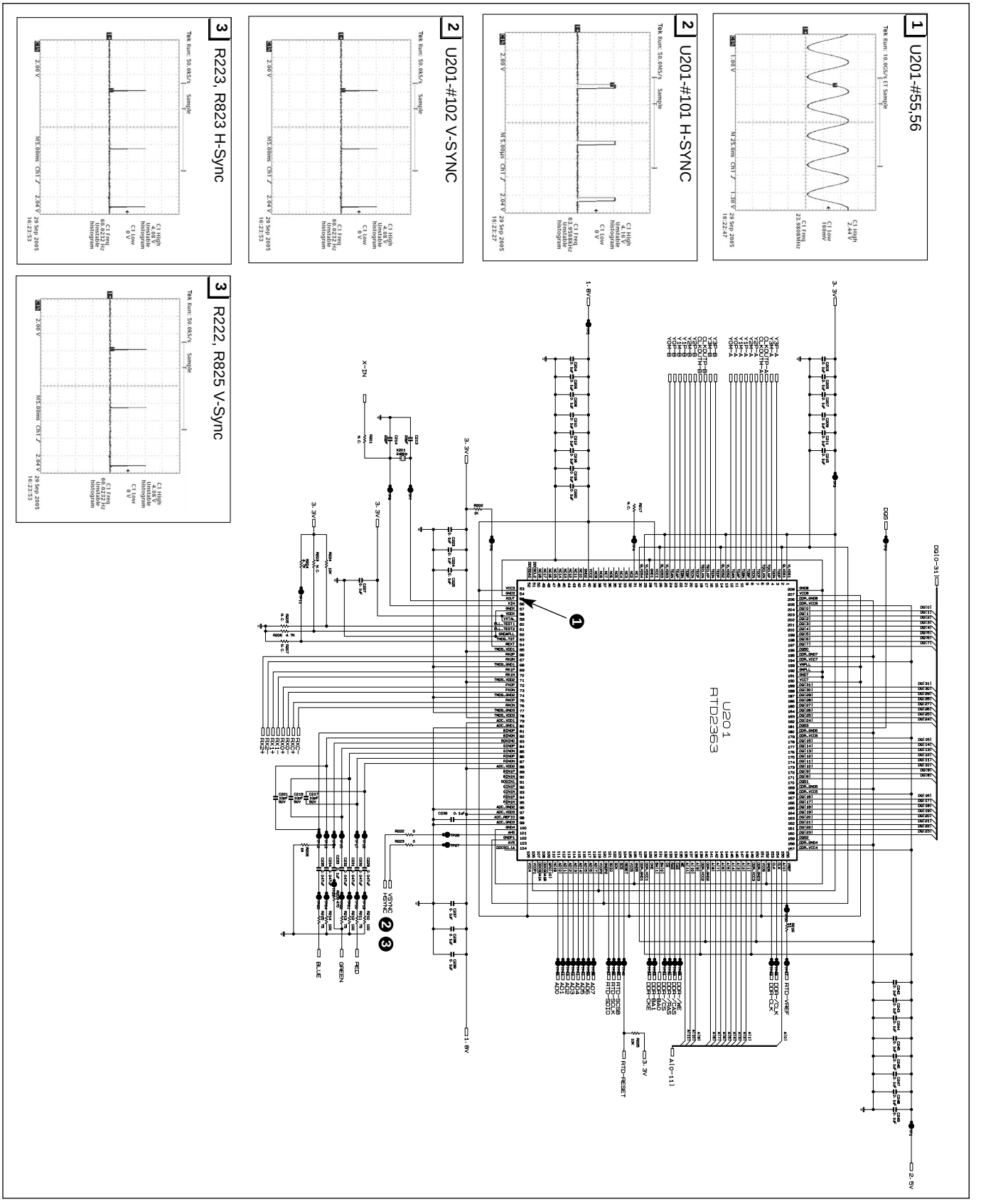
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R560	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R561	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R562	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R563	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R564	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R565	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R566	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R567	0RJ3301D677	MCR03EZPJ332 3.3KOHM 5% 1/10
		R568	0RJ0472D677	MCR03EZPJ470 47OHM 5% 1/10W
		R573	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W
		R574	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R575	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R576	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R577	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R578	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R579	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W
		R580	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R581	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R582	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R705	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R706	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R709	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R710	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R719	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R720	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		R801	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R802	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R803	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R804	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W
		R806	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R808	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R809	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R810	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R811	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R812	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R813	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W
		R814	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R815	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R816	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R817	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R821	0RJ1501D677	MCR03EZPJ152 1.5KOHM 5% 1/10
		R823	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W
		R825	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W
		R826	0RJ1501D677	MCR03EZPJ152 1.5KOHM 5% 1/10
		R828	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R829	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R833	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R834	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R835	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R836	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W
		R837	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R840	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R842	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R845	0RJ0102D677	MCR03EZPJ100 10OHM 5% 1/10W
		R846	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R847	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W
		R848	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R849	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W
		R851	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R852	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R853	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W
		R854	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W

