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

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-29

FACTORY MODEL: LB886F

MODEL: FLATRON L1800PM (LB886F-SL)

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

CAUTION

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

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT SXGA LCD
Size	: 18inch
Pixel Pitch	: 0.28(H) x 0.28(V)
Color Depth	: 8-bit, 16,777,216 colors
Electrical Interface	: LVDS
Surface Treatment	: Anti-Glare, Hard Coating (3H)
Operating Mode	: Normally Black
Backlight Unit	: Six-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

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

2-2. Luminance : 200(min)

2-3. Contrast Ratio : 200(min)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

• Type : Separate TTL(Positive/Negative)
Composite TTL(Positive/Negative)
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 ~ 80kHz
Vertical	: 56 ~ 85Hz

4. POWER SUPPLY

4-1. Power Input
: AC 100~240V, 50/60Hz , 1.0A

4-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 60 W	GREEN
STAND-BY	OFF/ON	OFF	less than 3 W	AMBER
SUSPEND	ON/OFF	OFF	less than 3 W	AMBER
OFF	OFF/OFF	OFF	less than 3 W	AMBER
POWER OFF	-	-	less than 3 W	OFF

5. ENVIRONMENT

5-1. Operating Temperature: 10°C~35°C (50°F~95°F) (Ambient)
5-2. Relative Humidity : 10%~80% (Non-condensing)
5-3. MTBF : 50,000 Hours(Min), Except Lamp

6. DIMENSIONS (with TILT/SWIVEL)

Width	: 397 mm (15.62")
Depth	: 237 mm (9.33")
Height	: 428 mm (16.85") -Min
	508 mm (19.99") -Max

7. WEIGHT (with SPEAKER)

Net. Weight	: 8.8kg (19.40 lbs)
Gross Weight	: 11.3kg (24.91 lbs)

8. USB

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

9. SPEAKER

.RMS Audio Output: 2W(R+L)
.Input Sensivity: 0.7Vrms
.Speaker Inpedance: 4Ω

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

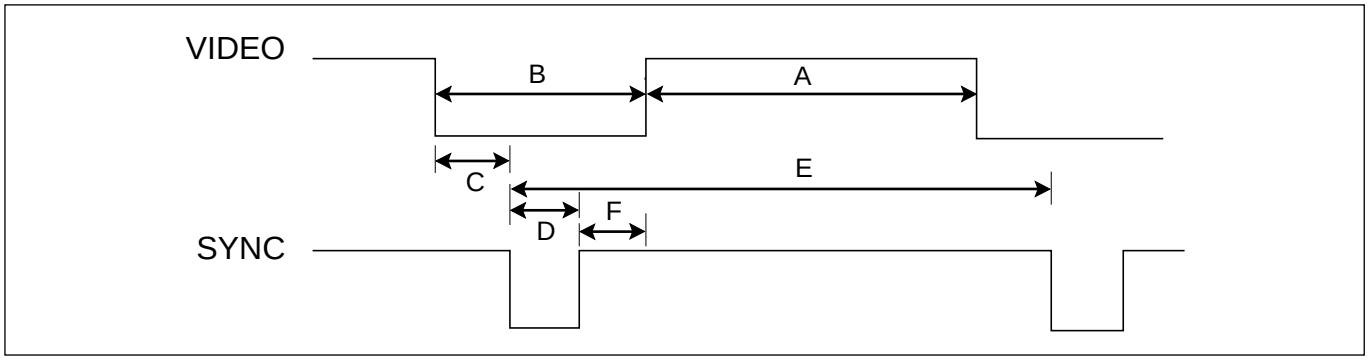
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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) >>**

