



COLOR MONITOR

SERVICE MANUAL

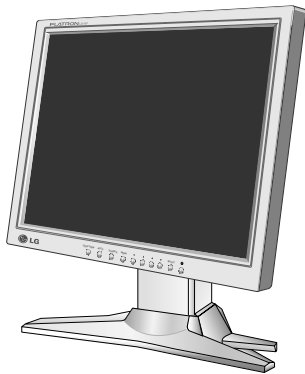
CHASSIS NO. : CL-35

FACTORY MODEL: LB200A

MODEL: FLATRON L2010P(LB200A-WP)

CAUTION

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



CONTENTS

SPECIFICATIONS	2	ADJUSTMENT	13
PRECAUTIONS	4	TROUBLESHOOTING GUIDE	14
TIMING CHART	5	PRINTED CIRCUIT BOARD.....	17
OPERATING INSTRUCTIONS	6	EXPLODED VIEW.....	21
WIRING DIAGRAM	9	REPLACEMENT PARTS LIST	23
BLOCK DIAGRAM	10	PIN CONFIGURATION.....	29
DESCRIPTION OF BLOCK DIAGRAM.....	11	SCHEMATIC DIAGRAM.....	35

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Size	: 20.1inch
Pixel Pitch	: 0.255(H) x 0.255(V)
Color Depth	: 8-bit, 16,777,216 colors
Electrical Interface	: LVDS
Surface Treatment	: Anti-Glare, Hard Coating(2H)
Operating Mode	: Normally Black
Backlight Unit	: Six-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

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

2-2. Luminance	: 160(min), 220(Typ) -6500K : more than 110cd/m2 -9300K
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2-3. Contrast Ratio	: 350(Typ)
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3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

- Type : Separate, Positive/Negative
Composite, SOG (Sync On Green)
Digital

3-2. Video Input Signal

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

3-3. Operating Frequency

Horizontal	: 30 ~ 96kHz (Analog) : 30 ~ 80kHz (Digital)
Vertical	: 56 ~ 85Hz

4. MAX. RESOLUTION

Analog	: 1600 x 1200@75Hz
Digital	: 1600 x 1200@60Hz 1280 x 1024@70Hz

5. POWER SUPPLY

5-1. Power Adaptor(Built-in Power)

Input : AC 100~240V, 50/60Hz, 1.0A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 60 W	GREEN
STAND-BY(With out USB)	OFF/ON	OFF	less than 5 W	AMBER
SUSPEND(With out USB)	ON/OFF	OFF	less than 5 W	AMBER
DPM OFF(With out USB)	OFF/OFF	OFF	less than 3 W	AMBER
POWER SWITCH OFF	-	-	less than 3 W	OFF
POWER CUTOFF SWITCH OFF	-	-	less than 1 W	OFF

6. ENVIRONMENT

- 6-1. Operating Temperature: 0°C~50°C (32°F~122°F)
- 6-2. Relative Humidity : 10%~80%
(Non-condensing)
- 6-3. MTBF : 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

Width	: 446.0 mm (17.56")
Depth	: 222.5 mm (8.76")
Height	: 447.0 mm (17.6")

8. WEIGHT (with TILT/SWIVEL)

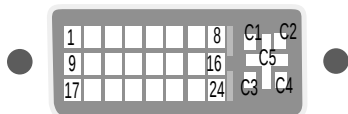
Net. Weight	: 9.3kg (20.50 lbs)
Gross Weight	: 12kg (26.45 lbs)

9. USB

Upstream : 1 port, Downstream : 2 port
Speed : Full-12Mbps, Low-1.5Mbps

Signal Connector Pin Assignment

• DVI-I Connector (Digital/Analog)



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

Pin	Signal (DVI-I)
16	Hot Plug Detect
17	T. M. D. S. Data0-
18	T. M. D. S. Data0+
19	T. M. D. S. Data0/5 Shield
20	T. M. D. S. Data5-
21	T. M. D. S. Data5+
22	T. M. D. S. Clock Shield
23	T. M. D. S. Clock+
24	T. M. D. S. Clock-
C1	Analog Red
C2	Analog Green
C3	Analog Blue
C4	Analog H. Sync.
C5	Analog Ground

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.

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.

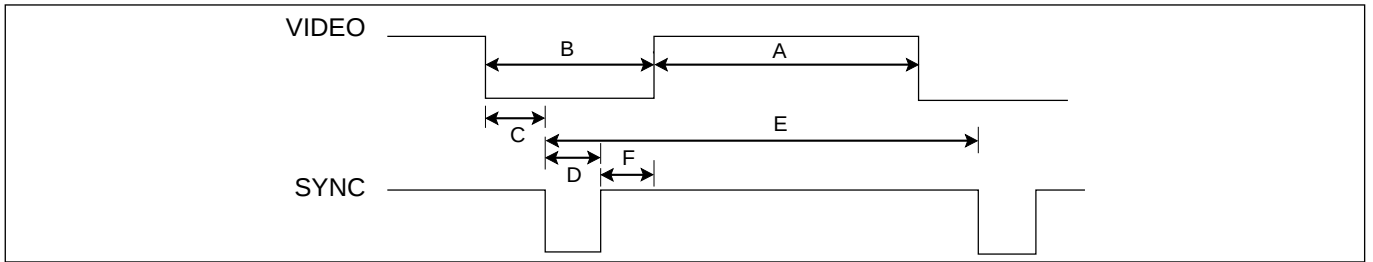
TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- 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.

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	31.47	800	640	16	96	48	640x350 70Hz
	V	-		70.09	449	350	38	2	60	
2	H	-	25.175	31.47	800	640	16	96	48	640x480 60Hz
	V	-		59.94	525	480	10	2	33	
3	H	-	31.5	37.5	840	640	16	64	120	640x480 75Hz
	V	-		75	500	480	1	3	16	
4	H	-	36.0	43.27	832	640	56	56	80	640x480 85Hz
	V	-		85.01	509	480	1	3	25	
5	H	-	28.324	31.47	900	720	18	108	54	720x400 70Hz
	V	+		70.08	449	400	13	2	34	
6	H	+	40.0	37.88	1056	800	40	128	88	800x600 60Hz
	V	+		60.32	628	600	1	4	23	
7	H	+	49.5	46.88	1056	800	16	80	160	800x600 75Hz
	V	+		75.0	625	600	1	3	21	
8	H	+	56.25	53.67	1048	800	32	64	152	800x600 85Hz
	V	+		85.06	631	600	1	3	27	
9	H	-	57.283	49.72	1152	832	32	64	224	832x624 75Hz
	V	-		74.55	667	624	1	3	39	
10	H	-	65.0	48.36	1344	1024	24	136	160	1024x768 60Hz
	V	-		60.0	806	768	3	6	29	
11	H	+	78.75	60.02	1312	1024	16	96	176	1024x768 75Hz
	V	+		75.03	800	768	1	3	28	
12	H	+	94.5	68.68	1376	1024	48	96	208	1024x768 85Hz
	V	+		85.0	808	768	1	3	36	
13	H	-	100.0	68.68	1456	1152	32	128	144	1152x870 75Hz
	V	-		75.06	915	870	3	3	39	
14	H	+/-	92.978	61.80	1504	1152	18	134	200	1152x900 65Hz
	V	+/-		65.96	937	900	2	4	31	
15	H	+	108.0	63.98	1688	1280	48	112	248	1280x1024 60Hz
	V	+		60.02	1066	1024	1	3	38	
16	H	+	135.0	79.98	1688	1280	16	144	248	1280x1024 75Hz
	V	+		75.02	1066	1024	1	3	38	
17	H	+	112.27	62.11	1808	1600	90	30	88	1600x1024 60Hz
	V	+		60.00	1040	1024	10	3	3	
18	H	+	162 (Analog only)	75.0	2160	1600	64	192	304	1600x1200 60Hz
	V	+		60.00	1250	1200	1	3	46	
19	H	+	202.50 (Analog only)	93.75	2160	1600	64	192	304	1600x1200 75Hz
	V	+		75.00	1250	1200	1	3	46	
20	H	+	130 (Digital only)	74.97	1734	1600	20	90	24	1600x1200 60Hz
	V	+		61.2	1225	1200	1	3	21	

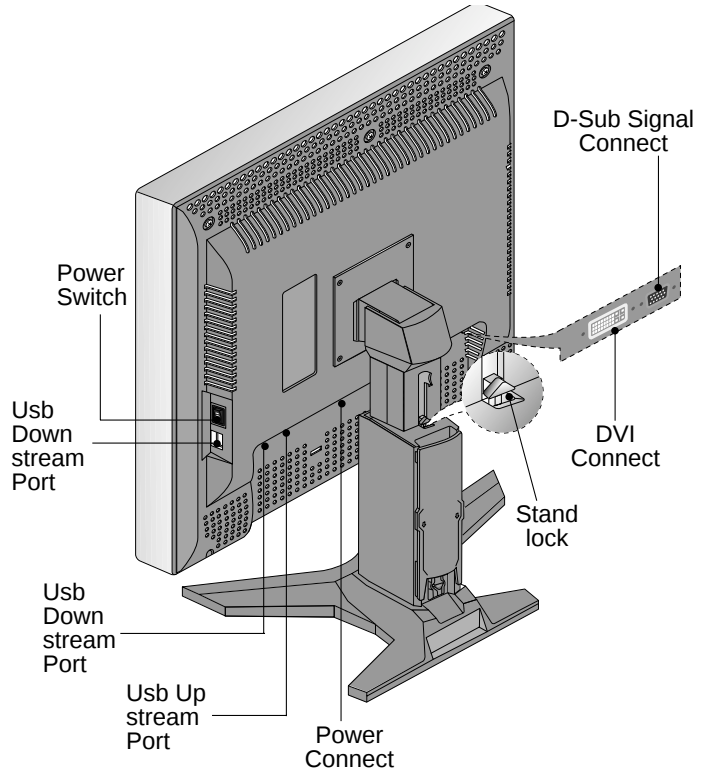
OPERATING INSTRUCTIONS

FRONT VIEW

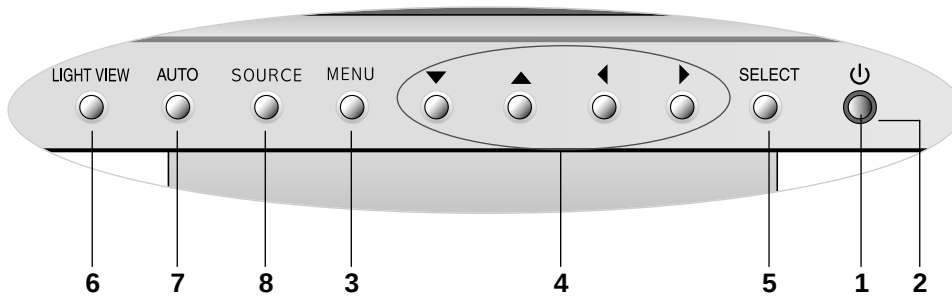


Front Control Panel

REAR VIEW



Front Control Panel



1. Power ON/OFF Button

Use this button to turn the monitor on or off.

2. Power Indicator

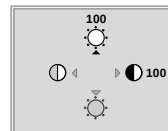
This indicator lights up green when the monitor operates normally. If the display is in DPM(Energy Saving)mode, this indicator color change to amber.

3. MENU Button

Use these button to enter or exit the On Screen Display.

4. ▼▲◀▶ Buttons

Use these button to choose or adjust items in the On Screen Display.



Bring up contrast and brightness adjustment.

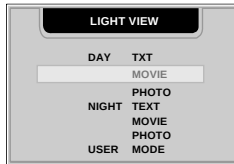
Direct Access Function

5. SELECT Button

Use this buttons to enter a selection in the On Screen Display.

6. LIGHT VIEW Button

This function optimizes the brightness, contrast of color value to the surrounding conditions and settings and enables you to enjoy the most suitable picture by adjusting the



surroundings(DAY/LIGHT/USER MODE).

- TEXT: For viewing letters
- MOVIE: For viewing movies
- PHOTO: For viewing pictures or the photographs
- USER MODE: This function memorizes the manual adjustment-Brightness, Contrast color value on the On Screen Display

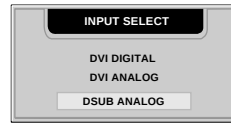
7. AUTO Adjustment Button

AUTO IN PROGRESS

When adjusting your display settings, always press the AUTO button before entering On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size(display mode).

The best display mode is **1600 x 1200@60Hz**.

8. SOURCE Selections:SOURCE → ▼▲ → SELECT



Use this button to make DVI digital, DVI analog or D-sub analog connector active.

This feature is used when two computers are connected to the display. The default setting is D-sub.

- DVI DIGITAL
- DVI ANALOG
- D-SUB ANALOG

.CONTROLS LOCKED /UNLOCKED: MENU & ► Button

CONTROLS LOCKED

This function allows you to secure the current control settings, so that they cannot be inadvertently changed.

CONTROLS UNLOCKED

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:

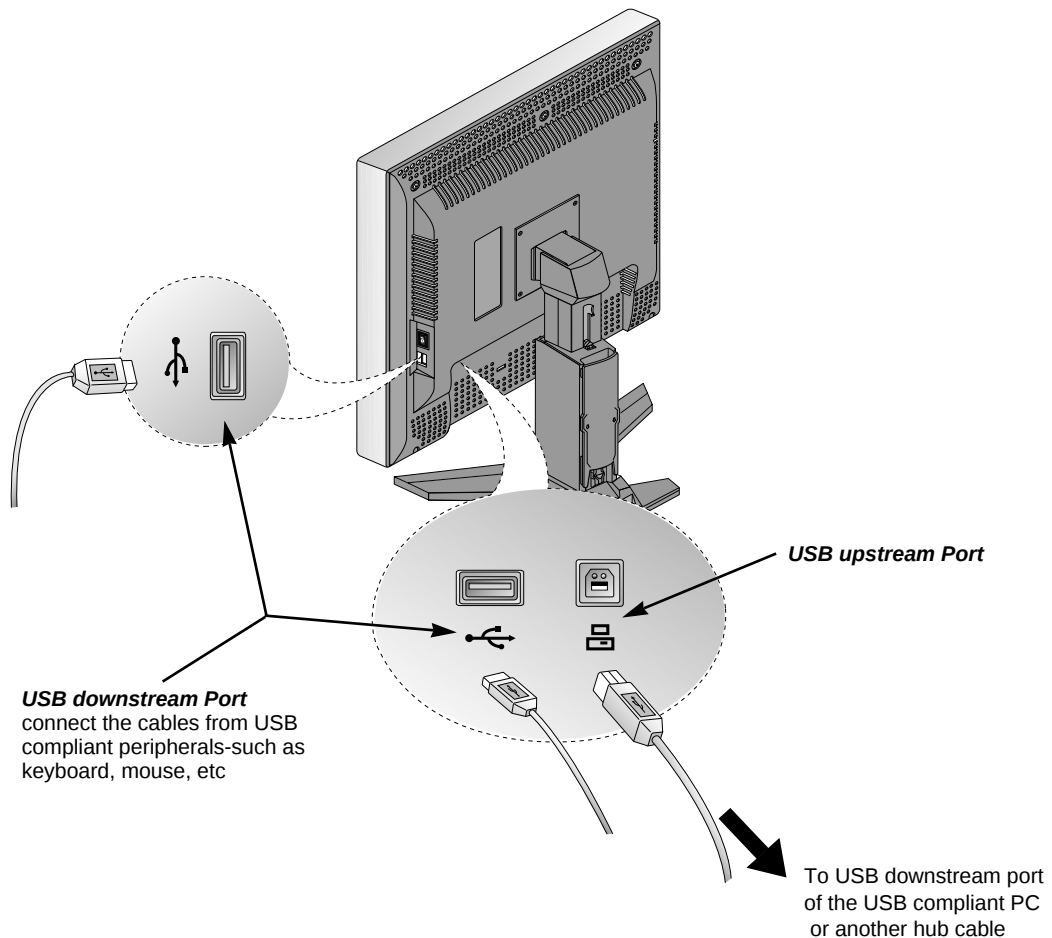
the message **“CONTROLS UNLOCKED”** will appear.

