Service Guide Specification

담 당	관 리 자
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1. Model Description

MODEL	M1740A-RZB M1940A-RZB M2040A-RZB	BRAND	LG	Part No.	3828TSL094P
SUFFIX	SNWULFW	Product Name	FLATRON M1740A FLATRON M1940A FLATRON M2040A		

2. Printing Specification

1. Trim Size (Format) : 215mm x 280 mm

2. Printing Colors
• Cover : 2 COLORS (M100%, BLACK)
• Inside : 1 COLORS (Black)

3. Stock (Paper)
• Cover : 백상지 100 g/㎡
• Inside : 백상지 100 g/㎡

4. Printing Method :
5. Bindery : Saddle stitch
6. Language : English
7. Number of pages : 36

3. Special Instructions

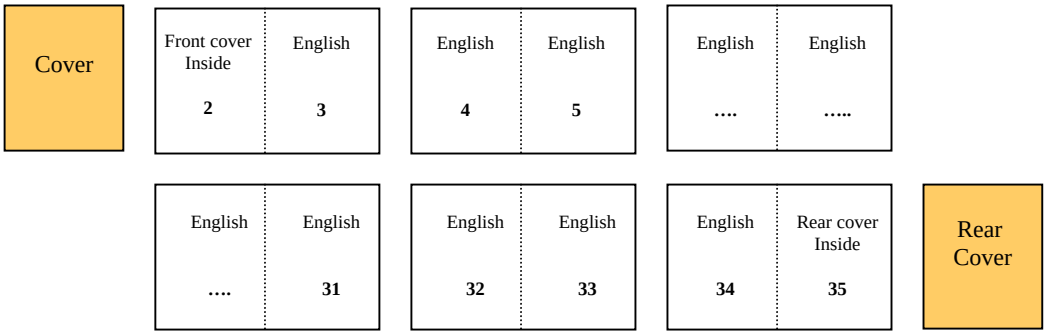
(1) Origin Notification
* LGEDI : Printed in Indonesia
* LGESP : Printed in Brazil
* LGENT : Printed in China
* LGEWA : Printed in U.K.
* LGEMX : Printed in Mexico
* LGEIL : Printed in India

4. Changes

REV. NO.	MM/DD/YY	SIGNATURE	CHANGE NO.	CHANGE CONTENTS
8				
7				
6				
5				
4				
3				
2				
1				

Pagination sheet

P/NO. 3828TSL094P
Total pages :36pages



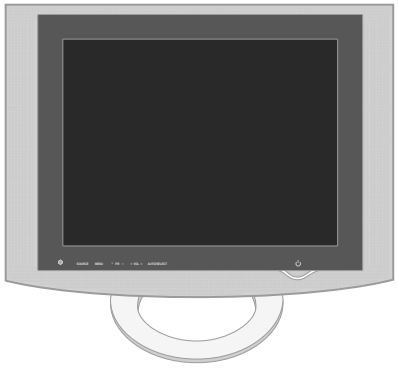
Website:http://biz.LGservice.com
E-mail:http://www.LGEservice.com/techsup.html

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-75

MODEL: FLATRON M1740A (M1740A-RZB.ANLF)**
FLATRON M1940A (M1940A-RZB.ANLF)**
FLATRON M2040A (M2040A-RZB.ALLF)**
( ) **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
Size	: 296.5 (V) x 358.5 (H) x 17.0 (D)-**M1740A**
	: 330.0 (V) x 404.2 (H) x 20.0 (D)-**M1940A**
	: 432 (V) x 331.5 (H) x 25 (D)-**M2040A**
Pixel Pitch	: 0.264mm x 0.264mm-**M1740A**
	: 0.098*RGB x 0.294mm-**M1940A**
	: 0.255 x 0.255mm-**M2040A**
Color Depth	: 6-bits + FRC, 16.2M colors-**M1740A,M1940A**
	: 8-bits, 16.777,216M colors-**M2040A**
Active Video Area	: 17 inch-**M1740A**
	: 19 inch-**M1940A**
	: 20.1 inch-**M2040A**
Surface Treatment	: Low Reflection Glare treatment, Hard Coating (2H)
Backlight Unit	: 4CCFL-**M1740A,-M1940A**
	: 6CCFL-**M2040A**
Opraating Mode	: Transmissive mode, Normally White-**M1740A,M1940A**
	: Transmissive mode, Normally Black-**M2040A**
Electrical Interface	: LVDS

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

M1740A,M1940A

Right : +60° min. +70° typ. Left : -60° min. -70° typ.
Top : +60° min. +70° typ. Bottom: -60° min. -70° typ.

M2040A

Right : +85° min. +88° typ. Left : -85° min. -88° typ.
Top : +85° min. +88° typ. Bottom: -85° min. -88° typ.

2-2. Luminance	: 300(min.), 420(typ.)-**M1740A**
	: 300(min.), 400(typ.)-**M1940A**
	: 250(min.), 300(typ.)-**M2040A**
2-3. Contrast Ratio	: 300(min.), 500(typ.)-**M1740A,M1940A**
2-3. Contrast Ratio	: 400(min.), 600(typ)-**M2040A**

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal
1) Type : Separate Sync, Composite, SOG, Digital
3-3. Operating Frequency
Horizontal : 30 ~ 83kHz
Vertical : 56 ~ 75Hz

4. SPECIAL FUNCTION

4-1. Audio AMP
1) Output : 3Wrms + 3Wrms-**M1740A,M1940A**
: 5Wrms + 5Wrms-**M2040A**
2) Freq. Character : 100Hz~10KHz Range(-3dB)
3) Input : PC - 0.7±0.1Vrms
AV - 0.5±0.1Vrms

4-2. SPEAKER

1) Impedance	: 16Ω
2) Input	: Max-5W, Normal-3W-**M1740A,M1940A**
	: Max-8W, Normal-5W-**M2040A**

4-3. TV

1) Type	: PAL
2) Tuner IF	: PIF - 38.9MHz
	SIF - 33.4MHz
	CIF - 34.47MHz
3) Receiving Channel	: VHF- Low : 45.25~140.25MHz
	HIGH : 147.25~423.25MHz
	UHF - 431.25~855.25MHz

4-4. AV

1) Video Level	: Input - 0.7±0.15Vp-p
2) Sync Level	: Input - 0.286±0.075Vp-p
3) Color Burst	: Input - 0.214±0.072Vp-p
4) Audio Level	: AV Input - 0.5±0.1Vrms
	PC Input - 0.7±0.1Vrms
5) Video Cross Talk	: 43dB

5. Max Resolution

SXGA : 1280 x 1024@75Hz-**M1740A,M1940A**
VXGA : 1600 x 1200@60Hz-**M2040A**

6. POWER SUPPLY

6-1. Power
100-240V~, 50/60Hz
6-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
ON MODE (NORMAL)	ON/ON	ACTIVE	less than 65 W-**M1740A,M1940A**	BLUE
			less than 74 W-**M2040A**	
			Audio X normal-50W-**M1740A-M1940A**	
			Audio X normal-64W-**M2040A**	
			Audio O normal-65W-**M1740A-M1940A**	
			Audio O normal-70W-**M2040A**	
SLEEP MODE	OFF/ON	OFF	less than 4 W	AMBER
OFF MODE (POWER SWICH OFF)	ON/OFF	OFF	less than 2 W	OFF

7. ENVIRONMENT

7-1. Operating Temperature : 10°C~35°C (50°F~95°F)
7-2. Operating Humidity : 20%~80%
7-3. MTBF : 50,000 Hours (Min.)
Lamp Life : 50,000 Hours (Min.)

8. DIMENSIONS (with TILT/SWIVEL)

M1740A
Width : 501.5 mm (19.74")
Depth : 158.2 mm (6.23")
Height : 500.3 mm (19.70")

M1940A
Width : 542.5 mm (21.36")
Depth : 222.8 mm (8.77")
Height : 541.4 mm (21.31")

M2040A
Width : 575.1 mm (22.64")
Depth : 221.1 mm (8.70")
Height : 557.5 mm (21.95")

9. WEIGHT (with TILT)

M1740A
Net. Weight : 6.65 kg (14.66 lbs)
Gross Weight : 10.05 kg (22.16 lbs)

M1940A
Net. Weight : 7.75 kg (17.09 lbs)
Gross Weight : 11.65 kg (25.69 lbs)

M2040A
Net. Weight : 8.7 kg (19.18 lbs)
Gross Weight : 13.4 kg (29.55 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

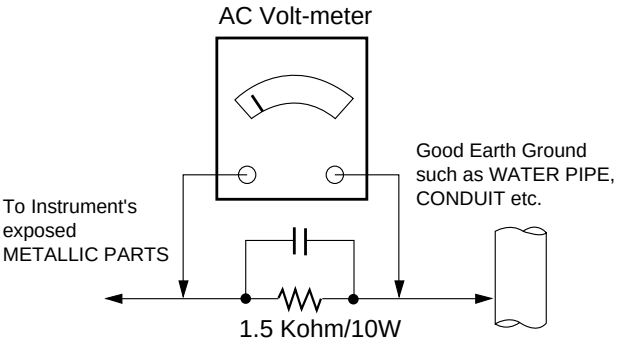
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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).

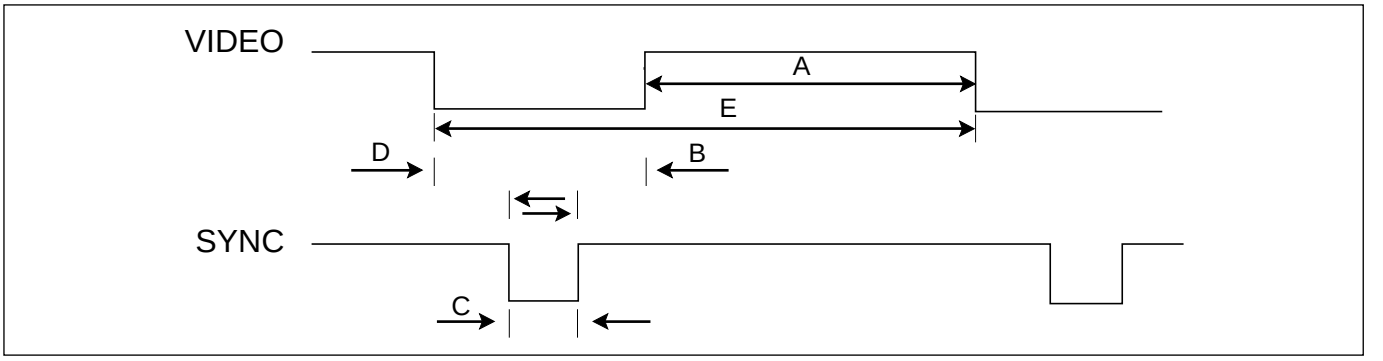
1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire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



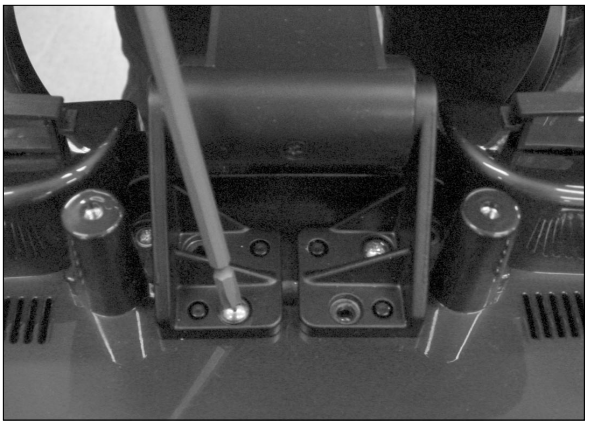
Mode	Section	Polarity	Dot Clock	Frequency	Total Period (E)	Display (A)	Front Porch (D)	Sync. (C)	Back Porch (B)	Resolution
1	H(Pixels)	+	25.175	31.469	800	640	16	96	48	640 x 350
	V(Lines)	-		70.09	449	350	37	2	60	
2	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X 400
	V(Lines)	+		70.08	449	400	12	2	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	79.98	1688	1280	16	144	248	1280 x 1024
	V(Lines)	+		75.02	1066	1024	1	3	38	
14 Only M2040A	H(Pixels)	+	162.0	75.0	2160	1600	64	192	304	1600 x 1200
	V(Lines)	+		60.0	1250	1200	1	3	46	

DISASSEMBLY

 # 1

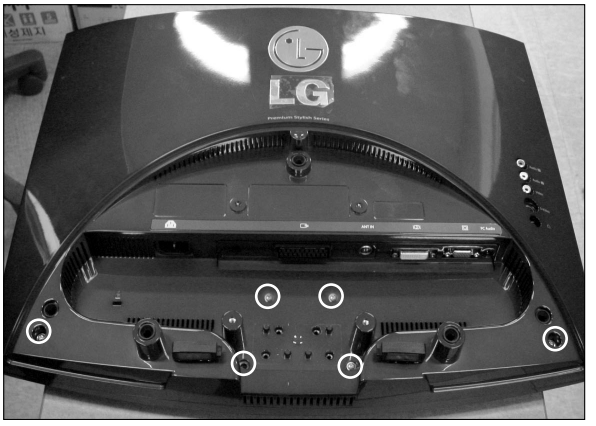
Disassembly Hinge Cover.

 # 2



Remove the screws.

 # 3

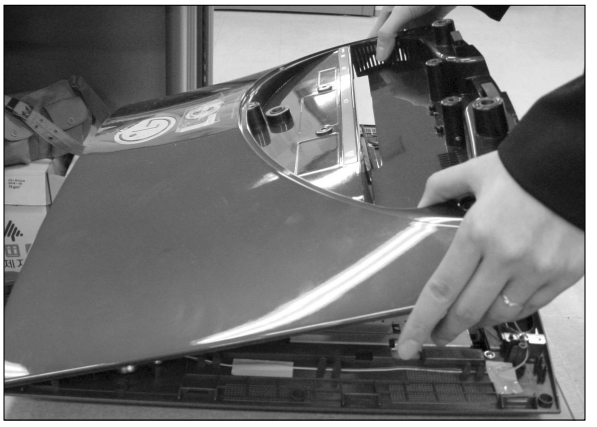


Remove the screws.