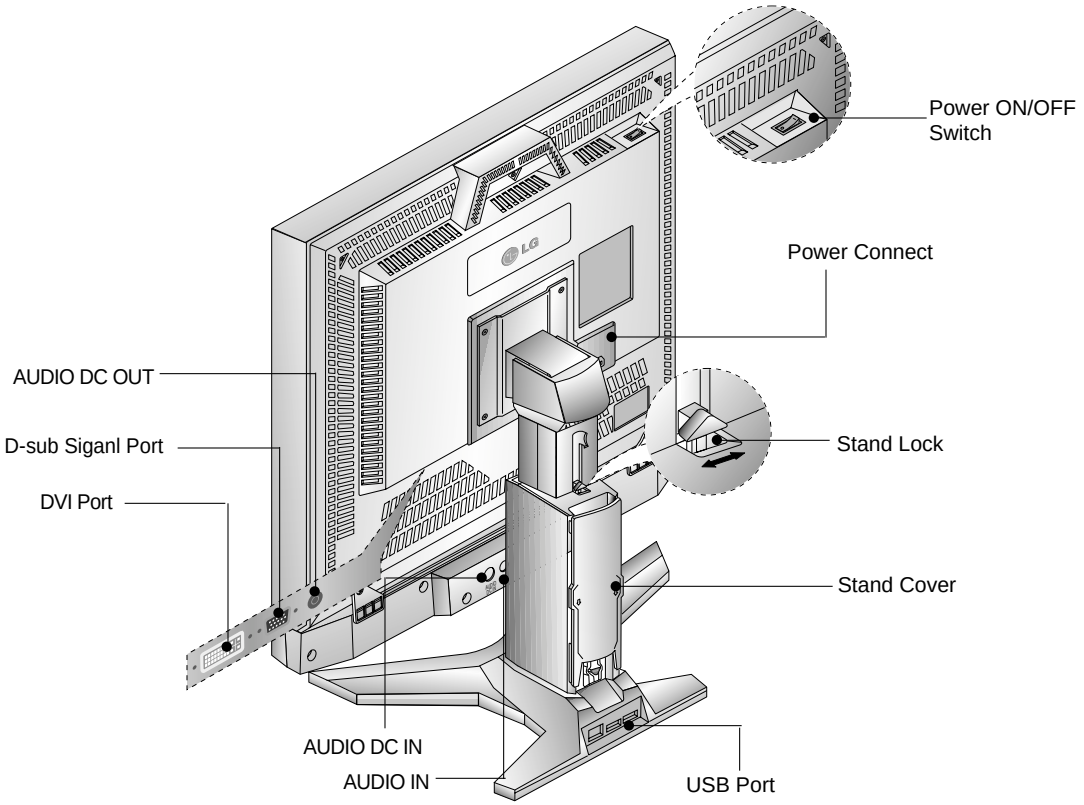
Mode	H/V Sort	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Front Porch (C)	Sync Duration (D)	Back Porch (F)	Resolution
1	H	+	25.175	31.469	800	640	16	96	48	**640x350 70Hz**
	V	–		70.8	449	350	38	2	59	
2	H	–	28.321	31.468	900	720	18	108	54	**720x400 70Hz**
	V	+		70.8	449	400	12	2	35	
3	H	–	25.175	31.469	840	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	+	94.5	68.677	1376	1024	48	96	208	**1024x768 85Hz**
	V	+		84.997	808	768	1	3	36	
13	H	+/–	100.0	68.681	1456	1152	32	128	144	**1152x870 75Hz**
	V	+/–		75.062	915	870	3	3	39	
14	H	+/–	92.978	61.805	1504	1125	18	134	200	**1152x900 65Hz**
	V	+/–		65.96	937	900	2	4	31	
15	H	+	108.0	63.981	1688	1280	48	112	248	**1280x1024 60Hz**
	V	+		60.02	1066	1024	1	3	38	
16	H	+	135.0	79.976	1688	1280	16	144	248	**1280x1024 75Hz**
	V	+		75.035	1066	1024	1	3	38	

OPERATING INSTRUCTIONS

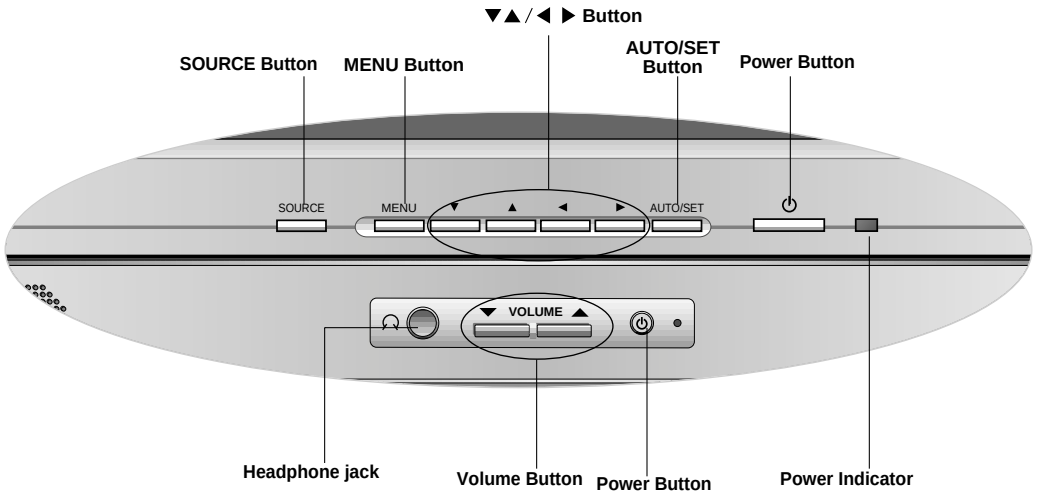
FRONT VIEW

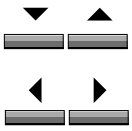
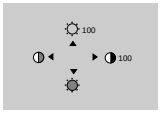
Front Control Panel

