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

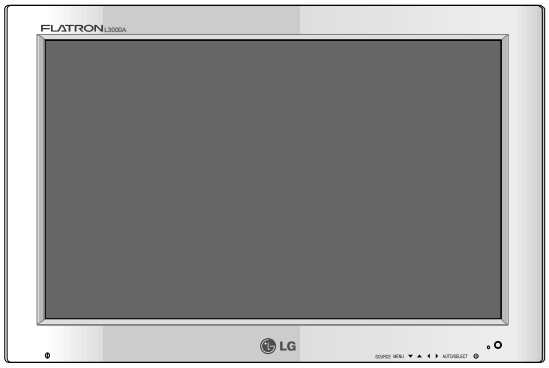
COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-36
FACTORY MODEL: L3000AL

MODEL: FLATRON L3000A (L3000AL-AL), (L3000AL-SL)

***( ) ID LABEL MODEL No.**

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



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SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Size	: 30inch
Pixel Pitch	: 0.5025 x 0.1675 x RGB
Color Depth	: 8-bit, 16,777,216 colors
Electrical Interface	: LVDS
Active Display Area	: 643.2mm x 385.92mm
Surface Treatment	: Anti-Glare, Hard Coating(3H)
Operating Mode	: Normally Black
Backlight Unit	: 16-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

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

2-2. Luminance : 350(min), 414(Typ)

2-3. Contrast Ratio : 2300(min), 350(Typ)

3. SIGNAL (Refer to the Timing Chart)

3-1. Video Input

1)Signal Input : 15pin D-sub Connector/ S-video, RCA

2)Input Form : RGB Analog(0.7Vp-p/75ohm), CVBS, Digital, Y/C

3)Resolution(max) : Analog -1280 x 1024@60Hz
Digital -1024 x 768@75Hz

3-2. Audio Signal

1) Input: PC : 700mVrms
VCR : 450mVrms
DVD: 450mVrms

3-3. Sync Input

Horizontal	: 30 ~ 66kHz(Digital: 30~63kHz)
Vertical	: 56 ~ 85Hz
Input Form	: Separate, TTL, Positive/Negative Digital, SOG

4. POWER SUPPLY

4-1. Power Adaptor

Input : AC 100~240V, 50/60Hz , 2.0A
Output : DC 5V 0.9A, DC12V 1.5A
DC18V 1.0A, DC24V 5.0A

4-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 165 W	GREEN
STAND-BY	OFF/ON	OFF	less than 5 W	AMBER
SUSPEND	ON/OFF	OFF	less than 5 W	AMBER
DPM OFF	OFF/OFF	OFF	less than 5 W	AMBER
POWER OFF	-	-	less than 1 W	OFF

5. 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 : 30,000 Hours(Typ.)

6. DIMENSIONS (with TILT/SWIVEL)

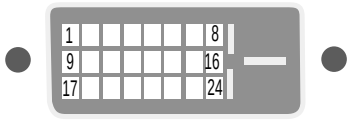
Width	: 734 mm (28.90")
Depth	: 487 mm (19.17')
Height	: 96 mm (3.78")

7. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 18.0kg (39.68 lbs)
Gross Weight	: 22.0kg (48.51 lbs)

Signal Connector Pin Assignment

• DVI-D Connector (Digital)



Pin	Signal (DVI-D)	Pin	Signal (DVI-D)
1	T. M. D. S. Data2-	16	Hot Plug Detect
2	T. M. D. S. Data2+	17	T. M. D. S. Data0-
3	T. M. D. S. Data2/4 Shield	18	T. M. D. S. Data0+
4	T. M. D. S. Data4-	19	T. M. D. S. Data0/5 Shield
5	T. M. D. S. Data4+	20	T. M. D. S. Data5-
6	DDC Clock	21	T. M. D. S. Data5+
7	DDC Data	22	T. M. D. S. Clock Shield
8	Analog Vertical Sync.	23	T. M. D. S. Clock+
9	T. M. D. S. Data1-	24	T. M. D. S. Clock-
10	T. M. D. S. Data1+		
11	T. M. D. S. Data1/3 Shield		
12	T. M. D. S. Data3-		
13	T. M. D. S. Data3+		
14	+5V Power		
15	Ground (return for +5V, H. Sync. and V. Sync.)		

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

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

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

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

⚠ CAUTION

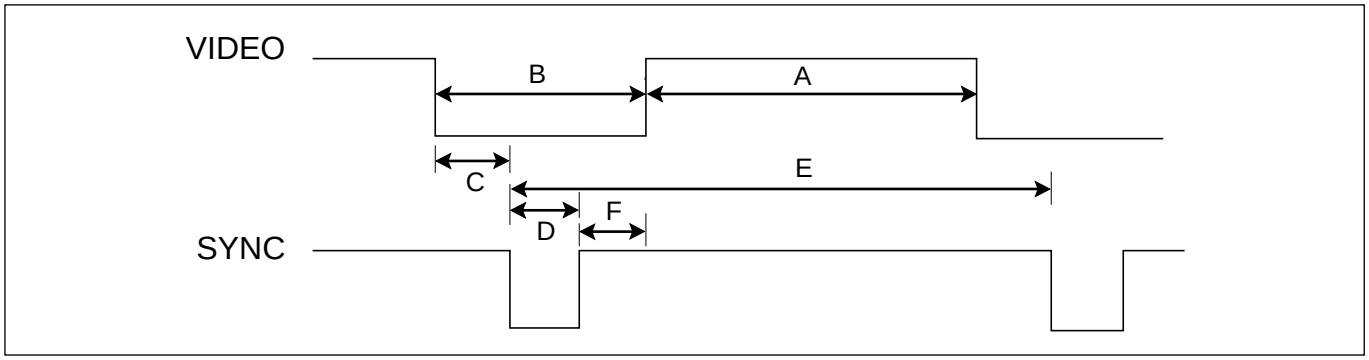
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

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

TIMING CHART

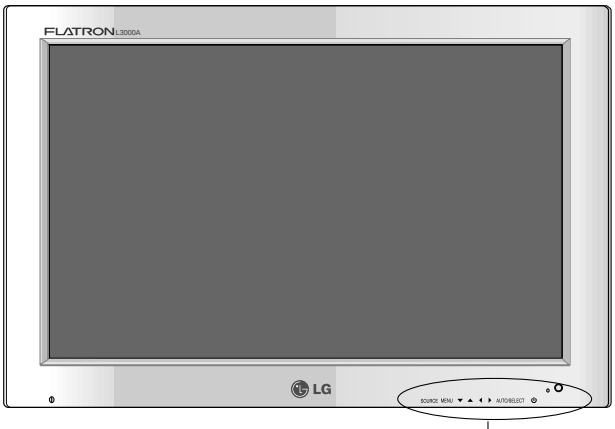


<< Dot Clock **(MHz),** Horizontal Frequency **(kHz)**, Vertical Frequency **(Hz)**, Horizontal etc... **(µs)**, Vertical etc... **(ms) >>**

Mode	H/V Sort	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Front Porch (C)	Sync Duration (D)	Back Porch (F)	Resolution
1	H	+	25.175	31.469	800	640	16	96	48	**640x350 70Hz**
	V	–		70.8	449	350	37	2	60	
2	H	–	28.321	31.468	900	720	18	108	54	**720x400 70Hz**
	V	+		70.8	449	400	12	2	35	
3	H	–	25.175	31.469	800	640	16	96	48	**640x480 60Hz**
	V	–		59.94	525	480	10	2	33	
4	H	–	31.5	37.5	840	640	16	64	120	**640x480 75Hz**
	V	–		75	500	480	1	3	16	
5	H	–	36.0	43.269	832	640	56	56	80	**640x480 85Hz**
	V	–		85.0	509	480	1	3	25	
6	H	+	40.0	37.879	1056	800	40	128	88	**800x600 60Hz**
	V	+		60.317	628	600	1	4	23	
7	H	+	49.5	46.875	1056	800	16	80	160	**800x600 75Hz**
	V	+		75.0	625	600	1	3	21	
8	H	+	56.25	53.674	1048	800	32	64	152	**800x600 85Hz**
	V	+		85.061	631	600	1	3	27	
9	H	+/–	57.283	49.725	1152	832	32	64	224	**832x624 75Hz**
	V	+/–		74.55	667	624	1	3	39	
10	H	–	65.0	48.363	1344	1024	24	136	160	**1024x768 60Hz**
	V	–		60.0	806	768	3	6	29	
11	H	–	78.75	60.123	1312	1024	16	96	176	**1024x768 75Hz**
	V	–		75.029	800	768	1	3	28	
12	H	+	108.0	63.981	1688	1280	48	112	248	**1280x1024 60Hz**
	V	+		60.02	1066	1024	1	3	38	
13	H	+	80.14	47.7	1680	1280	66	134	200	**1280x768 60Hz**
	V	+		60	795	768	1	3	23	

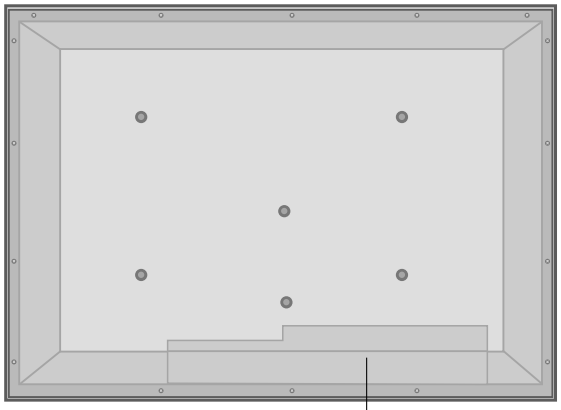
OPERATING INSTRUCTIONS

FRONT VIEW



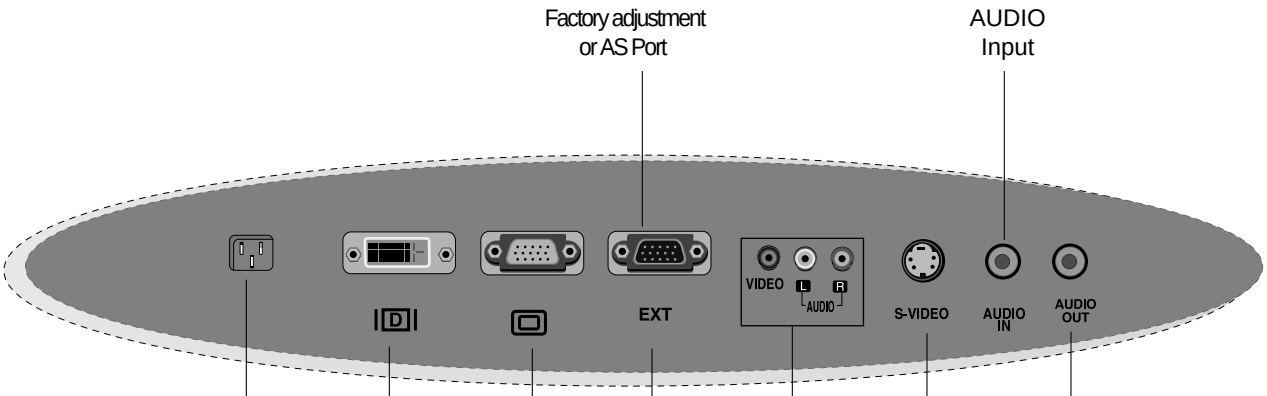
Front Control Panel

REAR VIEW



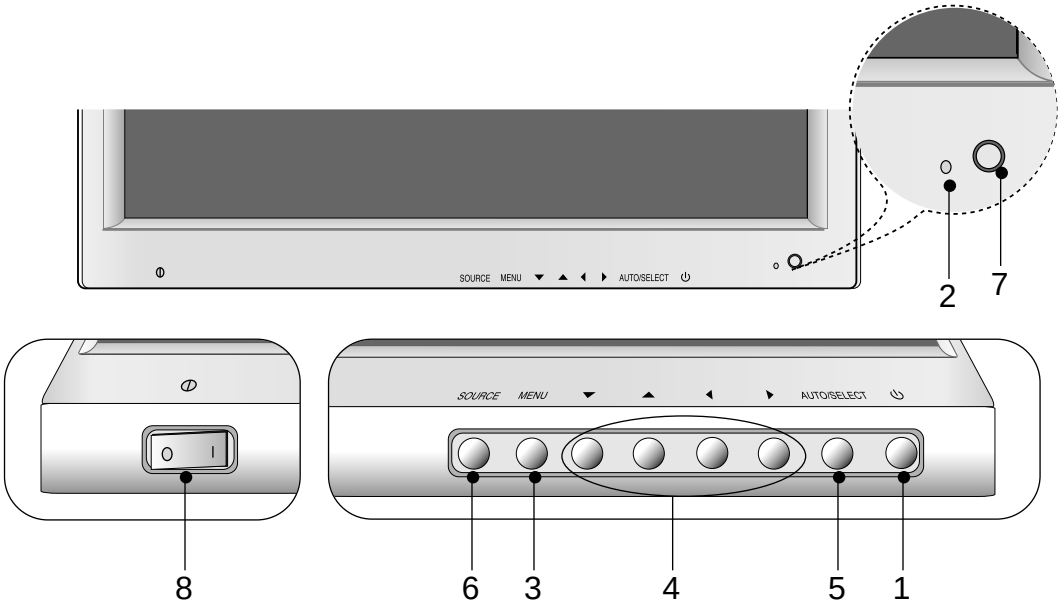
Rear View Pannel

REAR VIEW CONNECTOR PANEL



OPERATING INSTRUCTIONS

Front Control Panel



1 **Power Button**
- Use this button to turn the display on or off.

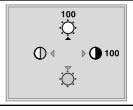
2 **Power (DPMS) Indicator**
- This Indicator lights up green when the display operates normally. If the display is in DPM (Energy Saving) mode, this indicator color changes to amber.

3 **MENU Button**
- Use this button to enter or exit the On Screen Display.

4 **OSD Buttons**
- Use these buttons to choose or adjust items in the On Screen Display.

▼▲◄►

▼▲ • Bring up Contrast and Brightness adjustment.



37 ◄► Use these buttons to decrease or increase the volume level.

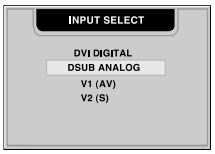
5 **AUTO/SELECT Button**
- Use this button to enter a selection in the On Screen Display.
- When adjusting your display settings, always press the **AUTO/SELECT** button before entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode).

AUTO IN PROGRESS

6 **SOURCE Button**

SOURCE → ▼▲ → AUTO/SELECT

- **Use this button to select an input signal.**
- DVI DIGITAL: DVI digital signal
- DSUB ANALOG: 15-pin D-sub analog signal
- V1 (AV): Composite video
- V2 (S): S video



7 **Remote Control Sensor**

8 **Power On/Off switch**

CONTROLS LOCKED/UNLOCKED : MENU and ►

CONTROLS LOCKED

CONTROLS UNLOCKED

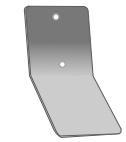
This function allows you to secure the current control settings, so that they cannot be inadvertently changed. Press and hold the MENU button and button for 3 seconds: the message **"CONTROLS LOCKED"** appears.

You can unlock the OSD controls at any time by pushing the MENU button and button for 3 seconds:
the message **"CONTROLS UNLOCKED"** will appear.

Attaching temporary stand

Follow below procedures to temporarily use the display on the floor.
First, check if the following parts are all present.

Parts

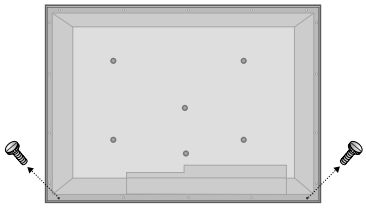


Temporary Stand

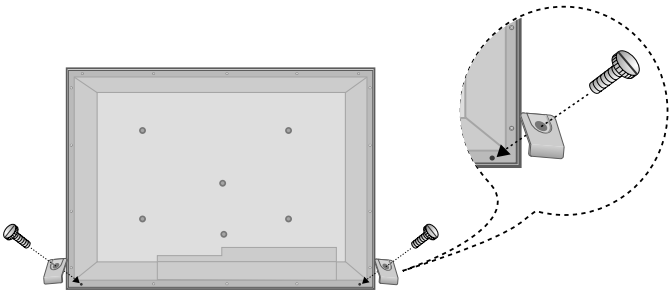
Screws

Bottom Rubbers

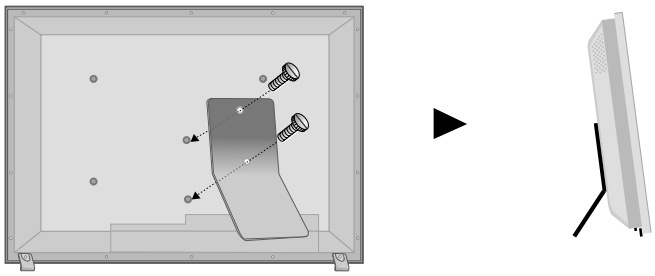
1. Take out 2 screws from the rear of the display.