 # 4

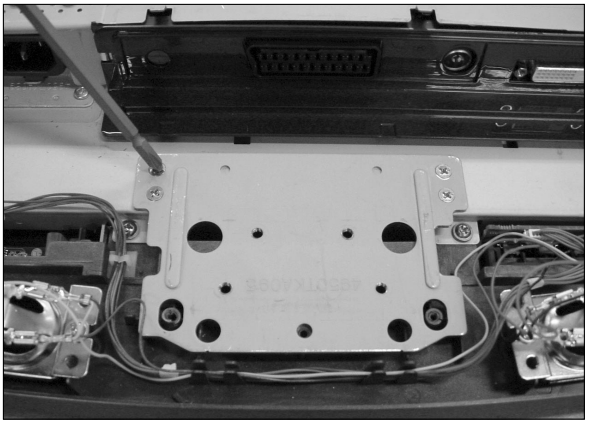
Open the Backcover's latch with Jig.

 # 5



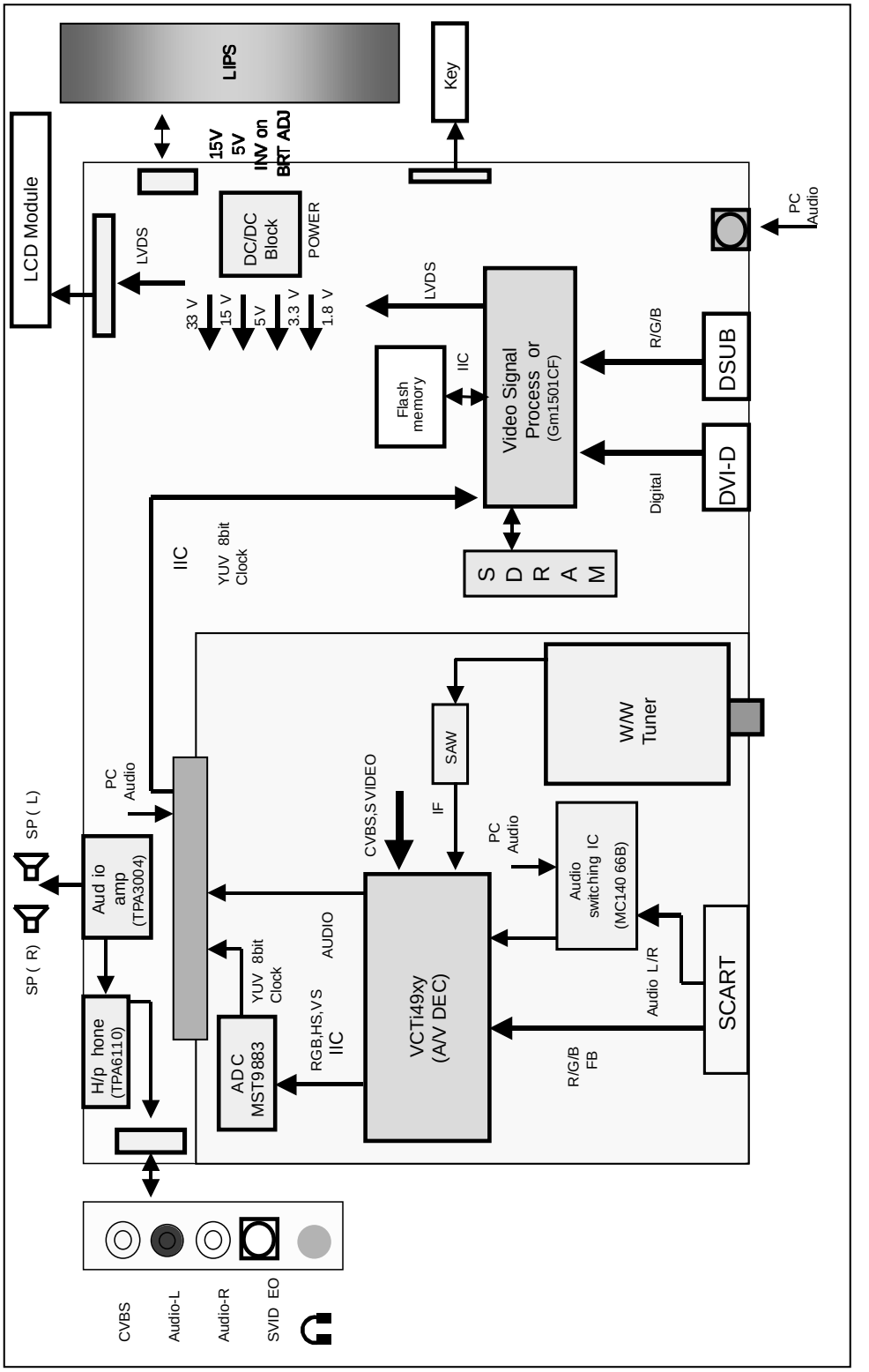
Disassemble back cover.

 # 6



Remove the 4 screws of metal frame.

BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Format Converter (MST9883C)(U702)

This IC contain A/D converter, Pre-amp and PLL circuit that converting.
Analog video signal(0.7p-p RGB) to digital signal.(656 Format)

2. Power Supply Block (LIPS)

This Block Generates DC Voltage (5V,15V) to Main Control system from AC Power (100-240V, 50/60Hz, 1.0A)
The Minimum of Power efficiency is about 80%.

3. DC/DC Converter block

DC/DC Converter convert the input 5V,15V to proper 3.3V,5V,12V for Main control system.
For shooting heat trouble, we use the DC/DC converting IC

4. Audio Amplifier (TPA3004D2)(U201)

This block is composed of TPA3004D2 and peripheral device
The function of the audio amplifier is that to amplify audio L / R signal transmitted from audio decoder.
The audio signal is amplified according to pre-defined DC volume control curve. Also, headphone amplifier (TPA6110) is controlled through line-out.

5. Audio / Video / IF Decoder(U601)

This block is composed of VCT49xy and peripheral devices.
Micom controls this IC through IIC Line.

1) Video Decoder
   This Block Selects input Video signals (like CVBS, Y/C, SCART RGB) and output RGB signal.
   On decoding, We can control signal like Contrast, Brightness, Sharpness, Color, tint signals including Adaptive Comb Filter.
2) Audio Decoder
   This block analyzes audio input signal through A/V Jack and PC audio and Tuner IF.
   The analyzed signals transmitted to audio amplifier (TPA3004D2)
   On decoding, We can control signal like Bass, treble.
3) IF Decoder
   This block can change IF signal to audio and video signal that transmitted to Video/audio decoder.

6.Video signal processor (Scaler IC) (U401)

It is composed of GM1501
Micom control this IC through IIC Line.
This IC include A/D converter for PC input and LVDS Transmitter.
This IC is directly inputted Analog and Digital Signal and transmits to LCD Module.

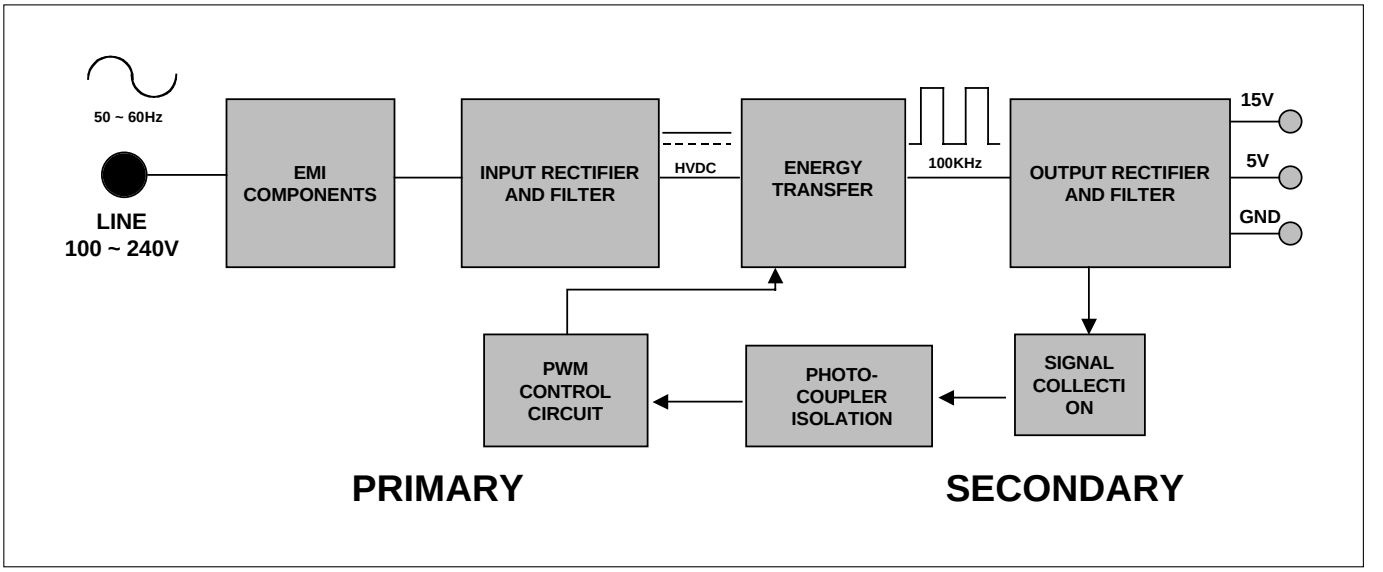
7. Micom (4M Flash Memory) (U403)

It is composed of AT49BV040A.
This IC controls peripheral devices through IIC line.

8. TUNER(TU802)

Micom controls this IC through IIC Line.
TUNER makes IF and transmits IF signal to VCT49xy.

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.

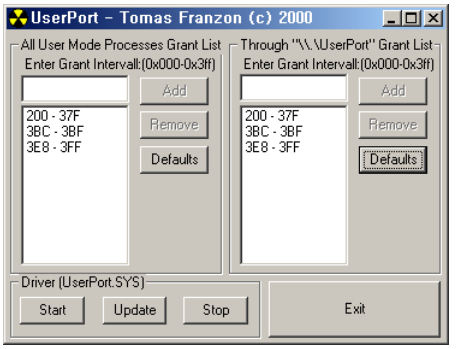
This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

ADJUSTMENT

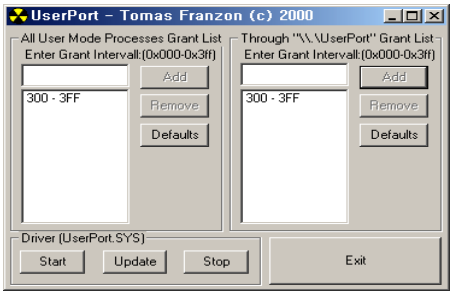
Windows EDID V1.0 User Manual

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

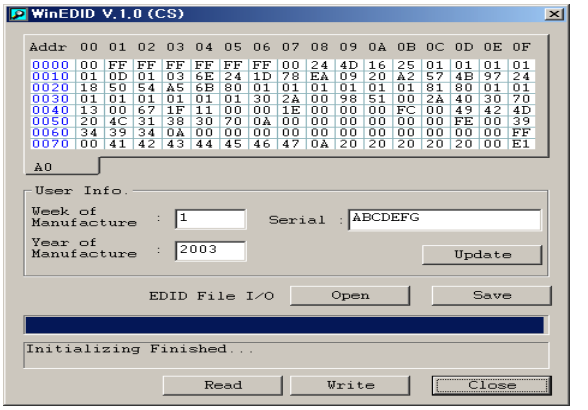


   c) Remove all default number
   d) Add 300-3FF

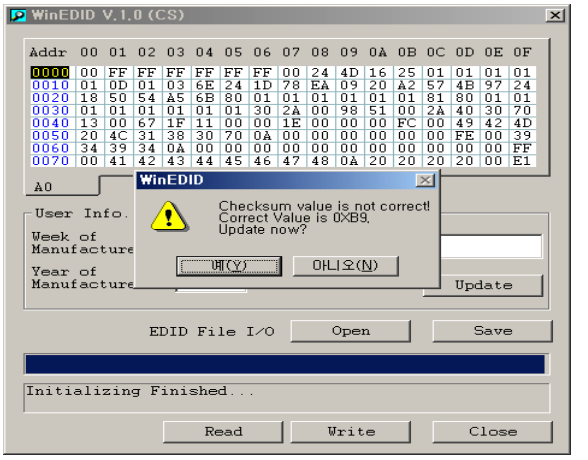


   e) Click Start button.
   f) Click Exit button.