REAR VIEW



Front Control Panel



Control	Function
SOURCE **SOURCE Button**	Use this button to make Dsub or DVI connector active. This feature is used when two computers are connected to the monitor. The default setting is Dsub.
MENU **MENU Button**	Use this button to enter or exit the on screen display.
▼▲/◄ ► Button  	Use these buttons to choose or adjust items in the on screen display. **<Shortcut Keys>** • Brightness and Contrast can be adjusted directly without entering the On Screen Display (OSD) system. Touch the ▼/▲/◄/► buttons to adjust the settings and then the OSD button to save all changes. The Brightness and Contrast functions are also available in the On Screen Display (OSD) menu.
AUTO/SET **AUTO/SET Button** 	Use this button to enter a selection in the on screen display. *** AUTO adjustment function** TO the **AUTO/SET** button before using OSD menu. This button is for the automatic adjustment of the screen position, clock and phase. **Note**: Some signal from some graphics boards may not function properly. **If the results are unsatisfactory**, adjust your monitor's Position, Clock and Phase manually.
⏻ **Power Button**	Use this button to turn the monitor on or off.
Power Indicator	This indicator lights up green when the monitor operates normally. If the monitor is in DPM (Energy Saving) mode (stand-by/ suspend/power off), this indicator color changes to amber.

Control	Function
MENU, ▶Button	Press the hold the MENU button and ▶ button for 3 seconds: the message “CONTROLS LOCKED” appears. CONTROLS LOCKED You can unlock the OSD controls at any time by pushing the MENU, ▶ button for 3 seconds: the message “CONTROLS UNLOCKED” will appear. CONTROLS UNLOCKED
Headphone jack	Headphone jack that automatically mutes the speaker volume is attached.
Volume Buttons	Used to adjust volume.
Power Button	Use to turn ON/OFF audio.

Pivot Function

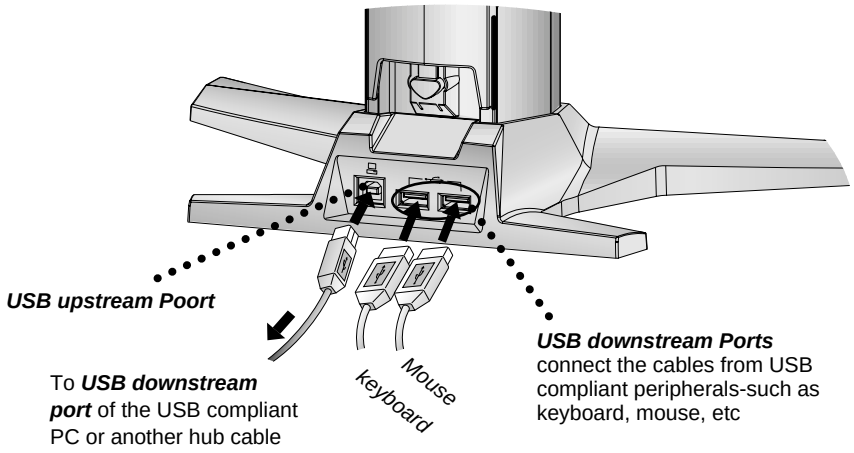
You can adjust the height of the screen and also rotate it 90° clockwise.

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 peripher 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 Plug 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 monitor 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.