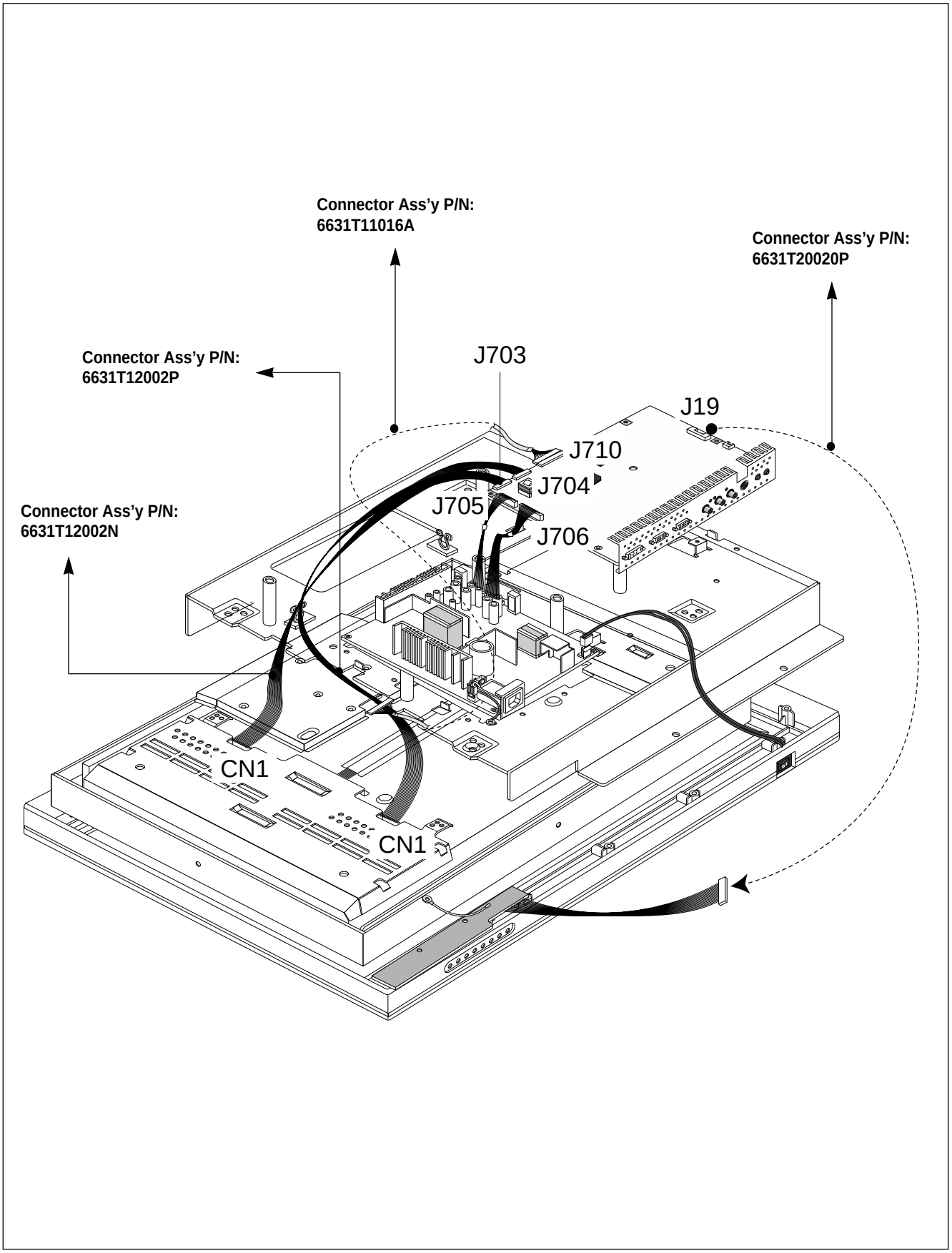
2. As shown in the diagram, place the bottom rubbers where you took out the 2 screws and then secure them with those 2 screws.



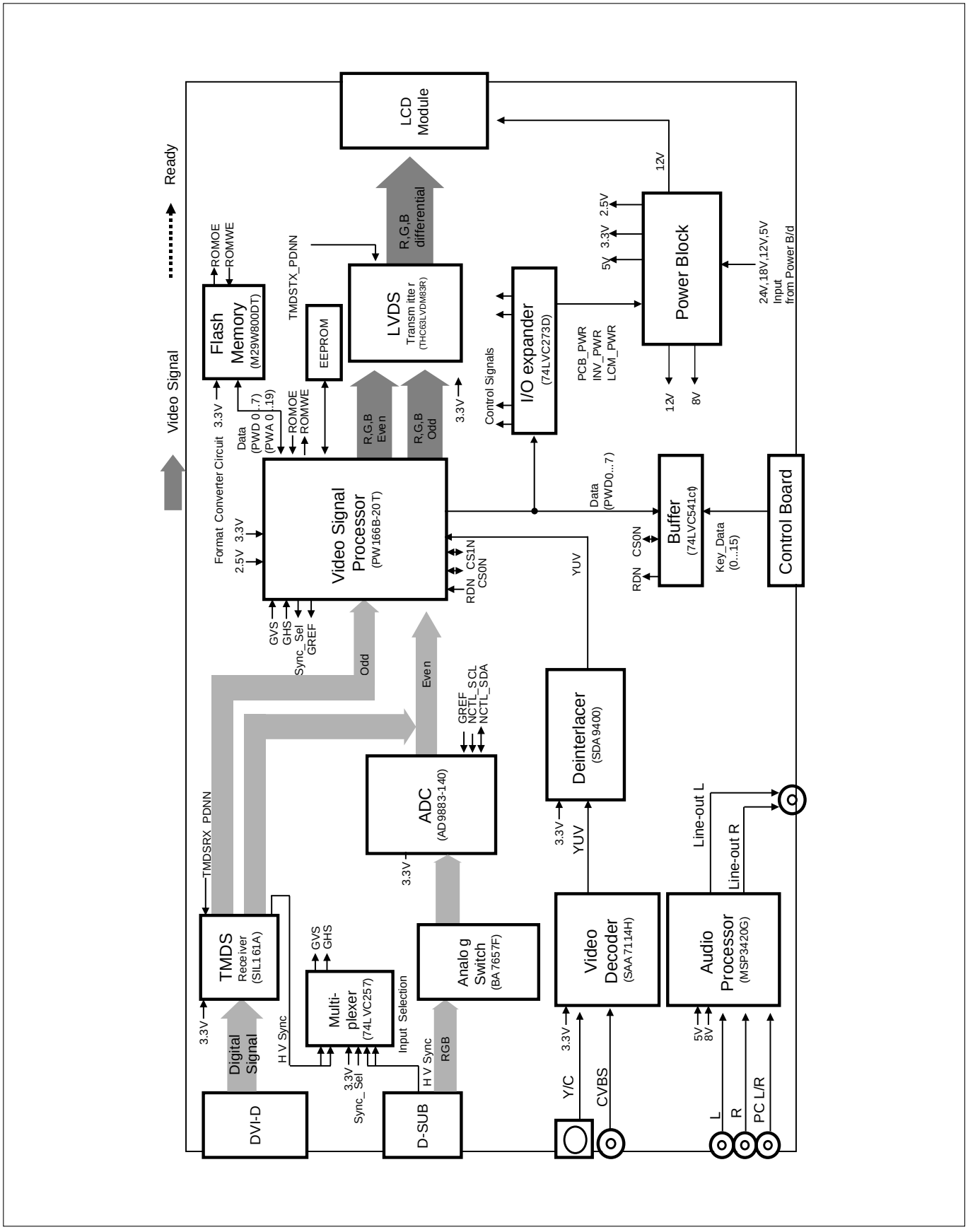
3. Attach the temporary stand as shown.



WIRING DIAGRAM



BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Input Selection Circuit

This block is composed of 74LVC257(U5) and peripheral devices.
There are two inputs, Analog and Digital H/V Sync.
LVC257 IC chooses one input and outputs selected input through sync selection pin (Pin 1).

2. A/D Converter

This block is composed of AD9883 (U4) and peripheral devices.
AD9883 includes A/D converter, Pre-amp, and PLL.
The Analog RGB signal (0.7Vp-p) is input to R,G,B port of AD9883(U4).
Input signal is amplified, phase locked , A/D converted in 8bits digital signal by this IC(U4), and sent to the Digital video signal to PW166B-20T.
U4 makes clock for PW166B-20T(U8).

3. TMDS PanelLink Receiver

This Block is composed of SiI161B (U201) and peripheral devices.
This IC decodes PanelLink Digital Input signal(TMDS) from DVI-D Pin (J18) and make 8bit digital RGB signal with Digital EVEN/ODD format to PW166B-20T(U8).

4. DDC controller

This block is composed of PW166B-20T(U8) and peripheral devices.
PW166B-20T controls peripheral devices through IIC line.
Major functions are (1) to control Flash memory through DDC-SCLA, DDC-SDAA of D-sub And (2) to store EDID data in the EEPROM (U17, U30)

5. Video Decoder

This block is composed of SAA7114H (U7) and peripheral devices.
PW166B-20T controls this IC through IIC Line.
This IC analyzes input signal of CVBS, Y/C and outputs analyzed signal (8bit interlace signal) to De-interlace block.
Analyzed signal has video control signals like Contrast, Brightness, Sharpness, Color, tint signals Including Adaptive Comb Filter.

6. Audio Decoder

This block is composed of MSP3420G (U49) and peripheral devices.
PW166B-20T controls this IC through IIC Line.
This IC analyzes Audio input signal through A/V Jack and PC audio.
And output the analyzed signals

7. De-interlace

This block is composed of SDA9400 (U16) and peripheral devices.
PW166B-20T (U8) controls this IC through IIC Line.
And this IC convert 8 Bit Interlaced Y/UV signal to De-interlace signal.
It outputs converted signal to Format Converter (PW166B-20T).

8. Format Converter(Scaler)

This block is composed of PW166B-20T (U8), M29W800DT (U19) and peripheral devices.
MICOM in PW166B-20T (U7) processes outputs of A/D Converter and TMDS Receiver,
De-interlace output and output processed 48 Bit Digital signal to TMDS Transmitter.
PW166B-20T is Format Converter IC that receives Digital signal and outputs proper frame signal to LCD Module Timing(1280x768,WXGA).

9. PanelLink Circuit

TMDS Transmitter (THC63LVDM83R, U401) is the IC that receives output digital signal of PW166B-20T (U8) and output to LCD Module.
The signal format is Panel-link.
LCD Module has Panel-link receiver that is same output of PW166B-20T.
This is the best for reduction EMI problem and the number of pin connector.

10. DC/DC Converter block

DC/DC Converters convert the input 12V, 24V to proper 2.5V, 3.3V, 5V, 8V for main control system.
For shooting heat trouble, we use the DC/DC converting IC.

11. Power Supply Block

This Block generates DC Voltages(5V, 12V, 18V and 24V) to Main Control system from AC Power(100-240 V, 50/60 Hz, 1.0 A).
This Circuit contains PFC(Power Factor correction) circuit.
The Minimum of Power efficiency is about 75%.

ADJUSTMENT

All adjustment are thoroughly checked and corrected when the monitor leaves the factory, but sometimes several minor adjustment may be required.
Adjustment should be following procedure and after warming up for a minimum of 30 minutes.

• Alignment appliances and tools.
- IBM compatible PC
- Programmable Signal Generator.
  (eg. VG-819 made by Astrodesign Co.)
- Oscilloscope.
- White Balance Meter. (CA-110)

1. Adjustment for Factory Preset Mode
No read to adjust FOS data for Factory Preset Mode.

2. Adjustment for White Balance
1) Set External Bright to MAX position and Contrast to MAX position.
2) Display Color 0,0 pattern at Mode 15.
3) Press Menu key, Vp key, Right key of Remote controller or Menu Buttons in sequence.
4) Select “WHITE BALANCE ADJUST” and Press SET key.
5) After “INPUT WHITE PATTERN” message, Display Color 15, 0 pattern at Mode 15.
6) No attempt to manually adjust, BIAS and Drive data is automatically adjustde and saved to the EEPROM.
7) After “OK” message, Press SET KEY.
8) Select “SERVICE MODE EXIT” and Press SET KEY.

3. DDC Data Write Procedure-Analog
1) Use this procedure only when there is some problem on Analog EDID data.
2) Run alignment program for LM805L on the IBM compatible PC.
3) Select EEPROM → Analog EDID write command and Enter.
4) This will write the Analog EDID data to EEPROM.

4. DDC Data Write Procedure-Digital
1) Use this procedure only when there is some problem on Digital EDID data.
2) Run alignment program for LM805L on the IBM compatible PC.
3) Select EEPROM → Digital EDID write command and Enter.
4) This will write the Digital EDID data to EEPROM.

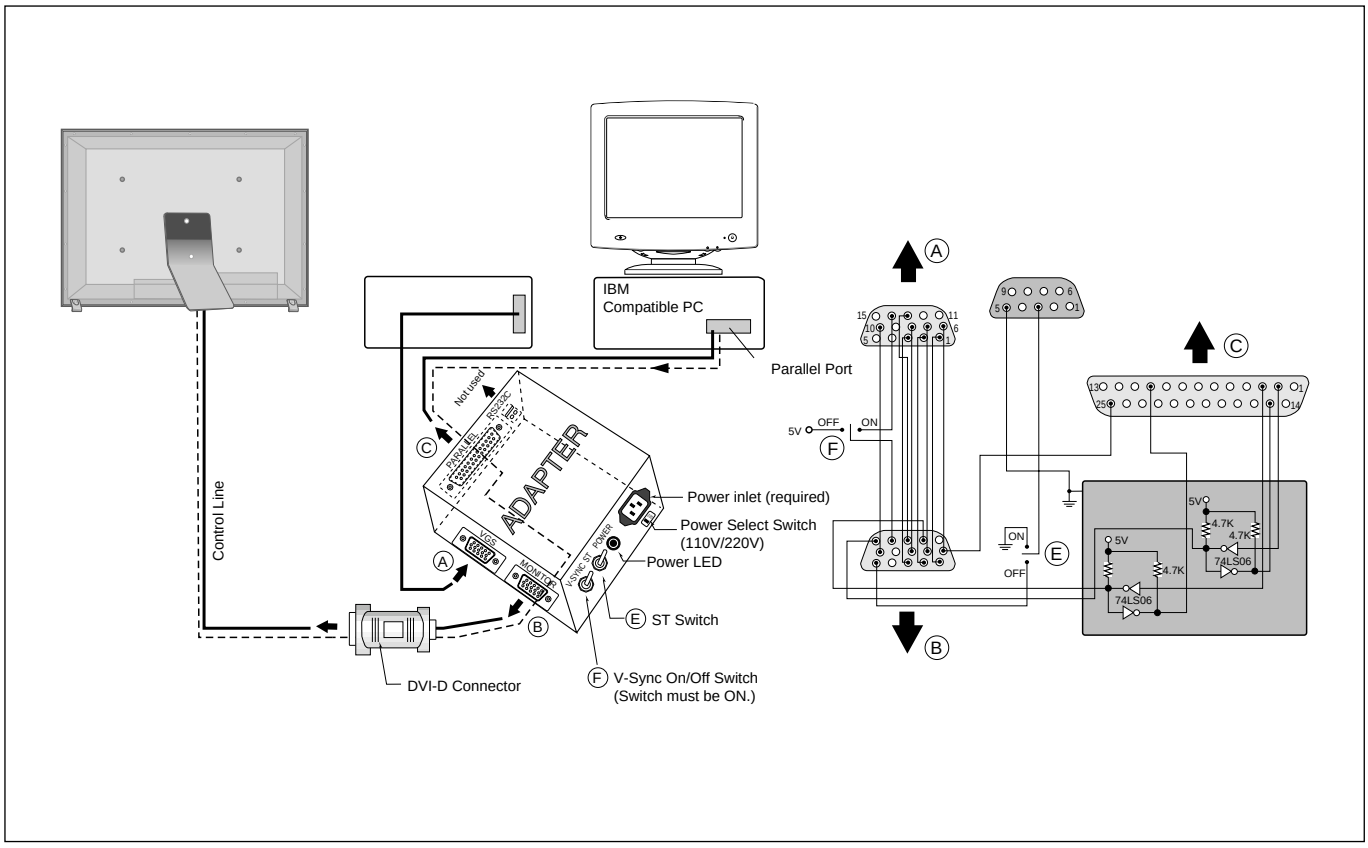
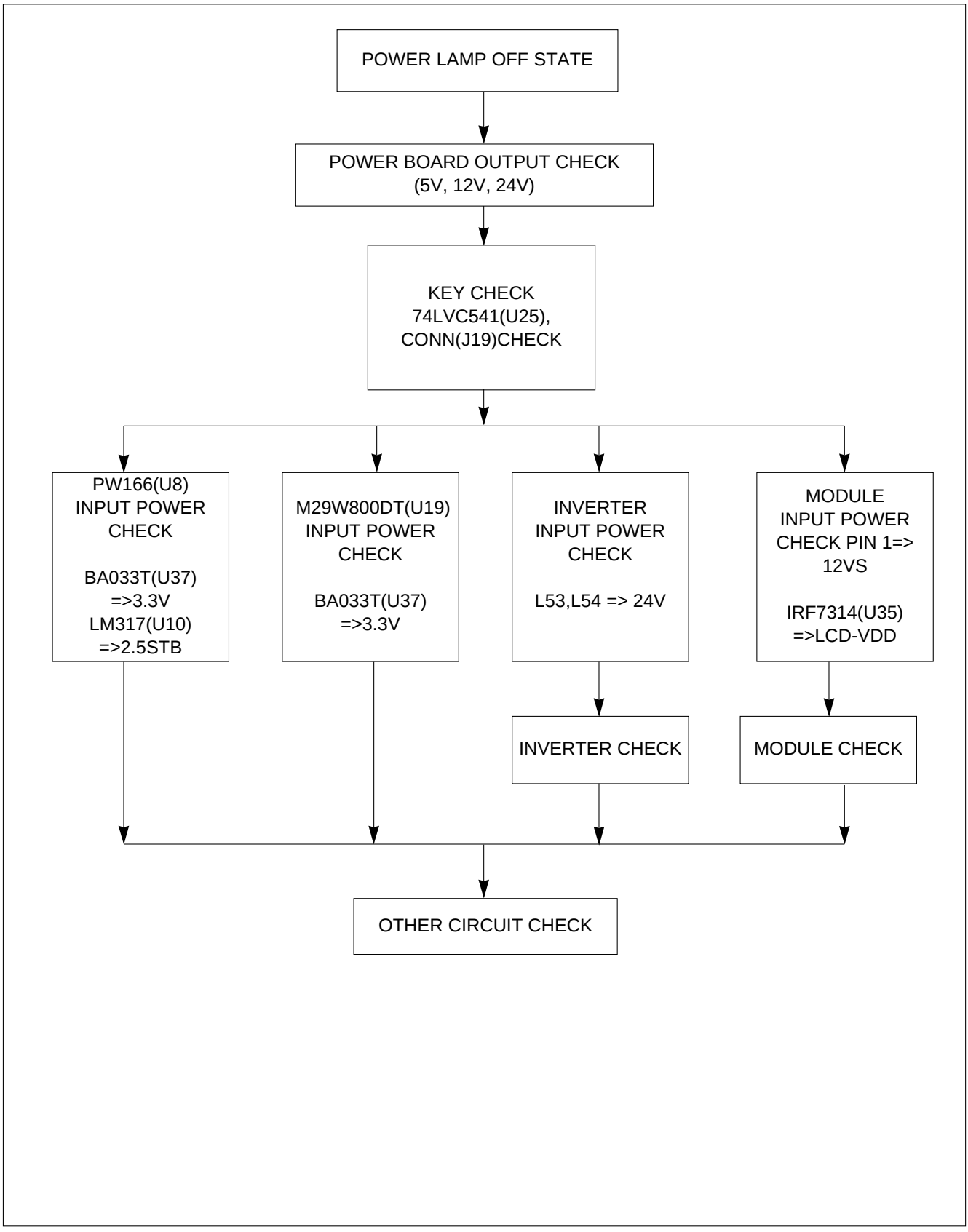