2. EDID Read & Write
   1) Run WinEDID.exe

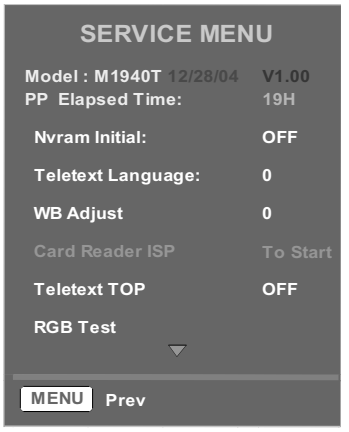


   2) Edit Week of Manufacture, Year of Manufacture, Serial Number
      a) Input User Info Data
      b) Click "Update" button
      c) Click " Write" button



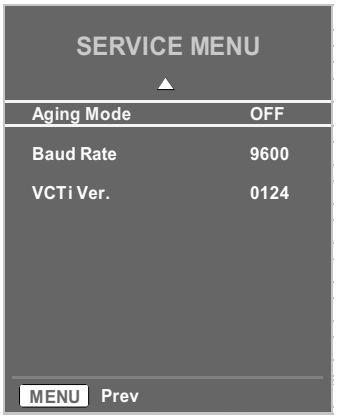
EEPROM initialize : <COMMAND: 0xE4 0x00 0x00>
ADC adjustment(Black) : <COMMAND: 0xF1 0x00 0x00>
ADC adjustment(white) : <COMMAND: 0xF1 0x00 0x01>
AV Mode
ADC adjustment (Red) <COMMAND : 0x16 0x00 0x00(0x00~FF)>
ADC adjustment (Green) <COMMAND : 0x18 0x00 0x00(0x00~FF)>
ADC adjustment (Blue) <COMMAND : 0x1A 0x00 0x00(0x00~FF)>
Factory shipping condition
: <COMMAND: 0xE4 0x00 0x01> or Remotecontroller "MENU + 3 +0 +2 + 0"
=>SVC MENU => NVRAM initial => ON
Teletext language selection
: Remotecontroller "MENU + 3 +0 +2 + 0" or SVC Renote controller "INSTART" Key=>SVC MENU =>Teletext Language => 0~16 (According to product spec or suffix)

SERVICE OSD



■ Description of operation

- Elapsed time : Time used for back light
- Nvram Initial : NVRAM reset (Factory Reset)
- Teletext Language : Sets the Teletext Coad
- WB Adjust : Adjusts the white balance
- Card Reader ISP : The use the Card Reader ISP
  (N/A in M1740A,M1940A,M2040A)
- Teletext TOP : The use the TOP (On / Off)
- RGB Test : Adjusts RGB Gain, Offset, Sub-Contrast/Sub-Brightness



■ Description of operation

- Aging Mode : Sets the aging mode
- Baud Rate : Sets the Baud Rate
- VCTi version : Show the VCTi version

Teletext Language Code	Country		
0	WEST EU	West Europe Recommended data	English, France, Scandinavian, Czech, German, Spain, Portuguese, Italian
1	EAST EU	East Europe Recommended data	Polish, France, Scandinavian, Czech, Slovak, German, Slovenian, Croatian, Italian, Rumanian
2	TURKEY + W EU	Recommended data	English, France, Scandinavian, Turkish, German, Spain, Portuguese, Italian, Greek
3			English, Czech, Hungary, German, Polish, Serbia, Turkish, Rumanian,
4	CYRILLIC 1		(Polish/Russian/Estonian),(Lettish/Estonian)
5	CYRILLIC 2		Polish, Russian, Scandinavian, Czech, Estonian, Lettish
6	CYRILLIC 3	Recommended data	English, Russian, Estonian, Czech, Slovak, German, Ukrainian, Lettish, Lithuanian
7	TURKEY / Greek 1	-	English, France, Scandinavian, Turkish, German, Spain, Italian, Greek
8	TURKEY / Greek 2	-	(English/Turkish), (German/Turkish), Greek
9	TURKEY / Greek 3	A sphere of Turkey & Greek Recommended data	English, France, Scandinavian, Turkish, German, Spain, Italian, Greek
10	ARAB / FRANCE	-	(France/English) , (Turkish/English) , Arabic
11	ARAB / ENGLISH	A sphere of Arab Recommended data	(English/France) , (Turkish/France), Arabic
12	ARAB / HEBREW 1	-	Hebrew, Arabic
13	ARAB / HEBREW 2	Recommended data	(English/France/Arabic) , (Hebrew/Arabic)
14	FARSI / ENGLISH	A sphere of Farsi Recommended data	(English/France) , (Turkish/France) , Farsi
15	FARSI / FRANCE	-	France , (Turkish/ France) , Farsi
16	FARSI ALL	-	English, France, Farsi

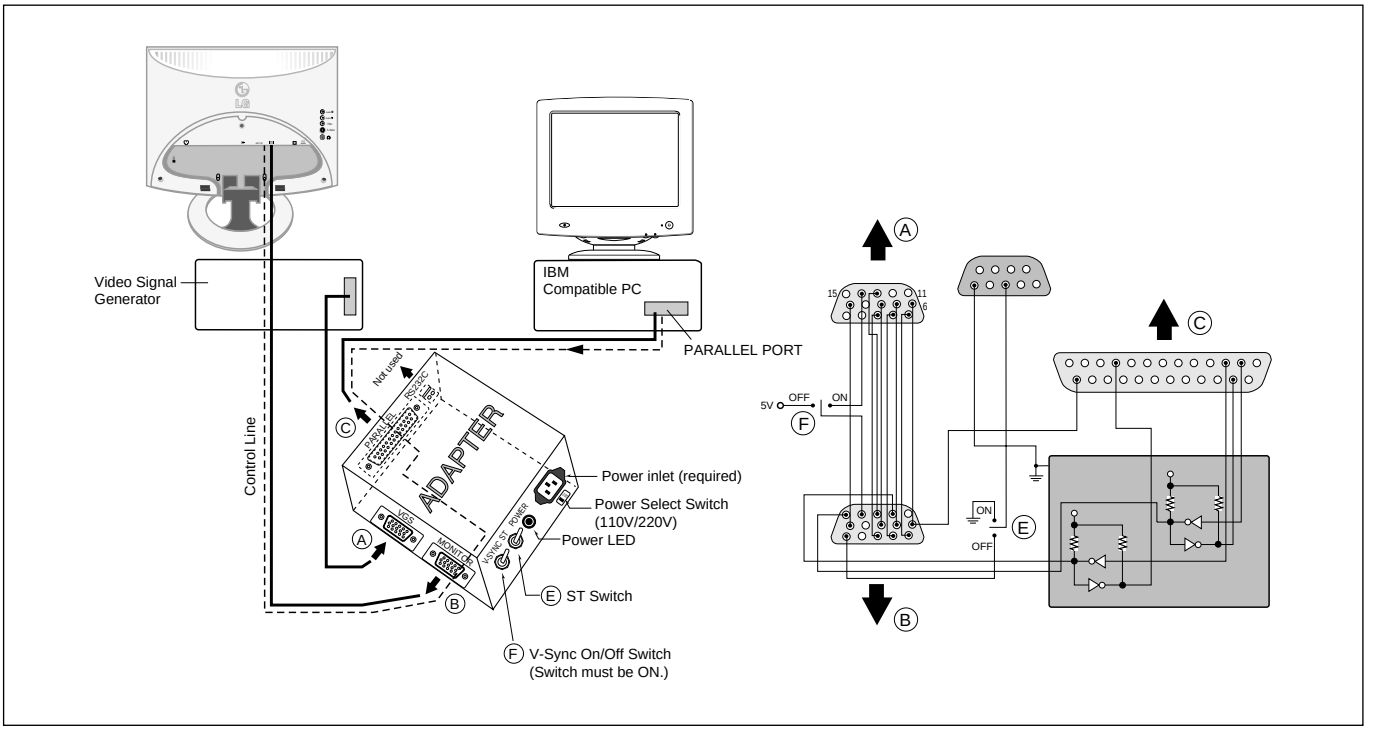
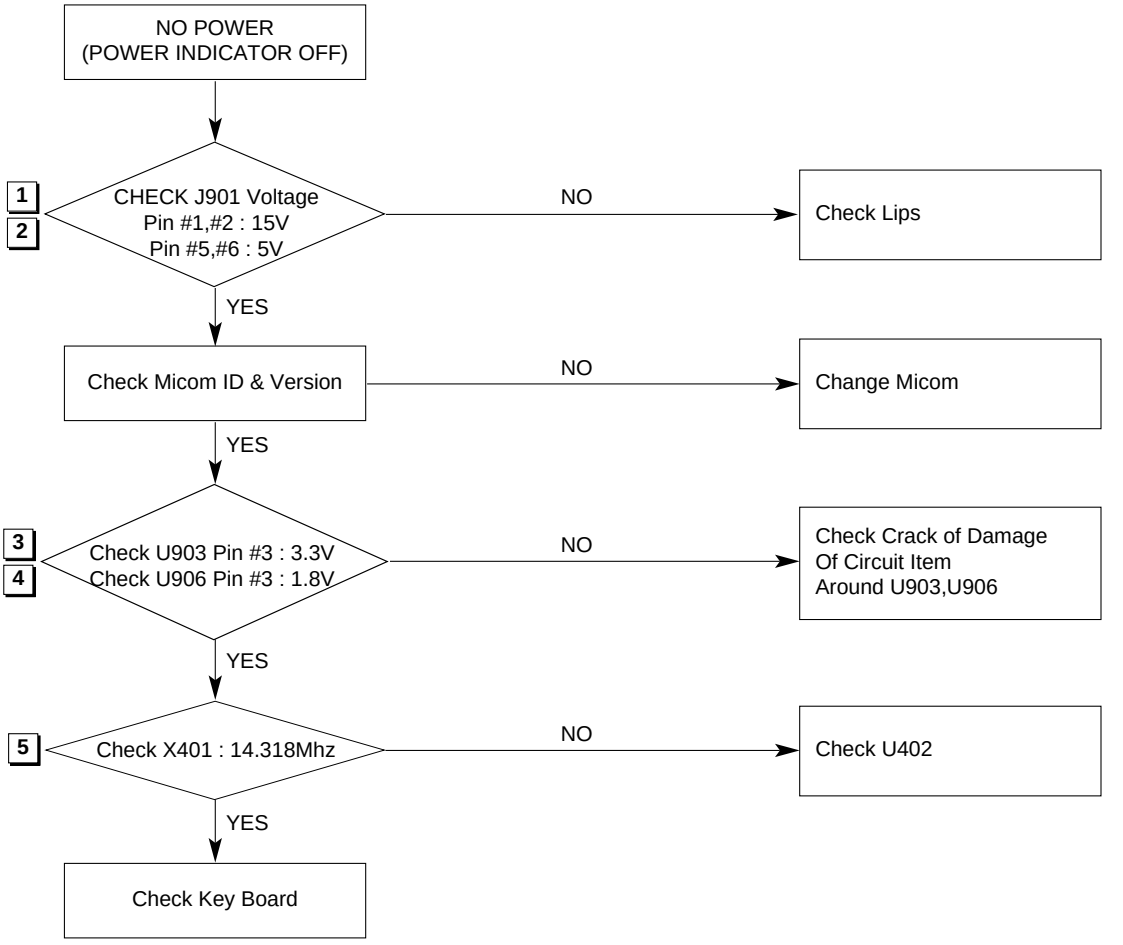


Figure 1. Cable Connection

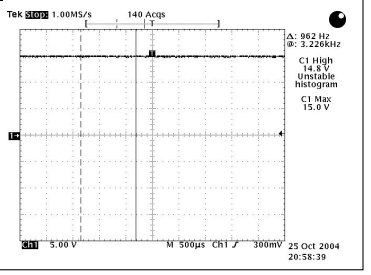
TROUBLESHOOTING GUIDE

1. NO POWER

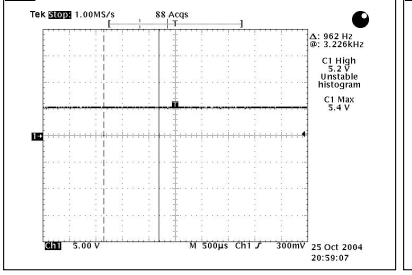


Waveforms

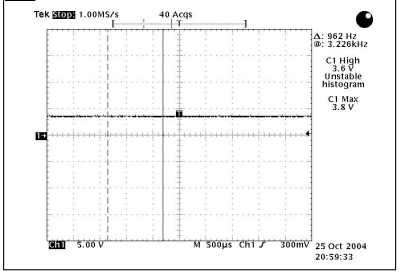
1 J901-#1,2(15V)



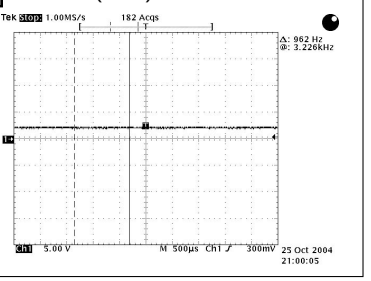
2 J901-#5,6(5V)



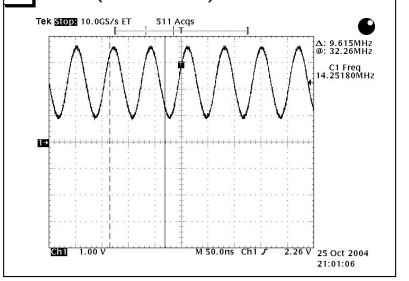
3 U903-#3(3.3V)



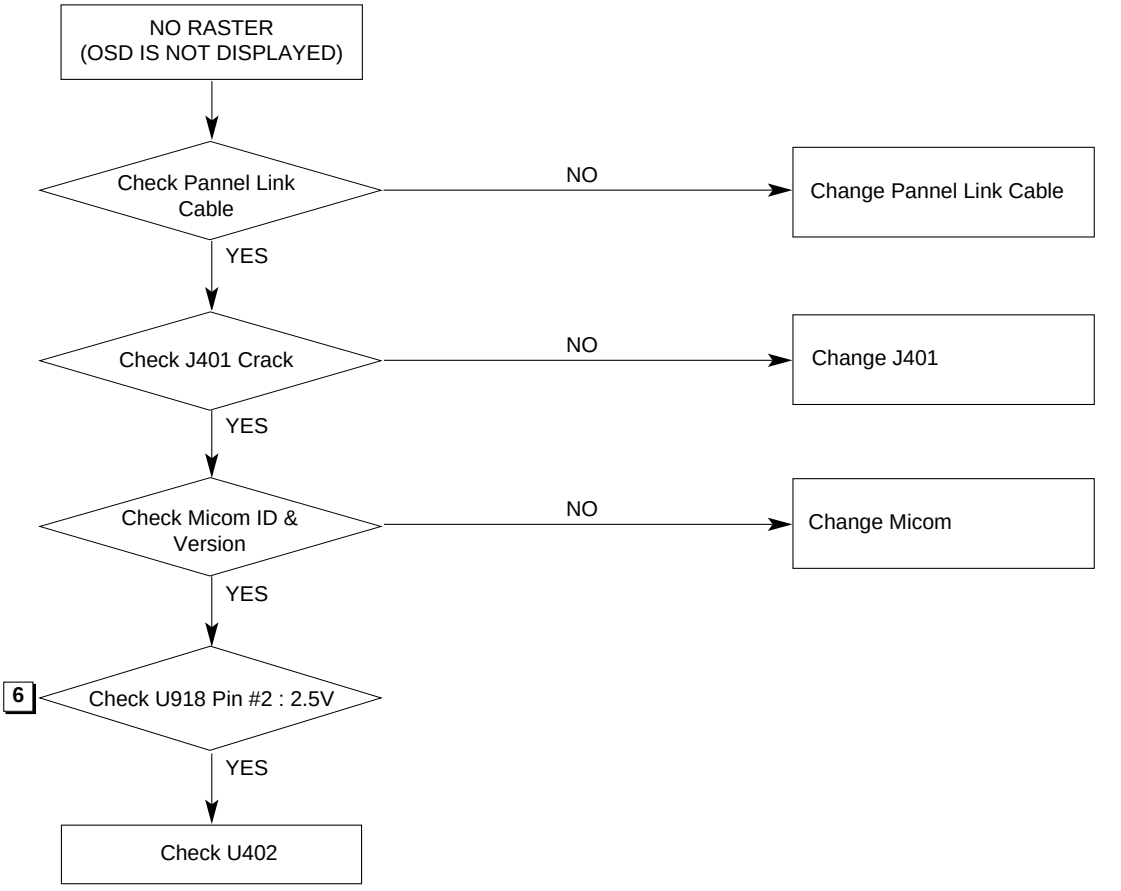
4 U906-#3(1.8V)