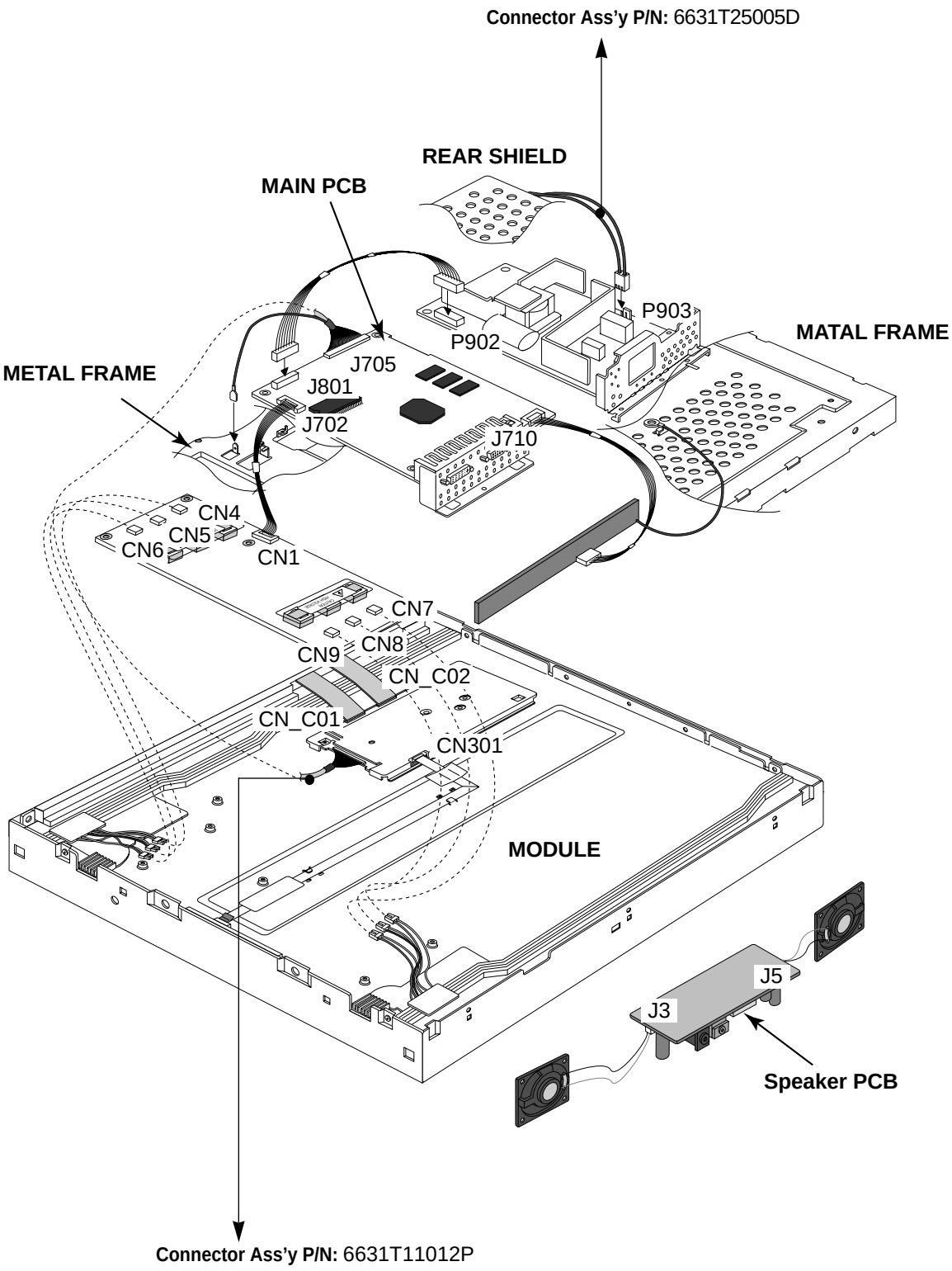


NOTE

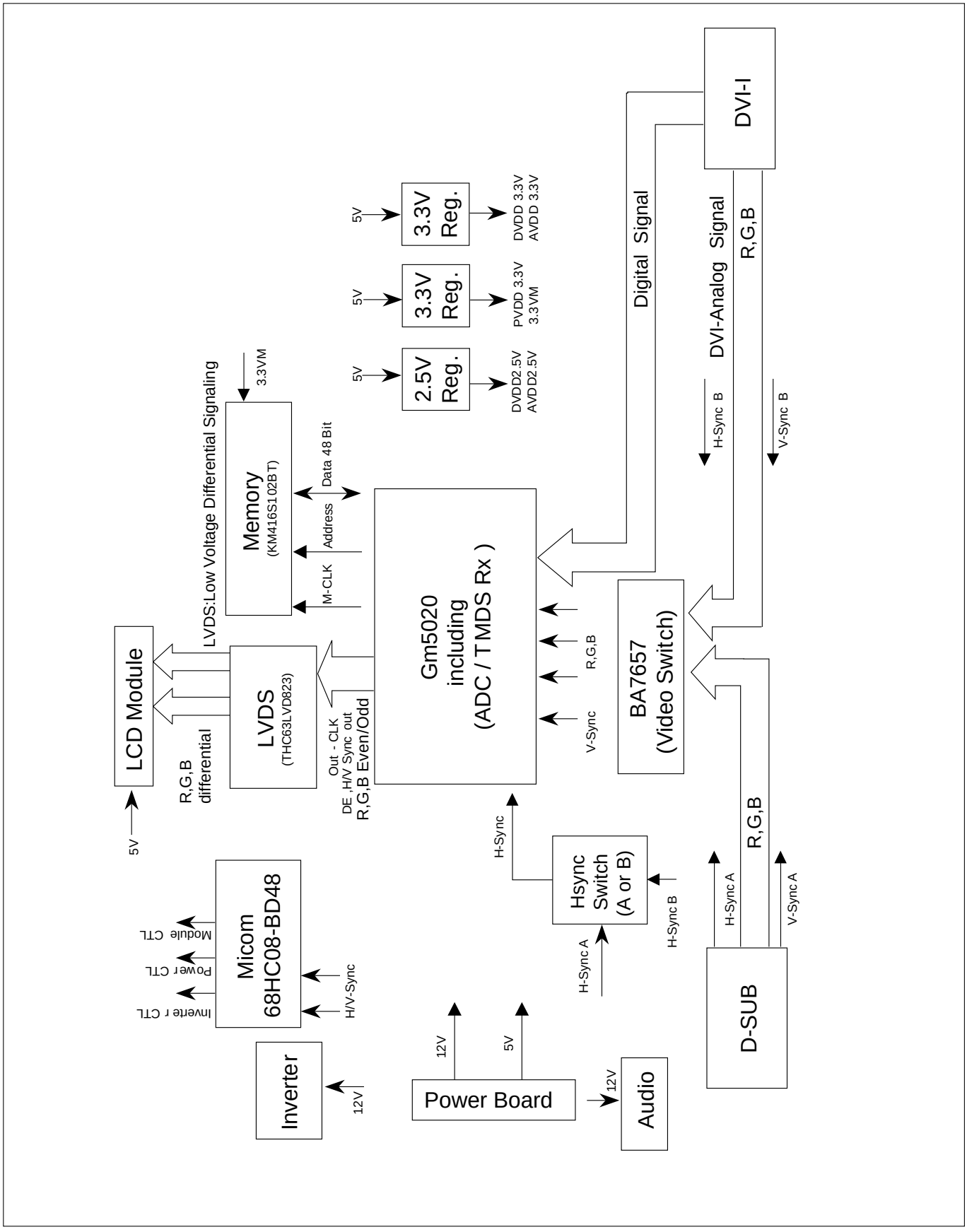
- To activate the USB hub function, the monitor must be connected to a USB compliant PC(OS) or another hub with the USB cable(enclosed).
- When connecting the USB cable, check that the shape of the connector at the cable side matches the shape at the connecting side.
- Even if the monitor is in a power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