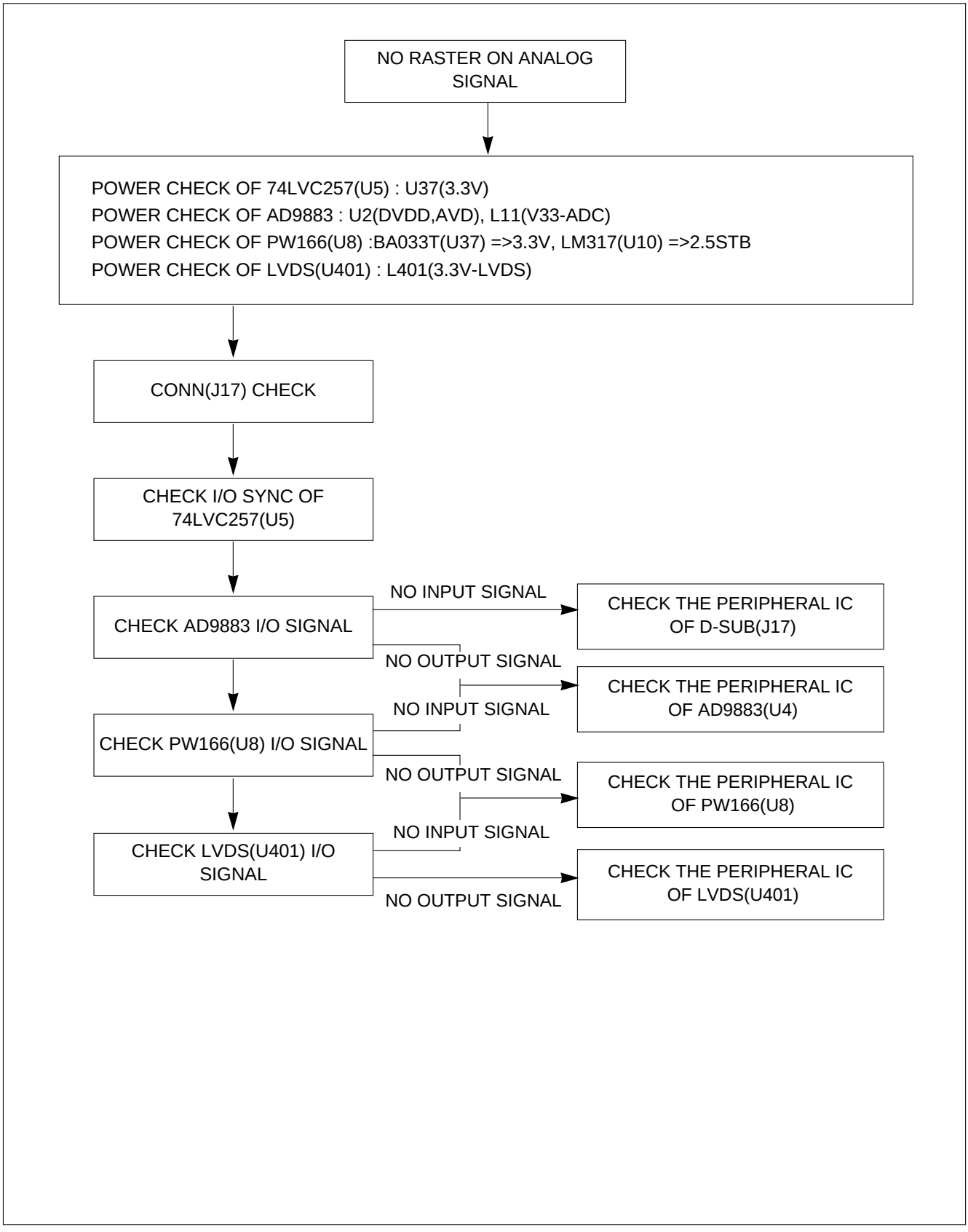
Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