Making use of USB (Universal Serial Bus)*

USB (Universal Serial Bus) is an innovation in connecting your different desktop peripherals conveniently to your computer. By using the USB, you will be able to connect your mouse, keyboard, and other to your monitor instead of having to connect them to your computer. This will give you greater flexibility in setting up your system. USB allows you to connect chain up to 120 devices on a single USB port, and you can “hot” plug (attach them while the computer is running) or unplug them while maintaining Plug and Play auto detection and configuration. This monitor has an integrated BUS-powered USB hub, allowing up to 2 other USB devices to be attached it.

USB connection

1. Connect the upstream port of the Display to the downstream port of the USB compliant PC or another hub using the USB cable. (Computer must have a USB port)
2. Connect the USB compliant peripherals to the downstream ports of the monitor.

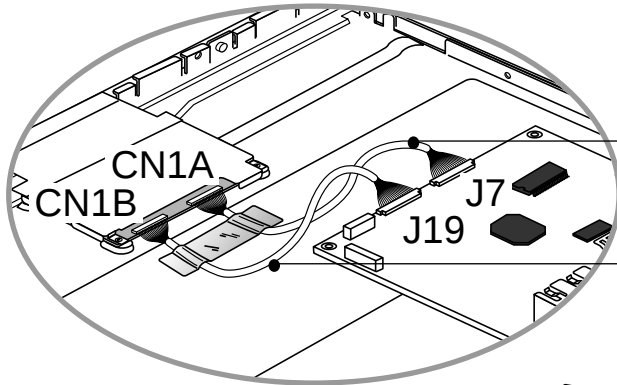


NOTE

- To activate the USB hub function, the monitor must be connected to a USB compliant PC(OS) or another hub with the USB cable(enclosed).
- When connecting the USB cable, check that the shape of the connector at the cable side matches the shape at the connecting side.
- Even if the monitor is in a power saving mode, USB compliant devices will function when they are connected the USB ports(both the upstream and downstream) of the monitor.

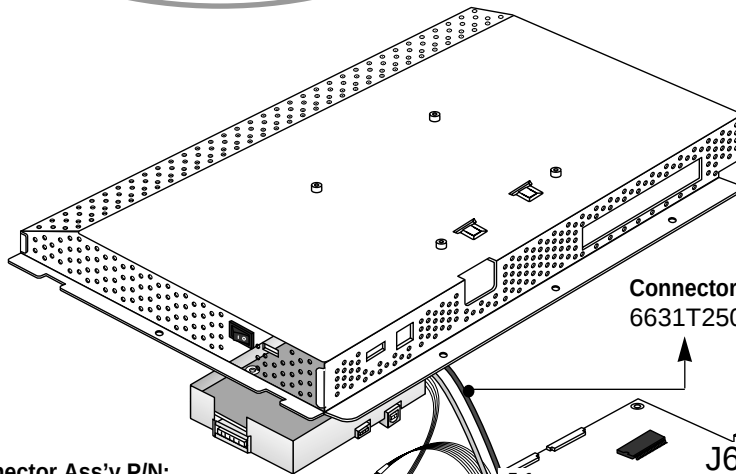
WIRING DIAGRAM

Connector the Main PCB Ass'y and LCD Module



Connector Ass'y P/N:
6631T11016A

Connector Ass'y P/N:
6631T11016A



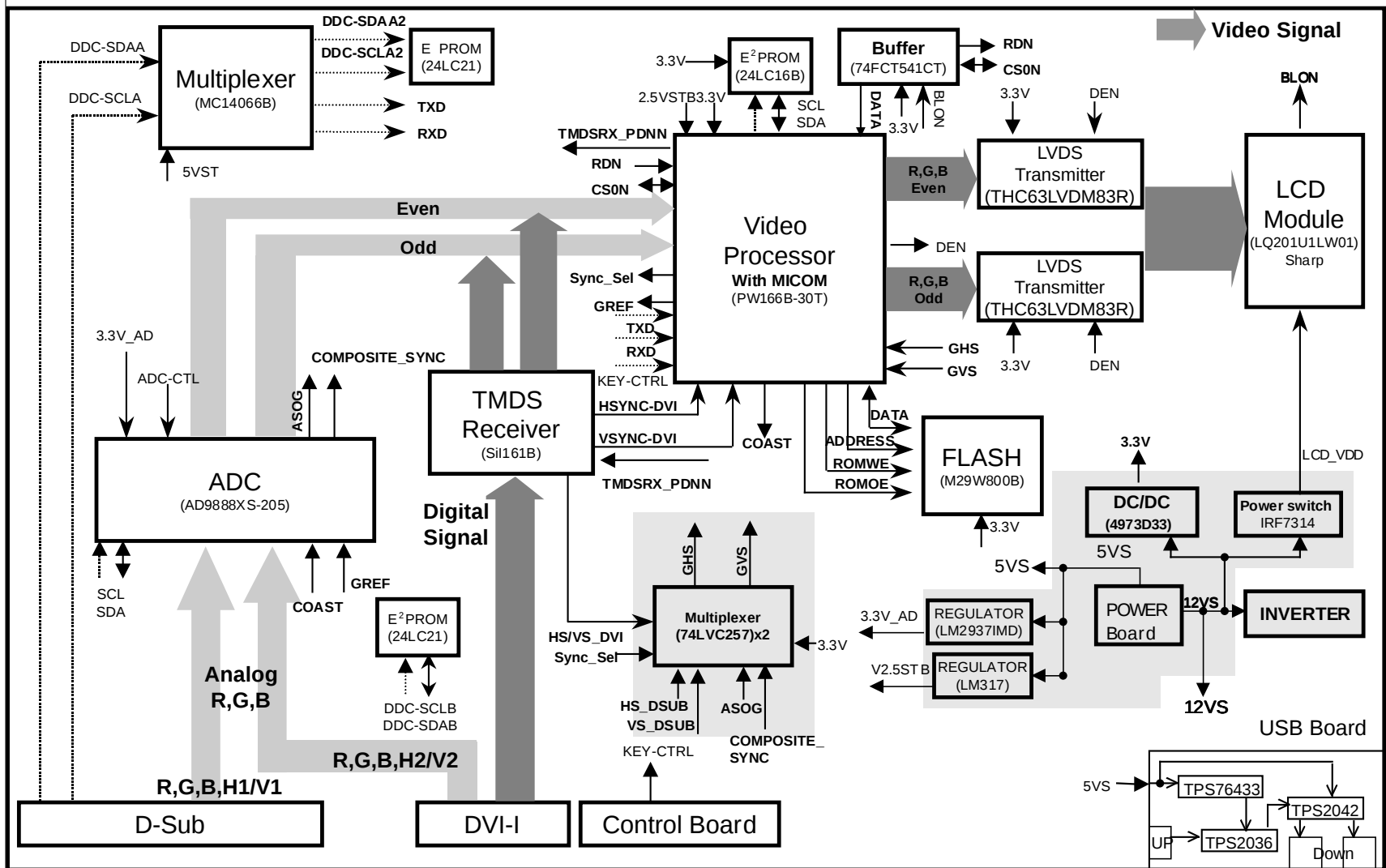
Connector Ass'y P/N:
6631T20015Y

Connector Ass'y P/N:
6631T20015X

Connector Ass'y P/N:
6631T25005F

Connector Ass'y P/N:
6631T20013P

Connector Ass'y P/N:
6631T25008Q



DESCRIPTION OF BLOCK DIAGRAM

1. Input Selection Circuit

This block is composed of 74LVC257(U1) and peripheral devices.

There are two input, 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 AD9888 (U4) and passive devices.

Input video signal is amplified, Phase locked, A/D converted in this IC.

And send the Digital video signal to PW166B.

3. TMDS Receiver

This Block is composed of Sil161B (U201) and Peripheral devices.

This IC decodes CompositeInput signal from DVI-I Pin (J10) and make 8bit digital signal to send Digital signal to PW166B.

4. Format Converter

This block is composed of PW166B (U8), M29W800AT (U9) and passive devices.

Micom in PW166B(Scaler)(U8) processes A/D Converter output, output of TMDS Receiver,

PW166B is Format Converter IC that receive Digital signal and output proper frame signal to LCD Module (1600x1200).

5. Panel-Link Circuit

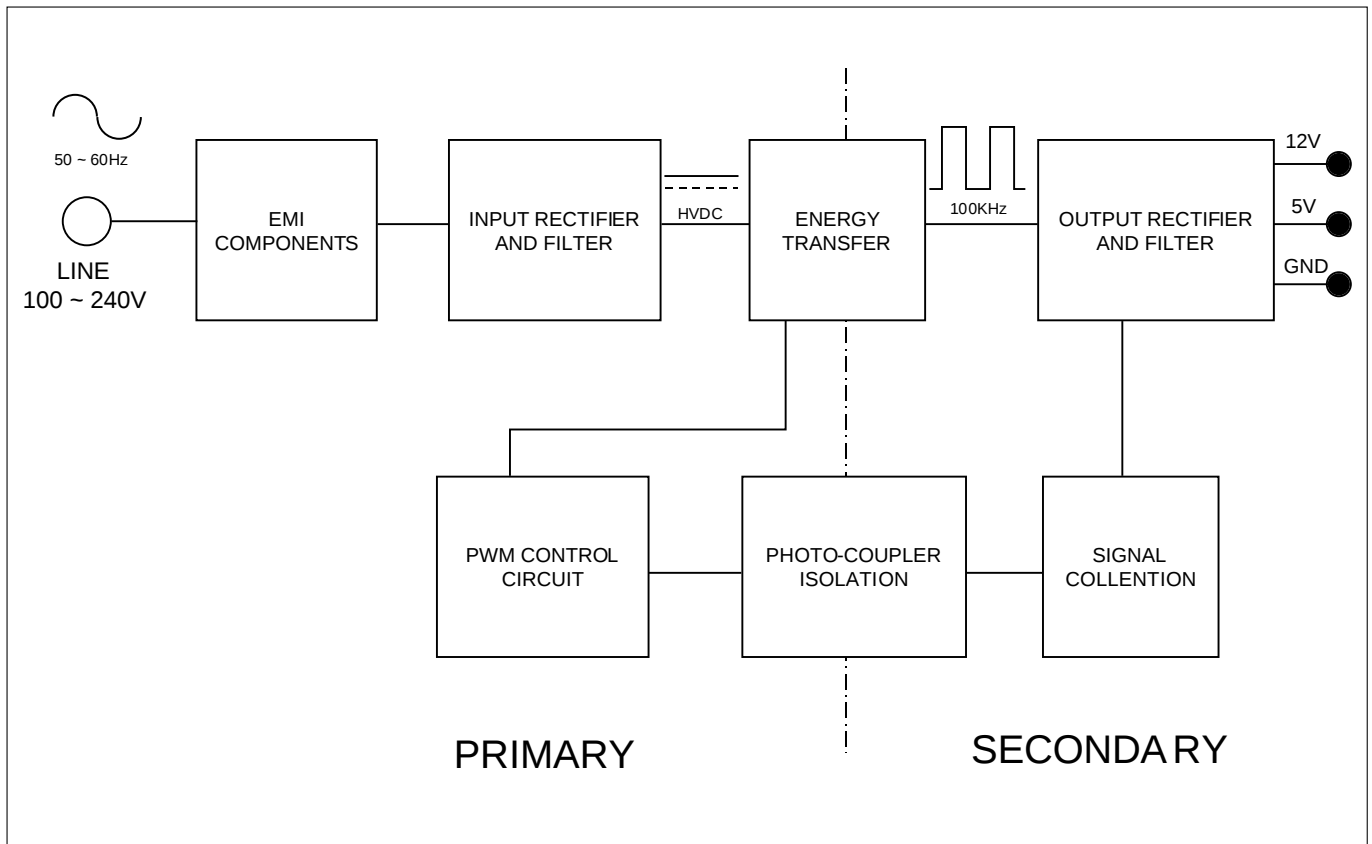
LVDS Transmitter(U401) is the IC that receives output digital signal of PW166B(U8) and output composite signal to LCD Module.

Composite signal is the standard format for LCD Panel.

6. DC/DC Converter block

DC/DC Converters convert the input 12V to proper 2.5V, 3.3V, 5V, 12V for main board.

For shooting heat trouble, we use the DC/DC converting IC.



Operation description_Power

1. EMI components.

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

2. Input rectifier and filter.

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

3. Energy Transfer.

This part function is 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 achive the dc output stablize, 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 achive the stablized 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

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 18.
- 3) Press Menu key, Up key, Right key in sequence.
- 4) Select "WHITE BALANCE ADJUST" and press SET KEY.
- 5) After "INPUT WHITE PATTERN" message, Display Color 15, 0 pattern at Mode 18.
- 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.