DATE: 2006. 04. 01.

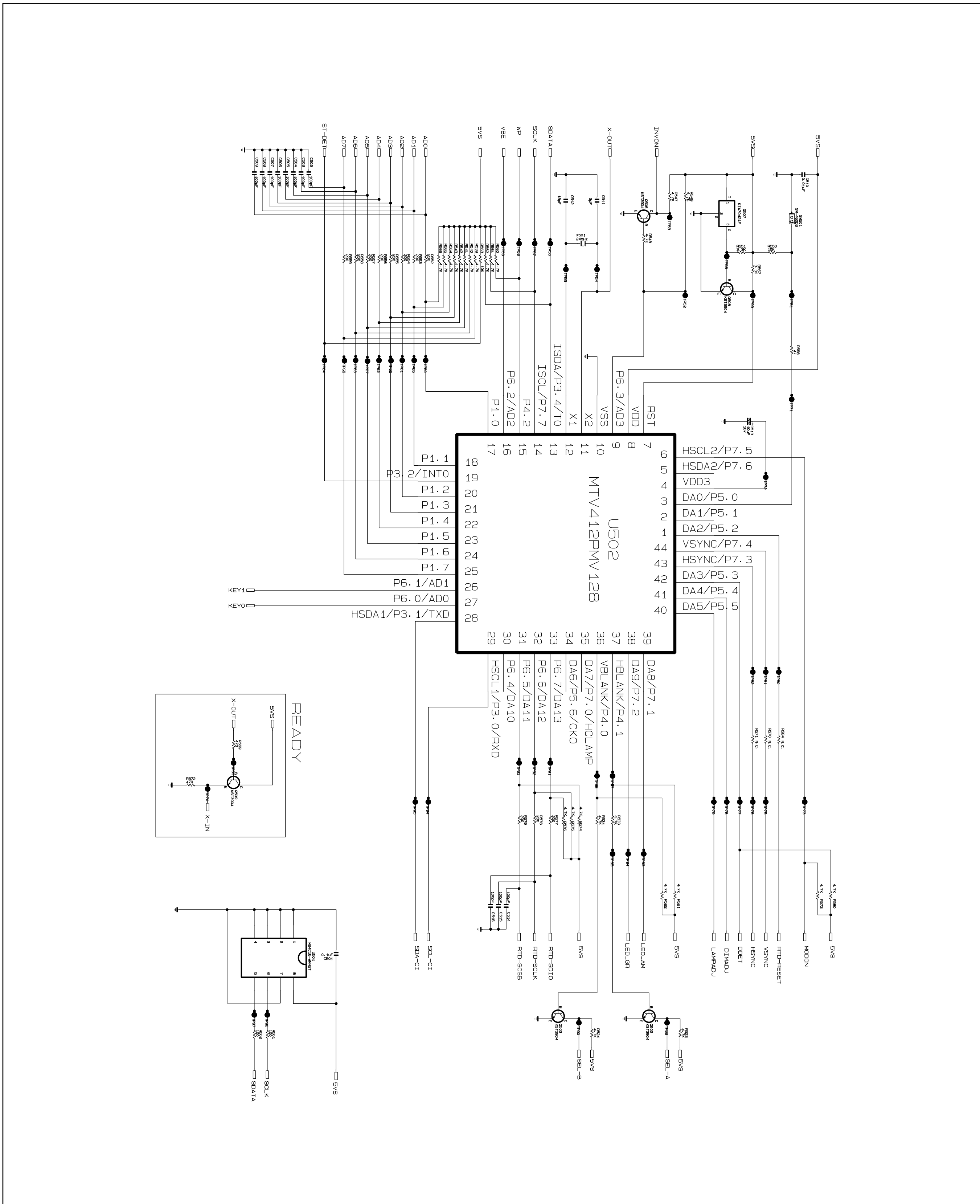
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R855	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W
		R856	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R857	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R858	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R859	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R860	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R861	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R862	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R863	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R866	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R867	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R868	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R901	0RJ5600D677	MCR03EZPJ561 560OHM 5% 1/10W
		R902	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W
		R903	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R904	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1
		R905	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W
		OTHERs		
		SW501	6600D000010	NVS4602 NAMAE 12VDC 1MA TILT
		U905	0TFVI80067A	SI3865BDV(E3) N-CHANNEL MOSF
		X201	6202TST001E	SX-1 24MHZ 30PPM 24MHZ 30PPM
		X501	6202TST001E	SX-1 24MHZ 30PPM 24MHZ 30PPM
		CONTROL BOARD		
		SW1	140-058E	THVV502GBC 1C1P 12VDC 0.05A
		SW2	140-058E	THVV502GBC 1C1P 12VDC 0.05A
		SW3	140-058E	THVV502GBC 1C1P 12VDC 0.05A
		SW4	140-058E	THVV502GBC 1C1P 12VDC 0.05A
		SW5	140-058E	THVV502GBC 1C1P 12VDC 0.05A
		C1	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		C2	0CK104CK56A	0603B104K500CT 100nF 10% 50V
		D1	0DLBE0168AA	BL-HB5KB34B-TRB SUPER BLUE/S
		D2	0DLBE0168AA	BL-HB5KB34B-TRB SUPER BLUE/S
		Q1	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA
		Q2	0TRKE80046A	2N3904S NPN 6V 60V 40V 200MA
		R1	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R2	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R3	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R4	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W
		R5	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10
		R6	0RJ7500D677	MCR03EZPJ751 750OHM 5% 1/10W
		R7	0RJ7500D677	MCR03EZPJ751 750OHM 5% 1/10W
		R8	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W
		R9	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W
		ZD1	0DZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V