5 X401(14.318Mhz)

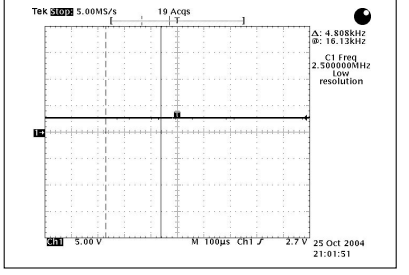


2. NO RASTER(OSD IS NOT DISPLAYED)

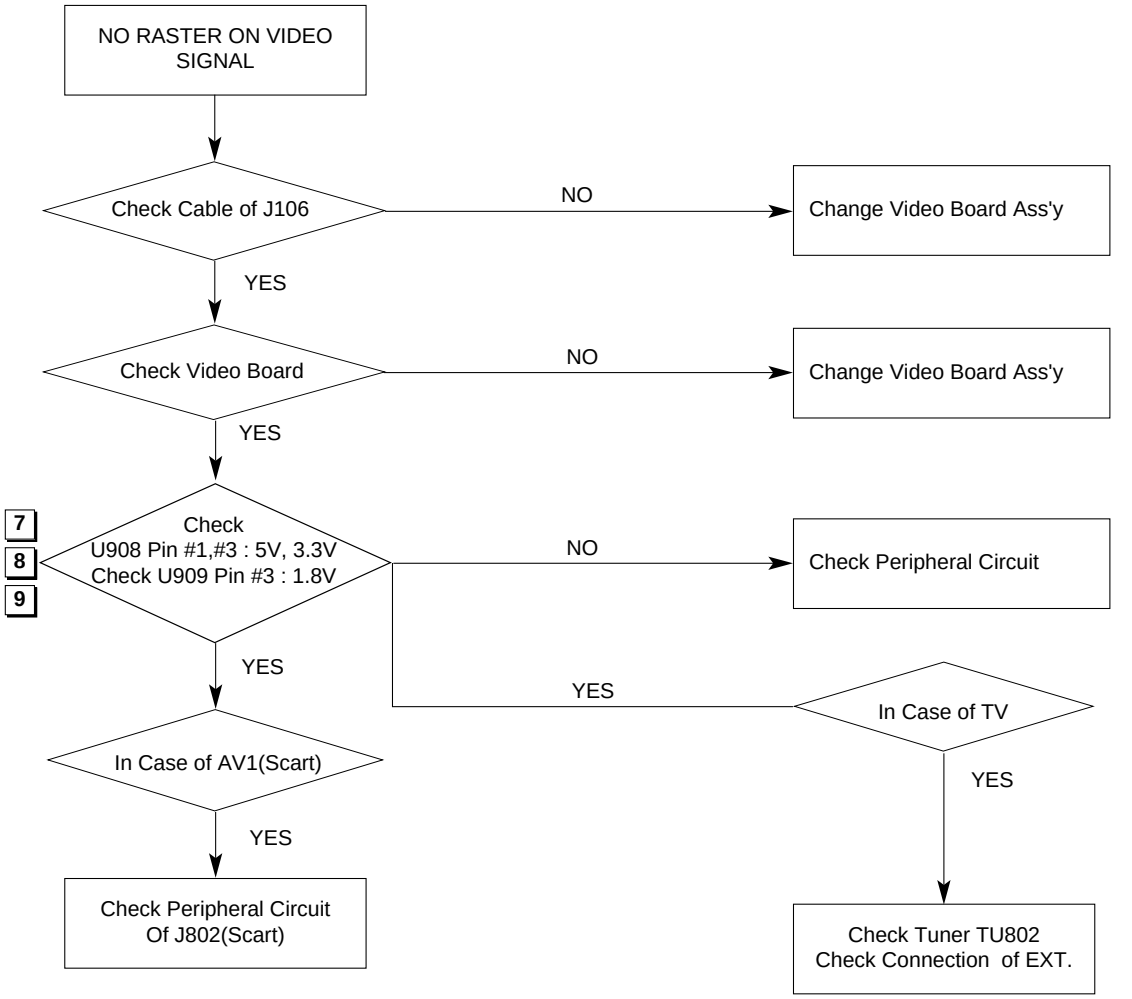


Waveforms

6 U918-#2(2.5V)

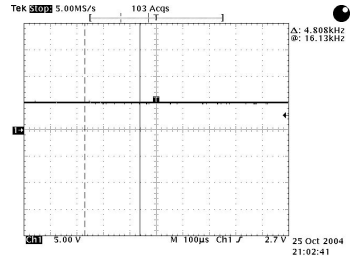


3. NO RASTER ON AV1, AV2, TV

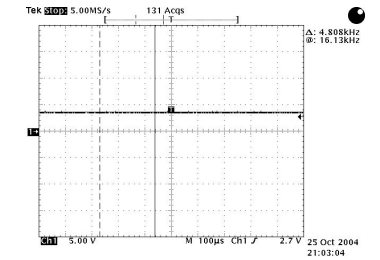


Waveforms

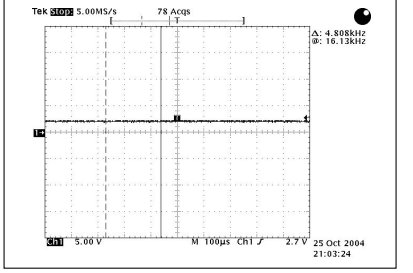
7 U908-#1(5V)



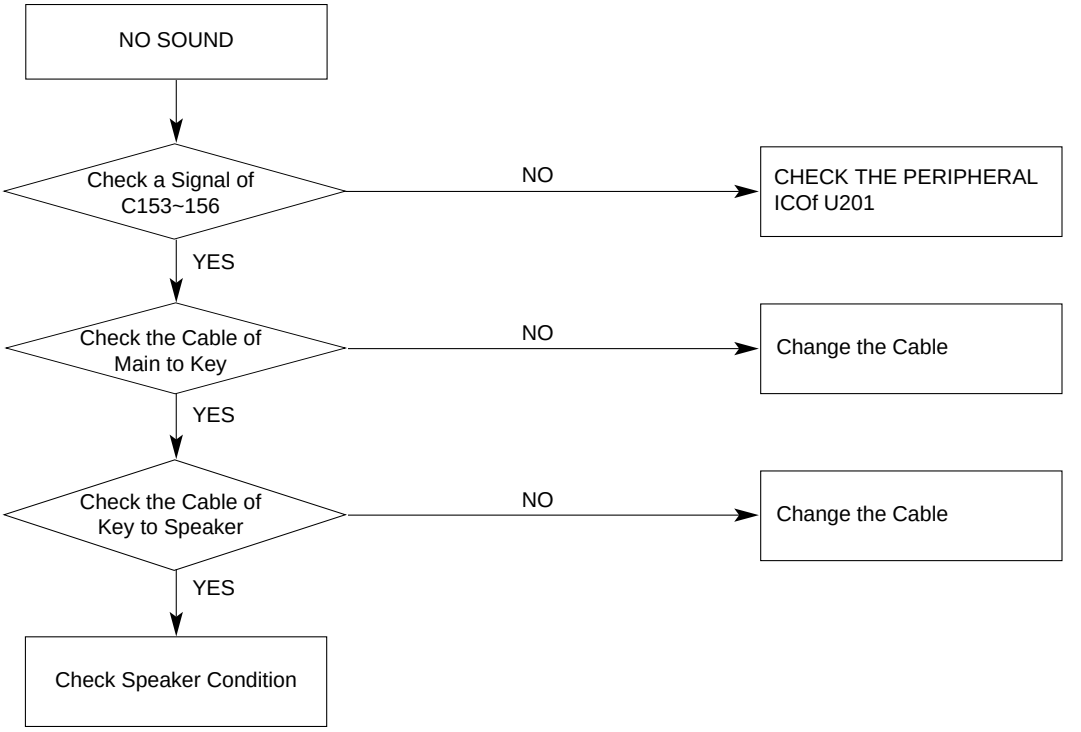
8 U908-#3(3.3V)