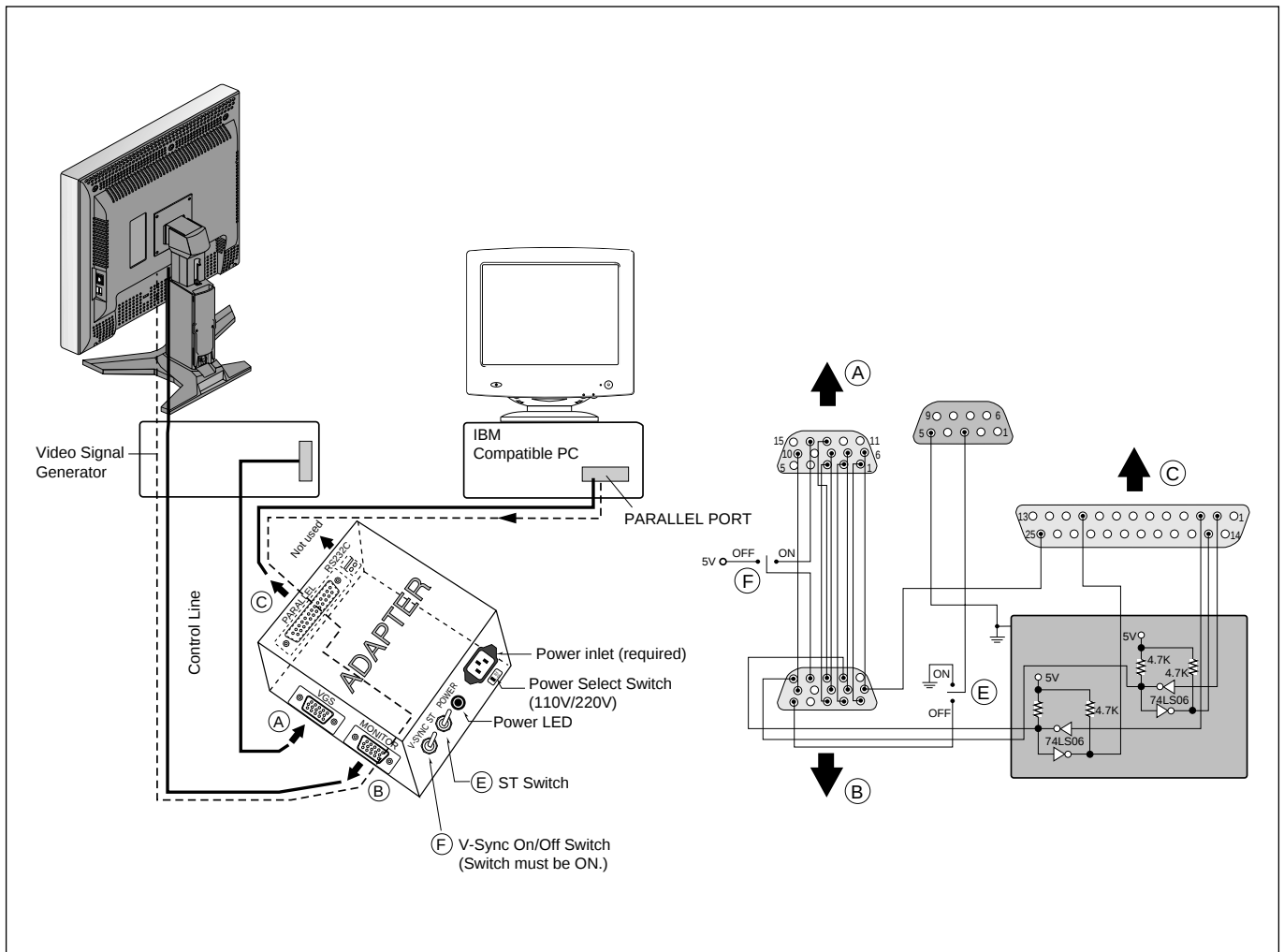
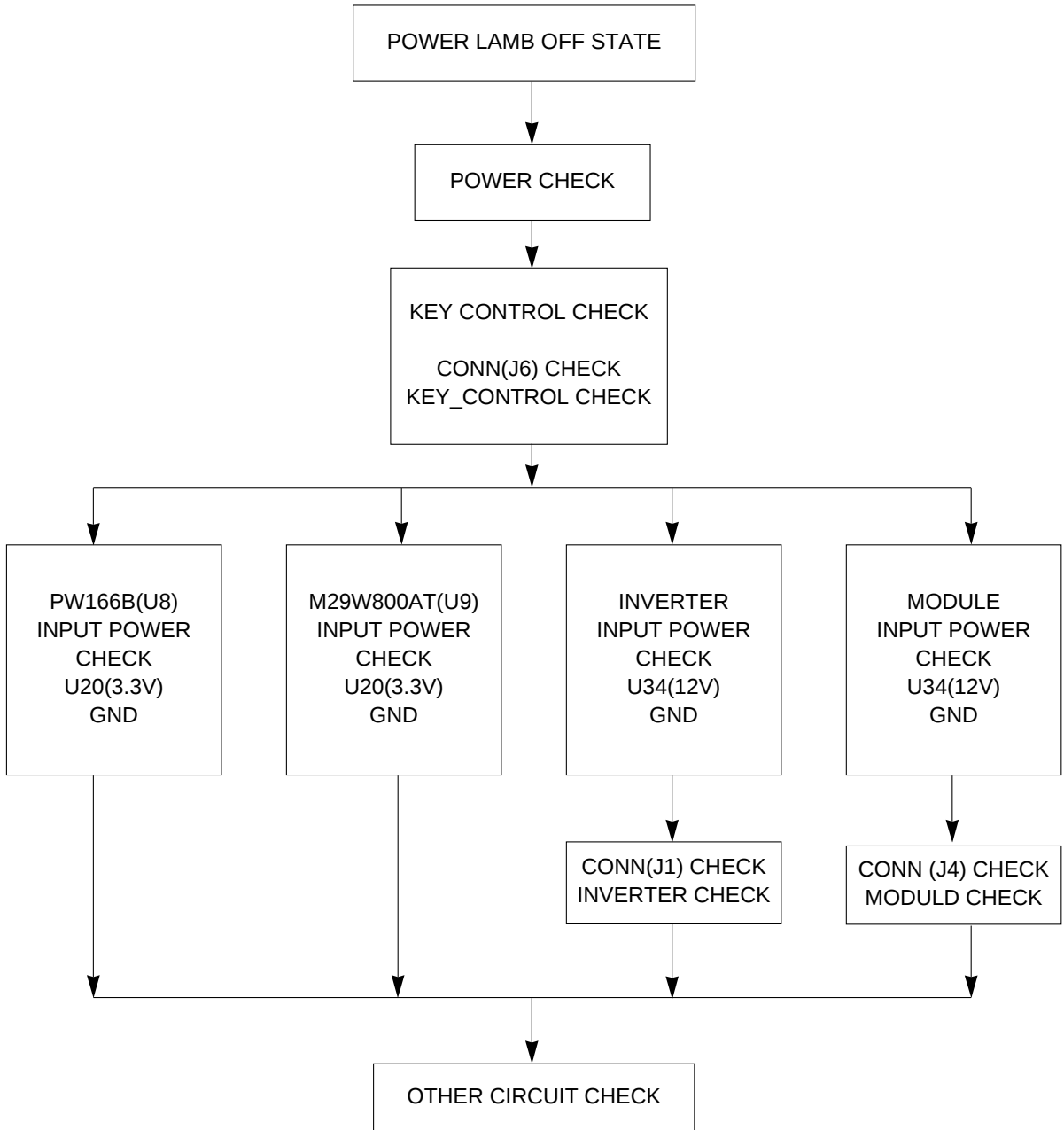


Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

1. OUT OF ORDER ON POWER

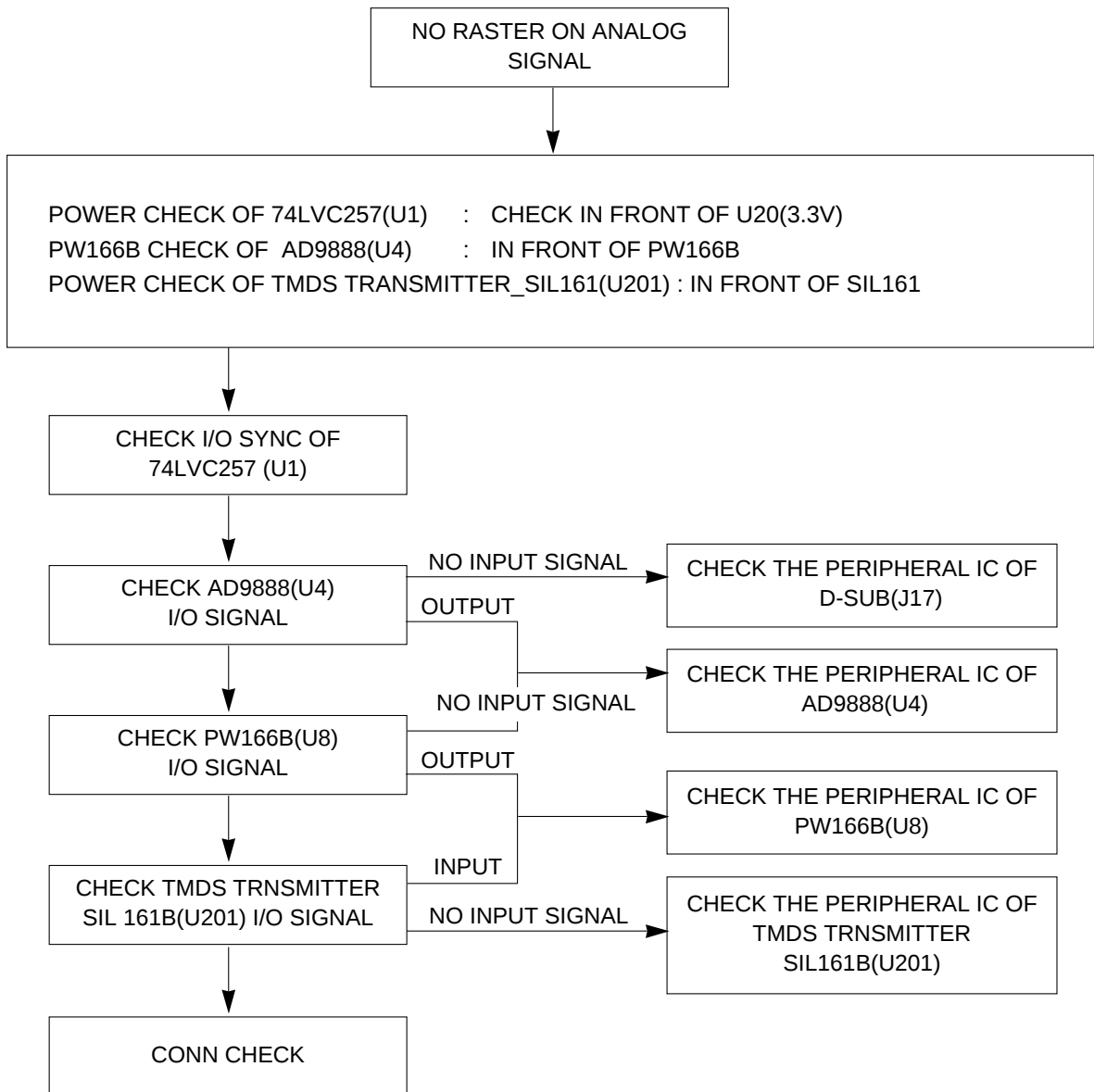


(REF)

U20 (L4973) : INPUT(12V), OUTPUT(3.3V)

U34 (IRF7814) : PIN OUTPUT (12V_MOD)
PIN OUTPUT (12V_INV)

2. NO RASTER STATE ON ANALOG SIGNAL



3. NO RASTER STATE - DIGITAL SIGNAL INPUT

NO RASTER ON DIGITAL INPUT

74LVC257(U1) POWER CHECK : CHECK NODE IN FRONT OF U20(3.3V)

PW166B POWER : POWER CHECK

TMDS TRANSMITTER_SIL161B(U201) POWER CHECK : IN FRONT OF SIL161B(U201)