SCHEMATIC DIAGRAM

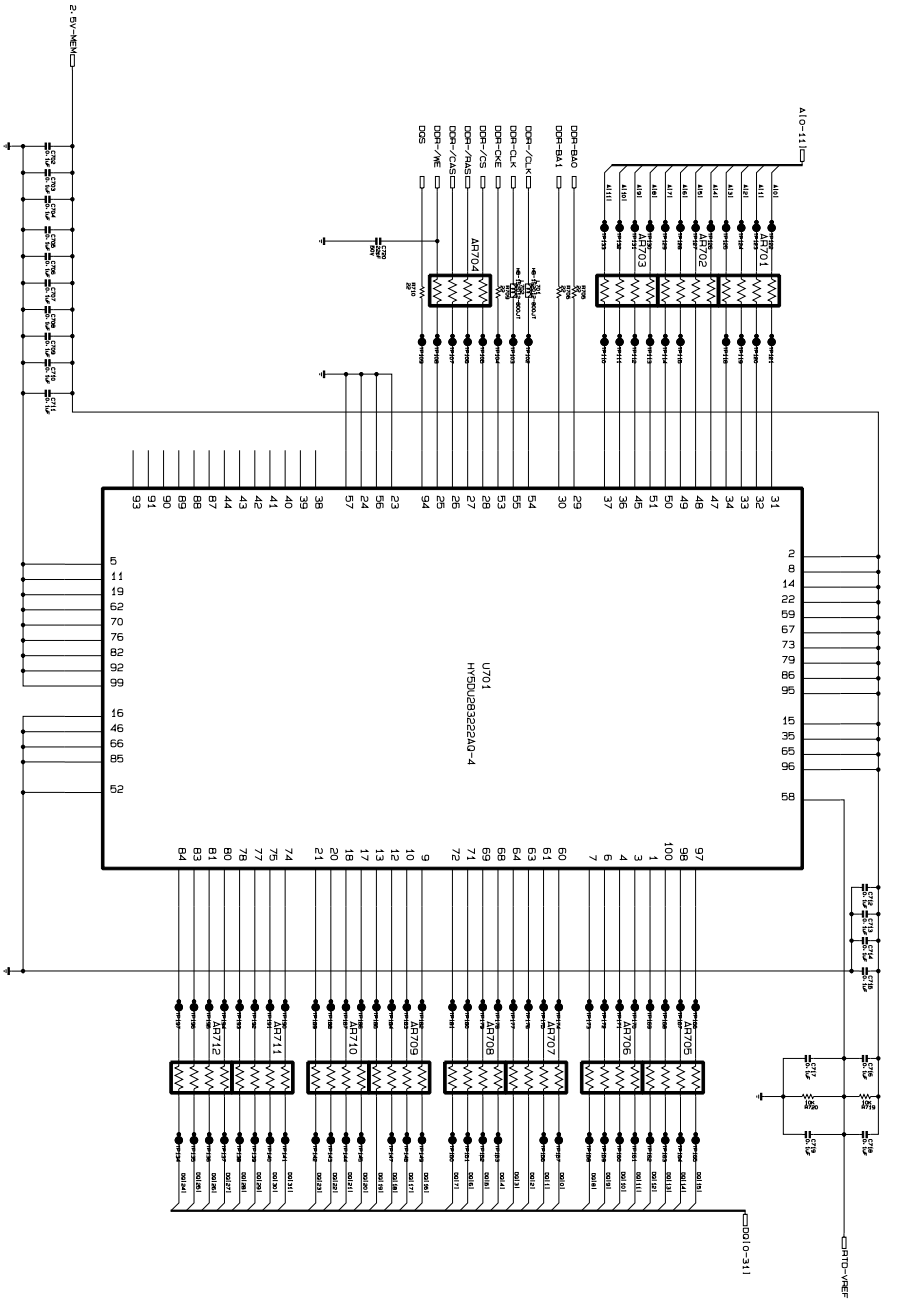
1. SCALER



2. MICOM


U502
MTV412PMV128
READY
RST
VDD
P6.3/AD3
VSS
X2
X1
ISDA/P3.4/T0
ISCL/P7.7
P4.2
P6.2/AD2
P1.0
P1.1
P3.2/INT0
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
P6.1/AD1
P6.0/AD0
HSDA1/P3.1/TXD
HSCL1/P3.0/RXD
P6.4/DA10
P6.5/DA11
P6.6/DA12
P6.7/DA13
DA6/P5.6/CK0
DA7/P7.0/HCLAMP
VBLANK/P4.0
HBLANK/P4.1
DA9/P7.2
DA8/P7.1
DA5/P5.5
DA4/P5.4
DA3/P5.3
HSYNC/P7.3
VSYNC/P7.4
DA2/P5.2
DA1/P5.1
DA0/P5.0
VDD3