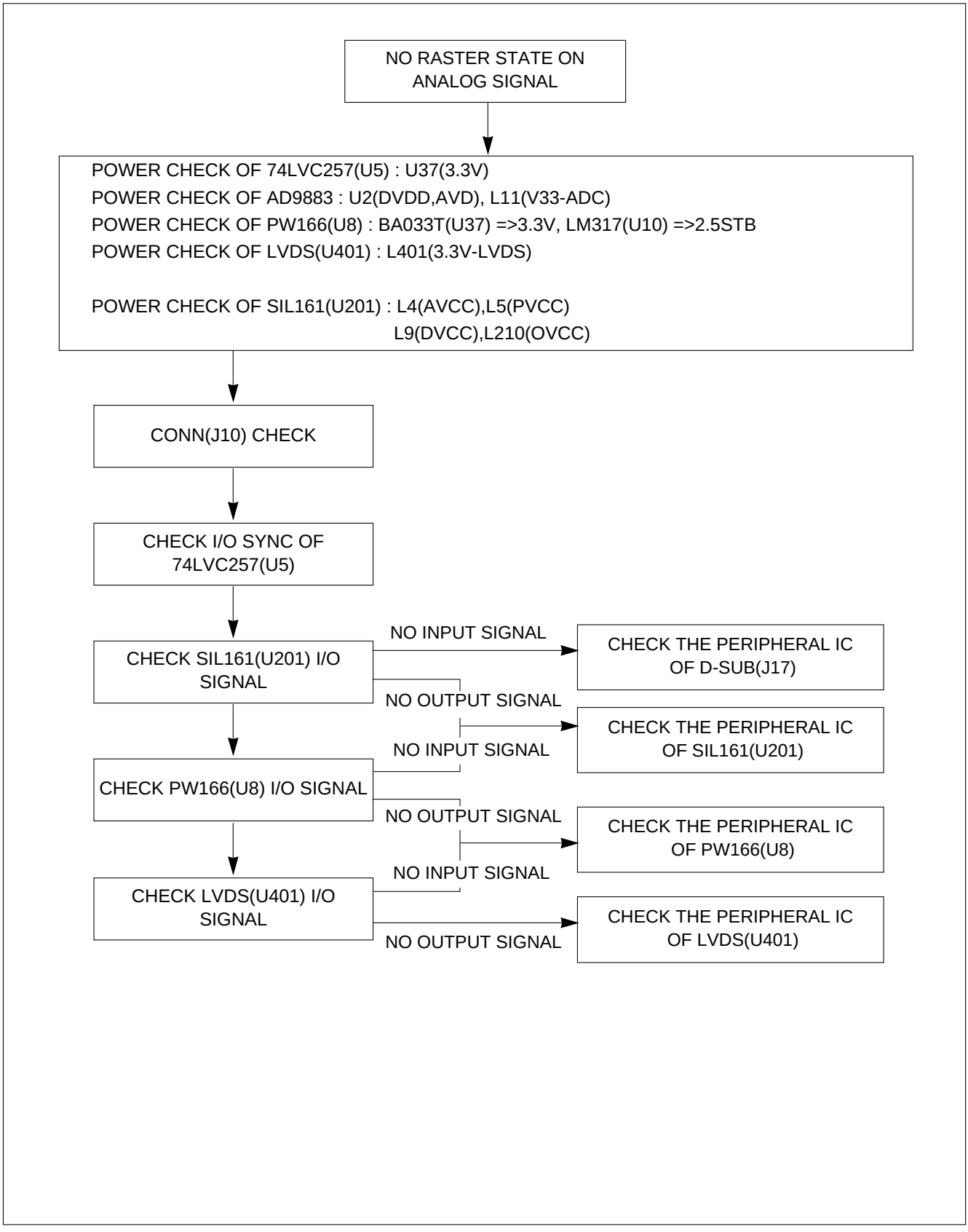
1. OUT OF ORDER ON POWER



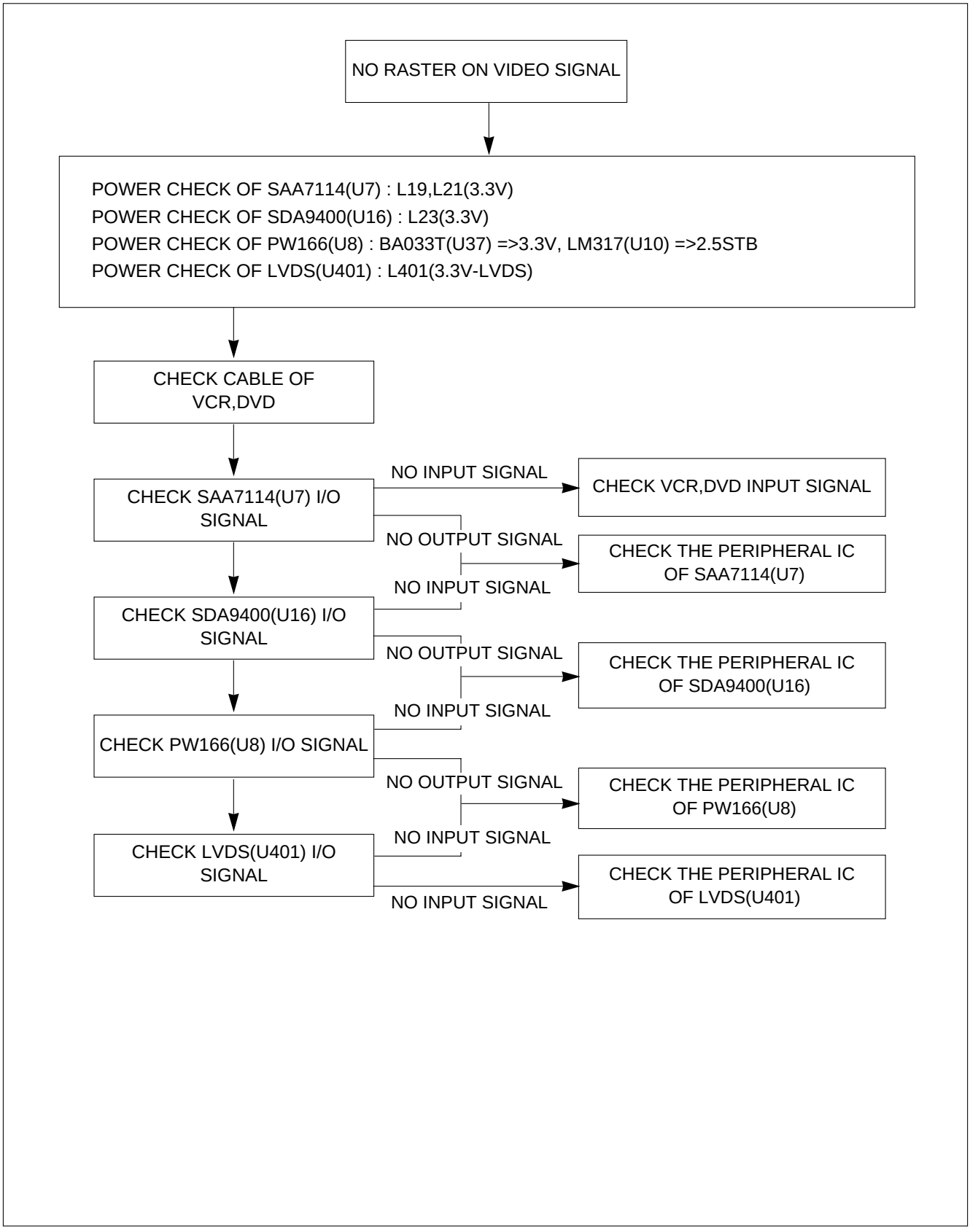
2.NO RASTER STATE ON ANALOG SIGNAL



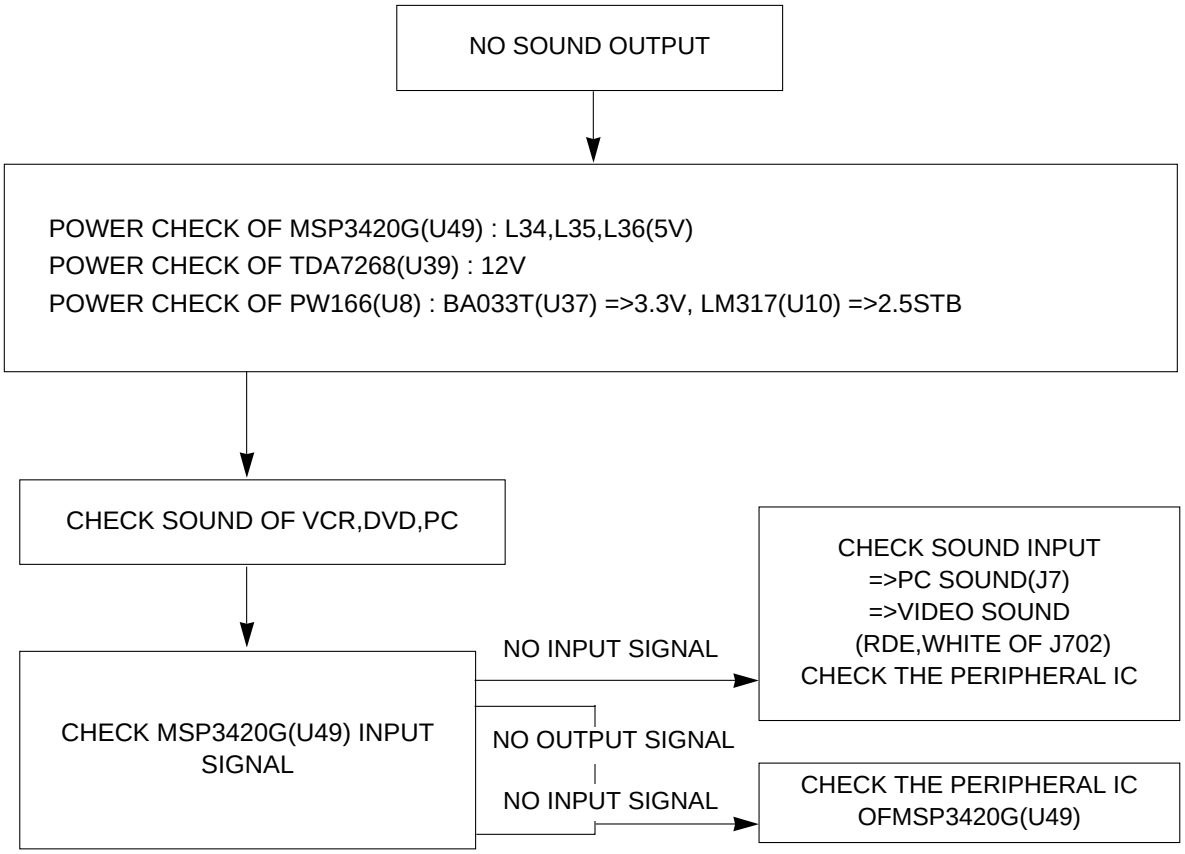
3. NO RASTER STATE ON DIGITAL SIGNAL



4. NO RASTER ON VIDEO SIGNAL INPUT

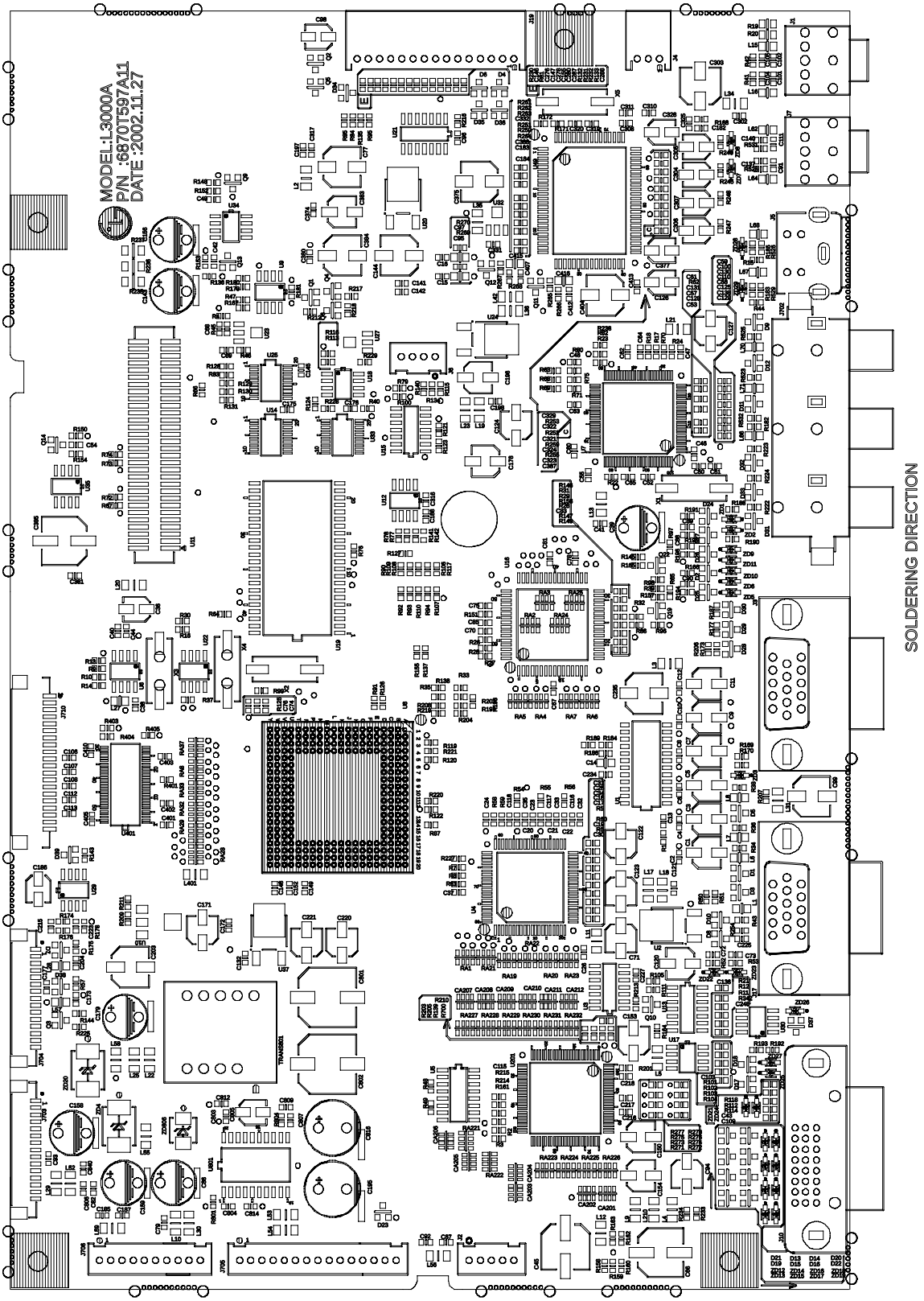


5. SOUND TROBLE SHOOTING

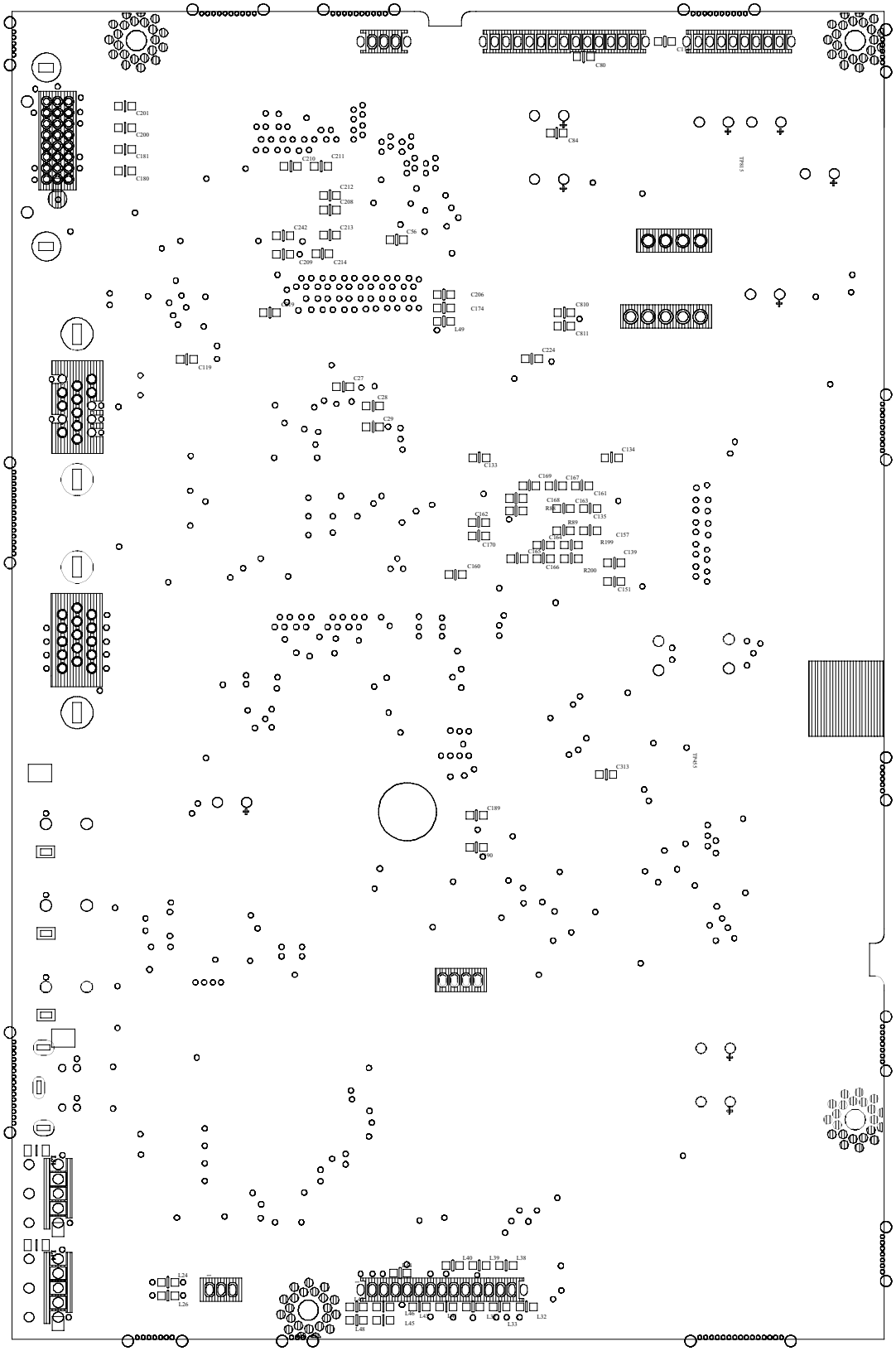


PRINTED CIRCUIT BOARD

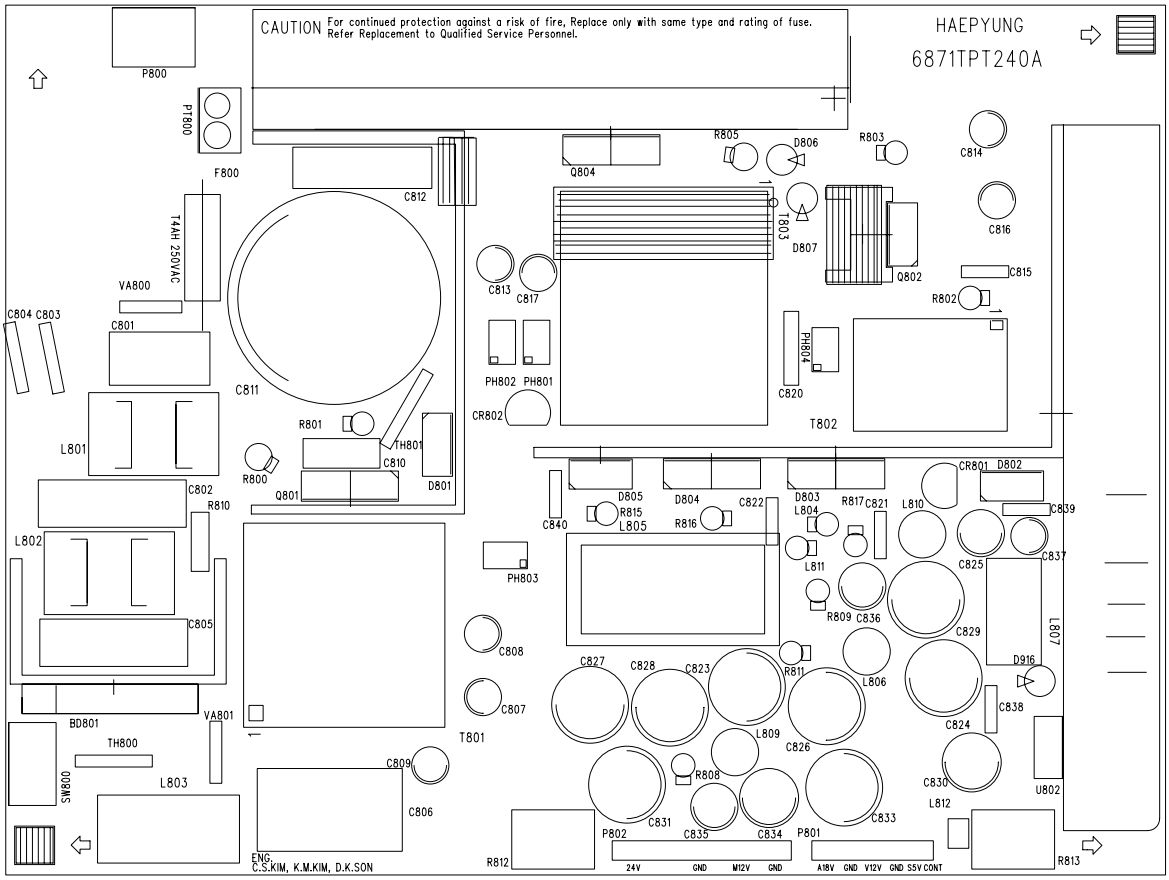
1. MAIN BOARD (Component Side)



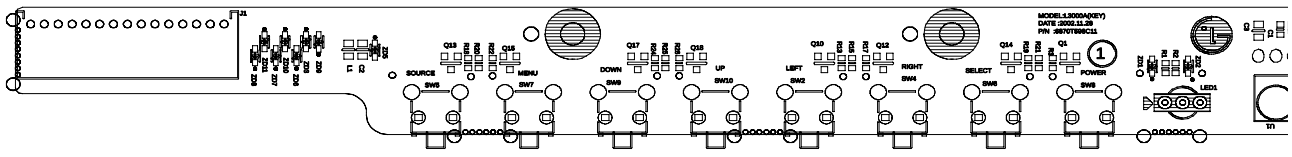
2. MAIN BOARD (Solder Side)



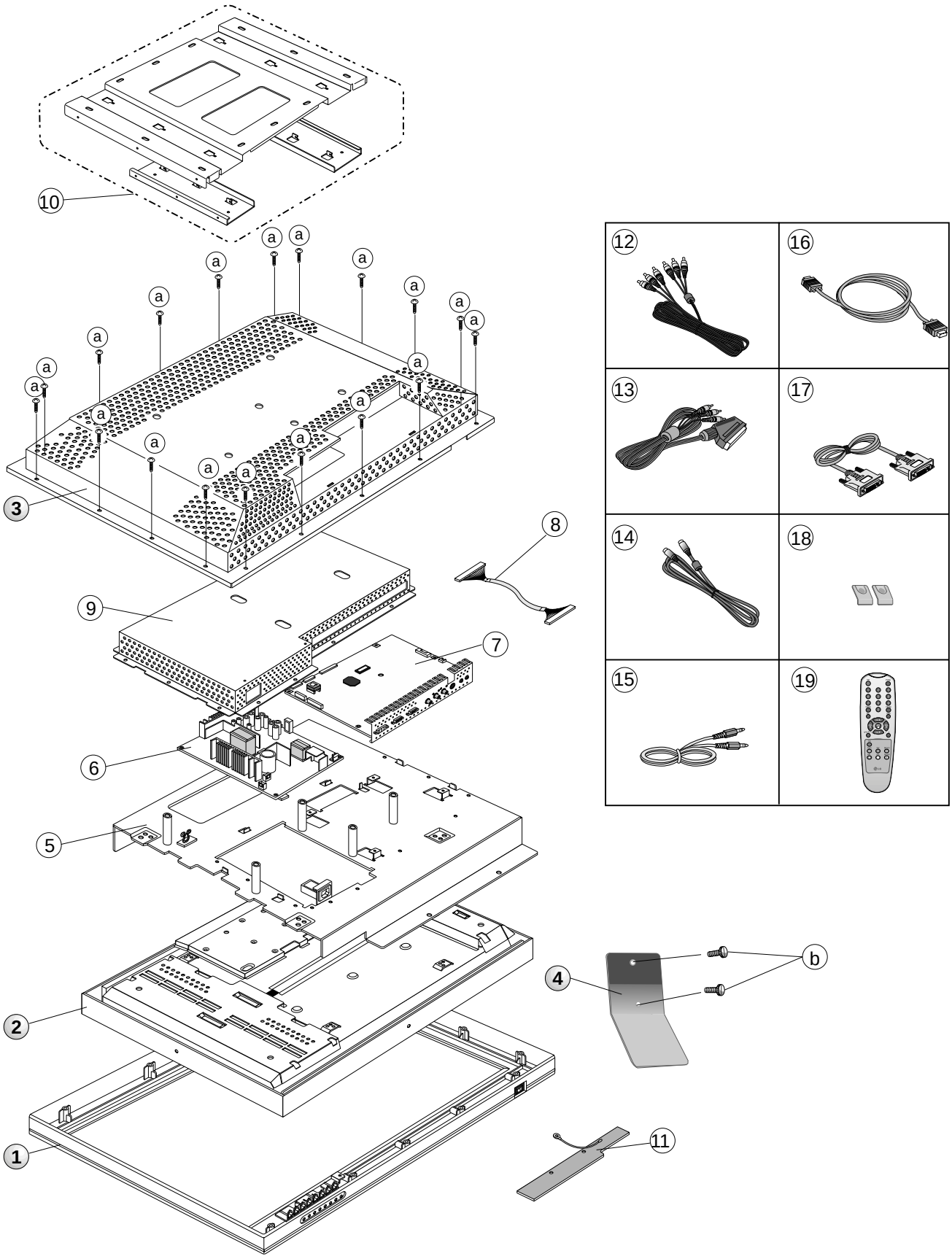
3. POWER BOARD (Component Side)