74LVC257(U1)
IN/OUT SYNC CHECK

TMDS RECEIVER
SIL161(U201)
IN/OUT SIGNAL CHECK

PW166B(U8)
IN/OUT SIGNAL CHECK

LVDS TRNSMITTER
LVDS83R(U401)
IN/OUT SIGNAL CHECK

CONN(J1) CHECK

NO INPUT SIGNAL

OUTPUT

DVI-D(J10) PERIPHERAL
CIRCUIT CHECK

NO SIGNAL

SIL161(U201) PERIPHERAL
CIRCUIT CHECK

INPUT

OUTPUT

NO SIGNAL

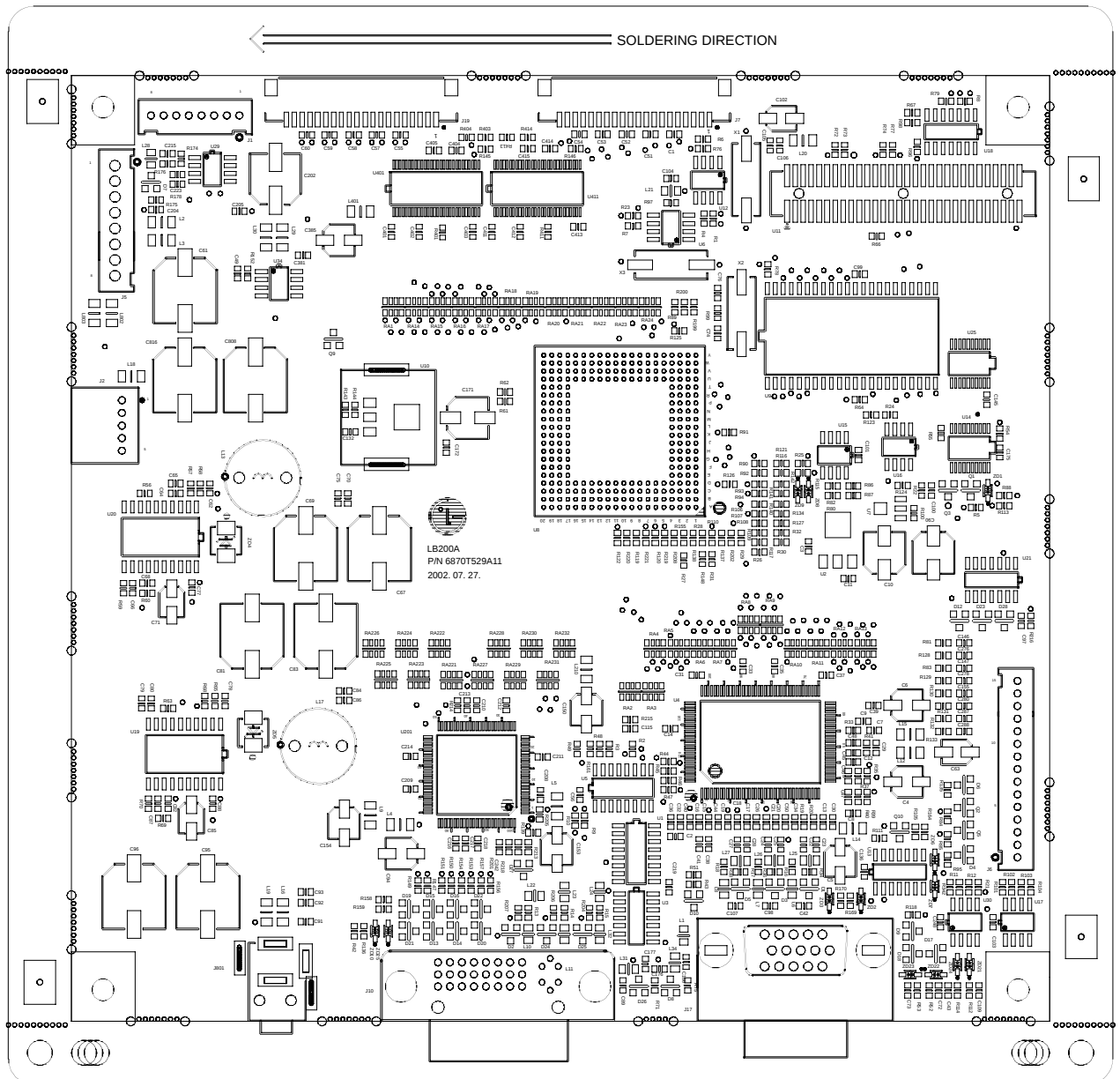
PW166B(U8) PERIPHERAL
CIRCUIT CHECK

INPUT

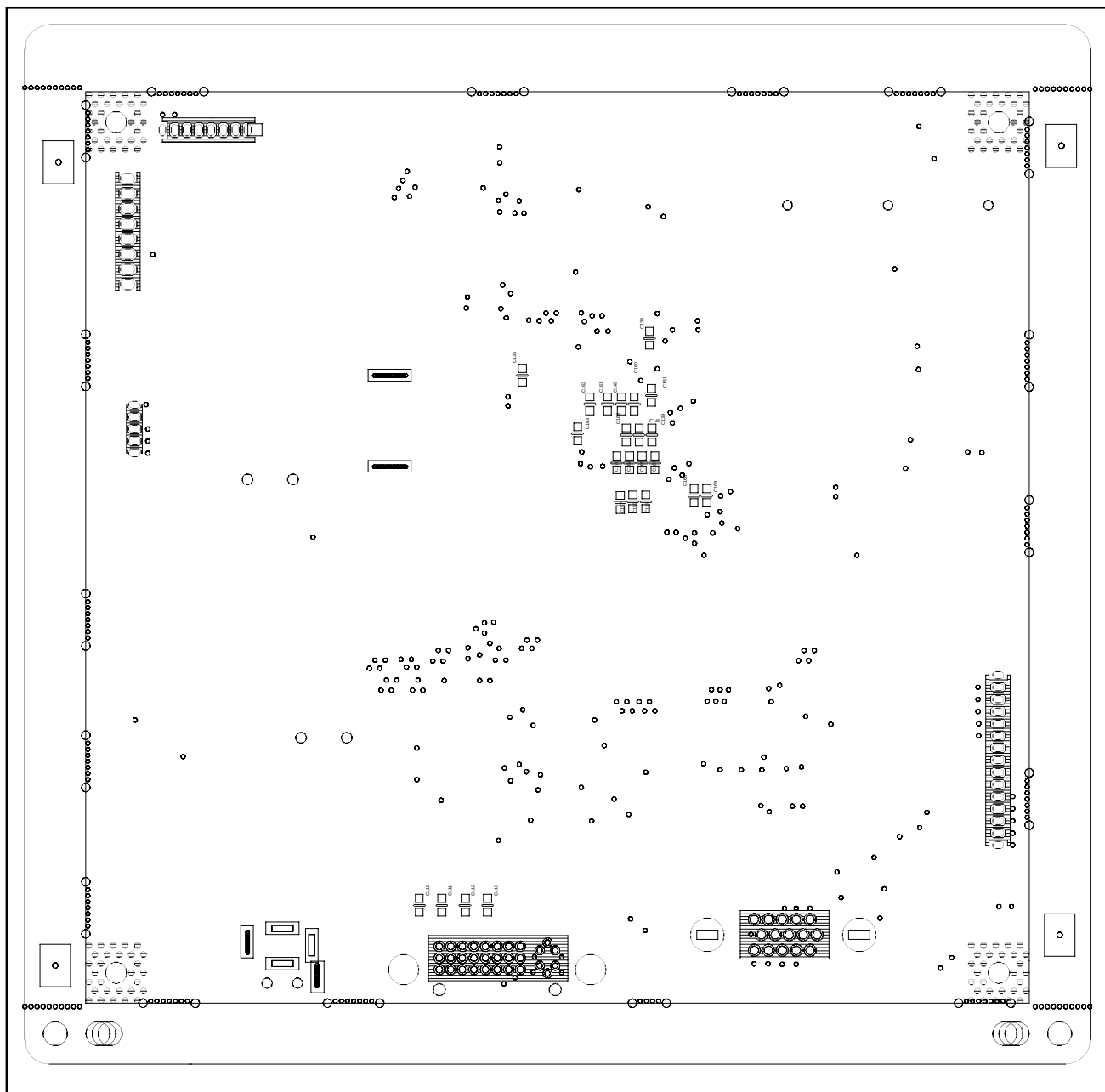
NO INPUT SIGNAL

TMDS TRNSMITTER
LVDS83R(U401) PERIPHERAL
CIRCUIT CHECK

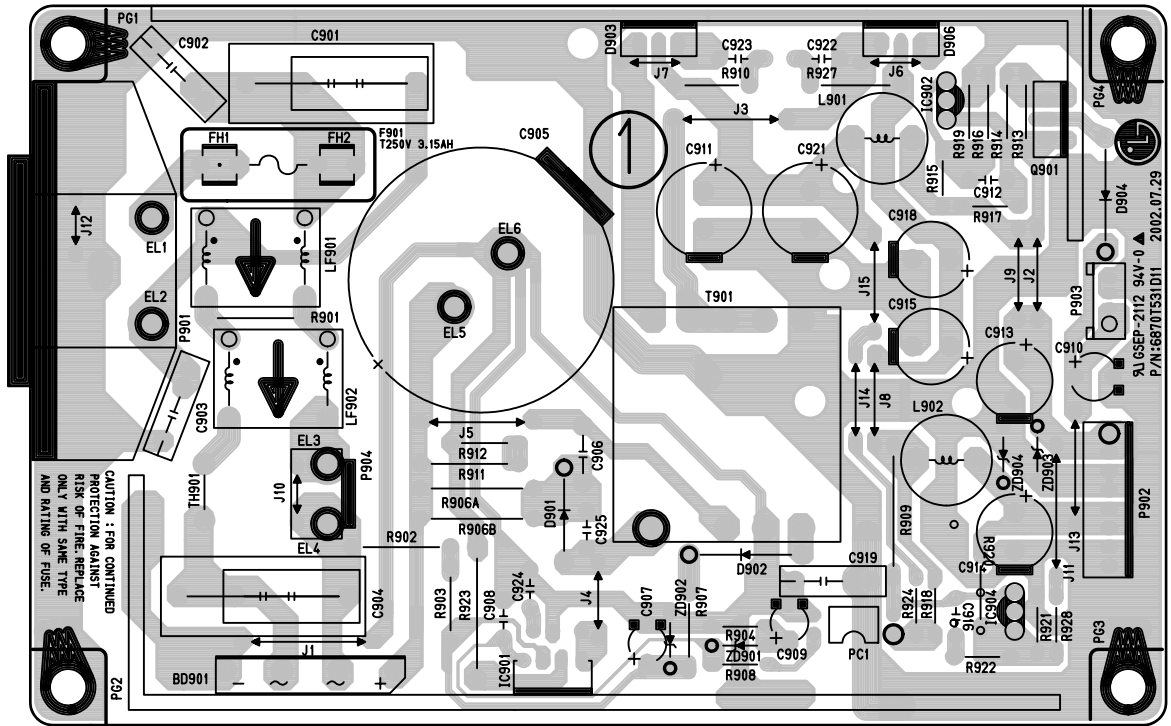
1. MAIN BOARD (Component Side)



2. MAIN BOARD (Solder Side)

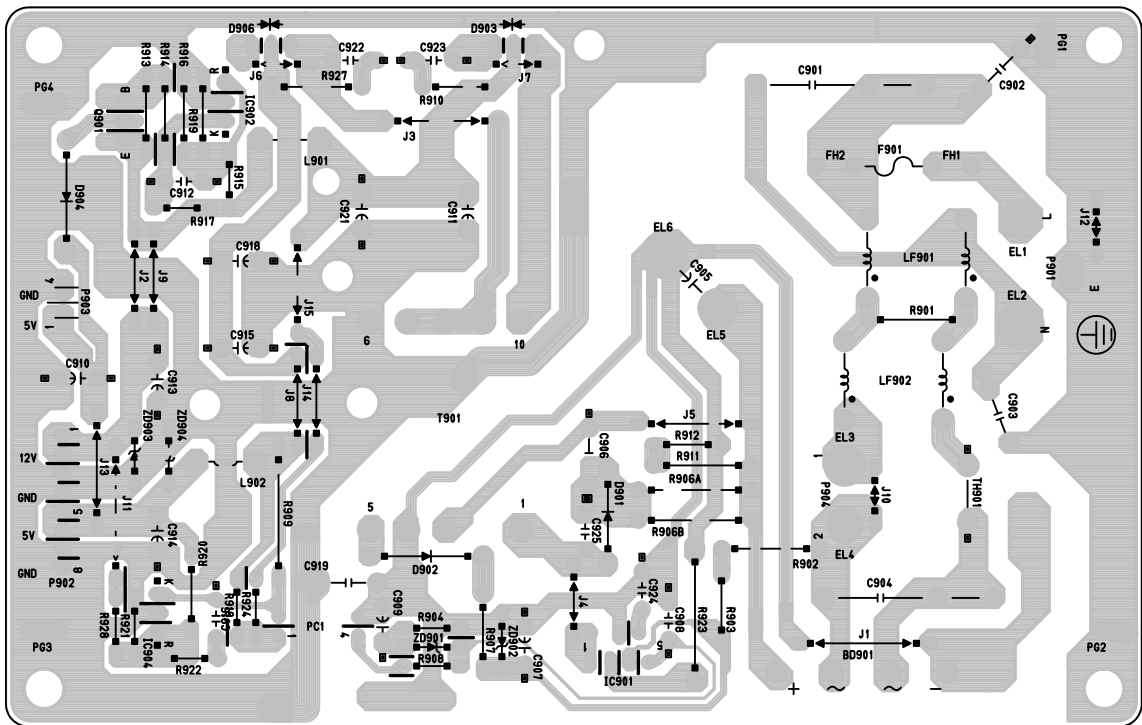


3. POWER BOARD (Component Side)

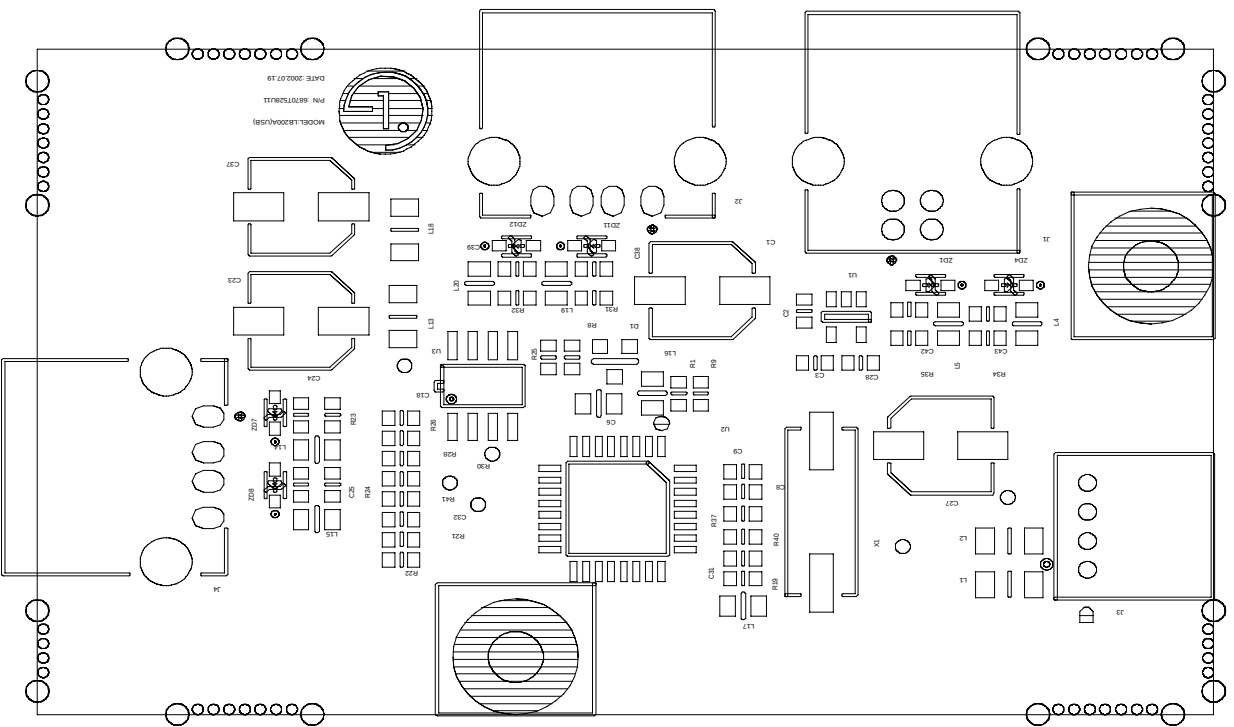
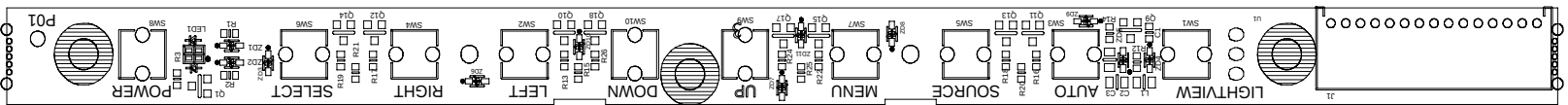


1SYM_LAYER LG MNT

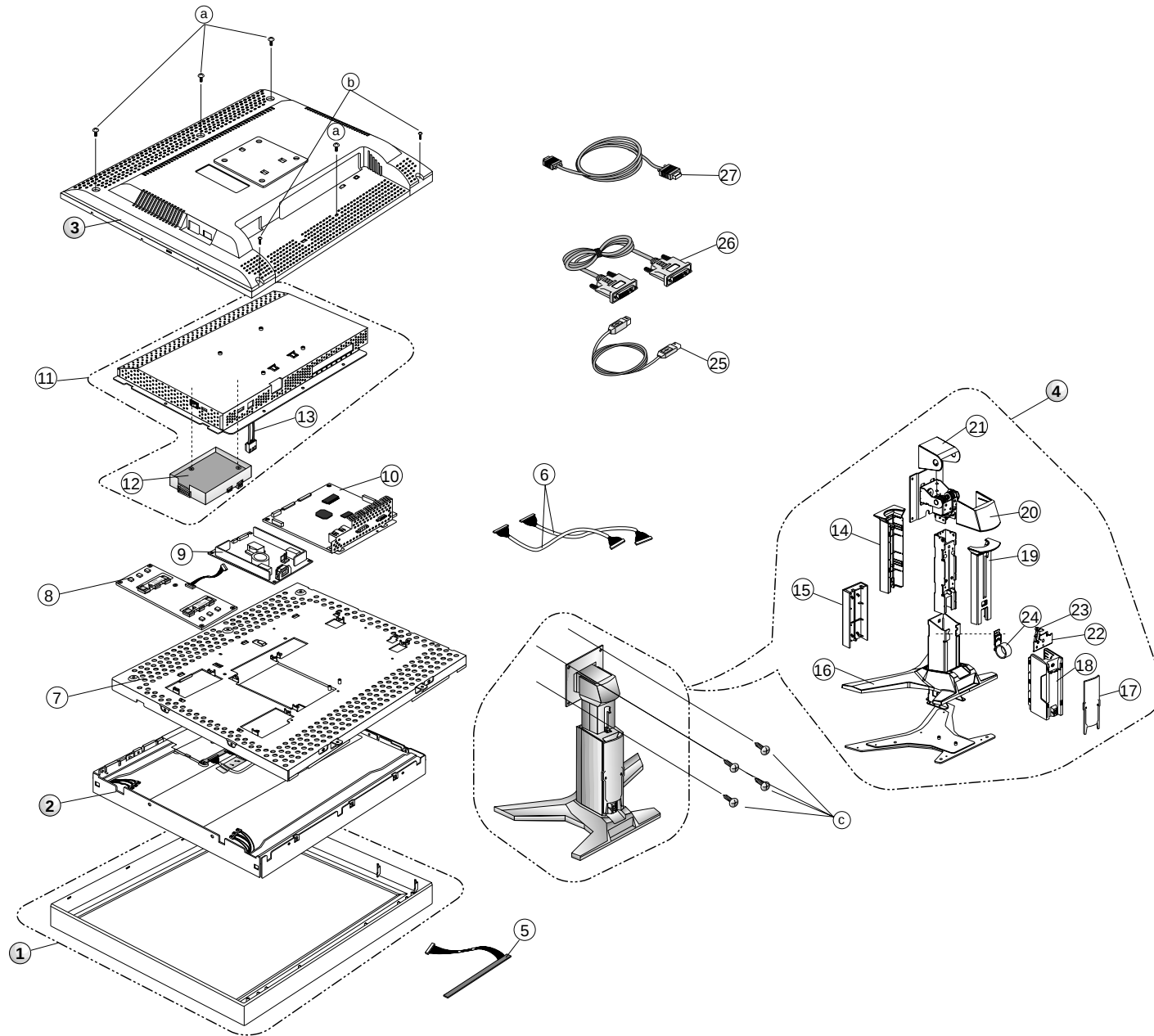
4. POWER BOARD (Solder Side)



0SYM_LAYER LG MNT



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

* Note: Safety mark 

Ref. No.	Part No.		Description
1	3091TKL049F		CABINET ASSEMBLY, LB200A BRAND 3090TKL051 USB/PIVOT
2	6304FSA003A		LCD(LIQUID CRYSTAL DISPLAY), LQ201U1LW01 SHARP TFT COLOR UXGA 20.1
3	3809TKL031B		BACK COVER ASSEMBLY, LB200A 3808TKL037 87074
4	3043TKK105A		TILT SWIVEL ASSEMBLY, LB200A . DARK GRAY 87074
5	6871TST309A		PWB(PCB) ASSEMBLY, SUB, LB200A CONTROL TOTAL BRAND CL-35
6	6631T11016A		CONNECTOR ASSEMBLY, 20P H-H 180MM UL20276 I/FACE CABLE LB200A
7	4951TKK100A		METAL ASSEMBLY, FRAME LB200A
8	6633TZA014A		INVERTER ASSEMBLY, ALPS KUBNKM047A 6 LAMP, LB200A(SHARP)
9	6871TPT229A		PWB(PCB) ASSEMBLY, POWER, LB200A POWER TOTAL BRAND CL-35
10	3313TL2007A		MAIN TOTAL ASSEMBLY, LB200A BRAND CL-35
11	4951TKK098A		METAL ASSEMBLY, REAR ASSY(LB200A)
12	6871TUT025A		PWB(PCB) ASSEMBLY, USB, LB200A SUB TOTAL BRAND CL-35
13	6631T25005F		CONNECTOR ASSEMBLY, SWITCH(GY)+CONN ASSYP H-W 260MM UL 1617 AWG 22
14	3550TKK220D		COVER, LB200A TOP FRONT POLYACETAL 87074
15	3550TKK218E		COVER, LB200A STAND FRONT ABS HF350U 87074
16	3550TKK222D		COVER, LB200A BASE TOP ABS HF350U 87074
17	3550TKK223E		COVER, LB200A CABLE COVER ABS HF 350U 87074
18	3550TKK219E		COVER, LB200A STAND REAR ABS HF350U 87074
19	3550TKK221D		COVER, LB200A TOP REAR POLYACETAL 87074
20	3550TKK217E		COVER, LB200A HINGE REAR ABS HF350U 87074
21	3550TKK216E		COVER, LB200A HINGE TOP ABS HF350U 87074
22	4950TKK346A		METAL, PLATE STOPPER, LB886F
23	3550TKK224D		COVER, LB200A PIECE LOCK PC-ABS 87074
24	4970TKK009A		SPRING COIL, COIL FOR STAND T=4.5 LB200A
25	6866TDU002D		CABLE, D-SUB, UL20276SB10P+2C AWG#30 DT 1870MM GRAY(85964) BRAND DM
26	6866TDV004H		CABLE, DVI, UL20276 DT 2000MM GRAY(85964) LB886F DM
27	6850TD9001J		CABLE, D-SUB, UL 2990-9C(7.5) DT 1870MM PEARL WH T541K DM
a	1SZZTER001G		SCREW, DRAWING, D3.0 L6.0 MSWR/BK .
b	332-113S		SCREW, DRAWING, D3.0 L12.0 MSWR/BK .
c	332-105G		SCREW, DRAWING, PVS+4*10(MSWR/BK)