IMPORTANT: These USB connectors are not designed for use with high-power USB devices such as a video camera, scanner, etc. LGE recommends connecting high-power USB devices directly to the computer

WIRING DIAGRAM



BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Input signal switching part(BA7657).

There are two anolog inputs which are D-Sub analog and DVI-anolog input.
They come from each 15 pin D-Sub and 29 pin DVI-I connector.

2. Video Controller Part(GM5020).

This part amplifies the level of video signal for the anolog to digital conversion and converts from the analog video signal to the digital video signal using a pixelclock.
The pixel clock for each mode is generated by the PLL.
The range of the pixel clock is from 25MHz to 135MHz.
This part consists of the Scaler and frame buffers which converts frame rate of input signal to 60Hz frame rate.
The Scaler gets the video signal converted analog to digital, interpolates input to1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.
Especially pre-amp / ADC / Video controller are merged to one chip 'Gm5020' by Genesis.
Also FRC is separate.

3. Display Data Transmitter Part(LVDS).

This part transmit digital signal from the Scaler to the receiver of module.

4. Power Part.

This part consists of the one 5V, two 3.3V and one 2.5 regulators to convert power which is provided 12V, 5V in Power Board.
12V is provided for inverter, 5V is provided for Micom and LCD Panel.
Also, 5V is converted 3.3V and 2.5V by regulator. Converted power is provided for IC in the main board.

5. MICOM Part.

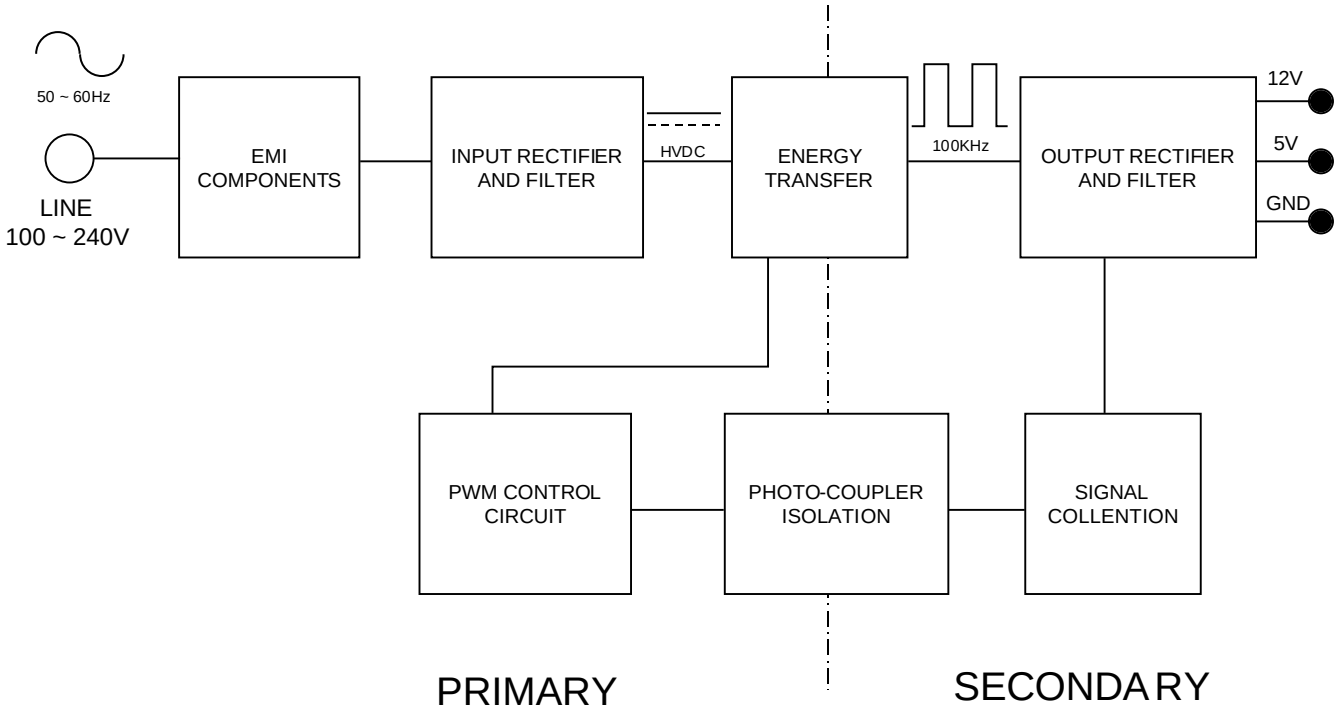
This part consists of EEPROM IC which stores control data, Reset IC and the Micom.
The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.
The controlled data of each modes is stored in EEPROM.