HSDA2/P7.6
HSCL2/P7.5
KEY1
KEY0
ST-DET
AD7
AD6
AD5
AD4
AD3
AD2
AD1
AD0
5VS
VBE
WP
SCLK
SDATA
X-OUT
INVON
X-IN
SDA-CI
SCL-CI
RTD-SCSB
RTD-SCLK
RTD-SDIO
LED_GR
LED_AM
LAMPADJ
DIMADJ
DDET
HSYNC
VSYNC
RTD-RESET
MODON
SEL-B
SEL-A

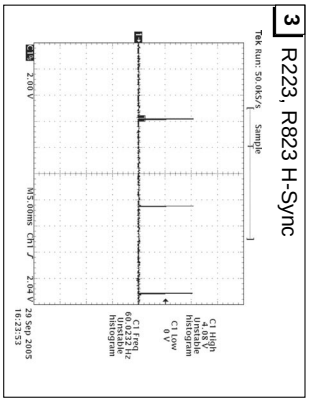
3.MEMORY


2.5V_MEM
A10~11
DDR-BA0
DDR-BA1
DDR-/CLK
DDR-CLK
DDR-CKE
DDR-/CS
DDR-/RAS
DDR-/CAS
DDR-/WE
DQS
AR701
AR702
AR703
AR704
AR705
AR706
AR707
AR708
AR709
AR710
AR711
AR712
U701
HY5DU283222AD-4
D0~31
RTD-VREF