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: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
MAIN BOARD				
CAPACITORS				
		C2	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C3	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C4	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C5	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C6	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C7	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C8	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C9	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C10	0CH8476F611	47UF 16V 20% 85STD (CYL) R/TP
		C11	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C12	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C13	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C14	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C16	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C18	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C19	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C21	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C23	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C25	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C26	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C28	0CK473CK56A	47000PF 1608 50V 10% R/TP X7R
		C29	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		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
		C36	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C37	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C38	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C39	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C40	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C41	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C42	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C43	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C44	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C45	0CK392CK56A	3900PF 1608 50V 10% R/TP X7R
		C48	0CK393CK56A	39000PF 1608 50V 10% R/TP X7R
		C49	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C50	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C56	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C61	0CH8477F611	470UF 16V M 85STD(CYL) R/TP
		C62	0CK152CK51A	1500PF 1608 50V 10% R/TP B(Y5P
		C63	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C64	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C65	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C66	0CK222CK51A	2200PF 1608 50V 10% R/TP B(Y5P
		C67	0CZZTAT002D	SVP SANYO 10V 270UF M REEL OS-
		C68	0CK223CK51A	0.022UF 1608 50V 10% R/TP B(Y5
		C69	0CZZTAT002D	SVP SANYO 10V 270UF M REEL OS-
		C70	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C71	0CH8105K611	1UF 50V 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	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C76	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C77	0CK474CH94A	0.47UF 1608 25V 80%,-20% R/TP
		C89	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C90	0CH8476F611	47UF 16V 20% 85STD (CYL) R/TP
		C94	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C97	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C98	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C99	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C100	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C101	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C103	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C107	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C108	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C109	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C110	0CH3104K566	0.1UF 50V 10% X7R 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
		C132	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C133	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C134	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C135	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C136	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C139	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C145	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C146	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C147	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C148	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C149	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C150	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C151	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C152	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		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(Y5P
		C157	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C160	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C161	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C162	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C163	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C164	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C165	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C166	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C167	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C168	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C169	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C170	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C171	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C172	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C175	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C202	0CH8107H611	100UF 25V M 85STD(CYL) R/TP
		C204	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C205	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C208	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C209	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C210	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C211	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C212	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C213	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C214	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C215	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C216	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C217	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C218	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C219	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C223	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C242	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C248	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C276	OCK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C278	OCK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C280	OCK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C287	OCK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C288	OCK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C381	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C385	0CH8226F611	22UF 16V M 85STD(CYL) R/TP
		C401	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C402	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C403	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C404	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C405	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C411	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C412	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C413	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C414	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C415	OCK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C808	0CH8477F611	470UF 16V M 85STD(CYL) R/TP
		C816	0CH8477F611	470UF 16V M 85STD(CYL) R/TP
DIODES				
		D1	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D2	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D3	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D4	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D5	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D6	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D7	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D8	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D9	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D10	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D12	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D13	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D14	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D15	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D16	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D17	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D18	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D19	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D20	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D21	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D22	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		D23	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D24	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D25	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D26	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D27	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D28	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		ZD1	0DZ910009FE	UDZS 9.1B TP ROHM - - 9.1V - -
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD3	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD4	0DRSG00028A	STPS340U SGS-THOMSON R/TP SMB
		ZD6	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD7	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD8	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD9	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD10	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD21	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD22	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD23	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD24	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD25	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
ICs				
		U1	0ISTLPH002A	74LVC257A PHILIPS SO16 R/TP QU
		U2	0IPMGNS003A	LM2937IMP-3.3 NATIONAL SEMICON
		U3	0ISTLFA058A	74F14SCX FAIRCHILD 14P,SOIC R/
		U4	0IIPRPAD011A	AD9888KS-205 ANALOG DEVICE 128
		U5	0ISTLPH002A	74LVC257A PHILIPS SO16 R/TP QU
		U7	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOLTA
		U8	0IIPRPW002B	PW166B-30T PIXELWORKS 256P,BGA
		U9	0IZZTSZ200A	IC 44PIN PSOP TRAY FLASH MEMOR
		U10	0INS317000E	LM317EMPX SOT-223 TP REGULATOR
		U13	0IMO140662A	MC14066BDR2 14P,SOIC TP BILATE
		U14	0ISTLPH004B	74LVC273(PW) PHILIPS 16P,TSSOP
		U15	0IMMRSS040C	S524A60X51(SCT0) SAMSUNG ELECT
		U16	0IDS170800A	DS1708S 8P SOIC ST MICROMONITO
		U17	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELECT
		U18	0ITI743200P	SN74HC32DR 14P,SOIC TP QUAD 2-
		U20	0IMCRSG002A	L4973D3.3 SGS-THOMSON 20P SOP
		U201	0IS5161000B	SIL161BCT100 SILICON IMAGE 100
		U25	0ISTLPH003B	74LVC541A(PW) PHILIPS 16P,TSSO
		U29	0IKE358000P	KIA358F 8P FLP-8 TP OP-AMP DUA
		U30	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELECT
		U34	0TFIR80009A	INTERNATIONAL RECTIFIER IRF731
		U401	0ITH638300B	THC63LVD83R THINE 56P,TSSOP R
		U411	0ITH638300B	THC63LVD83R THINE 56P,TSSOP R
COILs & COREs				
		L1	6210TCE001A	HB-1S2012-080JT CERATEC 2012MM
		L2	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L3	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L4	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L5	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L6	6210TCE001R	HB-1S2012-400JT CERATECH 2012M
		L7	6210TCE001R	HB-1S2012-400JT CERATECH 2012M
		L8	6210TCE001R	HB-1S2012-400JT CERATECH 2012M
		L9	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L10	6210TCE001Y	HB-1H2012-320JT CERATEC 2012MM
		L11	6210TCE001Y	HB-1H2012-320JT CERATEC 2012MM
		L12	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L13	6140TBZ016C	DR10*5 33UH 0.4MM 27T LM285A

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		L14	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L15	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L22	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L23	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L24	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L25	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L26	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L27	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L28	6210TCT002B	ACB2012M-300-T TDK , CHIP BEAD
		L29	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L30	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L31	6210TCE001D	HB-1M2012-601JT CERATEC 2012MM
		L32	6210TCE001Y	HB-1H2012-320JT CERATEC 2012MM
		L34	6210TCE001D	HB-1M2012-601JT CERATEC 2012MM
		L210	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L401	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L802	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L803	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
TRANSISTOR				
		Q1	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q2	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q3	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q5	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q9	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q10	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
RESISTORS				
		R2	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R3	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R5	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R8	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R9	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R10	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R11	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R12	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R13	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R14	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R15	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R16	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R17	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R18	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R19	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R20	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R21	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R22	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R24	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R25	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R26	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R28	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R29	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R30	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R31	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R32	0RJ1002D677	10K 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
		R36	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R37	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R38	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R40	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R41	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R42	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R43	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R44	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R45	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R46	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R47	0RJ0472D677	47 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
		R51	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R52	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R53	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R54	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R55	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R56	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R57	0RJ3602D677	36K OHM 1/10 W 5% 1608 R/TP
		R58	0RJ3602D677	36K OHM 1/10 W 5% 1608 R/TP
		R59	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R60	0RJ9101D677	9.1K OHM 1/10 W 5% 1608 R/TP
		R61	0RJ0000D677	0 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
		R66	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R67	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R71	0RJ4701D677	4.7K 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	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R77	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R78	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R79	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R80	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R81	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R82	0RJ0000D677	0 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
		R88	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R89	0RJ0272D677	27 OHM 1/10 W 5% 1608 R/TP
		R90	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R91	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R92	0RJ1001D677	1K 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	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R98	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R99	0RJ3303D677	330K OHM 1/10 W 5% 1608 R/TP
		R100	0RJ3301D677	3.3K 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	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R104	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R105	0RJ1002D677	10K 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	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R112	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R113	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R114	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R115	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R116	0RJ0000D677	0 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	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R123	0RJ2701D677	2.7K OHM 1/10 W 5% 1608 R/TP
		R124	0RJ0000D677	0 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
		R127	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		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
		R136	0RJ8200D677	820 OHM 1/10 W 5% 1608 R/TP
		R137	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R138	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R139	0RJ0000D677	0 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	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R144	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R145	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R146	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R147	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R148	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R149	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R150	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R151	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R152	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R153	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R154	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R156	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R157	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R159	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R161	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R164	0RJ1002D677	10K 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
		R174	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R175	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R176	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R178	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R199	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R201	0RJ3900D677	390 OHM 1/10 W 5% 1608 R/TP
		R204	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R206	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R207	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R213	0RJ0222D677	22 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

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R218	0RJ1002D677	10K 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
		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
		R411	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R413	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		RA1	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA2	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA3	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA4	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA5	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA6	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA7	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA8	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA9	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA10	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA11	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA12	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA13	0RHZTCZ001E	RCA SMART 470OHM 1/16 W 5% 3216
		RA14	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA15	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA16	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA17	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA18	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA19	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA20	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA21	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA22	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA24	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA221	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA222	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA223	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA224	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA225	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA226	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA227	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA228	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA229	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA23	6210TCE002B	HB-4M3216-121JT CERATECH 3216M
		RA230	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA231	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA232	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
OTHERS				
		X2	6202TST001A	SX-1 SUNNY ,SMS, 14.31818MHZ ,
POWER BOARD				
⚠		C901	0CBZTBU002B	BULK PCX2 335 474K
⚠		C902	0CKZTBU003B	SC E 332M 12.5BW7 250V BK7.5 S
⚠		C903	0CKZTBU003B	SC E 332M 12.5BW7 250V BK7.5 S
⚠		C904	0CBZTBU002A	BULK PCX2 335 224K
		C905	181-296Y	KMH/HE SYE / SWE 400V 150UF 20
		C906	0CK10302945	0.01UF 2KV Z F TR
		C907	0CE476EK638	47UF KMG 50V M FM5 TP 5
		C908	181-288K	MKT 100V 683JTR PHS26683
		C909	0CE477EF638	470UF KMG 16V M FM5 TP 5
		C910	0CE336BH638	33UF KME 25V M FM5 TP5
		C911	0CE228EF630	2200UF KMG 16V M FM5 BULK

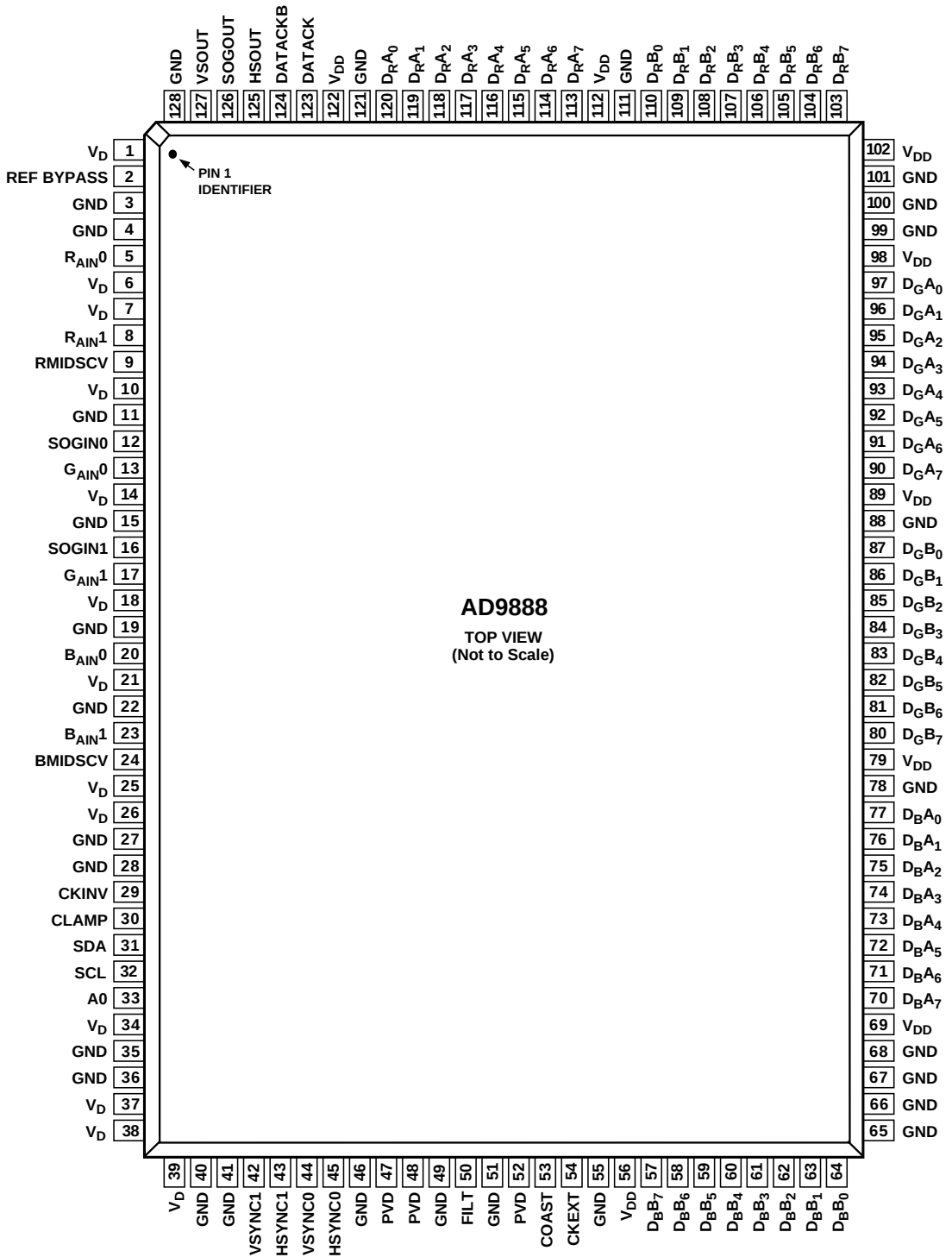
DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C912	181-288B	MKT 100V 104JTR PHS26104
		C913	0CE108EF618	1000UF KMG 16V M FL TP 5
		C914	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C915	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C916	181-288L	MKT 100V 823JTR PHS26823
		C918	0CE228ED630	2200UF KMG,RD 10V 20% BULK FM5
		C919	0CKZTBU006B	NK E 332M 250V BK10.0 DA2GYE33
		C921	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C922	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000
		C923	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000
		C924	0CK1020K515	1000PF 50V K B TR
		C925	0CK22101515	220P 1KV K B TP5
		BD901	0DD360000DA	D3SBA60 BK SHINDENGEN 600V 2
		D901	0DD400709CB	UF4007 TP G.I DO204AL 1000V 1
		D902	0DR400409AB	UF4004 TP G.I DO204AL 400V 1A
		D903	0DRNH00101A	FCH20A10 NIHON INTER ST TO220A
		D903	0DRNH00101A	FCH20A10 NIHON INTER ST TO220A
		D904	0DR400409AB	UF4004 TP G.I DO204AL 400V 1A
		D906	0DR206000AA	MBRF2060CT BK G.I ITO220 60V 2
		ZD901	0DZ470009BC	GDZ4.7B TP GRANDE DO34 0.5W 4.
		ZD902	0DZ220009BC	MTZJ22C TP ROHM-K - 0.5W 22V 0
		ZD903	0DZ150009AD	MTZJ15B TP ROHM-K DO34 500MW 1
		ZD904	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6
⚠		F901	0FZZTTH001D	TIME LAG HBC 3.15A/250V,215 3.
		FH1	430-858C	AFC-520 BAE EUN TA
		FH2	430-858C	AFC-520 BAE EUN TA
		IC901	0IPMGIH003A	ICE2B765P INFINEON 6P,TO220-6-
		IC902	0ISS431000A	KA431AZ (LM431AZ)
		IC904	0ISS431000A	KA431AZ (LM431AZ)
		L901	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB886
		L902	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB886
⚠		LF901	6200TZZ001A	- GO BK L/FILTER,9MH,LB886F
⚠		LF902	6200TZZ001A	- GO BK L/FILTER,9MH,LB886F
⚠		P901	6620TKB002A	BAE EUN AC UNIVERSAL 3PIN BLAC
⚠		PC1	0ILI817000E	LTV-817M B 4P BK PHOTO COUPLER
		Q902	0TR104600AB	KTA1046YU BK KEC TO220I S PNP
		R901	0RD6803A609	680K OHM 1/2 W (7.0) 5% TA52
		R902	0RD6802A609	68K OHM 1/2 W (7.0) 5% TA52
		R903	0RD6802A609	68K OHM 1/2 W (7.0) 5% TA52
		R904	0RD1002Q609	10K 1/4W(3 5% TA52
		R906A	0RX7502J609	75K OHM 1 W 5% TA52
		R906B	0RX7502J609	75K OHM 1 W 5% TA52
		R907	0RD0302Q609	30 OHM 1/4 W (3.4) 5% TA52
		R908	0RD0222Q609	22 1/4W(3 5% TA52
		R909	0RD1001Q609	1K 1/4W(3 5% TA52
		R910	0RD0431A609	4.3 OHM 1/2 W (7.0) 5% TA52
		R911	0RD1004A609	1.0M OHM 1/2 W (7.0) 5% TA52
		R912	0RD1004A609	1.0M OHM 1/2 W (7.0) 5% TA52
		R913	0RD1001Q609	1K 1/4W(3 5% TA52
		R914	0RD3300A609	330 OHM 1/2 W (7.0) 5% TA52
		R915	0RN1202F409	12K 1/6W 1% TA52
		R916	0RN2871F409	2.87K OHM 1/6 W 1% TA52
		R917	0RD3001Q609	3K 1/4W(3 5% TA52
		R918	0RD1000Q609	100 1/4W(3 5% TA52
		R920	0RN3301F409	3.30K 1/6W 1% TA52
		R921	0RN2701F409	2.70K 1/6W 1% TA52
		R922	0RD2402Q509	24K OHM 1/4 W (3.4) 2% TA52
		R923	180-496E	0.39 OHM 1W 5% TA52
		R927	0RD0102A609	10 OHM 1/2 W (7.0) 5% TA52
		R928	0RN4702F409	47K 1/6W 1% TA52
⚠		T901	6170TMZ137A	EER3016 500 UH V-10PIN LB200A
		TH901	6322TA080AA	TP8D13 DAEWOO +/- 15% 110/220