9 U909-#3(1.8V)



4. NO SOUND



<< CHECK INPUT SIGNAL>>

PC Mode

1.Check J103 Peripheral Circuit
2. Check U803 #5, Voltage Must over 8V

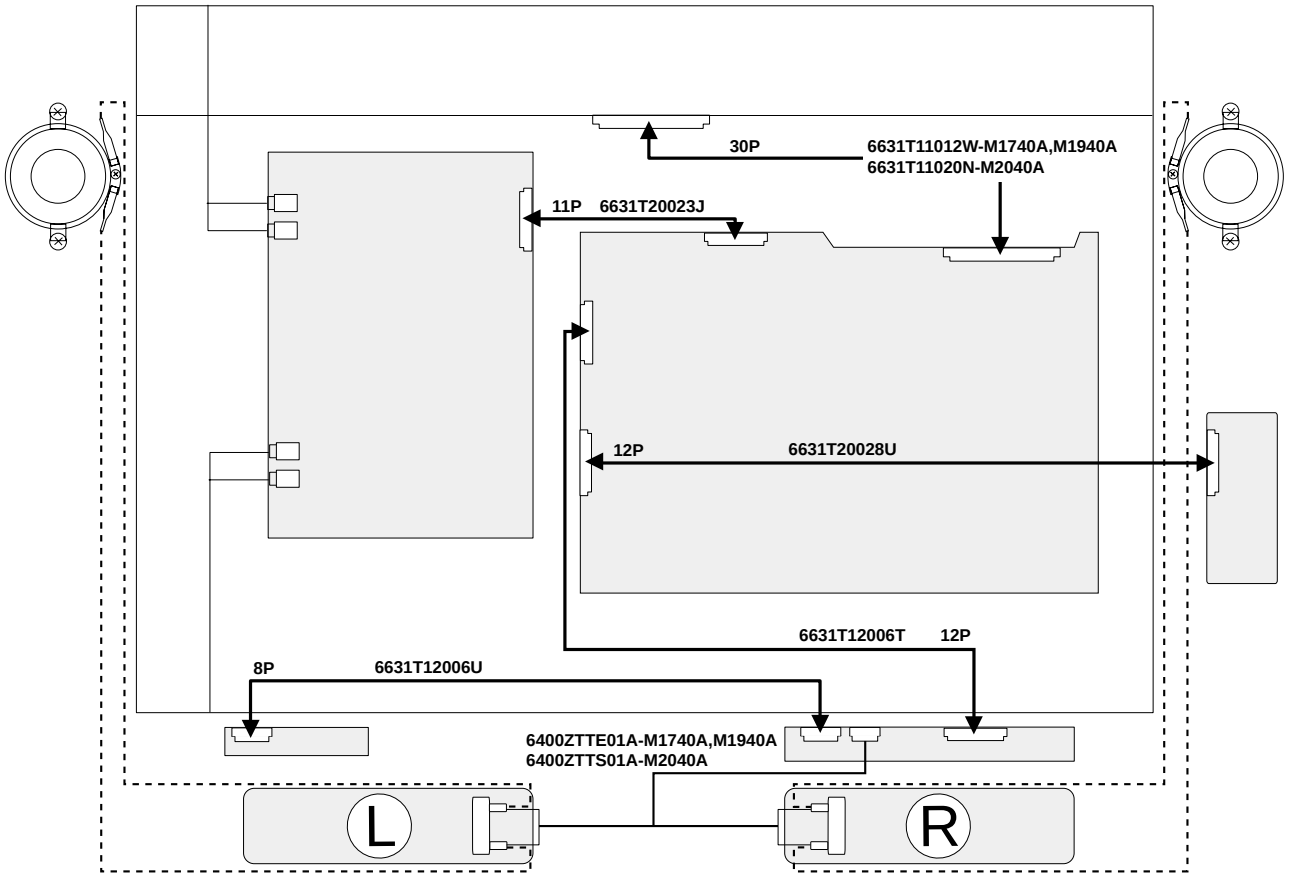
AV1 Mode

1.Check Scart Connection
2.Check No Raster AV1

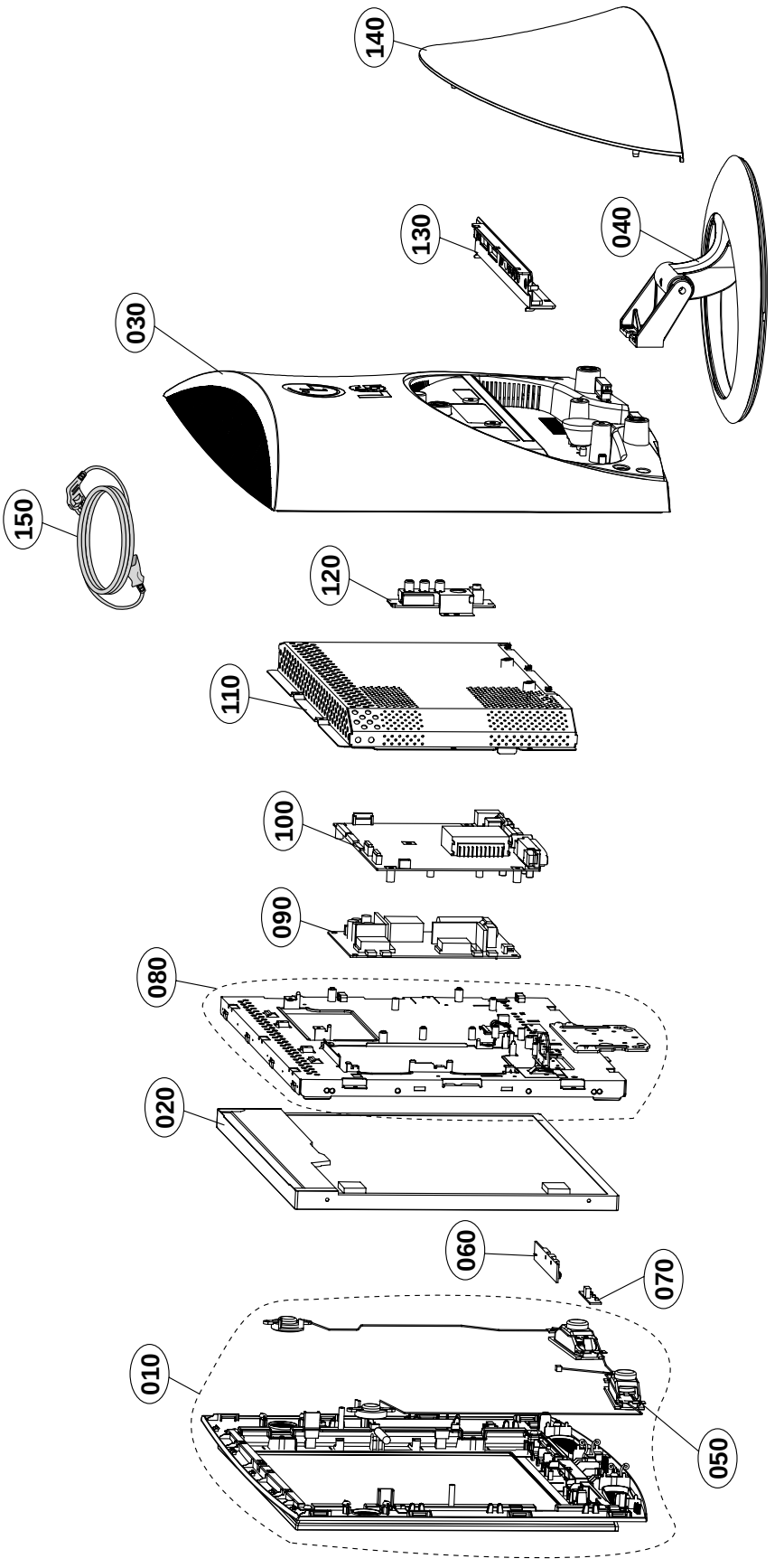
AV2 Mode

1.Check C605, C606
2.If No Signal on C605 or C606, Change Video Board

WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
010	3091TKL150B	CABINET ASSEMBLY, **M1740A** BRAND 3090TKL127 MFM A-CKD-**For Europe,U.K**
	3091TKL150K	CABINET ASSEMBLY, **M1740A** BRAND 3090TKL127 MFM J CKD-**For Russia**
	3091TKL151B	CABINET ASSEMBLY, **M1940A** BRAND 3090TKL129 MFM A-CKD-**For Europe,U.K**
	3091TKL151K	CABINET ASSEMBLY, **M1940A** BRAND 3090TKL129 MFM J-CKD-**For Russia**
	3091TKL152B	CABINET ASSEMBLY, **M2040A** BRAND 3090TKL131 MFM B-CKD-**For Europe,U.K**
	3091TKL152K	CABINET ASSEMBLY, **M2040A** BRAND 3090TKL131 MFM J-CKD-**For Russia**
020	6304FLP261A	LCD(LIQUID CRYSTAL DISPLAY), **LM170E01-TL12** LG PHILPS TFT COLOR DOT FREE,PB FREE,GLARE,TN,420NITS,8MS,LAMP UNLOCKING,SXGA,LVDS
	or 6304FLP202A	LCD(LIQUID CRYSTAL DISPLAY), **LM170E01-TL11** LG PHILPS TFT COLOR PB FREE,GLARE,TN,420NITS,8MS,LAMP UNLOCKING,SXGA,LVDS
	6304FLP197A	LCD(LIQUID CRYSTAL DISPLAY), **LM190E03-A4K2** LG PHILPS TFT COLOR GLARE,TN,400NITS,12MS,SOUND VIBRATION,20T,SXGA,LVDS
	or 6304FLP262A	LCD(LIQUID CRYSTAL DISPLAY), **LM190E03-A4K6** LG PHILPS TFT COLOR DOT FREE,PB FREE OF A4K2,GLARE,TN,400NITS,12MS,SOUND VIBRATION,20T
	6304FLP282A	LCD(LIQUID CRYSTAL DISPLAY), **LM201U04-SL03** LG PHILPS TFT COLOR P6,GLARE,300NITS,16MS,PB FREE,UXGA,8BITS,LVDS,4MASK
030	3809TKL105B	BACK COVER ASSEMBLY, **M1740A** 3808TKL105 MFM A-CKD
	3809TKL106B	BACK COVER ASSEMBLY, **M1940A** 3808TKL106 MFM A-CKD
	3809TKL107B	BACK COVER ASSEMBLY, **M2040A** 3808TKL107 MFM A-CKD
040	3043900013F	TILT SWIVEL ASSEMBLY, **M1740** . 226U-(E-CKD)SLIVER SPRAY
	3043TKK230F	TILT SWIVEL ASSEMBLY, **M1940A** . SILVER, E-CKD-**M2040A**
050	6400ZTTE01A	SPEAKER,FULLRANGE, KTA-N1040-1 TOPTONE OTHERS 16OHM 3/5W .DB 100 TW+WF,**M1740A,M1940A**
	6400ZTTS01A	SPEAKER,FULLRANGE, KTA-N1527-1 TOPTONE OTHERS 16OHM 5/7W .DB 70 TW+WF,**M2040A**
060	6871TST914A	PWB(PCB) ASSEMBLY,SUB, M1740A/M1940A/M2040A CONTROL TOTAL BRAND KEY
070	6871TSP685B	PWB(PCB) ASSEMBLY,SUB, M1740A/M1940A/M2040A LED & P/SW SMD TOP BRAND TOUCH
080	4951TKS189F	METAL ASSEMBLY, FRAME MAIN ASSY **M1740A** E-CKD
	4951TKS190F	METAL ASSEMBLY, FRAME MAIN ASSY **M1940A** E-CKD
	4951TKS207D	METAL ASSEMBLY, FRAME **M2040A** MAIN FRAME,SUPPORT(B-CKD)
090	6871TPT281E	PWB(PCB) ASSEMBLY,POWER, AUTOBAHN 15(LPL,CMO,HYDIS) & L173SAB(MFM) LPL POWER TOTAL SPI LIPS.-**M1740A,M1940A**
	6871TPT280G	PWB(PCB) ASSEMBLY,POWER, M203WTB(CARD READER) POWER TOTAL LIEN CHANG LIPS FOR LPL 20.1-**M2040A**
100	3313TL7102A	MAIN TOTAL ASSEMBLY, **M1740A-RZB**-ANRDLF BRAND CL-74
	3313TL9093A	MAIN TOTAL ASSEMBLY, **M1940A-RZB**-ANRDLF BRAND CL-74
	3313TL2036A	MAIN TOTAL ASSEMBLY, **M2040A-RZB**-ANRDLF BRAND CL-75
110	4950TKA149D	METAL, FRAME ,REAR(**M1740A**) A-CKD
	4950TKA149C	METAL, FRAME ,REAR(**M1940A**) B-CKD
	4950TKA154A	METAL, FRAME ,REAR **M2040T**
120	6871TVT386A	PWB(PCB) ASSEMBLY,VIDEO, **M1740A/M1940A** VIDEO TOTAL BRAND CVBS
	6871TVT386B	PWB(PCB) ASSEMBLY,VIDEO, **M2040A** VIDEO TOTAL BRAND CVBS
130	3550TKK793B	COVER, **M1740T** REAR DOOR A-CKD
	3550TKK794B	COVER, **M1940T** REAR DOOR A-CKD
	3550TKK795B	COVER, **M2040A** REAR DOOR CKD
140	6410TEW010A	POWER CORD LP34A+LS60 LONGWELL VDE/SEMKO 1870MM WALL CD/PB FREE BLACK-**For Europe**
	6410TPW003A	POWER CORD LP-33+LS-60 LONGWELL PCT 1870MM WALL CD/PB FREE BLACK-**For Russia**
	6410TBW004A	POWER CORD LP-61+LS-60 LONGWELL BSI 1870MM WALL CD/PB FREE BLACK-**For U.K**

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: 2005. 11. 30.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C101	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C102	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C103	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C104	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C105	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C106	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C107	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C108	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C109	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C110	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C111	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C112	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C113	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C114	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C115	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C116	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C117	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C118	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C119	0CH6680K416	68PF 2012 50V 5% NP0 R/TP
		C120	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C121	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C122	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C125	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C128	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C150	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C151	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C152	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C153	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C154	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C155	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C156	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C157	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C158	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C201	0CH8476H691	47UF 25V 20% 105STD (CYL) R/
		C202	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C203	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C204	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C205	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C206	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C207	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C208	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C209	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C210	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C211	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C212	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C213	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C214	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C215	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C216	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C217	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C218	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C219	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"

DATE: 2005. 11. 30.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C220	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C221	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C222	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C223	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C224	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C225	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C226	0CH8476H691	47UF 25V 20% 105STD (CYL) R/
		C227	0CH8476H691	47UF 25V 20% 105STD (CYL) R/
		C228	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C230	0CE227EF638	"220UF KMG,RD 16V 20% TP 5 FM"
		C231	0CE227EF638	"220UF KMG,RD 16V 20% TP 5 FM"
		C232	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C250	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C251	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C252	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C253	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C254	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C255	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C256	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C257	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C258	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C259	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C260	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C261	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C262	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R
		C401	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C402	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C403	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C404	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C405	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C406	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C407	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C408	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C409	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C410	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C411	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C424	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C425	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C430	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C464	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C470	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C471	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C472	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C473	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C474	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C475	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C476	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C477	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C478	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C479	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C480	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C481	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C482	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C483	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP

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		C484	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C487	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C488	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C489	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C490	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C491	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C492	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C493	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C494	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C495	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C496	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C497	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C498	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C499	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C601	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C602	0CE227EF638	"220UF KMG,RD 16V 20% TP 5 FM"
		C603	0CE476WF6DC	47UF MVK 16V 20% R/TP(SMD) S
		C604	0CE476WF6DC	47UF MVK 16V 20% R/TP(SMD) S
		C605	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C606	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C607	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C608	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C609	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C611	0CE335WK6D8	"3.3UF MVK,RC 50V 20% SMD TAP"
		C612	0CE226EK610	"22UF KMG,RD 50V 20% FL BULK"
		C613	0CE475WJ6DC	4.7UF MVK 35V 20% R/TP(SMD)
		C614	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C618	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C622	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C623	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C624	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C625	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C626	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C627	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C628	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C629	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C630	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C631	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C632	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C633	0CK334CF94A	"0.33UF 1608 16V 80%,-20% F(Y"
		C634	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C635	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C636	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C637	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C638	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C639	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C640	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C641	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C642	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C643	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C644	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C645	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C646	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C647	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C648	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C649	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C650	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C651	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C652	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C653	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C654	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C655	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP

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		C656	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C657	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C658	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C659	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C660	0CH6220K416	22PF 2012 50V 5% NP0 -
		C661	0CH6220K416	22PF 2012 50V 5% NP0 -
		C662	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C663	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C801	0CH2273K516	0.027UF 50V 10% B(Y5P) 2012
		C802	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C803	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C804	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C805	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C806	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C807	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C808	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C809	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C810	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C811	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C812	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C813	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C814	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C815	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C816	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C817	0CH6680K416	68PF 2012 50V 5% NP0 R/TP
		C818	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C819	0CH6680K416	68PF 2012 50V 5% NP0 R/TP
		C820	0CH6101K416	100PF 50V 5% NP0 2012 R/TP
		C821	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C822	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C823	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C824	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C828	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C829	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C830	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C831	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C832	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C838	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C839	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C840	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C841	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C842	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C843	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C844	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C845	0CK392CK56A	3900PF 1608 50V 10% R/TP X7R
		C846	0CK393CK56A	39000PF 1608 50V 10% R/TP X7
		C847	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C848	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C849	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C850	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C851	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C852	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C853	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C854	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C856	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C857	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C858	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C860	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C861	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP F"
		C862	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C863	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C870	0CK475CC94A	"4.7UF 1608 6.3V 80%,-20% F(Y"

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		C871	0CK475CC94A	"4.7UF 1608 6.3V 80%,-20% F(Y"
		C901	0CE477EH618	470UF KMG 25V 20% FL TP 5
		C902	0CE477EF638	470UF KMG 16V M FM5 TP 5
		C903	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C904	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C905	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C906	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C910	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C911	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C912	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C913	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C914	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C915	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C919	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C920	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C921	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C922	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C923	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C924	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C925	0CE477EF638	470UF KMG 16V M FM5 TP 5
		C926	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C927	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C928	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C929	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C930	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C931	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C934	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C936	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V)"
		C937	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R
		C938	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C939	0CE107EH638	100UF KMG 25V M FM5 TP 5
		C941	0CZZTAT002B	SVP SANYO 10V 47UF M REEL OS
		C942	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C943	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C944	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C945	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R
		C946	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C947	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C949	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C950	0CH8106F691	10UF 16V 20% 105STD (CYL) R/
		C951	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C952	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C953	0CH6102K406	1000PF 50V 5% SL 2012 R/TP
		C954	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C955	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C956	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C957	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C958	0CE226EK610	"22UF KMG,RD 50V 20% FL BULK"
		C959	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C960	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C961	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C962	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C963	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R-**M1710A,M1910A**
		C964	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R X7R-**M1710A,M1910A**
		C965	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y X7R-**M1710A,M1910A**
		C966	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK" X7R-**M1710A,M1910A**
		C967	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C968	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R
		C969	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C970	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C971	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C972	0CK102CK56A	1000PF 1608 50V 0.1 R/TP X7R