4. CONTROL BOARD (Component Side)



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
1	3091TKL059A	CABINET ASSEMBLY, L3000AL BRAND 3090TKL056A (30") **-(L3000AL-AL)**
	3091TKL059B	CABINET ASSEMBLY, L3000AL BRAND 3090TKL056 B30""" **-(L3000AL-SL)**
2	6304FLP049A	LCD(LIQUID CRYSTAL DISPLAY), LC300W01-A3M2 LG PHILPS TFT COLOR LPL INVERTER APPLY
	or 6304FLP017A	LCD(LIQUID CRYSTAL DISPLAY), LC300W01-A3 LG PHILPS TFT COLOR WITH INVERTER29.53",1280*768,450CD/M2,8BIT
	or 6304FLP054A	LCD(LIQUID CRYSTAL DISPLAY), LC300W01-A3M3 LG PHILPS TFT COLOR 8BIT LVDS 16LAMP
3	4814TKK234J	SHIELD, REAR L3000AL **-(L3000AL-AL)**
	or 4814TKK234K	SHIELD, REAR (L3000AL)**-(L3000AL-SL)**
4	4950TKK502A	METAL, STAND TEMP.**-(L3000AL-AL)**
	4950TKK502B	METAL, STAND TEMP**-(L3000AL-SL)**
5	4950TKS215C	METAL, FRAME
6	6871TPT240A	PWB(PCB) ASSEMBLY, POWER, L3000AL POWER TOTAL HAEPYUNG U200-M30LZ1A
7	6871TMT418A	PWB(PCB) ASSEMBLY,MAIN, L3000A ALEUA BRAND CL-36 TOTAL
8	6631T11016A	CONNECTOR ASSEMBLY, 20P H-H 180MM UL20276 I/FACE CABLE LB200A
9	4815TKK026B	SHIELD ASSEMBLY, REAR MAIN (PAL) **-(L3000AL-AL)**
	4815TKK026D	SHIELD ASSEMBLY, REAR MAIN(SILVER_PAL) **-(L3000AL-SL)**
10	4951TKK127A	METAL ASSEMBLY, STAND**(ST3000-BLACK)**
	4951TKK127B	METAL ASSEMBLY, STAND**(ST3000-SILVER)**
11	6871TST358A	PWB(PCB) ASSEMBLY,SUB, L3000AL CONTROL TOTAL BRAND CL-36
12	6852TAZ006B	CORD, A/V, RCA CABLE UL 2863 #25 3000MM BLACK(9930) DH-3P-N300C LM295B
13	6852TAZ006C	CORD, A/V, SCART CABLE UL 2863 #25 1500MM GRAY(85964) DH-3P-150SRC LM295B
14	6852TAZ006D	CORD, A/V, DIN CABLE UL 2990-9C(5.5) 1560MM BLACK(9930) DH-150DIN LM295B
15	6852TAZ006J	CORD, A/V, A/V KHC-LG-3-0010 UL 2851 #28-2C 1500MM BLACK(9930) KSD WITH CORE LM295B
16	6850TD9001G	CABLE, D-SUB, UL 2990-9C(7.5) DT 1870MM BLACK(9930) , DM **-(L3000AL-AL)**
	6850TD9001J	CABLE, D-SUB, UL 2990-9C(7.5) DT 1870MM PEARL WH T541K DM **-(L3000AL-SL)**
17	6866TDV004J	CABLE, DVI, UL20276 DT 2000MM BLACK(9930) LG883D DM **-(L3000AL-AL)**
	6866TDV004C	CABLE, DVI, UL20276 DT 2000MM GRAY(85964) LB885C DM **-(L3000AL-SL)**
18	5040TKM050A	RUBBER, FOOT MOLDING BOTTOM(L3000AL)
19	6710T00001C	REMOTE CONTROLLER, LM295B -KALU (22")
a	332-102R	SCREW,DRAWING, TAP-TITE(P) TRUSS HEAD TYPE D4.0 L14.0 MSWR/BK (L3000AL)
b	1SZZTMF010A	SCREW,DRAWING, MACHINE FILLISTER TYPE D5.0 L10.0 MSWR/FN L3000AL

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: 2003. 3. 5.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C1	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C2	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C3	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C4	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C5	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C6	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C7	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C8	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C9	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C10	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C11	0CE476VC6DC	47UF MV 6.3V 20% R/TP(SMD) S
		C12	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C13	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C14	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C15	0CK152CK51A	1500PF 1608 50V 10% R/TP B(Y
		C16	0CK152CK51A	1500PF 1608 50V 10% R/TP B(Y
		C17	0CK823CK56A	82NF 1608 50V 10% R/TP X7R
		C18	0CK822CK56A	8200PF 1608 50V 10% X7R R/TP
		C20	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C21	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C22	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C23	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C24	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C25	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C26	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C27	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C28	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C29	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C30	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C31	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C32	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C33	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C34	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C35	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C39	0CE477CF618	470UF SHL 16V M FL TP5
		C41	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C42	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C43	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C45	0CH8476K611	47UF 50V 20% 85STD (CYL) R/T
		C46	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C47	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C48	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C49	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C50	0CC390CK41A	39PF 1608 50V 5% R/TP NP0
		C51	0CC390CK41A	39PF 1608 50V 5% R/TP NP0
		C52	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C53	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C54	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C55	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C56	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C57	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C58	0CK473CK56A	47000PF 1608 50V 10% R/TP X7

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C59	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C60	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C61	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C62	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C63	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C64	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C65	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C66	0CH8476K611	47UF 50V 20% 85STD (CYL) R/T
		C67	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C68	0CH3105H946	"1UF 25V 80%,-20% F(Y5V) 2012"
		C70	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C71	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C72	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C73	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C74	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C75	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C76	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C77	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C78	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C79	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C80	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C81	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C82	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C83	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C84	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C85	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C86	0CE227CF638	"220UF SHL,SD 16V M FM5 TP 5"
		C87	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C88	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
		C89	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
		C90	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
		C92	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C93	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C94	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C95	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C96	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C97	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C98	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C99	0CE106VK6DC	10UF MV 50V 20% R/TP(SMD) SM
		C100	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C103	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C109	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C110	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C114	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C119	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C120	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C121	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C122	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C123	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C124	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C125	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C126	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C127	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C128	0CK473CK56A	47000PF 1608 50V 10% R/TP X7

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C129	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C130	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C131	0CK473CK56A	47000PF 1608 50V 10% R/TP X7
		C132	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C133	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C134	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C135	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C136	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C137	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C138	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C139	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C140	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C141	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C142	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C143	0CE477CF618	470UF SHL 16V M FL TP5
		C144	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C145	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C146	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C147	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C148	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C149	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C150	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C151	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C152	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C153	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C154	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C155	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C156	0CE477CF618	470UF SHL 16V M FL TP5
		C157	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C158	0CE477CF618	470UF SHL 16V M FL TP5
		C159	0CE227CF638	“220UF SHL,SD 16V M FM5 TP 5”
		C160	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C161	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C162	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C163	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C164	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C165	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C166	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C167	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C168	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C169	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C170	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C171	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C172	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C173	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C175	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C176	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C177	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C178	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C179	0CE477CF618	470UF SHL 16V M FL TP5
		C180	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C181	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C182	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C183	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C184	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C185	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C186	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C187	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C195	0CE477CJ618	470UF SHL 35V M FL TP5
		C196	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C197	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C198	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C200	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C201	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C203	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C204	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C208	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C209	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C210	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C211	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C212	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C213	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C214	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C215	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C216	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C217	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C218	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C219	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C220	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C221	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C223	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C224	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C225	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C227	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C234	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C235	0CH8476F611	47UF 16V 20% 85STD (CYL) R/T
		C242	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C248	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C276	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C278	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C280	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C287	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C288	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C302	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C303	0CH8476F611	47UF 16V 20% 85STD (CYL) R/T
		C304	0CH8474K611	0.47UF 50V 20% 85STD (CYL) R
		C305	0CH8474K611	0.47UF 50V 20% 85STD (CYL) R
		C306	0CH8474K611	0.47UF 50V 20% 85STD (CYL) R
		C307	0CH8474K611	0.47UF 50V 20% 85STD (CYL) R
		C308	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C310	0CC560CK41A	56PF 1608 50V 5% R/TP NP0
		C311	0CC560CK41A	56PF 1608 50V 5% R/TP NP0
		C313	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C316	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C317	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C319	0CC3R3CK01A	3.3PF 1608 50V 0.25 PF R/TP
		C320	0CC3R3CK01A	3.3PF 1608 50V 0.25 PF R/TP
		C321	0CK222CK51A	2200PF 1608 50V 10% R/TP B(Y
		C322	0CK222CK51A	2200PF 1608 50V 10% R/TP B(Y
		C325	0CC560CK41A	56PF 1608 50V 5% R/TP NP0
		C328	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C329	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C331	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C332	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C374	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C375	0CH8476F611	47UF 16V 20% 85STD (CYL) R/T
		C377	0CH8475J611	4.7UF 35V M 85STD(CYL) R/TP
		C380	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C381	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C383	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C384	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C385	0CH8227F611	220UF 16V 20% 85STD (CYL) R/
		C387	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C388	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C401	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C402	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C403	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C404	0CH8476F611	47UF 16V 20% 85STD (CYL) R/T
		C405	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C407	0CK472CK51A	4700PF 1608 50V 10% R/TP B(Y
		C410	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C412	0CK472CK51A	4700PF 1608 50V 10% R/TP B(Y
		C413	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C415	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C416	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V) 2"
		C801	0CZZTAT002D	SVP SANYO 10V 270UF M REEL O
		C802	0CZZTAT002D	SVP SANYO 10V 270UF M REEL O
		C803	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C804	0CC821CK41A	820PF 1608 50V 5% R/TP NP0
		C805	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C806	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C807	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C809	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C810	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C811	0CH3104K946	100000PF 50V Z F 2012 R/TP
		C812	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C814	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C816	0CE477CJ618	470UF SHL 35V M FL TP5
		C840	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
DIODEs				
		D1	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D2	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D3	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D4	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D5	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D6	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D7	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D8	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D9	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D10	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D11	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D12	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D13	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D14	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D15	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D16	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D17	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D18	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D19	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D20	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D21	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D22	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D23	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D24	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D25	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D26	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D27	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D28	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D29	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D30	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D31	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D32	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D33	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D34	0DS226009AA	KDS226 TP KEC SOT-23 80V 30

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		D35	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D36	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D37	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D38	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D39	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		ZD1	0DZ510009EE	UDZ S 5.1B TP ROHM-K SOD323
		ZD2	0DZ510009EE	UDZ S 5.1B TP ROHM-K SOD323
		ZD3	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD7	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD8	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD21	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD22	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD23	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD24	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD25	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD26	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD27	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD28	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD29	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD806	0DR190309AA	MBRS190T3 TP MOTOROLA 403A
ICs				
		U1	0IRH765700B	"BA7657F 24P,SOP TP INPUT SIG"
		U2	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U3	0ISTLFA058A	"74F14SCX FAIRCHILD 14P,SOIC"
		U4	0IPRPAD008C	AD9883AKST-140 ANALOG DEVICE
		U5	0ISTLPH002A	74LVC257A PHILIPS SO16 R/TP
		U7	0ILNRPH003A	SAA7114H PHILIPS 100 LQFP TR
		U8	0IPRPPW002A	"PW166B-20T PIXELWORKS 256P,B"
		U9	0IDS170800A	DS1708S 8P SOIC ST MICROMONI
		U10	0INS317000E	LM317EMPX SOT-223 TP REGULAT
		U12	0IMMRSS040C	S524A60X51(SCT0) SAMSUNG ELE
		U13	0IMO140662A	"MC14066BDR2 14P,SOIC TP BILA"
		U14	0ISTLPH004B	"74LVC273(PW) PHILIPS 16P,TSS"
		U15	0ITI743200P	"SN74HC32DR 14P,SOIC TP QUAD"
		U16	0ISM940000A	SDA9400 64P MQFP BK DRAM -
		U17	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELE
		U18	0IDS170800A	DS1708S 8P SOIC ST MICROMONI
		U19	0IZZTSZ259A	L3000A PAL V1.0 44PIN PSOP
		U20	0ISS780800J	"KA78M08R 3P,D-PAK TP VOL. RE"
		U21	0ITI741400T	"SN74AC14DR 14,SOP R/TP HEX I"
		U23	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		U24	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U25	0ISTLPH003B	"74LVC541A(PW) PHILIPS 16P,TS"
		U27	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		U29	0ISS358000D	KA358D-TF OP AMP SMD REEL:3K
		U30	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELE
		U32	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		U33	0ISTLPH004B	"74LVC273(PW) PHILIPS 16P,TSS"
		U34	0TFIR80009A	INTERNATIONAL RECTIFIER IRF7
		U35	0TFIR80009A	INTERNATIONAL RECTIFIER IRF7
		U37	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U49	0IPRPMN001A	"MSP3420G MICRONAS 80,PQFP TR"
		U401	0ITH638300B	"THC63LVDM83R THINE 56P,TSSOP"
		U201	0IS5161000B	SIL161BCT100 SILICON IMAGE 1
		U801	0ISG497351A	L4973D5.1 SO20 TP 3.5A S/DOW
COILs & COREs				
		L1	6210TCE001A	HB-1S2012-080JT CERATEC 2012
		L2	6210TCE001G	HH-1M3216-501 CERATEC 3216MM

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		L3	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L4	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L5	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L6	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L7	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L8	6210TCE001Y	HB-1H2012-320JT CERATEC 2012
		L9	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L10	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L11	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L12	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L13	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L14	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L15	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L16	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L17	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L18	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L19	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L21	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L22	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L23	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L24	6210TCE001L	HB-1T2012-102JT CERATECH 201
		L25	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L26	6210TCE001L	HB-1T2012-102JT CERATECH 201
		L28	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L29	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L30	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L31	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L32	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L33	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L34	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L35	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L36	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L37	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L38	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L39	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L40	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L41	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L42	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L43	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L44	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L45	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L46	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L47	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L48	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L49	0RH0000D622	0 1/10W P-TYPE TAPPING
		L51	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L52	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L53	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L54	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L55	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L56	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L57	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L59	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L62	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L64	6210TCE001H	HB-1T2012-301JT CERATEC 2012
		L66	6210TCE001L	HB-1T2012-102JT CERATECH 201
		L67	6210TCE001L	HB-1T2012-102JT CERATECH 201
		L68	6210TCE001L	HB-1T2012-102JT CERATECH 201
		L70	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L71	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L210	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L401	6210TCE001G	HH-1M3216-501 CERATEC 3216MM

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		TRANSISTOR		
		Q1	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q2	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q3	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q4	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q5	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q6	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q9	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q10	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q11	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q12	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q13	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q14	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q19	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q22	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		RESISTORs		
		R1	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R2	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R3	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R4	0RJ7500D677	750 OHM 1/10 W 5% 1608 R/TP
		R5	0RJ2701D677	2.7K OHM 1/10 W 5% 1608 R/TP
		R6	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R7	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R8	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R11	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R12	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R15	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R17	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R18	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R19	0RH0000D622	0 1/10W P-TYPE TAPPING
		R20	0RH0000D622	0 1/10W P-TYPE TAPPING
		R21	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R22	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R23	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R24	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R25	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R26	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R27	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R28	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R29	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R31	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R32	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R33	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R34	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R35	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R36	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R38	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R39	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R40	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R43	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R44	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R45	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R46	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R48	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R49	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R50	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R51	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R52	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R53	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R54	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R55	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R56	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R57	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R58	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R59	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R61	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R62	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R64	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R65	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R66	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R67	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R71	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R72	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R73	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R74	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R75	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R76	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R77	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R78	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R79	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R80	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R81	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R83	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R84	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R85	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R87	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R88	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R89	0RH0272D622	27 1/10W 5 D.R/TP
		R90	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R91	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R93	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R94	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R95	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R96	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R97	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R98	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R99	0RJ3303D677	330K OHM 1/10 W 5% 1608 R/TP
		R100	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R101	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R102	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R103	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R104	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R105	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R106	0RJ2200D677	220 OHM 1/10 W 5% 1608 R/TP
		R107	0RJ2200D677	220 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	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R112	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R113	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R114	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R115	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R116	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R117	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R118	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R119	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R120	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R121	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R123	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R124	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R125	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R126	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R128	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R129	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R130	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R131	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R132	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R133	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R134	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R135	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R136	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R137	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R138	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R139	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R140	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R141	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R142	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R143	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R144	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R145	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R146	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R147	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R148	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R149	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R150	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R151	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R152	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R153	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R154	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R155	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R156	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R157	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R158	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R159	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R160	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R161	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R162	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R163	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R164	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R165	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R166	0RJ2200D677	220 OHM 1/10 W 5% 1608 R/TP
		R168	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R169	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R170	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R171	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R172	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R173	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R174	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R175	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R176	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/T
		R177	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R178	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R179	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R180	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R181	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R182	0RJ0182D677	18 OHM 1/10 W 5% 1608 R/TP
		R183	0RJ0182D677	18 OHM 1/10 W 5% 1608 R/TP
		R184	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R185	0RJ0182D677	18 OHM 1/10 W 5% 1608 R/TP
		R186	0RJ6802D677	68K OHM 1/10 W 5% 1608 R/TP
		R187	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R188	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R189	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R190	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R191	0RJ2200D677	220 OHM 1/10 W 5% 1608 R/TP
		R192	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R193	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		R194	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R195	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R196	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R197	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R198	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R199	0RH0000D622	0 1/10W P-TYPE TAPPING
		R201	0RJ3900D677	390 OHM 1/10 W 5% 1608 R/TP
		R202	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R203	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R204	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R207	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R209	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R210	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R211	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R212	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R214	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R215	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R216	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R217	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R218	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R219	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R220	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R222	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R223	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R224	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R225	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R226	0RH0000D622	0 1/10W P-TYPE TAPPING
		R227	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R228	0RJ2701D677	2.7K OHM 1/10 W 5% 1608 R/TP
		R229	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R230	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R231	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R232	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R233	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R235	0RJ0101G676	1 OHM 1/4 W 5% 3216 R/TP
		R236	0RJ0101G676	1 OHM 1/4 W 5% 3216 R/TP
		R237	0RJ0101G676	1 OHM 1/4 W 5% 3216 R/TP
		R245	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R246	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R247	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R248	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R250	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R251	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R252	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R253	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R254	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R255	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R259	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R264	0RJ2702D677	27K OHM 1/10 W 5% 1608 R/TP
		R265	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R266	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/T
		R267	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R268	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/T
		R269	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R270	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R271	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R272	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R273	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R274	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R275	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R276	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R277	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R278	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R342	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R401	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R403	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R405	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R523	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R525	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R526	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R528	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R529	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R531	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R532	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R700	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R801	0RJ2702D677	27K OHM 1/10 W 5% 1608 R/TP
		R804	0RJ9101D677	9.1K OHM 1/10 W 5% 1608 R/TP
		RA1	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA4	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA5	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA6	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA7	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA8	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA19	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA20	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA21	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA22	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA23	0RHZTCZ001E	RCA SMART 47OHM 1/16 W 5% 32
		RA28	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA29	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA32	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA33	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA37	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA221	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA222	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA223	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA224	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA225	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA226	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA227	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA228	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA229	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA230	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA231	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP
		RA232	0RHZTCZ001C	220 OHM 1/16 W 5% 3215 R/TP