DATE: 2002. 08. 13.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CONTROL BOARD				
		C2	0CH3105H946	1UF 25V 80%,-20% F(Y5V) 2012 R
		C3	0CH3105H946	1UF 25V 80%,-20% F(Y5V) 2012 R
		L1	6210TCE001H	HB-1T2012-301JT CERATEC 2012MM
		LED1	0DLRH0058AA	ROHM SML-521MYWTR86 R/TP GREEN/V
		Q1	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q10	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q11	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
		Q9	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		R1	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R12	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R13	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R14	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R15	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R16	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
		R2	0RJ0562D677	56 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
		R3	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		SW1	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW10	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW2	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW3	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW4	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW5	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW6	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW7	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW8	140-058E	SKHV10910B LGEC NON 12V 20A HO
		SW9	140-058E	SKHV10910B LGEC NON 12V 20A HO
		ZD1	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD3	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD4	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD5	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD6	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD7	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD8	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD9	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD10	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD11	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
USB BOARD				
		C1	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C2	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C3	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C6	0CH3105F946	1UF 16V Z F 2012 R/TP
		C8	0CC150CK41A	15PF 1608 50V 5% R/TP NPO
		C9	0CC150CK41A	15PF 1608 50V 5% R/TP NPO

PIN CONFIGURATION

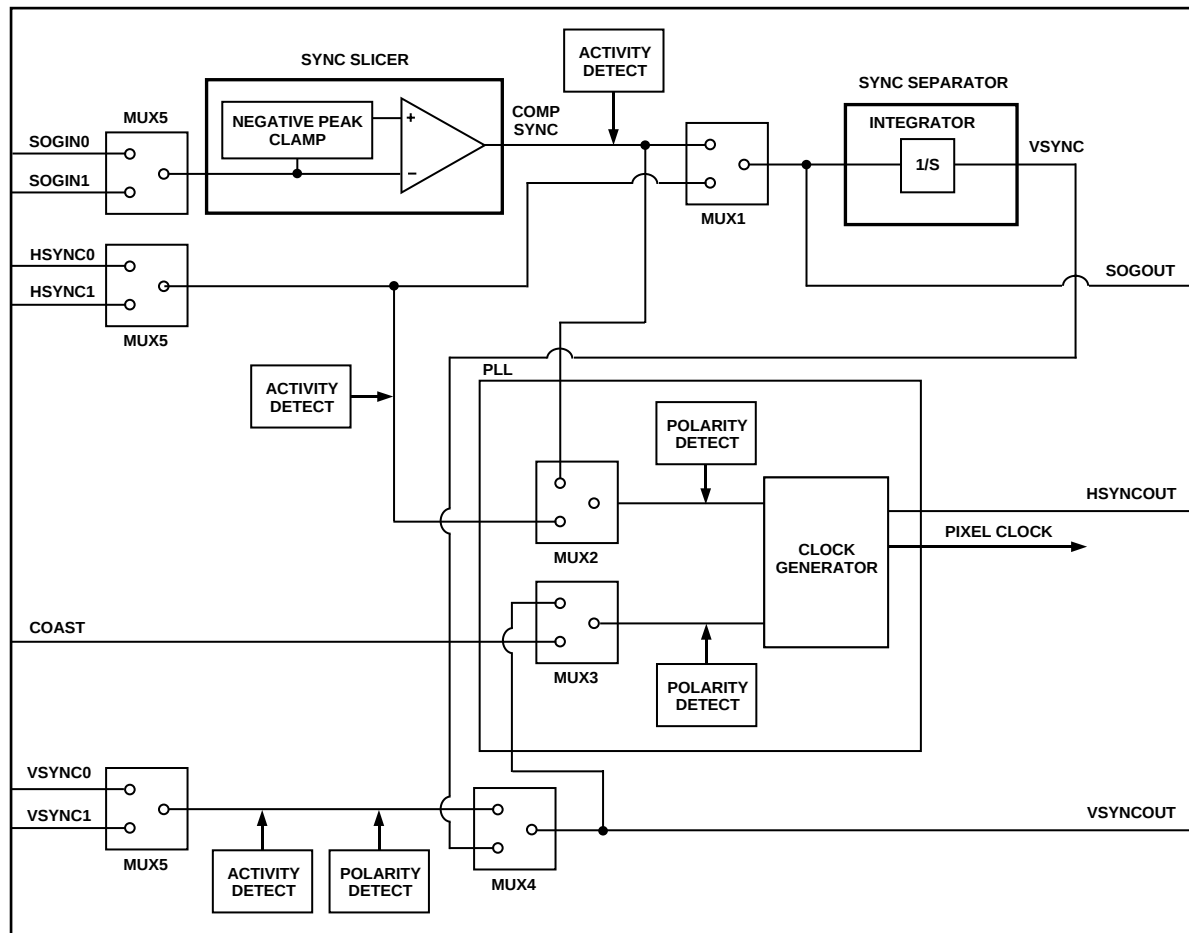
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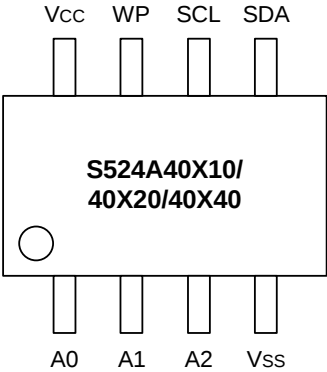
ANALOG DEVICE



PIN CONFIGURATION

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 ² C-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 k Ω (100 kHz) and 1 k Ω (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.

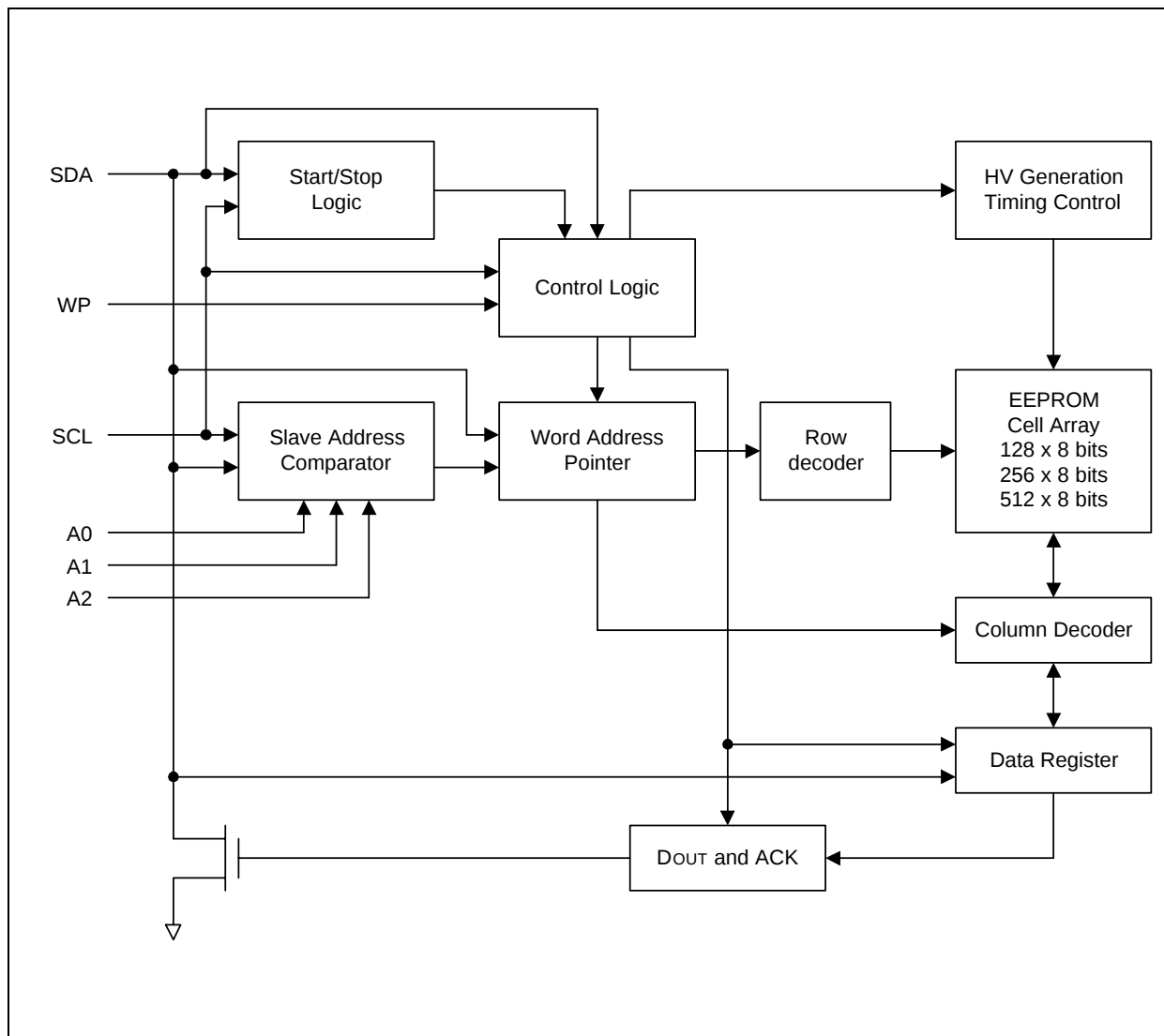
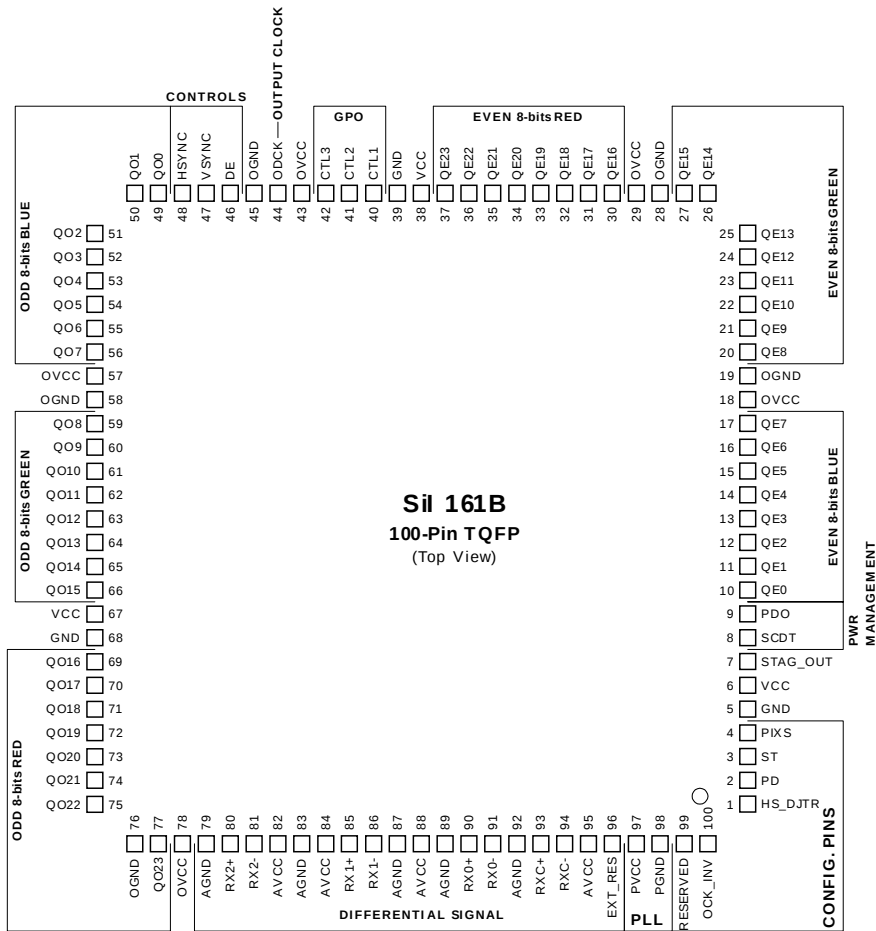
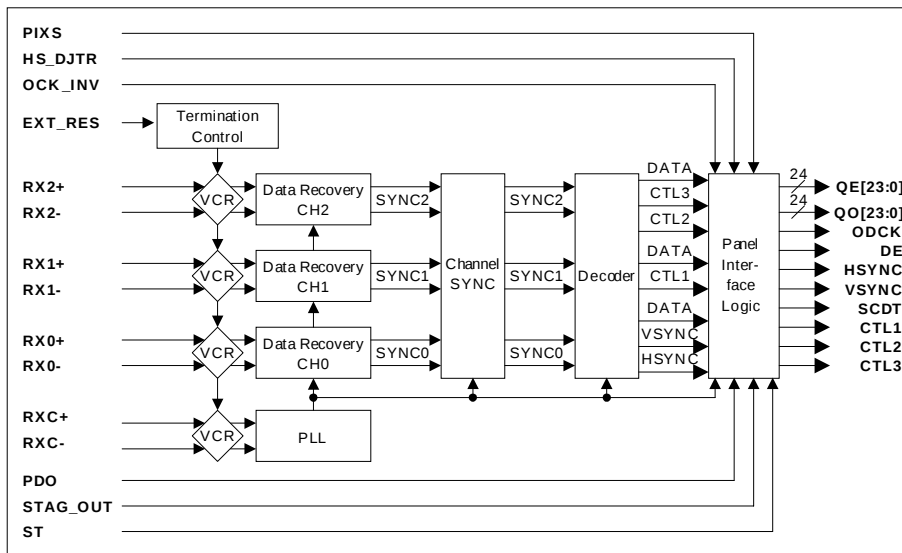