6. Inverter

The inverter converts from DC12V to AC 700Vrms and operate back-light lamp of module.

7. Audio Part

Input voltage is DC12V from Main board Audio Signal AC 700Vrms is amplified.



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 10 minutes.

• Alignment appliances and tools.
- IBM compatible PC
- Programmable Signal Generator.
  (eg. VG-819 made by Astrodesign Co.)
- E(E)PROM with each mode data saved.

1. Adjustment Start
1) Display any pattern at any Mode.
2) Run alignment program for LB886F on the IBM compatible PC.
3) Select EEPROM → ALL INIT command and Enter
4) This will make all data to default state
5) Select COMMAND → PRESET START command and Enter

2. Adjustment for Factory Preset Mode
1) Select DIST. ADJ → FOS DEFAULT command and Enter
2) It will copy all factory default data to EEPROM automatically.

3. Adjustment for White Balance
1) Display color 0,0 pattern at Mode 15.
2) Set External Bright to MAX position and Contrast to MAX Position.
3) Select PRESET START → BIAS CAL command and Enter.
4) No attempt to manually adjust, BIAS data is automatically adjusted and saved to the EEPROM.
5) Display color 15,0 pattern at Mode 15.
6) Select DRIVE CAL command and Enter.
7) 5800K and 9300K are automatically adjusted and saved to the EEPROM.
8) Select PRESET EXIT command and Enter.

4. Adjustment for EDID
1) Use this procedure only when there is some probelm on EDID data.
2) Connect the D-sub cable.
3) Select EEPROM → EDID Write command and Enter.
4) Select DDC(A) Write command and Enter.
5) Connect the DVI-I cable.
6) Select DDC(D) Write command and Enter.