OTHERs

		J1	6612F00001D	DJ-S360LM KSD STERO R/A LIME
		J5	6612F00024A	PSJ007A PARK ELEC. LM805L
		J7	6612F00001C	DJ-S360LB KSD STERO R/A LIGH
		J702	6612F00025B	PPJ122X PARK ELEC. LB200A
		TRANS01	6170TCZ014A	EPC17 22UH LM805L
		X1	6202TST003G	HC-49/SM5H KONY 24.576MHZ +/
		X2	6202TST001A	“SX-1 SUNNY ,SMS, 14.31818MHZ”
		X5	6202TST003B	HC-49/SM5H KONY CHIP 18.432M

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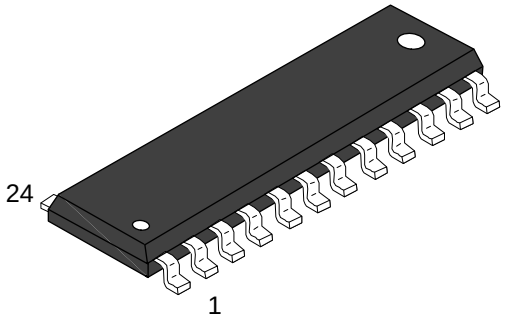
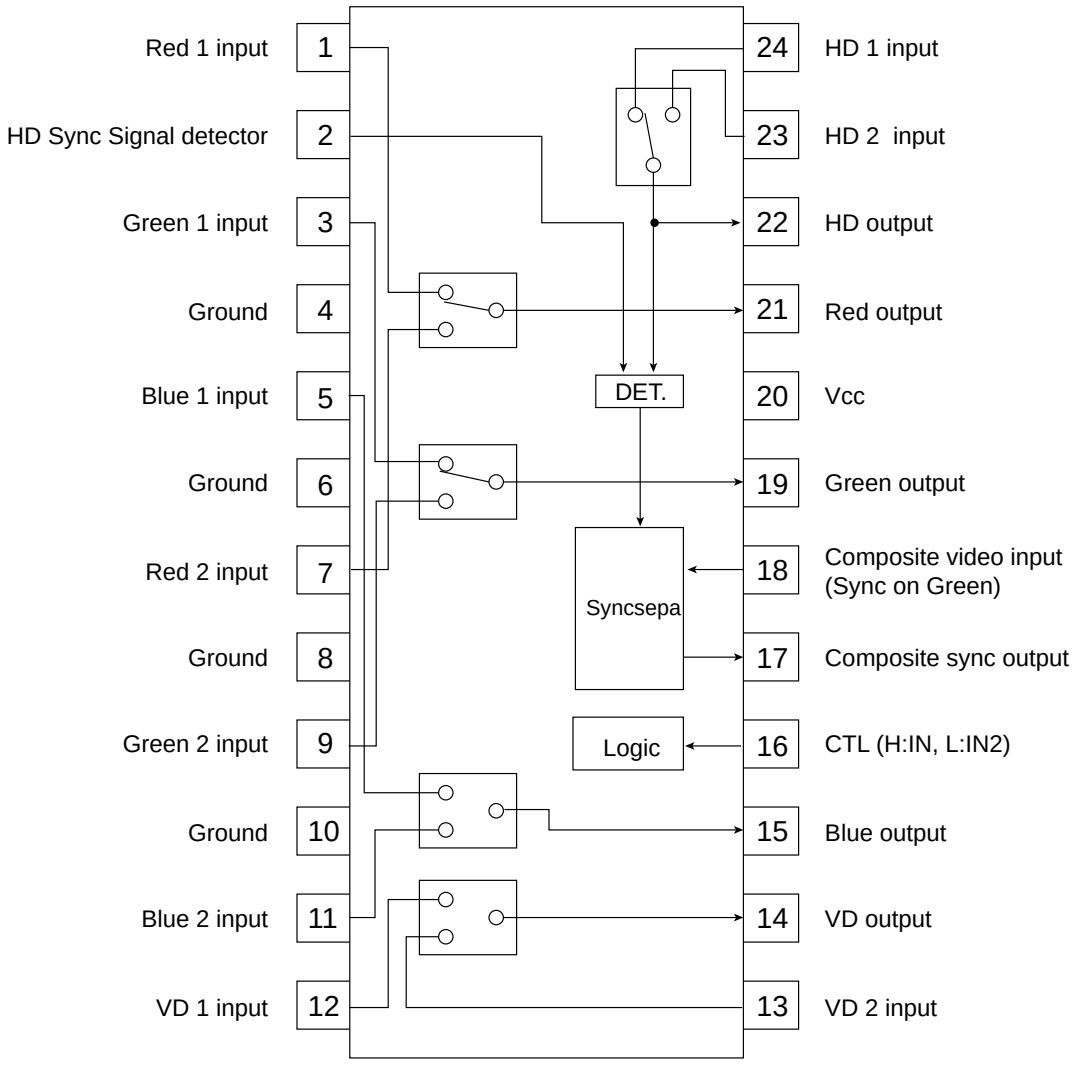
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CONTROL BOARD				
		C2	0CH3105H946	“1UF 25V 80%,-20% F(Y5V) 2012”
		C3	0CH3105H946	“1UF 25V 80%,-20% F(Y5V) 2012”
		LED1	0DLLT0089AA	LITEON LTL-1BEDJ-0C2 TP GREE
		Q1	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q10	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q12	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q13	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q14	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q15	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q17	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q18	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		R1	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R2	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R3	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R13	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R15	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R17	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R18	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R19	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R20	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R21	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R22	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R24	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R25	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R26	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		SW2	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW4	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW5	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW6	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW7	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW8	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW9	140-058B	EVQ PB2 05K MATUSHITA NON 12
		SW10	140-058B	EVQ PB2 05K MATUSHITA NON 12
		U1	6726TV0001A	TSOP4838ON1 TEMIC 38.0KHZ HO
		ZD1	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD3	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD4	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD5	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD6	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD7	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD8	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD9	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD10	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD11	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323

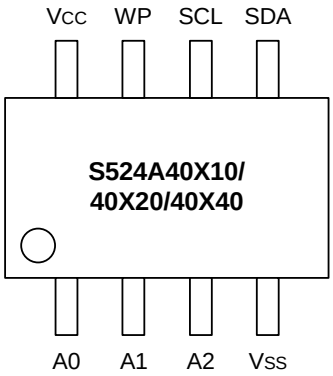
PIN CONFIGURATION

BA7657 Multimedia ICs



BLOCK DIAGRAM





NOTE: The S524A40X10/40X20/40X40 is available in 8-pin DIP, SOP, and TSSOP package.

Figure 2-2. Pin Assignment Diagram

Table 2-1. S524A40X10/40X20/40X40 Pin Descriptions

Name	Type	Description	Circuit Type
A0, A1, A2	Input	Input pins for device address selection. To configure a device address, these pins should be connected to the V_{CC} or V_{SS} of the device. These pins are internally pulled down to V_{SS}.	1
V_{SS}	—	Ground pin.	—
SDA	I/O	Bi-directional data pin for the I^2C-bus serial data interface. Schmitt trigger input and open-drain output. An external pull-up resistor must be connected to V_{CC}. Typical values for this pull-up resistor are 4.7 kΩ (100 kHz) and 1 kΩ (400 kHz).	3
SCL	Input	Schmitt trigger input pin for serial clock input.	2
WP	Input	Input pin for hardware write protection control. If you tie this pin to V_{CC}, the write function is disabled to protect previously written data in the entire memory; if you tie it to V_{SS}, the write function is enabled. This pin is internally pulled down to V_{SS}.	1
V_{CC}	—	Single power supply.	—

NOTE: See the following page for diagrams of pin circuit types 1, 2, and 3.

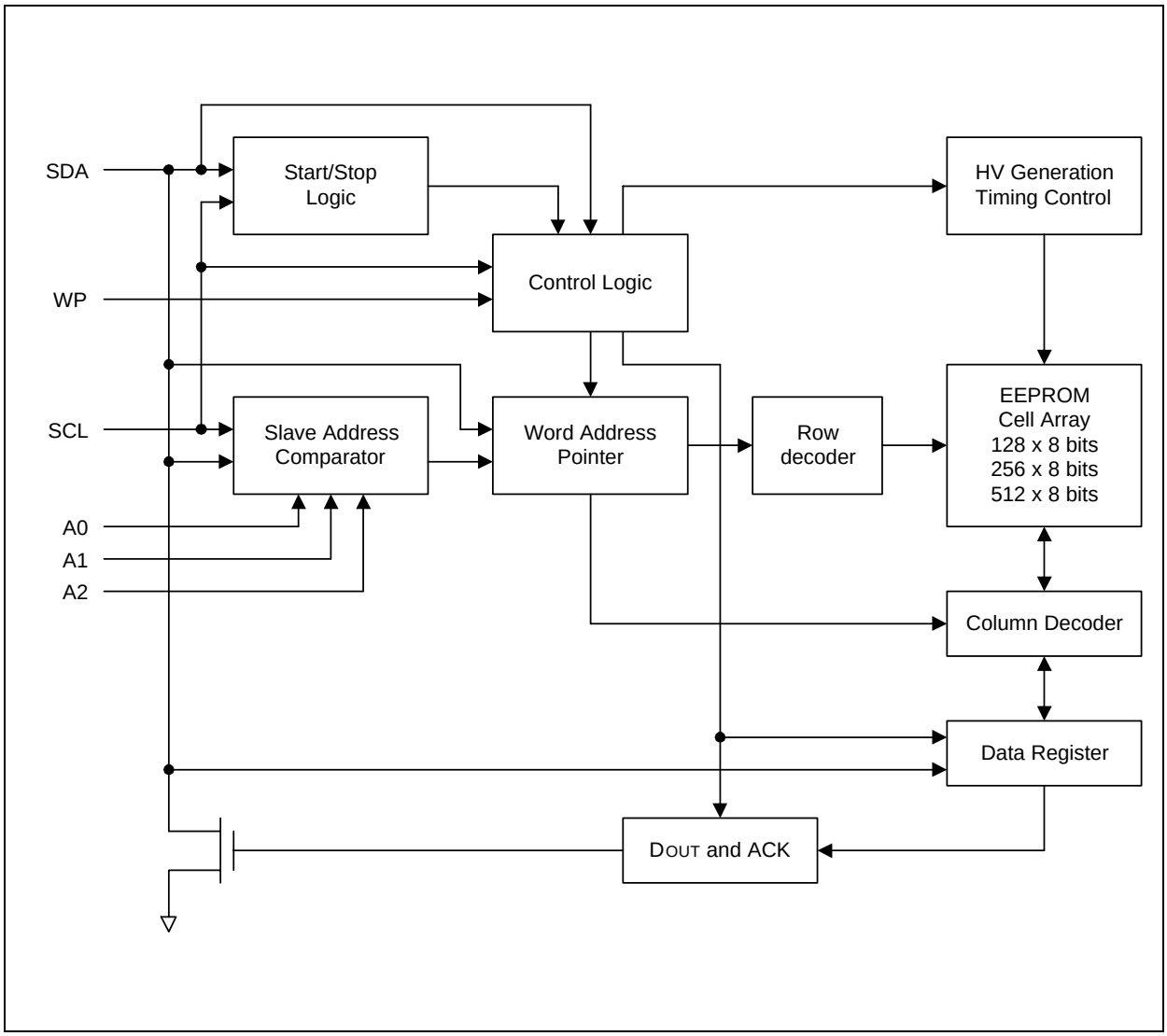
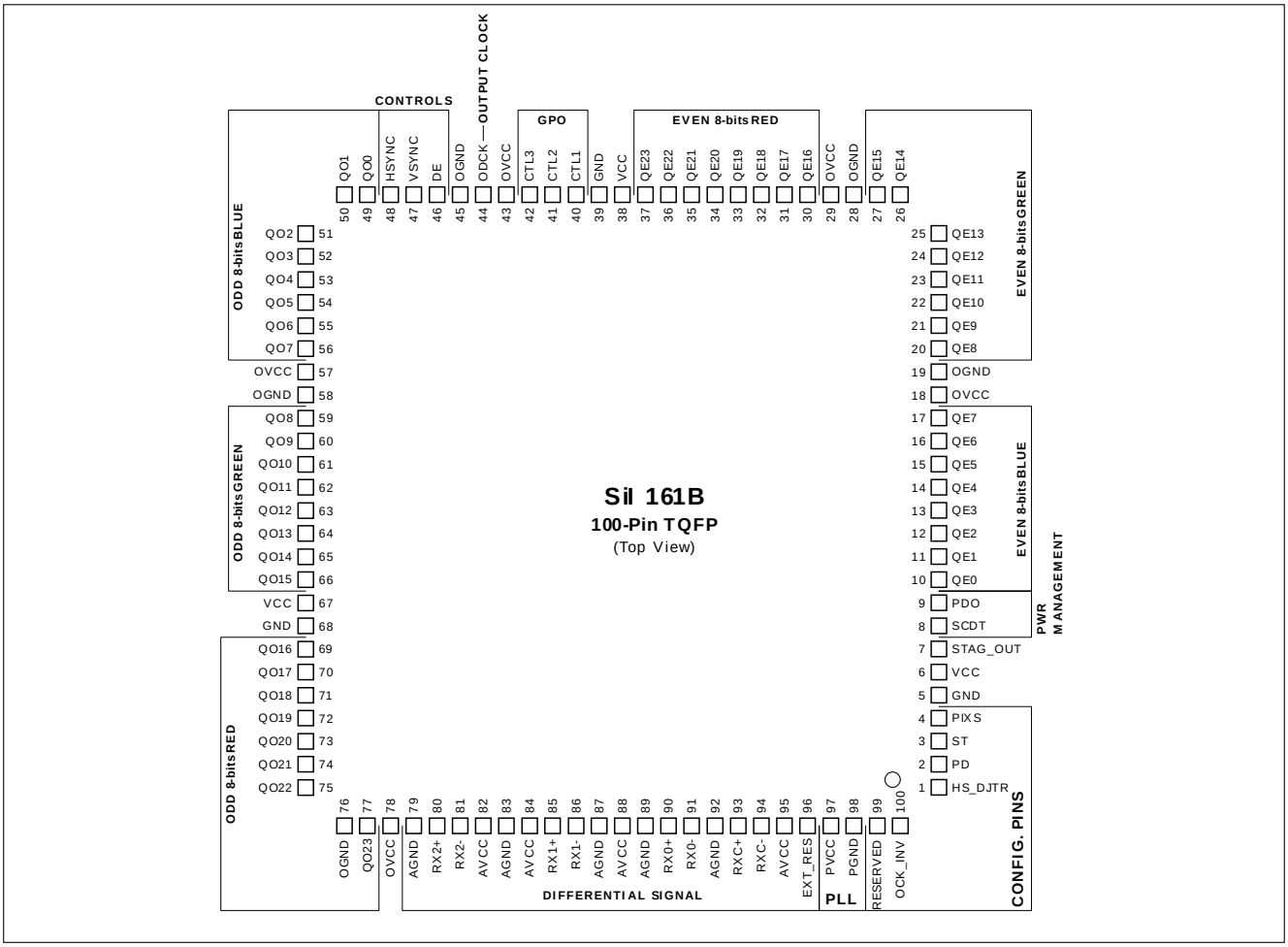
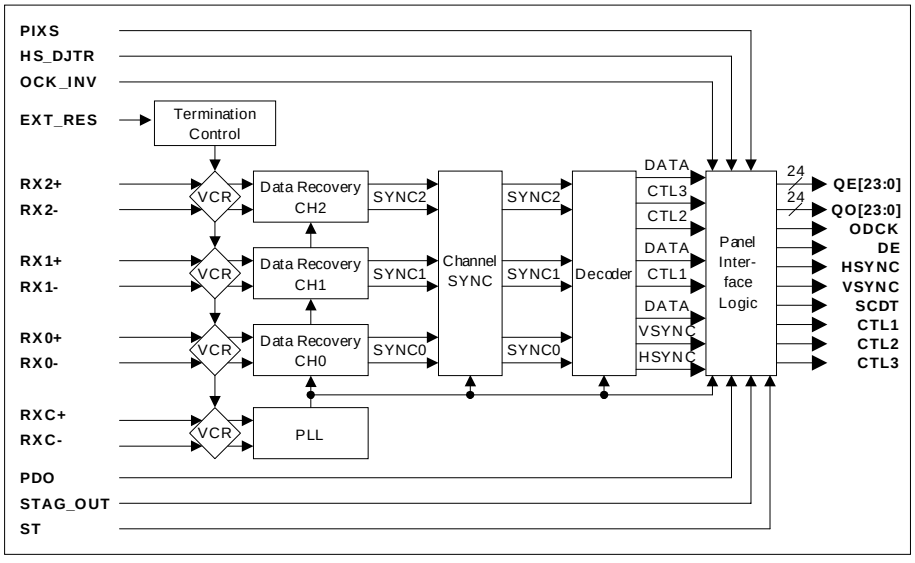