Figure 2-1. S524A40X10/40X20/40X40 Block Diagram

SIL161BCT100



PIN CONFIGURATION



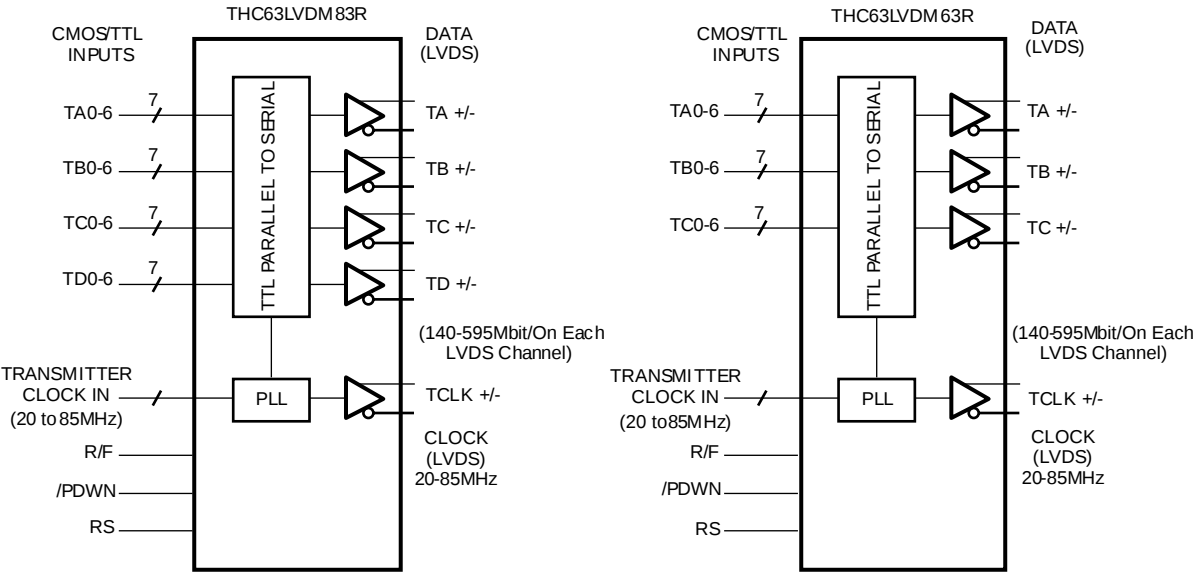
BLOCK DIAGRAM

THC63LVDM83R

THC63LVDM83R	
RS	1
TD1	2
TA5	3
TA6	4
GND	5
TB0	6
TB1	7
TD2	8
VCC	9
TD3	10
TB2	11
TB3	12
GND	13
TB4	14
TB5	15
TD4	16
R/F	17
TD5	18
TB6	19
TC0	20
GND	21
TC1	22
TC2	23
TC3	24
TD6	25
VCC	26
TC4	27
TC5	28
56	TA4
55	TA3
54	TA2
53	GND
52	TA1
51	TA0
50	TD0
49	LVDS GND
48	TA-
47	TA+
46	TB-
45	TB+
44	LVDS VCC
43	LVDS GND
42	TC-
41	TC+
40	TCLK-
39	TCLK+
38	TD-
37	TD+
36	LVDS GND
35	PLL GND
34	PLL VCC
33	PLL GND
32	/PDWN
31	CLK IN
30	TC6
29	GND

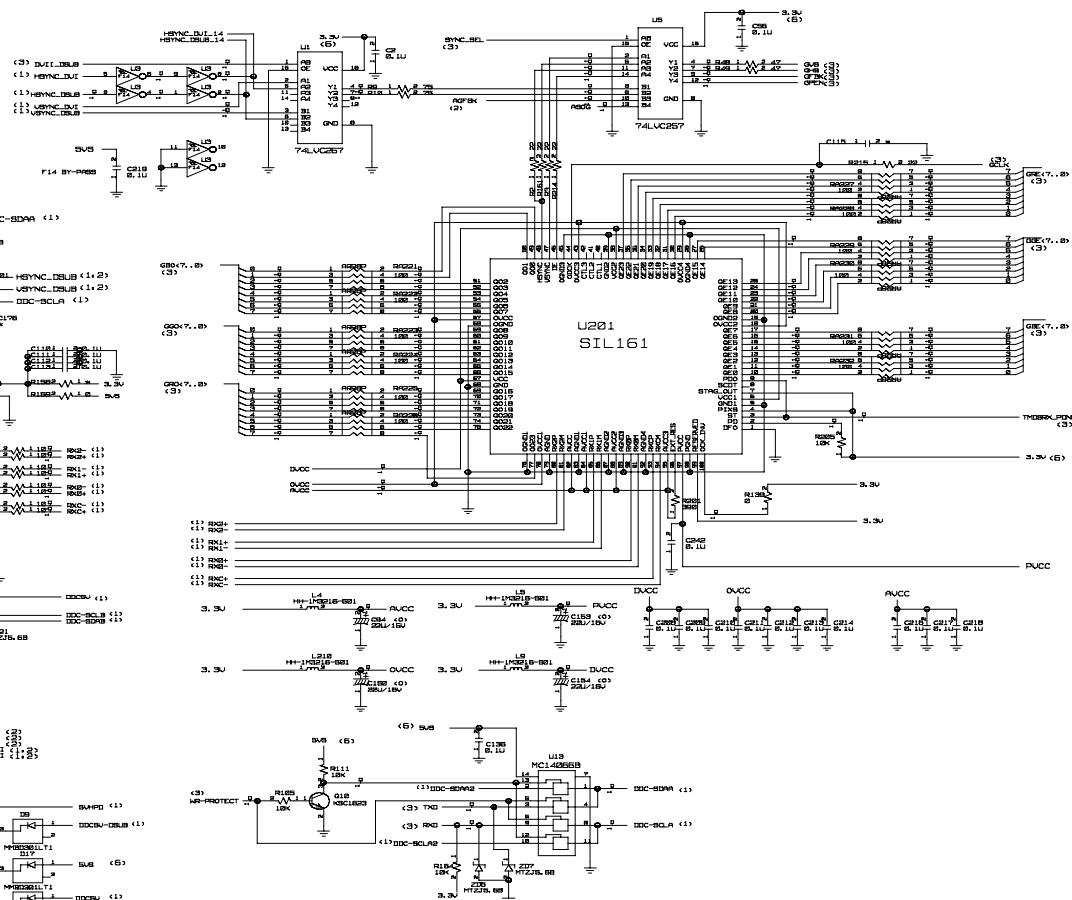
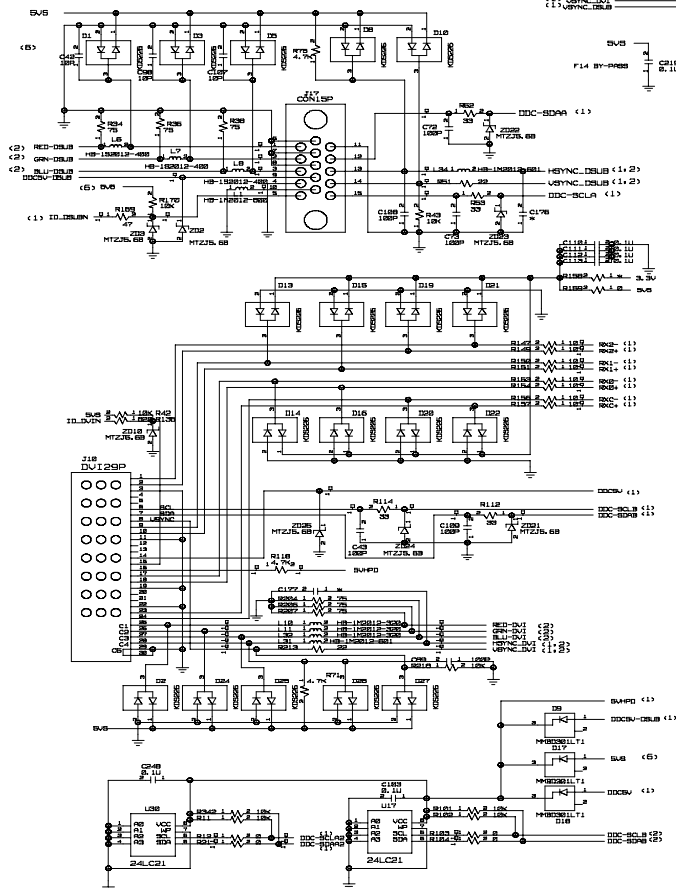
THC63LVDM63R	
TA4	1
RS	2
TA5	3
TA6	4
GND	5
TB0	6
TB1	7
VCC	8
TB2	9
TB3	10
GND	11
TB4	12
TB5	13
R/F	14
TB6	15
TC0	16
GND	17
TC1	18
TC2	19
TC3	20
VCC	21
TC4	22
TC5	23
GND	24
48	TA3
47	TA2
46	GND
45	TA1
44	TA0
43	N/C
42	LVDS GND
41	TA-
40	TA+
39	TB-
38	TB+
37	LVDS VCC
36	LVDS GND
35	TC-
34	TC+
33	TCLK-
32	TCLK+
31	LVDS GND
30	PLL GND
29	PLL VCC
28	PLL GND
27	/PDWN
26	CLK IN
25	TC6