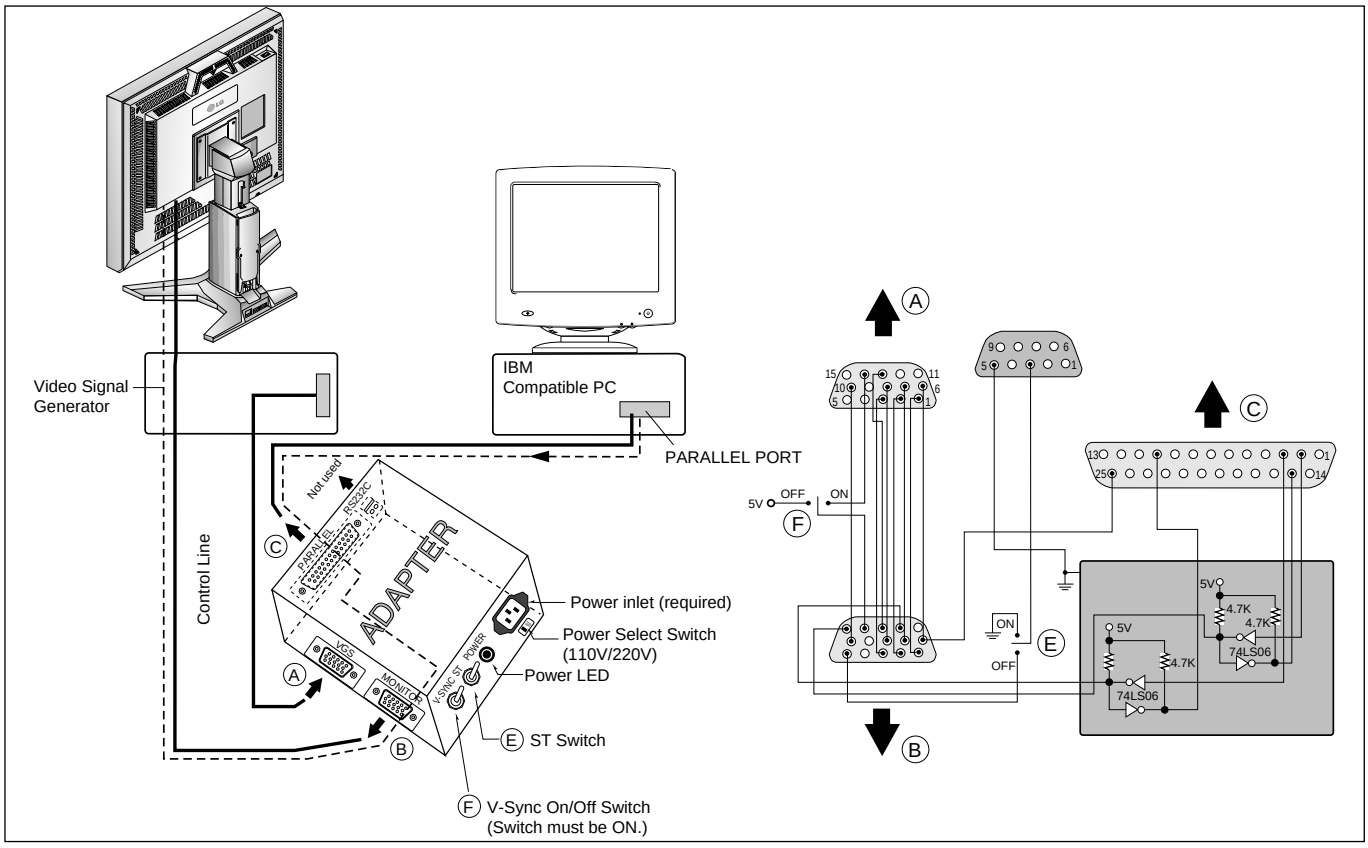
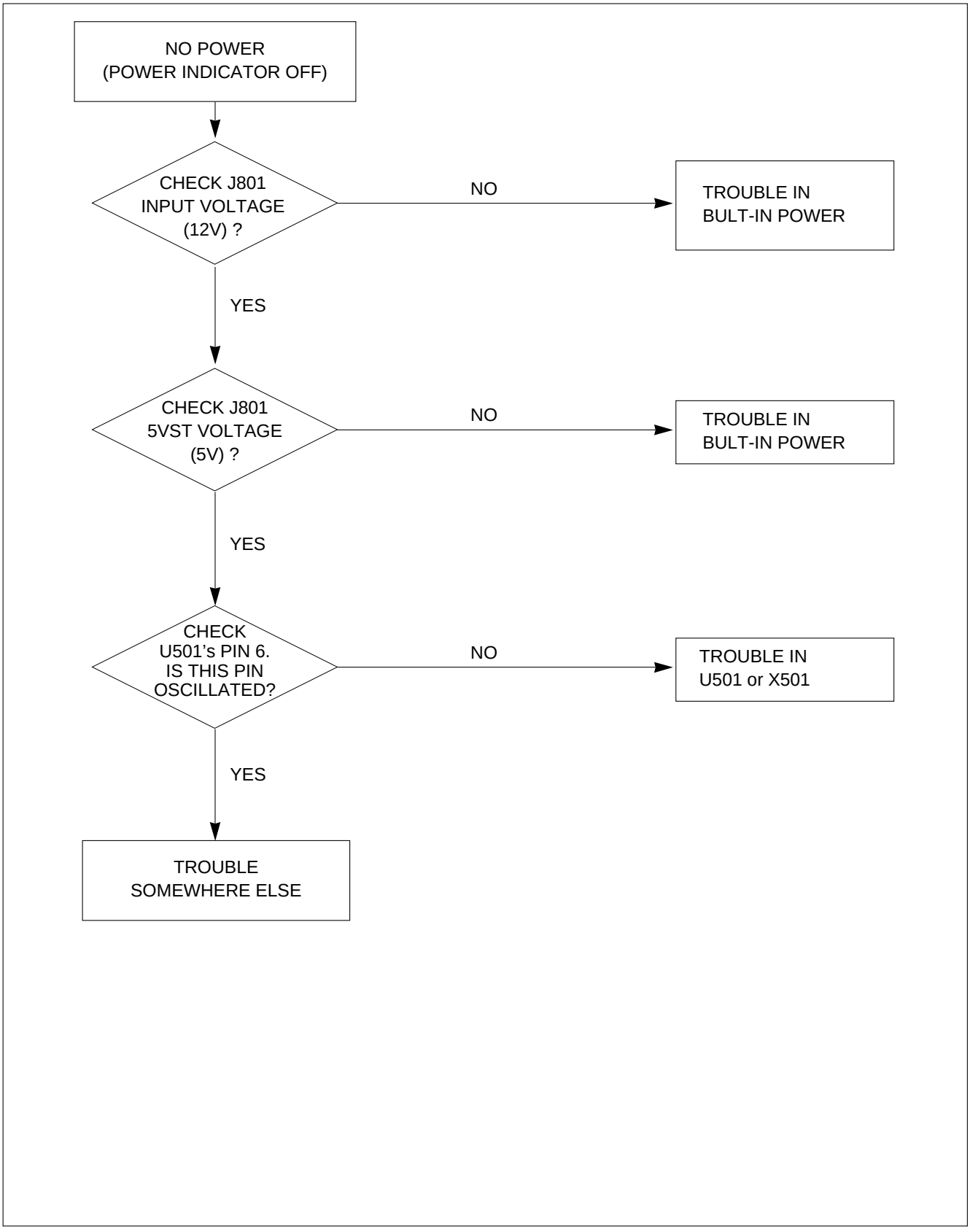