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		C973	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C974	0CE107EF610	"100UF KMG,RD 16V 20% FL BULK"
		C975	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C976	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y5"-**M2040A**
		C978	0CK475FH67A	4.7UF 3225 25V 20% X5R R/TP-**M2040A**
		DIODEs		
		D101	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D101	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D102	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D102	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D103	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D103	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D104	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D104	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D105	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D105	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D106	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D106	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D107	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D107	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D108	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D108	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D109	0DSIH00028A	MC2838-T112-1 ISAHAYA R/TP S X7R-**M1710A,M1910A**
		D109	0DD184009AA	KDS184 TP KEC - 85V - - - 30-**M2040A**
		D110	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D110	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D111	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D111	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D112	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D112	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D601	0DSIH00018A	"ENKMC2837-T112,LF ISAHAYA R/" X7R-**M1710A,M1910A**
		D601	0DS226009AA	KDS226 TP KEC - 80V - - 4NSE-**M2040A**
		D901	0DZ330009DF	MTZJ33B TP ROHM-K DO34 0.5W
		D902	0DRGS00199A	UF4001 GENERAL SEMICONDUCTOR
		D903	0DZ330009DF	MTZJ33B TP ROHM-K DO34 0.5W
		D904	0DRSG00028A	"STPS340U,LF SGS-THOMSON R/TP"-**M2040A**
		Q101	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		Q102	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		ZD101	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD102	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD103	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD104	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD105	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD106	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD107	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD108	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD109	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD110	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD111	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD112	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD113	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD115	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD116	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD117	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD118	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD201	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD801	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD802	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD803	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD804	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323

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		ZD805	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD807	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD808	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD809	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD810	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD811	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD812	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD813	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD814	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD815	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD816	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD901	0DZ120009CF	UDZ 12B TP ROHM-K SOD323 200
		ICs		
		Q404	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		Q608	0IKE702900G	KIA7029AF SOT-89 TP 2.9V VOL
		U101	0IMMRSG036A	"M24C02-WMN6T(P),LF SGS-THOMS"
		U102	0IMMRSG036A	"M24C02-WMN6T(P),LF SGS-THOMS"
		U104	0IKE780500X	KIA78L05BP T0-92L TP 5V REGU
		U201	0IPRPTI036B	"TPA3004D2PHPRG4,LF TEXAS INS"
		U202	0IPRPTI034B	"TPA6110A2DGNRG4,LF TEXAS INS"
		U204	0IMMRHY051B	"HY5DU283222AQP-4,LF HYNIX 10"
		U402	0IPRPGN011E	GM1501H-CF-LF(ESD ENHANCEMEN X7R-**M1710A,M1910A**
		U402	0IPRPGN007C	GM1601H-CF-LF(LEAD FREE) GE-**M2040A**
		U403H	0IZZTSZ656A	ATMEL 32P PLCC 4M FOR **M1740A**
		U403H	0IZZTSZ656B	ATMEL 32P PLCC 4M FOR **M1940A**
		U403H	0IZZTSZ656C	ATMEL 32P PLCC 4M FOR **M2040A**
		U404	0IMMRSG036D	"M24C32-WMN6TPW,LF SGS-THOMSO"
		U407	0ISTLFA058A	"74F14SCX FAIRCHILD 14P,SOIC"
		U601	0IPRPMN003D	"VCT49XYF-XM-C7-100,LF MICRON"
		U602	0IMMRSG036A	"M24C02-WMN6T(P),LF SGS-THOMS"
		U603	0IMO140662A	"MC14066BDR2 14P,SOIC TP BILA"
		U803	0IMO140662A	"MC14066BDR2 14P,SOIC TP BILA"
		U804	0IPRPM3002D	"MST9883C-LF-110 MSTAR 80P,LQ"
		U902	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U903	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U905	0IPMGFA003F	"FAN1117AS25X,LF FAIRCHILD SO"
		U906	0IPMGSG019A	"LD1117S18TR,LF STM SOT223 R/"
		U907	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U908	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U909	0IPMGSG018D	LD1086DT18TR-LF SGS-THOMSON
		U911	0IPMGKE041A	"KIA78R12F KEC 5P,DPARK R/TP"
		U913	0ISS780500H	"KA78M05-R 3P,D-PAK TP 5V 0.5"
		U914	0ISS780800J	"KA78M08R 3P,D-PAK TP VOL. RE"
		U916	0IPMGKE041A	"KIA78R12F KEC 5P,DPARK R/TP"
		U921	0IPMG00036A	"LM2731YMFX,LF NATIONAL SEMIC" X7R-**M2040A**
		COIL & CORE & FILTER		
		L106	6140TBZ007E	"SLF12575T-330M3R2,TDK SMD CH"
		L107	6140TBZ007E	"SLF12575T-330M3R2,TDK SMD CH"
		L108	6140TBZ007E	"SLF12575T-330M3R2,TDK SMD CH"
		L109	6140TBZ007E	"SLF12575T-330M3R2,TDK SMD CH"
		L901	150-985B	DR8*11 2.4MH 0.16MM 270.5T
		L908	6140TBZ048B	"SLF10145T-100M2R5,TDK,SMD,10"-**M2040A**
		L808	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L809	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L810	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L811	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L812	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L813	6210TCE001H	HB-1T2012-301JT CERATEC 2012

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		L814	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L815	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L816	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L101	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L102	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L103	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L201	6210TCE001S	HU-1M2012-121 CERATECH 2012M
		L202	6210TCE001S	HU-1M2012-121 CERATECH 2012M
		L203	6210TCE001S	HU-1M2012-121 CERATECH 2012M
		L204	6210TCE001S	HU-1M2012-121 CERATECH 2012M
		L409	6210TCE001Z	HH-1M2012-600JT CERATEC R/TP
		L601	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L602	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L603	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L604	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L605	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L801	6210TCE001D	HB-1M2012-601JT CERATEC 2012
		L806	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L807	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L902	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L903	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L904	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L905	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L906	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L907	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		RA801	6210TCE002D	HB-4M3216-301JT CERATECH R/T
		RA803	6210TCE002D	HB-4M3216-301JT CERATECH R/T
		RA804	6210TCE002D	HB-4M3216-301JT CERATECH R/T
		RA805	6210TCE002D	HB-4M3216-301JT CERATECH R/T
		U801	6200QL3002F	"X6966M EPCOS ST SIP5K, 6200Q"
		L802	0LC1020101A	1UH 10% 2012 R/TC FI-B2012-1
		TRANSISTOR		
		Q202	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q601	0TRIH80001A	"RT1C3904-T112,LF ISAHAYA R/T" X7R-**M1710A,M1910A**
		Q601	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP-**M2040A**
		Q602	0TR390609FA	FAIRCHILD KST3906-MTF TP SOT
		Q603	0TR390609FA	FAIRCHILD KST3906-MTF TP SOT
		Q604	0TR390609FA	FAIRCHILD KST3906-MTF TP SOT
		Q605	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q606	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q607	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q609	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q610	0TR390609FA	FAIRCHILD KST3906-MTF TP SOT
		Q611	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q801	0TR388109AA	KTC3881 CHIP TP KEC - -
		Q802	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q803	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q804	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q901	0TR322809AB	KTC3228-Y(KTC2383) TP KEC TO
		Q902	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q903	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q904	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		U910	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-
		U912	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP TS
		U915	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP TS
		U918	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP TS
		U919	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP TS
		U920	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP TS-**M1740A,M1940A**

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
RESISTORs				
		R101	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R102	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R103	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R104	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R105	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R106	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R107	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R108	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R109	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R110	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R111	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R112	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R113	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R114	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R115	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R116	0RH4700D622	470 OHM 1 / 10 W 2012 5.00%
		R117	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R118	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R119	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R120	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		R121	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R122	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R123	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R124	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R126	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R127	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R128	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R129	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R130	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R131	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R132	0RH0472D622	47 OHM 1 / 10 W 2012 5.00% D
		R133	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R134	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R135	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R136	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R137	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R139	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R141	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R142	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R143	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R147	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R148	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R149	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R150	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R204	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1203D677	120K OHM 1/10 W 5% 1608 R/TP
		R206	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R207	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R209	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R210	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R211	0RJ6801D677	6800 OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R211	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R214	0RJ6801D677	6800 OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R214	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R215	0RJ1802D677	18K OHM 1/10 W 5% 1608 R/TP
		R217	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R218	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R219	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/T X7R-**M1710A,M1910A**
		R219	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R220	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/T X7R-**M1710A,M1910A**
		R220	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP-**M2040A**

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R221	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R222	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R223	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R224	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R225	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R226	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R230	0RH1002D422	10K OHM 1/10 W 1% 2012 R/TP
		R231	0RH1002D422	10K OHM 1/10 W 1% 2012 R/TP
		R232	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R240	0RJ1203D677	120K OHM 1/10 W 5% 1608 R/TP
		R243	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R244	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R245	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R246	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R247	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R4001	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R4002	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R4003	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R4004	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R4005	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R4006	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R4007	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R401	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R4012	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R4013	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R402	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R403	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R404	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R405	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R406	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R407	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R409	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R410	0RH2700D422	270 1/10W 1% D R/TP
		R411	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R412	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R413	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R414	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R415	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R418	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R419	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R420	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R422	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R423	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R424	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R425	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R426	0RH2701D622	2.7K OHM 1 / 10 W 2012 5.00%
		R428	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R430	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R431	0RH3301D622	3.3K OHM 1 / 10 W 2012 5.00%
		R432	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R433	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R434	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R435	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R436	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R437	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R440	0RH3301D622	3.3K OHM 1 / 10 W 2012 5.00%
		R441	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R442	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R443	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R445	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R446	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R447	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R448	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R449	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R450	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R451	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R453	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R454	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R455	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R456	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R457	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R458	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R459	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R460	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R461	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R462	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R463	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R466	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R467	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R468	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R470	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R472	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R473	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R474	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R475	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R477	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R479	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R480	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R481	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R482	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R483	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R484	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R485	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R486	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R487	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R488	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R490	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R491	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R492	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R493	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R494	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R495	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R496	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R497	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R498	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00%
		R597	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R600	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R602	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R603	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R604	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R607	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R608	0RH0822D622	82 OHM 1 / 10 W 2012 5.00% D
		R609	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R610	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R611	0RH2000D422	200 OHM 1 / 10 W 2012 1.00%
		R612	0RH2000D422	200 OHM 1 / 10 W 2012 1.00%
		R613	0RH2000D422	200 OHM 1 / 10 W 2012 1.00%
		R614	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R615	0RH0822D622	82 OHM 1 / 10 W 2012 5.00% D
		R616	0RH0822D622	82 OHM 1 / 10 W 2012 5.00% D
		R618	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R619	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R620	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R621	0RH2700D622	270 OHM 1 / 10 W 2012 5.00%

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R622	0RH2700D622	270 OHM 1 / 10 W 2012 5.00%
		R623	0RH2700D622	270 OHM 1 / 10 W 2012 5.00%
		R624	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R625	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R627	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R630	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R631	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R632	0RJ4300D677	430 OHM 1/10 W 5% 1608 R/TP
		R633	0RJ4300D677	430 OHM 1/10 W 5% 1608 R/TP
		R636	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R637	0RH1201D622	1.2K OHM 1 / 10 W 2012 5.00%
		R640	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R641	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R642	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R644	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R645	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R646	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R647	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R648	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R649	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R650	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R651	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R652	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R655	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R656	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R657	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R664	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R666	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R668	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R669	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R670	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R671	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R672	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R673	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R674	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R676	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R678	0RH1500D622	150 OHM 1 / 10 W 2012 5.00%
		R680	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R681	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R682	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R683	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R689	0RH2202D622	22K OHM 1 / 10 W 2012 5.00%
		R691	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R692	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R693	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R694	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R695	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R696	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R697	0RH2701D622	2.7K OHM 1 / 10 W 2012 5.00%
		R699	0RH4700D622	470 OHM 1 / 10 W 2012 5.00%
		R802	0RH6801D622	6.8K OHM 1 / 10 W 2012 5.00%
		R804	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R805	0RJ3300D677	330 OHM 1/10 W 5% 1608 R/TP
		R806	0RJ3300D677	330 OHM 1/10 W 5% 1608 R/TP
		R809	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R810	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R811	0RH0222D622	22 OHM 1 / 10 W 2012 5.00% D
		R812	0RJ5102D677	51K OHM 1/10 W 5% 1608 R/TP
		R814	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R815	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R817	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R818	0RH0562D622	56 OHM 1 / 10 W 2012 5.00% D