Figure 2-1. S524A40X10/40X20/40X40 Block Diagram



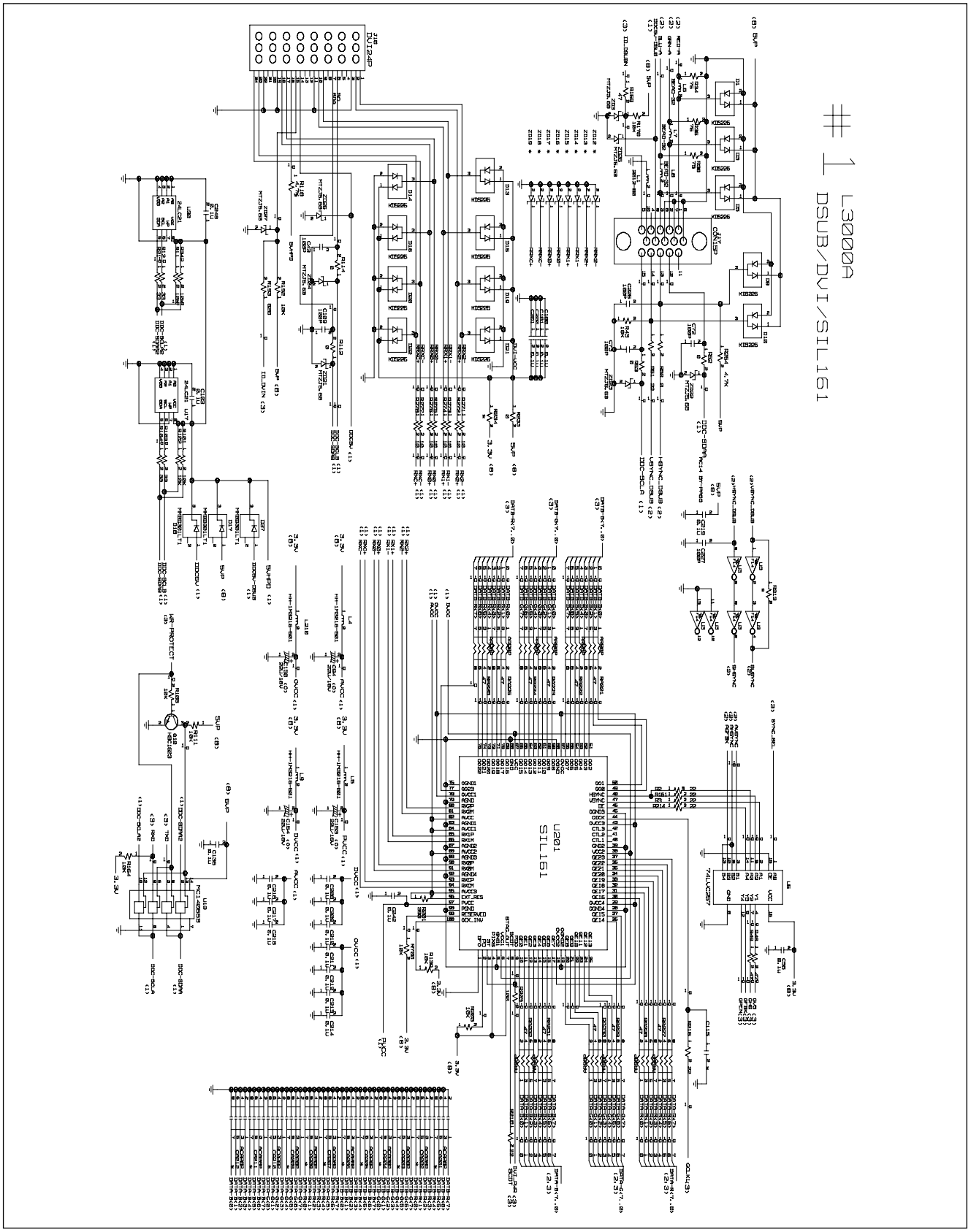
PIN CONFIGURATION



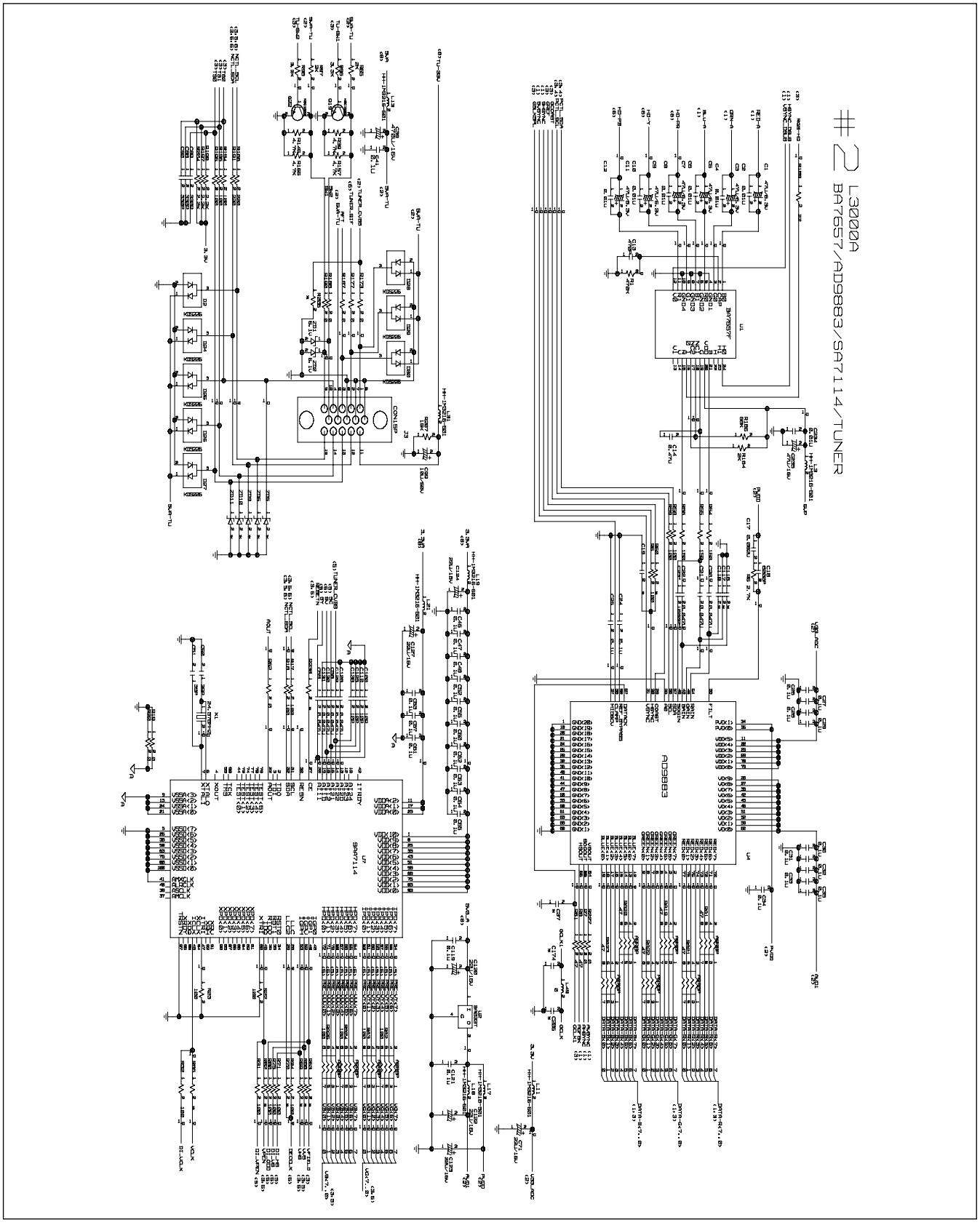
BLOCK DIAGRAM

SCHEMATIC DIAGRAM

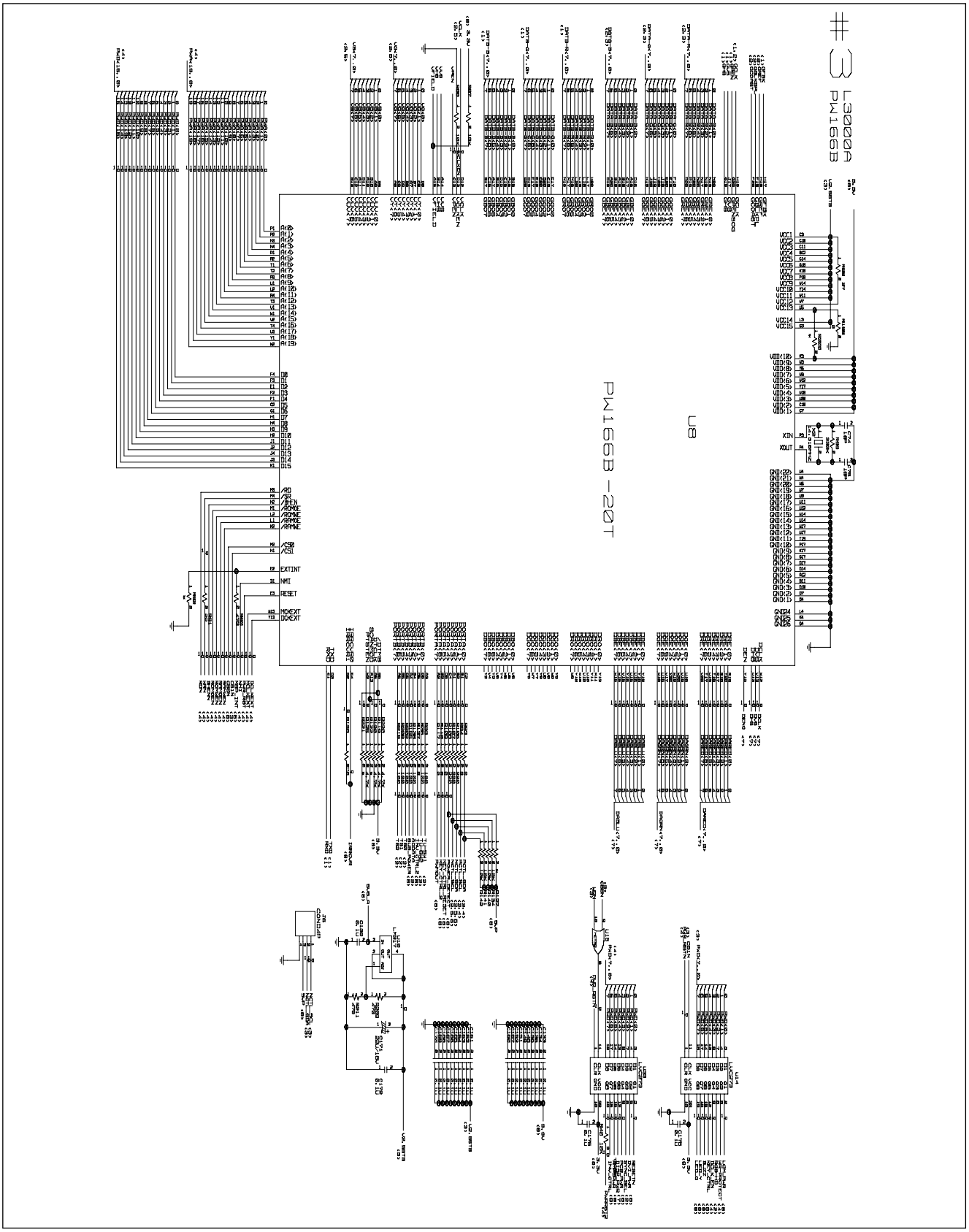
1. D-SUB/DVI INPUT



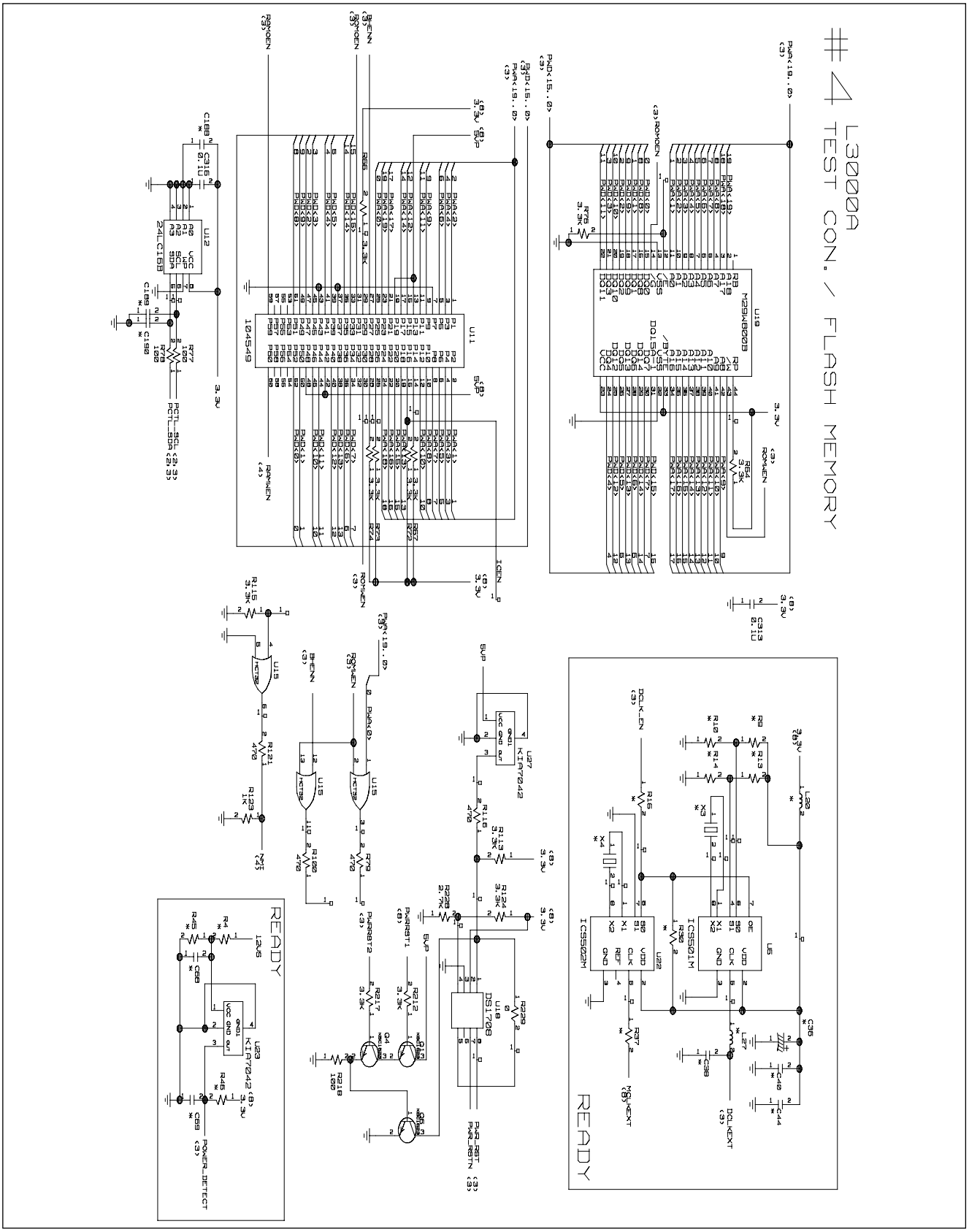
2. BA7657/AD9883/SAA7114



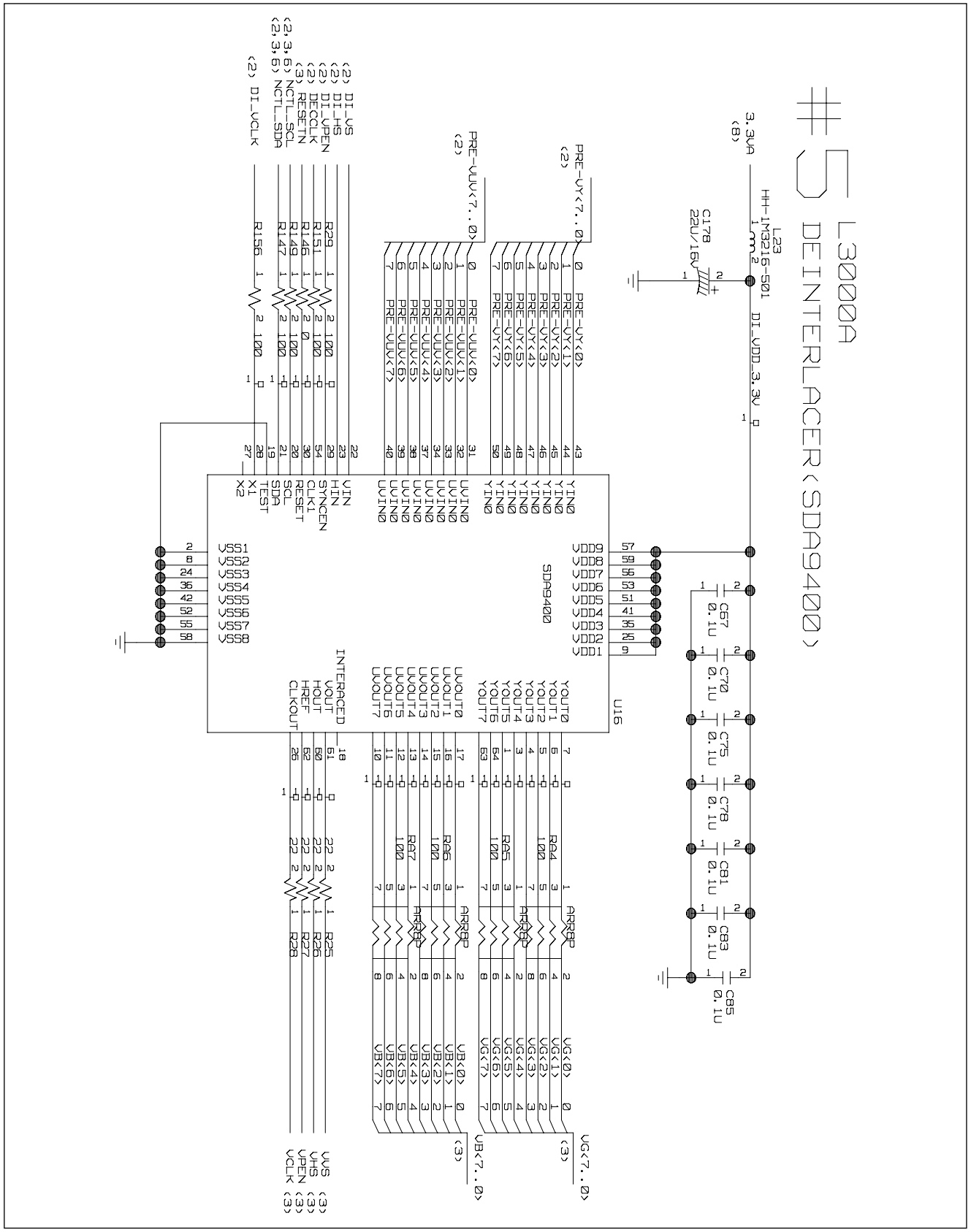
3. SCALER(PW166B)