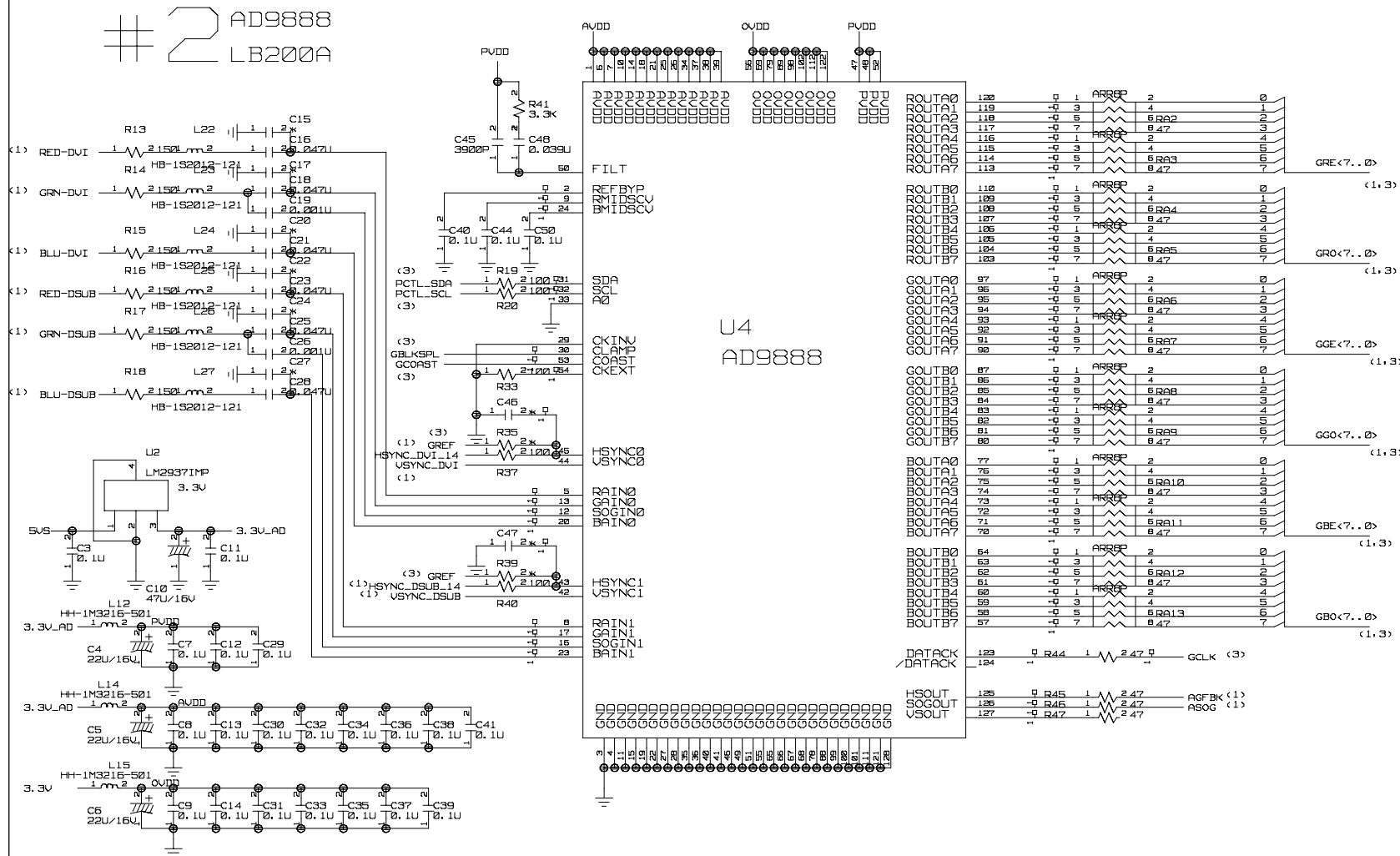
PIN CONFIGURATION

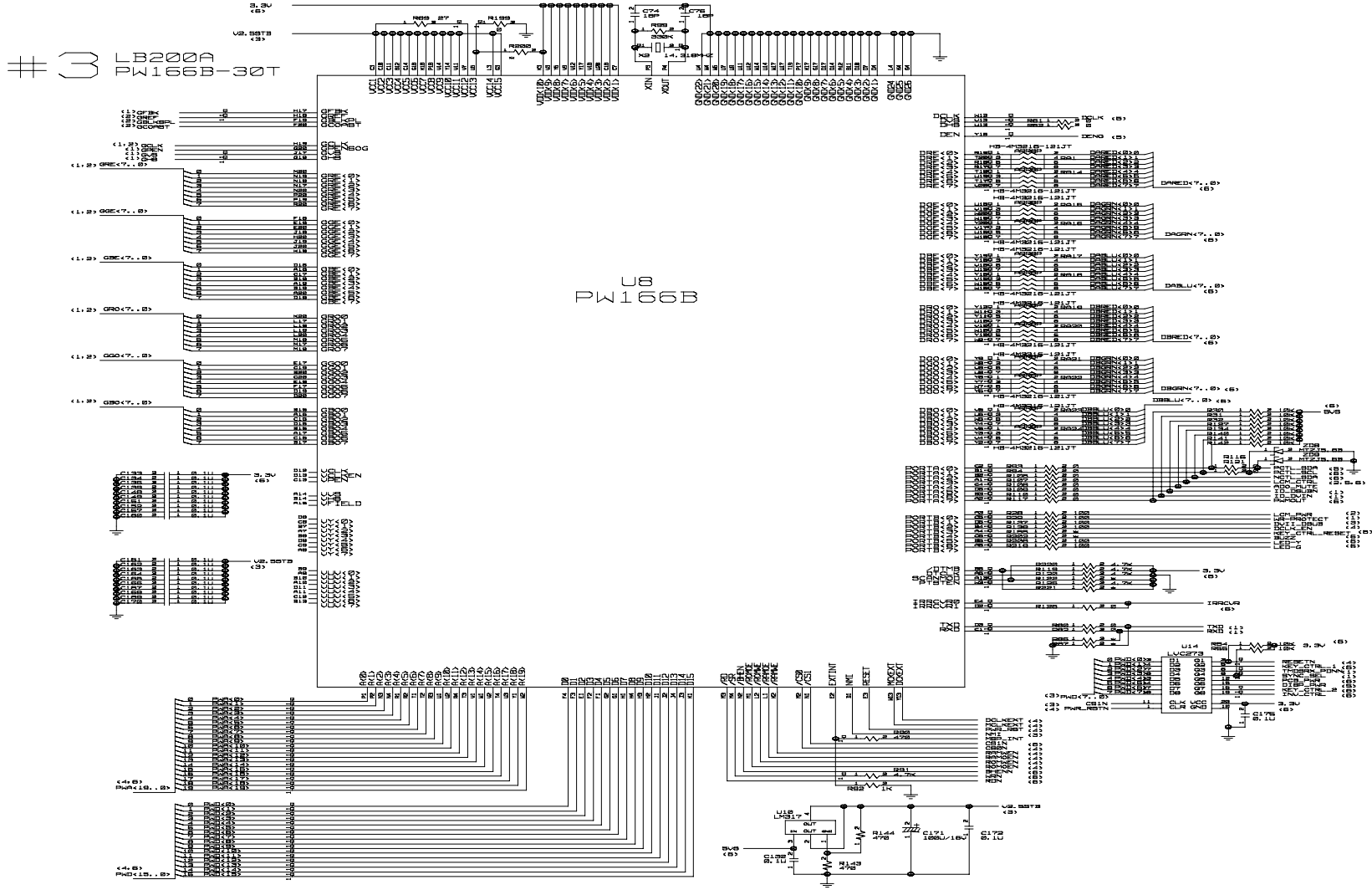


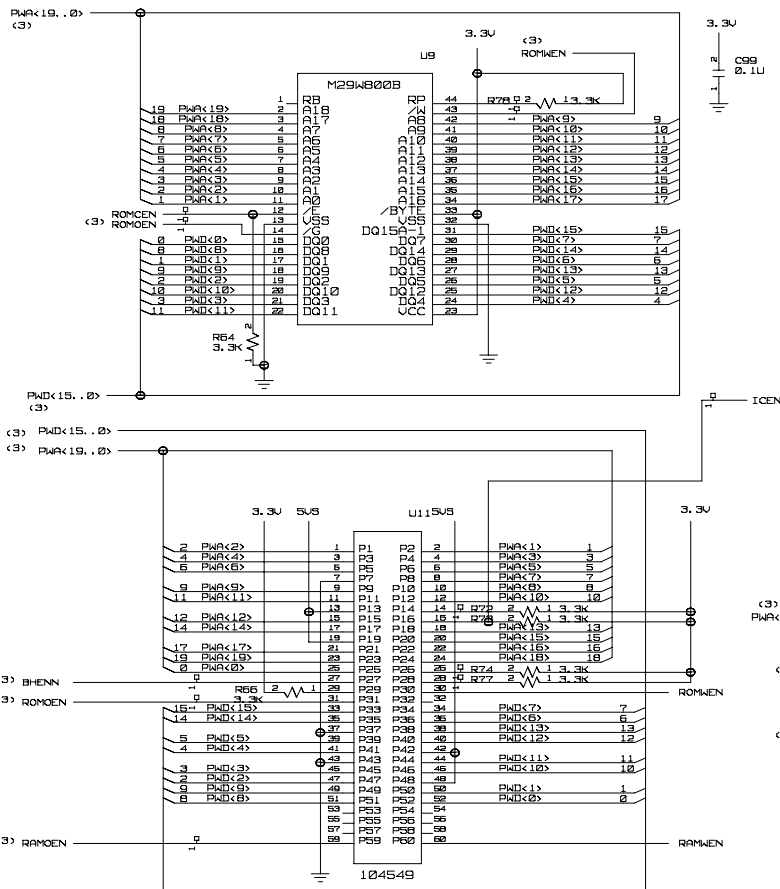
BLOCK DIAGRAM

1 DSUB/DVI/SIL161
LB200A

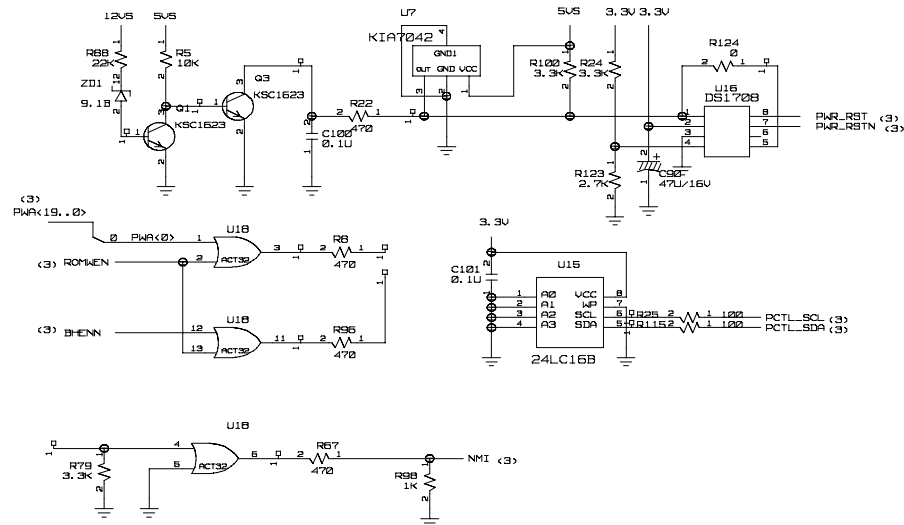
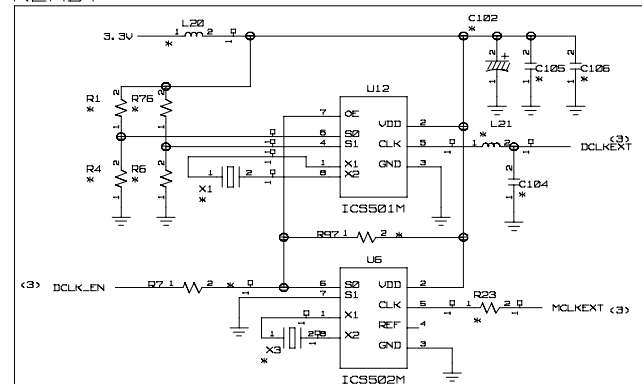


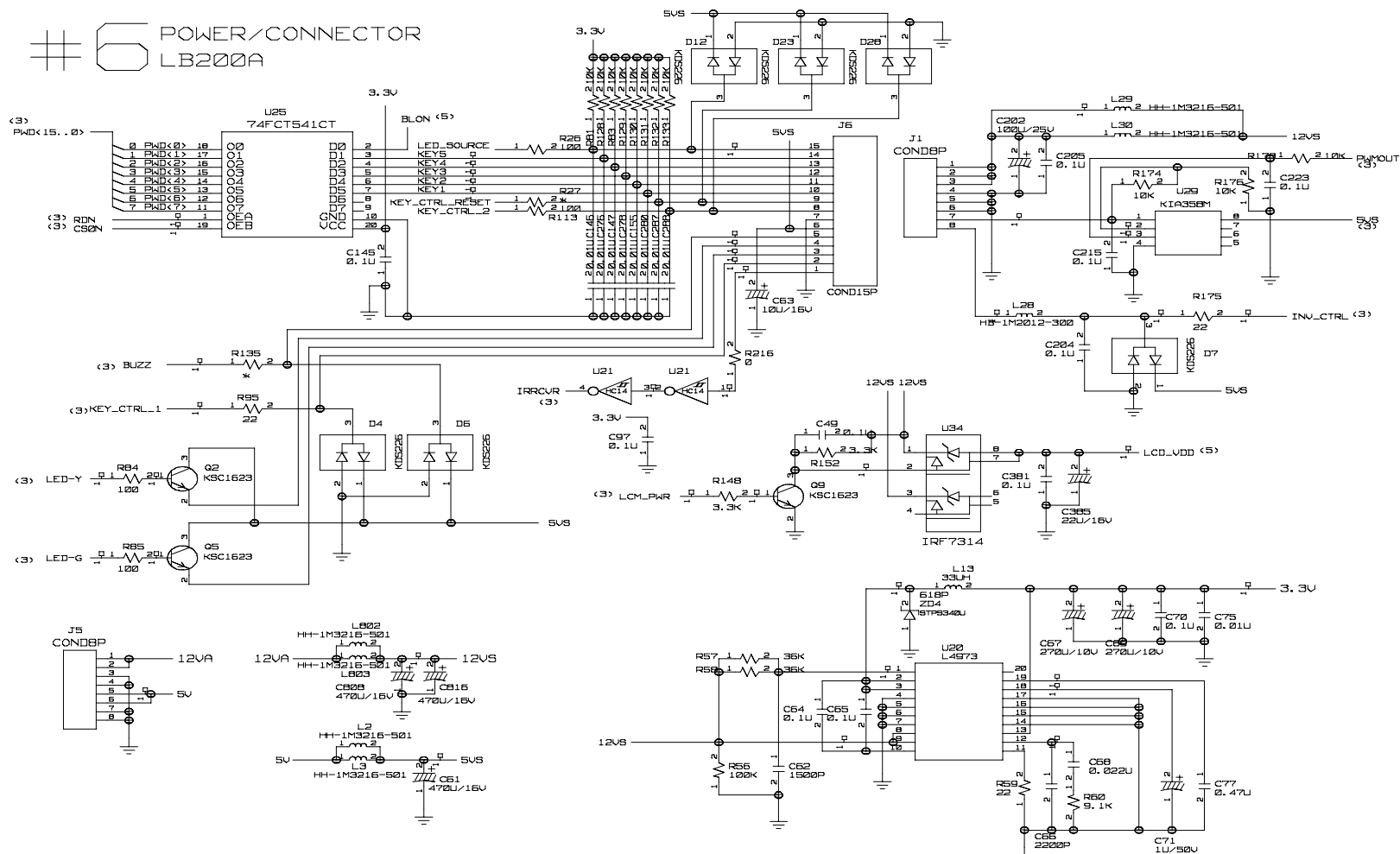


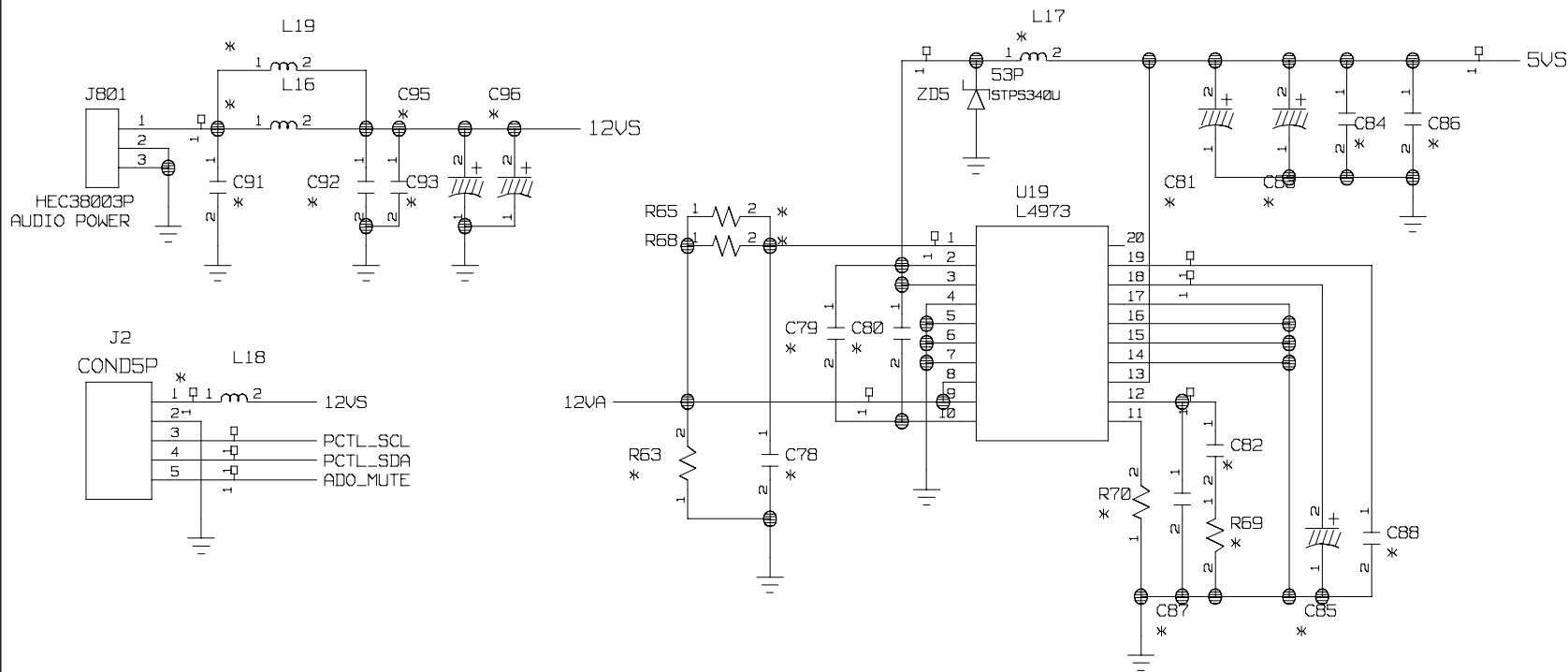


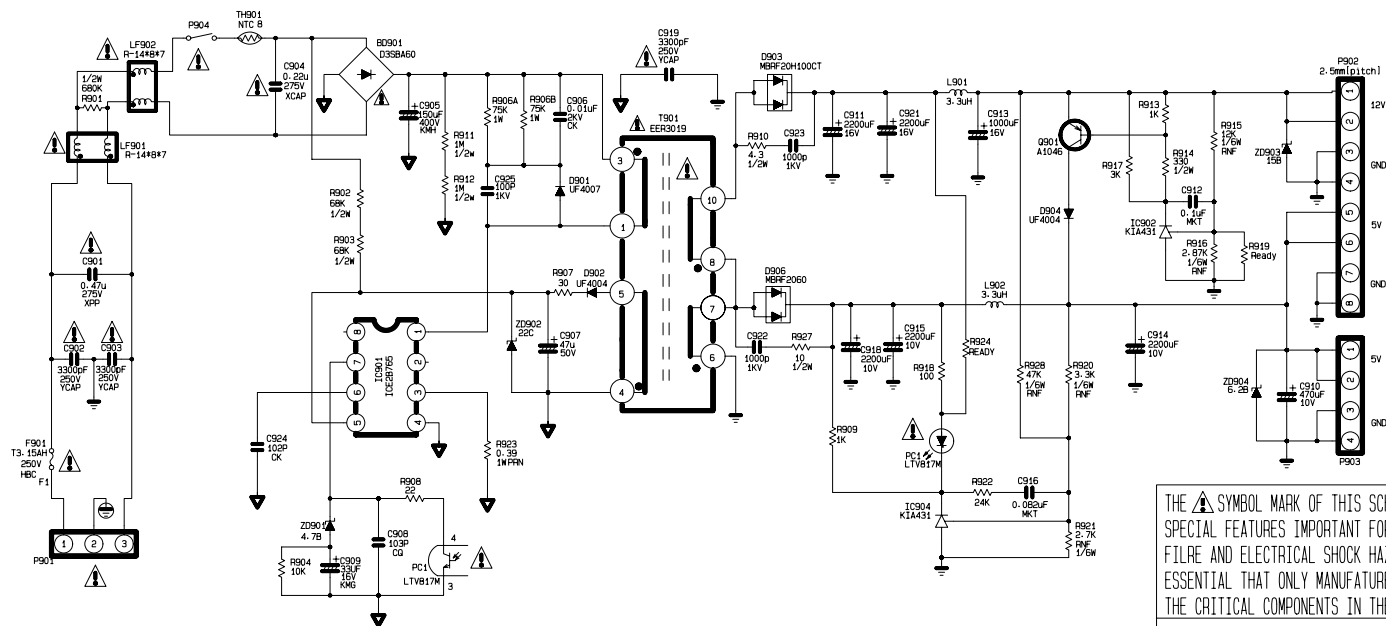
#4 MEMORY
LB200A

READY





7 POWER
LB200A



Multi-parts : D903 MBFF20H100CT STPS20H100CF/FOH20A10

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DATE	2002.06.04	REV	02
MODEL	LB200A	Sheet	1 / 1 Page

LB200A Internal Power Circuit

1 LB200A KEY CONTROL