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R819	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00%
		R820	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R821	0RH8200D622	820 OHM 1 / 10 W 2012 5.00%
		R822	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R823	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R824	0RH3000D622	300 OHM 1 / 10 W 2012 5.00%
		R825	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R826	0RJ1802D677	18K OHM 1/10 W 5% 1608 R/TP
		R827	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R828	0RH0752D622	75 OHM 1 / 10 W 2012 5.00% D
		R829	0RH0752D622	75 OHM 1 / 10 W 2012 5.00% D
		R830	0RH0752D622	75 OHM 1 / 10 W 2012 5.00% D
		R831	0RH0752D622	75 OHM 1 / 10 W 2012 5.00% D
		R832	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R833	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R834	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R835	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R836	0RJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R837	0RH0682D622	68 OHM 1 / 10 W 2012 5.00% D
		R838	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R839	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R852	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R853	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R854	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R857	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R858	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R859	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R860	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R861	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R862	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R870	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R871	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R872	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R873	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R874	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R875	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R877	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R878	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R879	0RH1003D622	100K OHM 1 / 10 W 2012 5.00%
		R880	0RH1003D622	100K OHM 1 / 10 W 2012 5.00%
		R901	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R902	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R903	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R904	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R905	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R906	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R907	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R908	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R911	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R912	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R913	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R914	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R915	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R916	0RH5600D622	560 OHM 1 / 10 W 2012 5.00%
		R917	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R918	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R919	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R920	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R921	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R922	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R923	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R924	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R925	0RB0470K607	0.47 OHM 2 W 5% TA62
		R926	0RB0470K607	0.47 OHM 2 W 5% TA62
		R927	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R928	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R929	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R930	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R931	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP X7R-**M1710A,M1910A**
		R932	0RJ5602D477	56K OHM 1/10 W 1% 1608 R/TP-**M2040A**
		R933	0RJ1803D677	180K OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R934	0RJ1302D677	13K OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R936	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP-**M2040A**
		R940	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R941	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R942	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R944	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R945	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R946	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R947	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R948	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		RA401	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA402	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA403	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA404	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA405	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA406	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA407	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA408	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA409	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA410	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		RA411	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 32
		OTHERs		
		TU802	6700VS0003E	TAEW-G053D LGIT MULTI VS PAL
		U403	6620F00017A	CCSD-32T-SM WOOYOUNG 32P PLC
		X401	6202TST001A	"SX-1 SUNNY ,SMS, 14.31818MHZ"
		X601	6202TST003C	HC-49/SM5H KONY CHIP 20.25MH
		CONTROL BOARD		
		U501	6712SCA233A	"TSOP4838VI1 VISHAY 38KHZ 5V,"
		C501	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C502	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C503	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		R501	0RJ1201D677	1200 OHM 1/10 W 5% 1608 R/TP
		R502	0RJ1200D677	120 OHM 1/10 W 5% 1608 R/TP
		R503	0RJ1600D677	160 OHM 1/10 W 5% 1608 R/TP
		R504	0RJ2000D677	200 OHM 1/10 W 5% 1608 R/TP
		R505	0RJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R506	0RJ3600D477	360 OHM 1/10 W 1% 1608 R/TP
		R507	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R508	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		SW501	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW502	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW503	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW504	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW505	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW506	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		SW507	6600R00004A	JTP1138A6EM JEIL 12VDC 50MA
		ZD501	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD504	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		C901	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0

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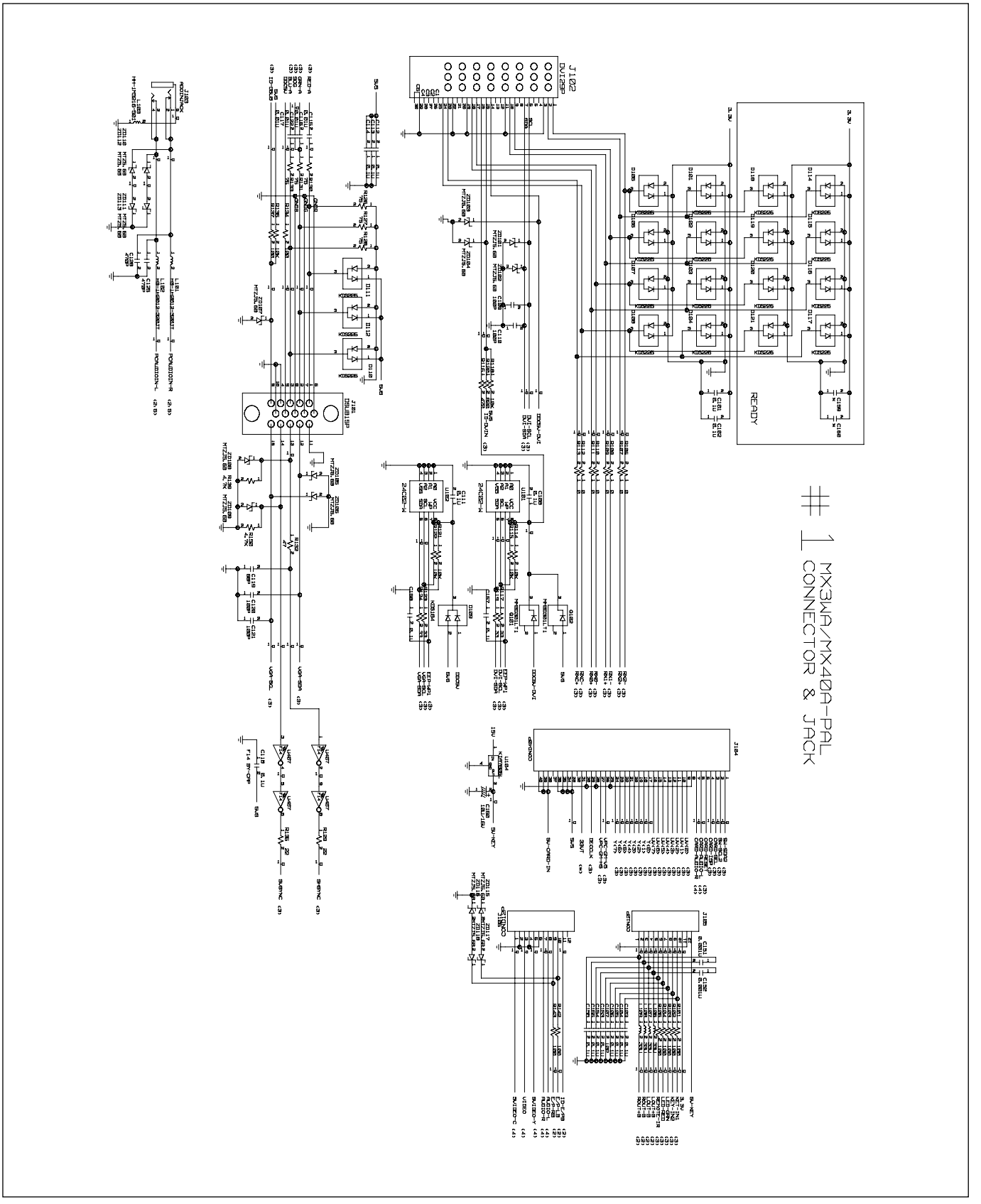
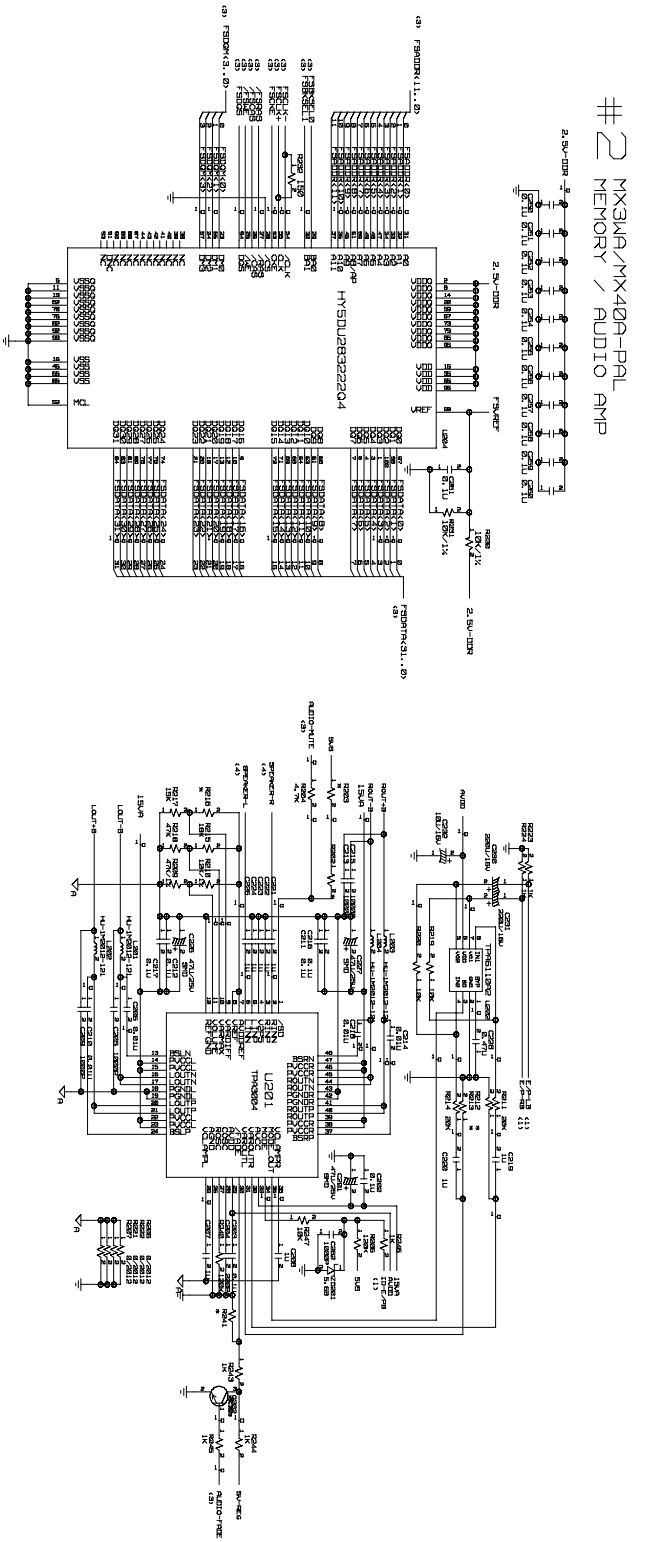
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		LED901	0DLBE0168AA	BRIGHT LED ELECTRONICS BL-HB
		LED902	0DLBE0168AA	BRIGHT LED ELECTRONICS BL-HB
		LED903	0DLBE0168AA	BRIGHT LED ELECTRONICS BL-HB
		Q901	0TRIH80001A	"RT1C3904-T112,LF ISAHAYA R/T"
		Q902	0TRIH80001A	"RT1C3904-T112,LF ISAHAYA R/T"
		R901	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R902	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R903	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R904	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R905	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R906	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R907	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R908	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R909	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R910	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R911	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		U901	0IPRPCR001A	"ADA01,LF CHEMTRONICS SOT26,6"
		VIDEO BOARD		
		C701	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C702	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C703	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C704	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
		C706	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C707	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		L701	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L702	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L703	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L704	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L705	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L706	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L707	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		R701	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R702	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R703	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R704	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R705	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		ZD701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD702	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD703	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD704	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD705	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD706	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD707	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323