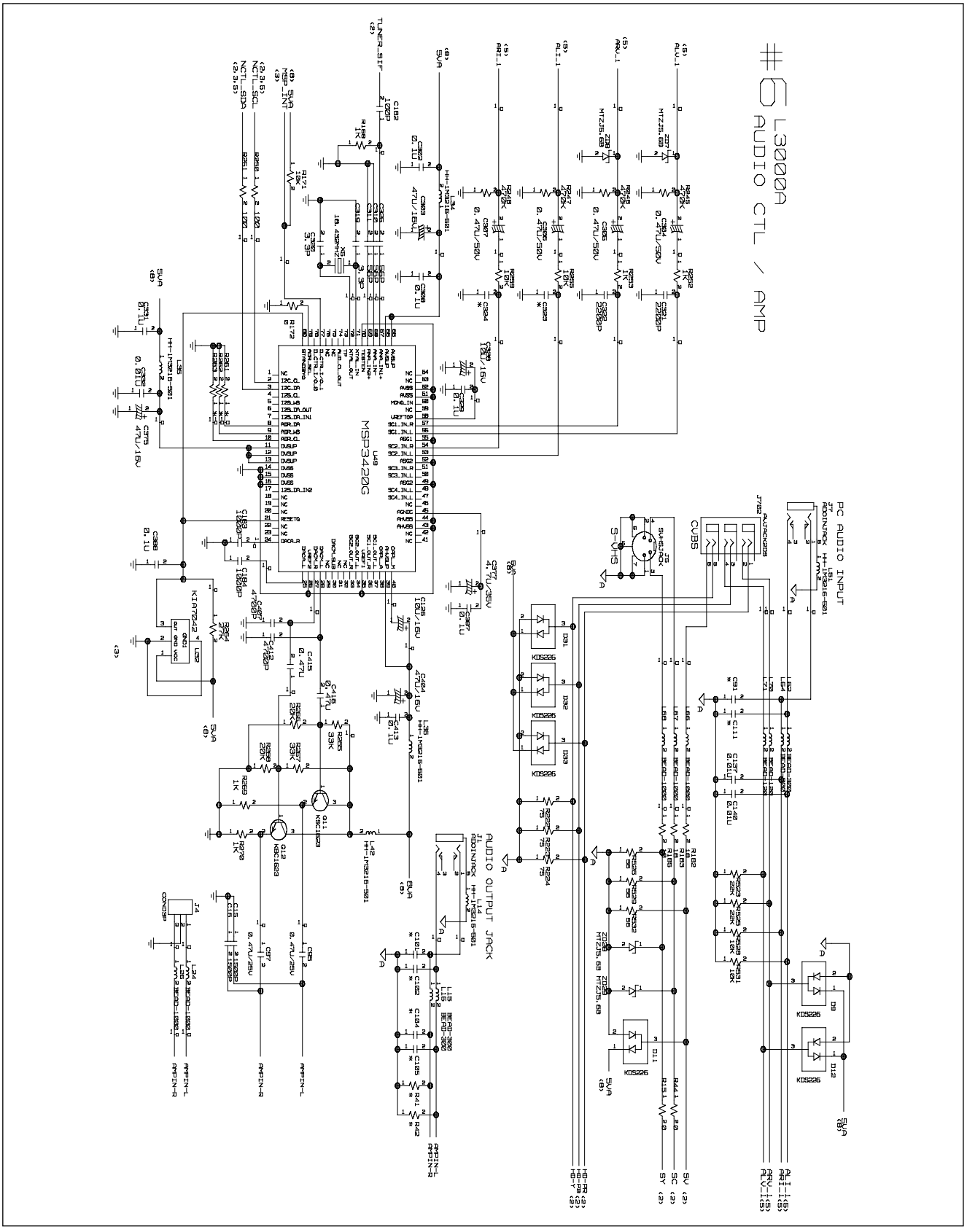
4. MEMORY & PLL



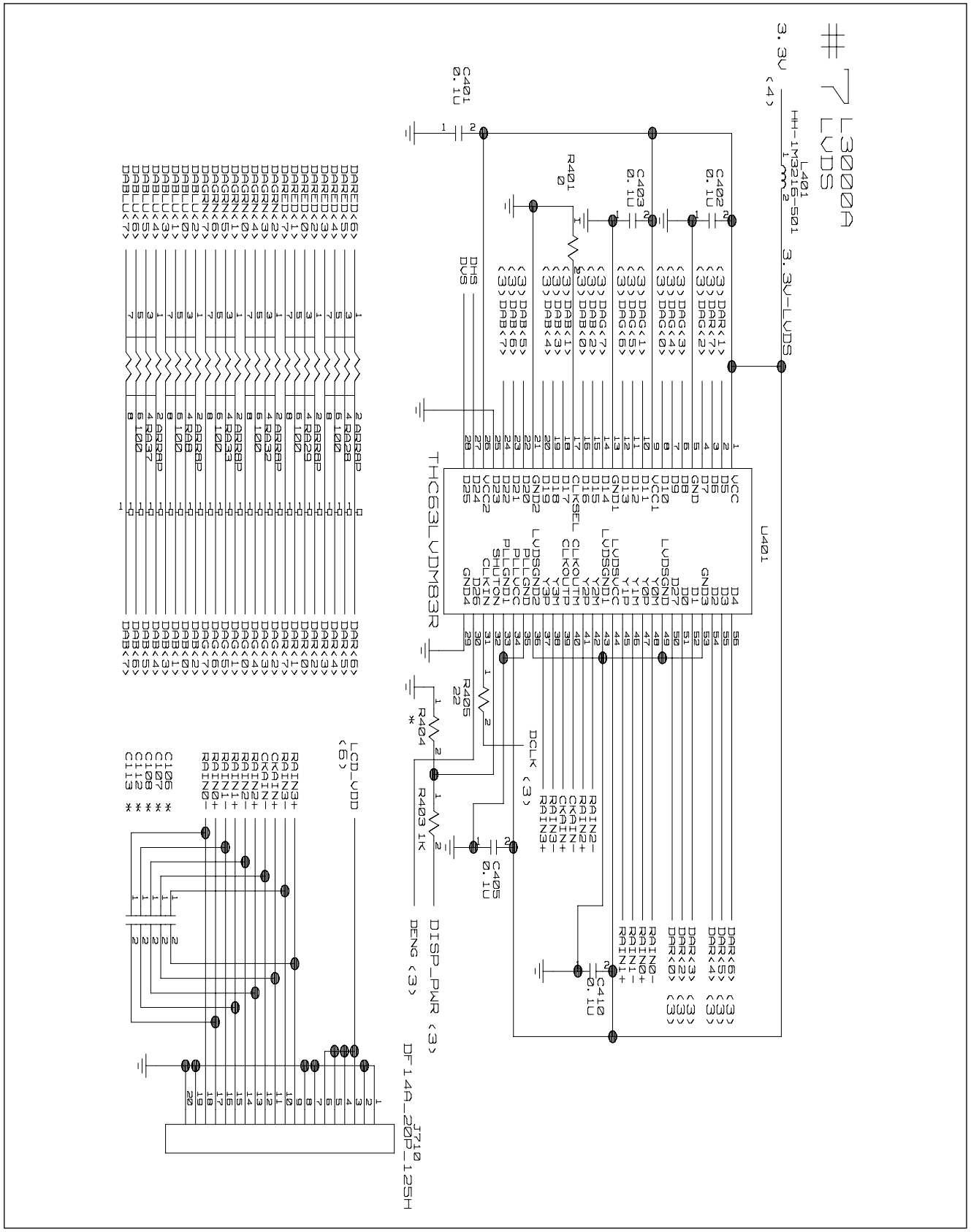
5. DEINTERLACER(SDA9400)



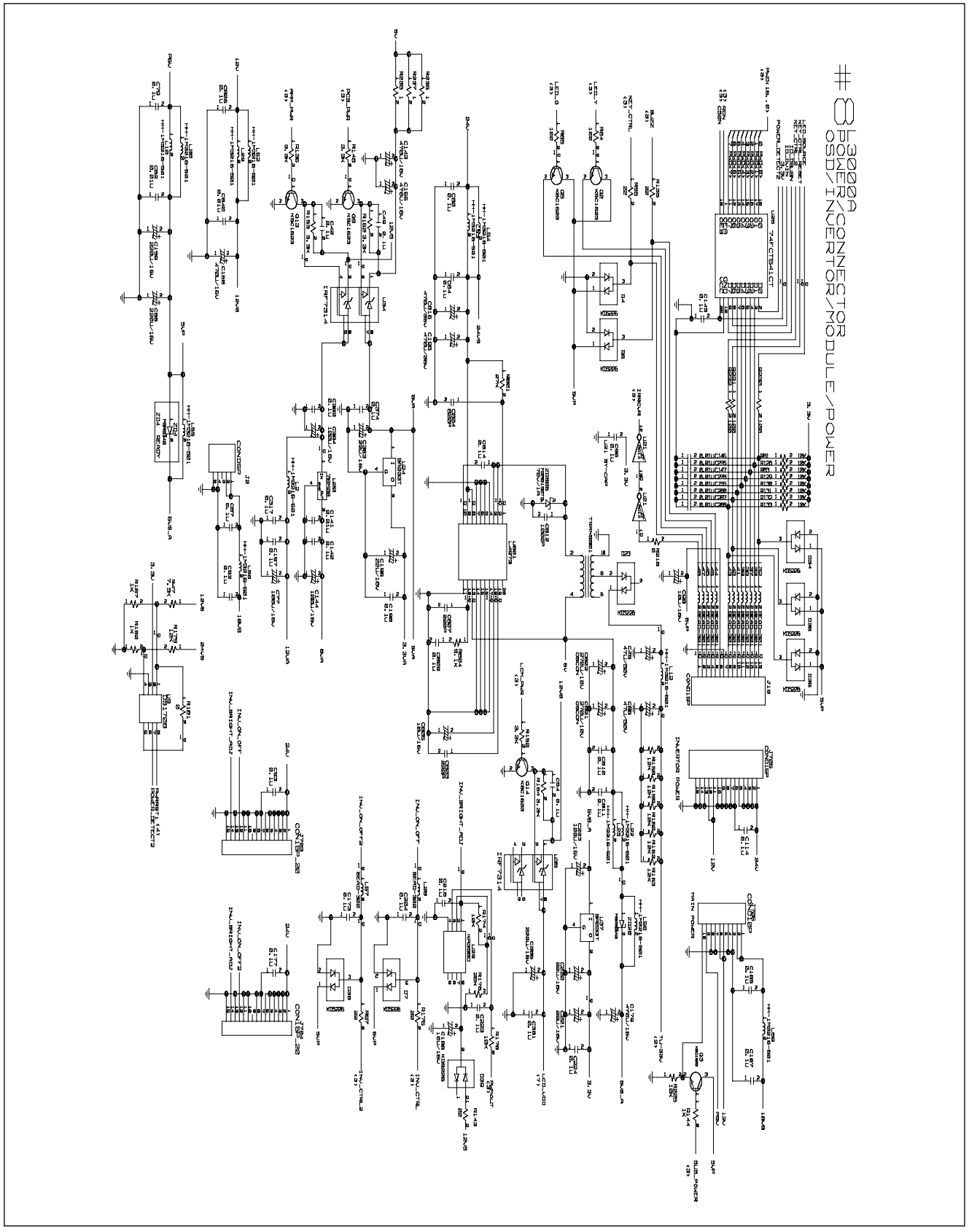
6. AUDIO CONTROLLER



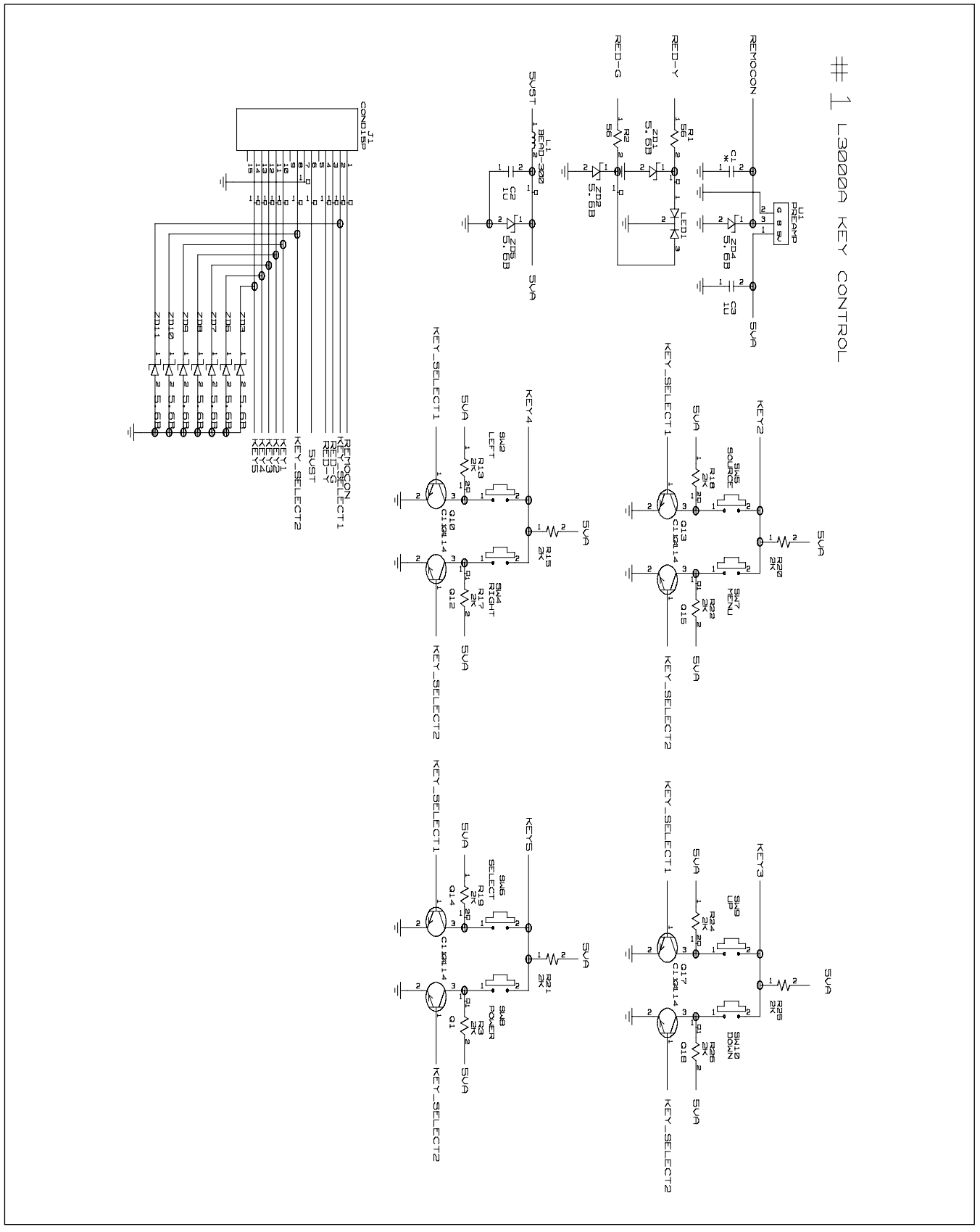
7. LVDS


L3000A
LVDS
L401
HH-1M3215-501
3.3V
3.3V-LVDS
THC63LVDM83R
U401
J710
DF14A_20P_125H
LCD_VDD
DISP_PWR
DENG
DCLK
DHS
DVS

8. POWER & DC/DC



9. KEY CONTROL



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