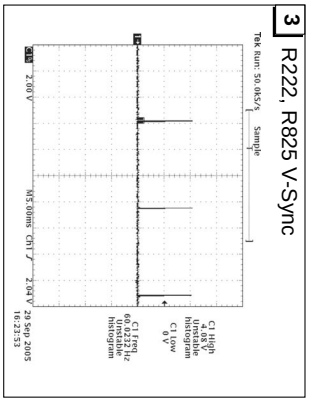
4. JACK & WAFER

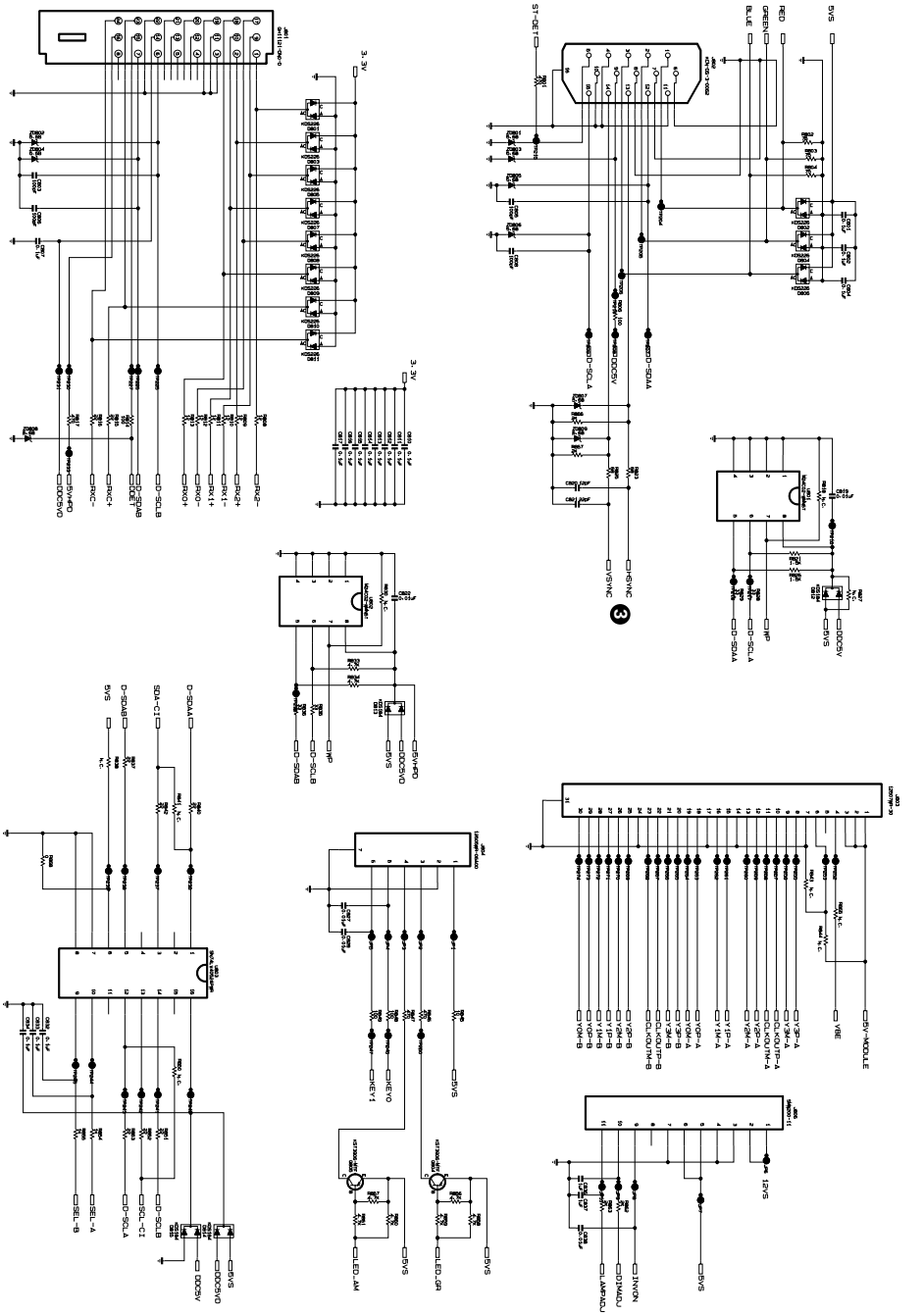
Waveforms

3 R223, R823 H-Sync

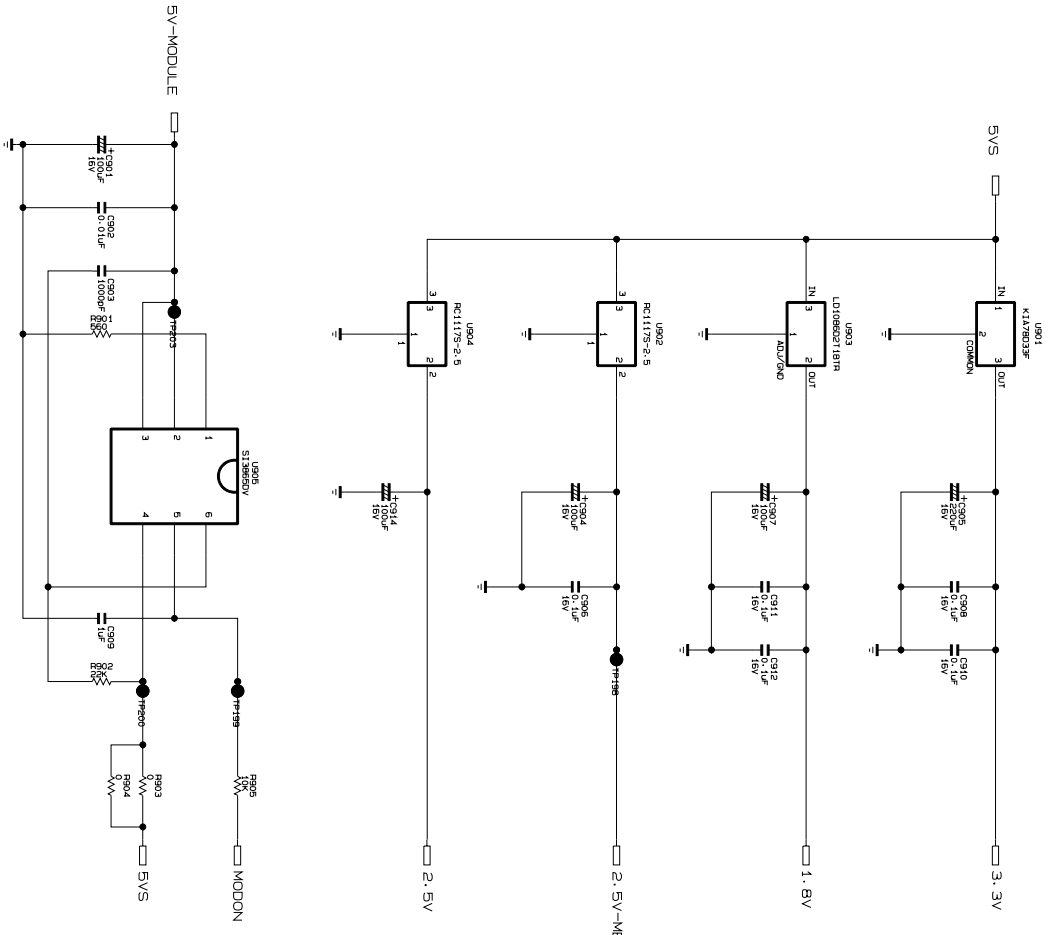


3 R222, R825 V-Sync





5. POWER


5VS
IN
OUT
COMMON
U501
K1A7803F
C905
220UF
16V
C908
0.1UF
16V
C910
0.1UF
16V
3.3V
U503
LD1086D2T18TR
ADJ/GND
C907
100UF
16V
C911
0.1UF
16V
C912
0.1UF
16V
1.8V
U502
RC1117S-2.5
C904
100UF
16V
C906
0.1UF
16V
TP196
2.5V-MEM
U504
RC1117S-2.5
C914
100UF
16V
2.5V
5V-MODULE
C901
100UF
16V
C902
0.01UF
C903
1000PF
R901
0
TP203
U505
S1305EW
C909
1UF
R902
220
TP200
TP199
R903
0
R904
0
R905
0
5VS
MODON

Apr. 2006
P/NO : 38289S0041
Printed in Korea