SCHEMATIC DIAGRAM

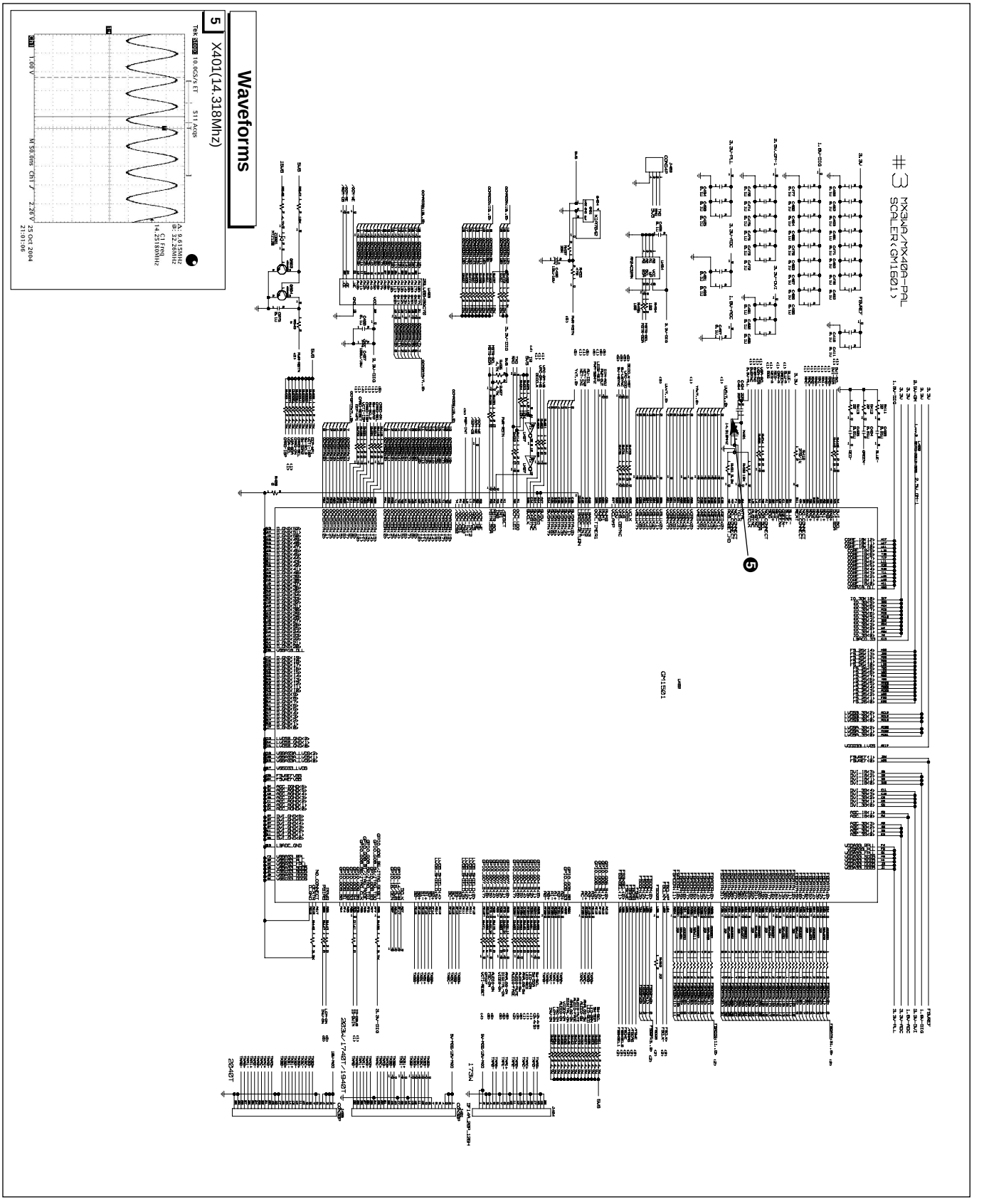
1. CONNECTOR & JACK



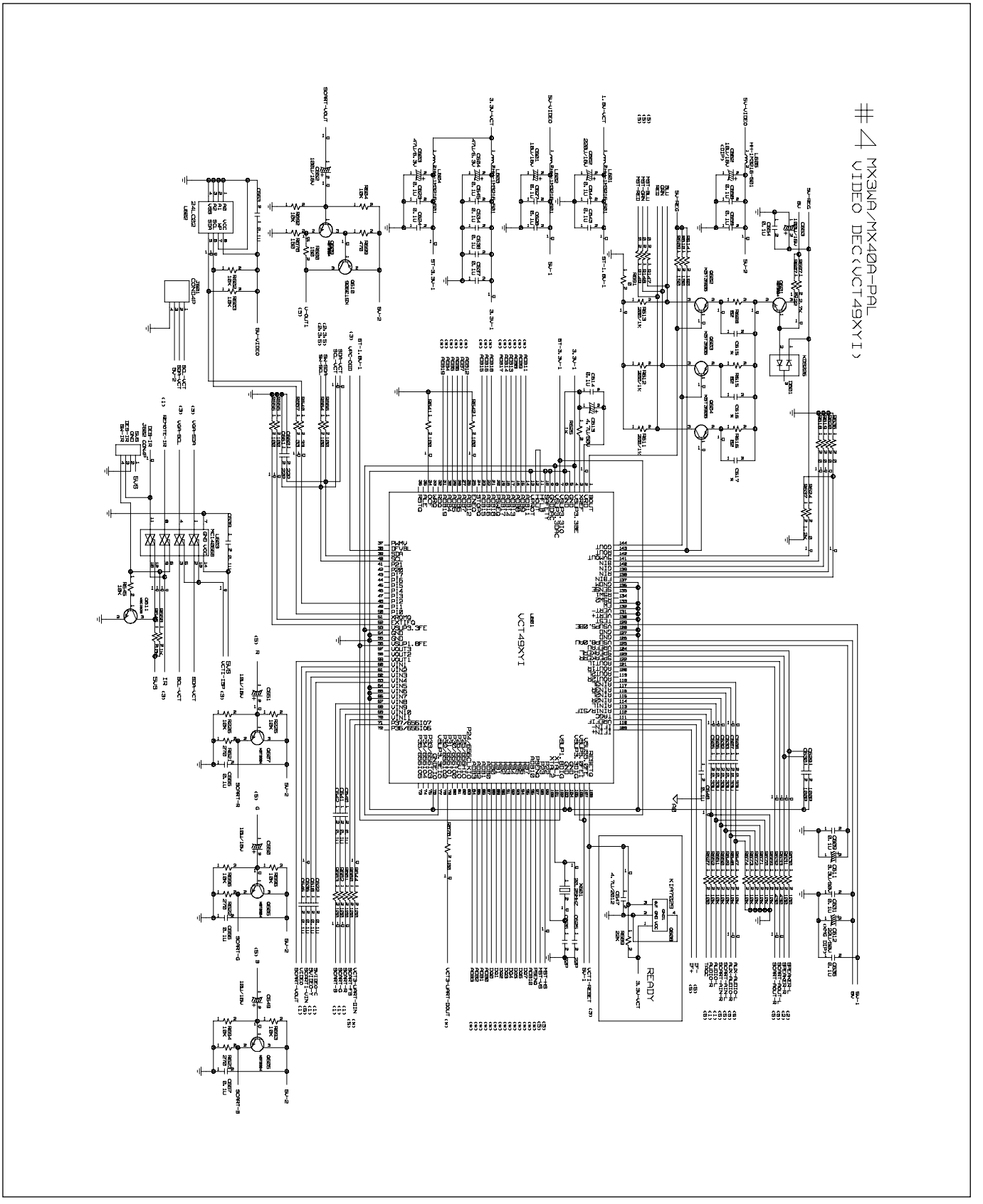
2. MEMORY/ AUDIO AMP



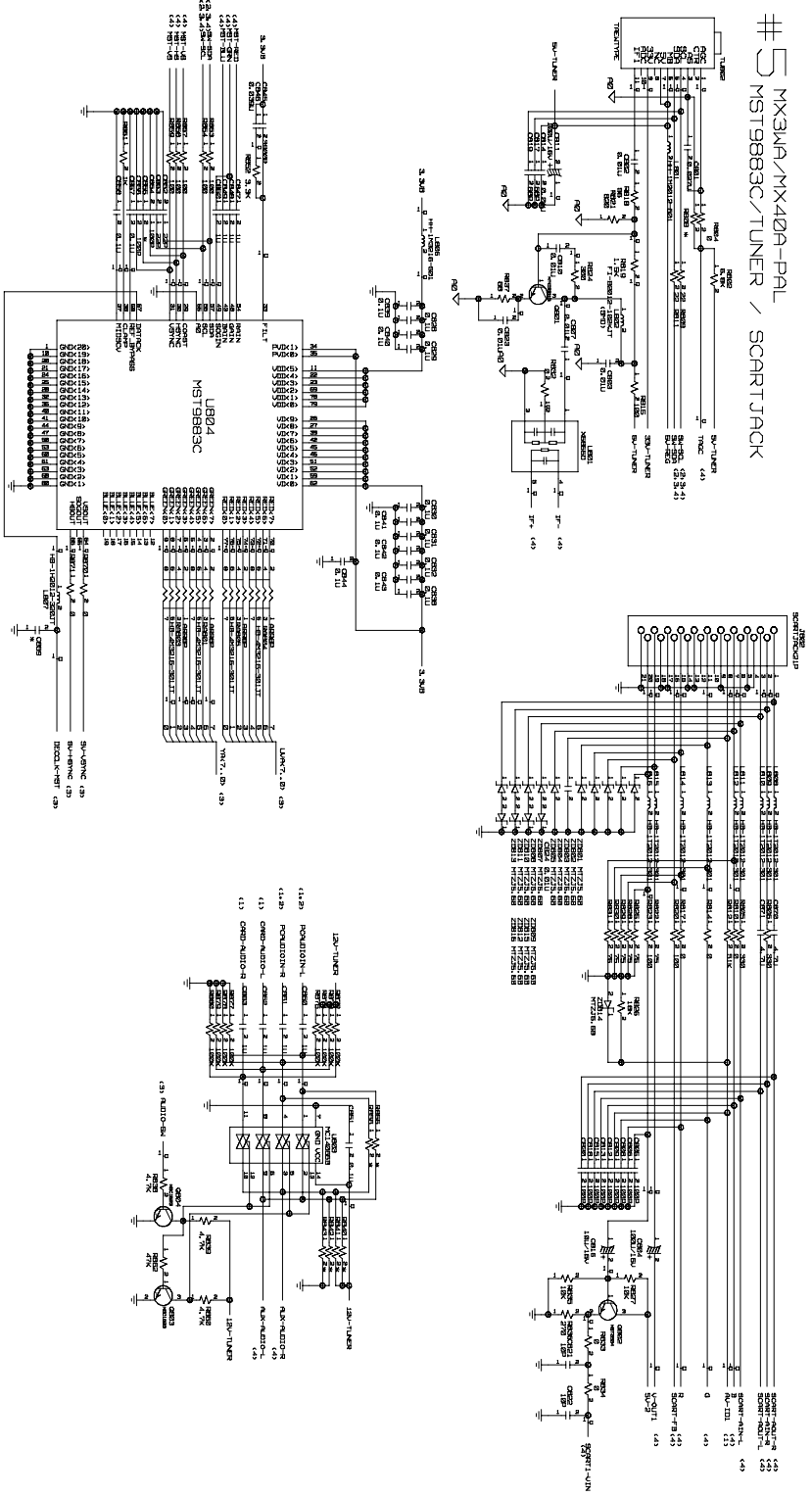
3. SCALER(GM1601)



4. VUDEO DEC(VCT49XYI)



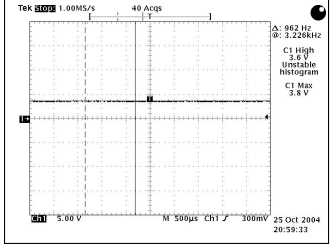
5. MST9883C/TUNER/SCARTJACK



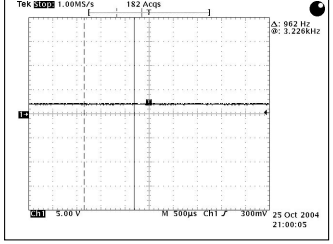
#6 MX3WA/MX40A-PAL POWER

Waveforms

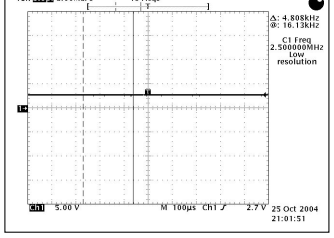
3 U903-#3(3.3V)

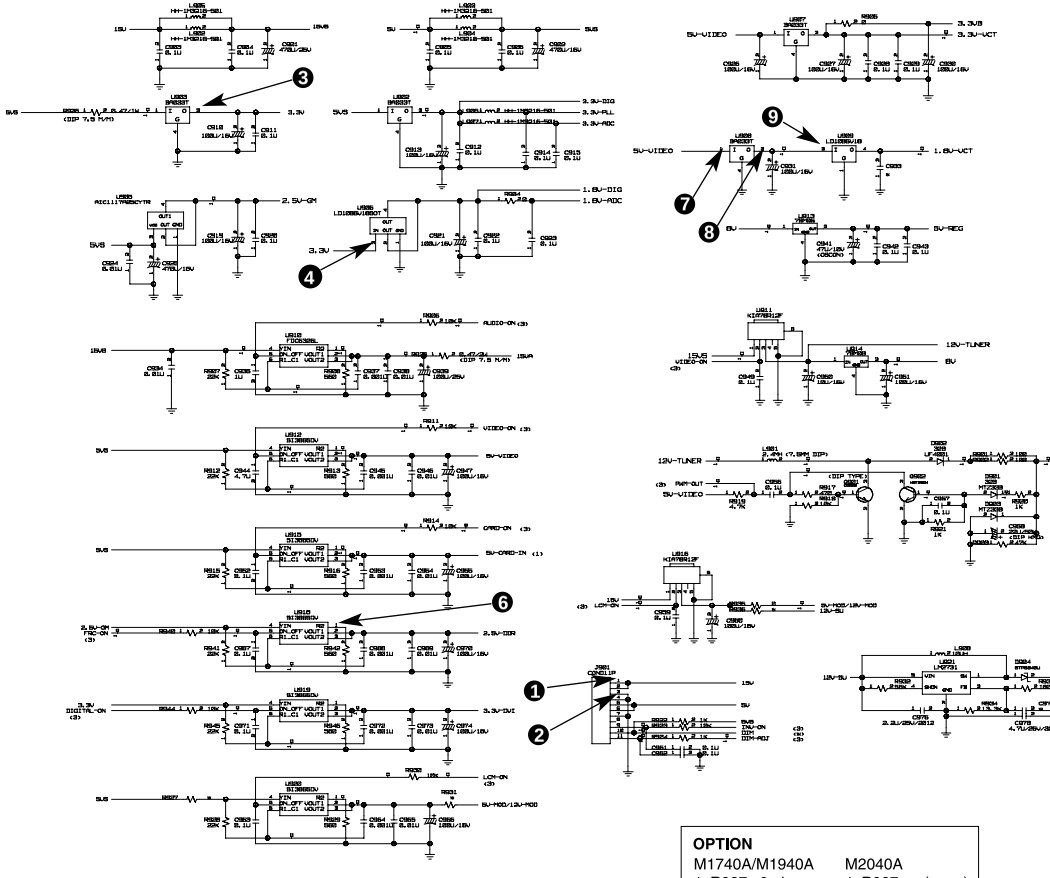


4 U906-#3(1.8V)



6 U918-#2(2.5V)

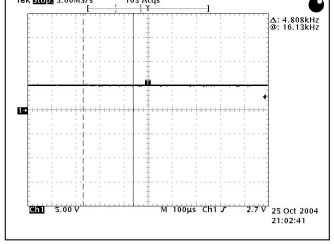




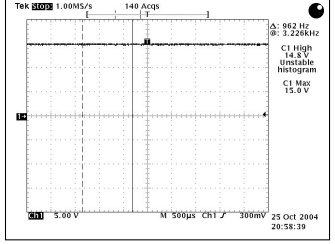
OPTION

M1740A/M1940A	M2040A
1. R927 : 0 ohm	1. R927 : ⋆ (open)
2. R931 : 0 ohm	2. R931 : ⋆ (open)
3. R935 : ⋆ (open)	3. R935 : ⋆ (open)
4. R936 : ⋆ (open)	4. R936 : 0 ohm

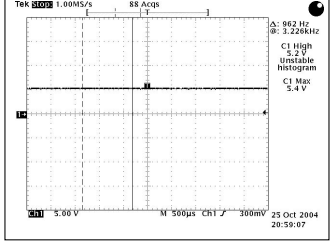
7 U908-#1(5V)



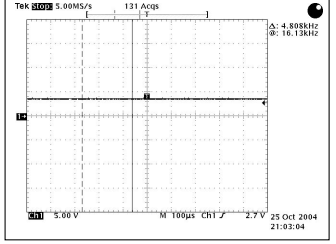
1 J901-#1,2(15V)



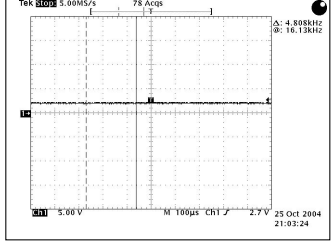
2 J901-#5,6(5V)



8 U908-#3(3.3V)



9 U909-#3(1.8V)



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