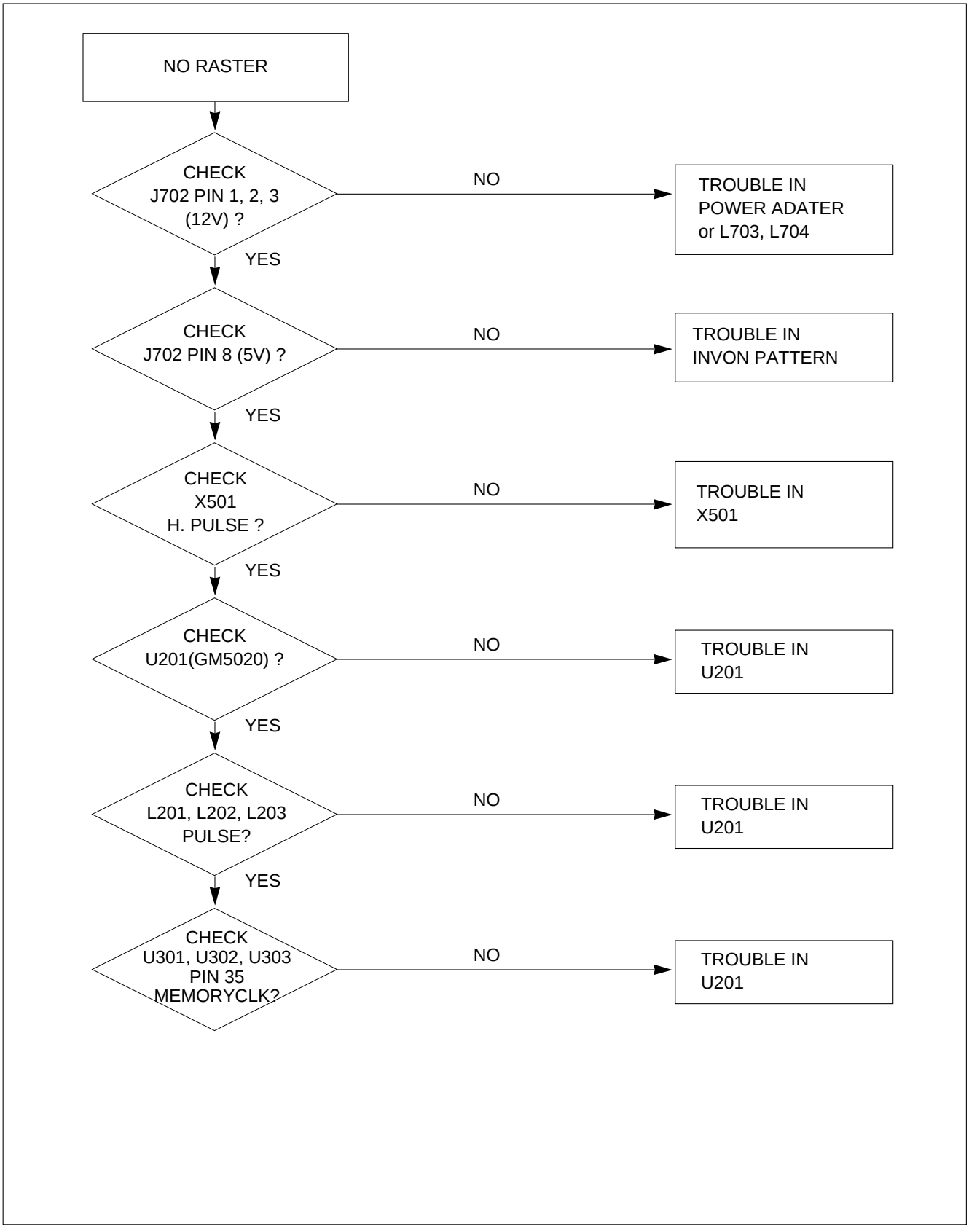
Figure 1. Cable Connection

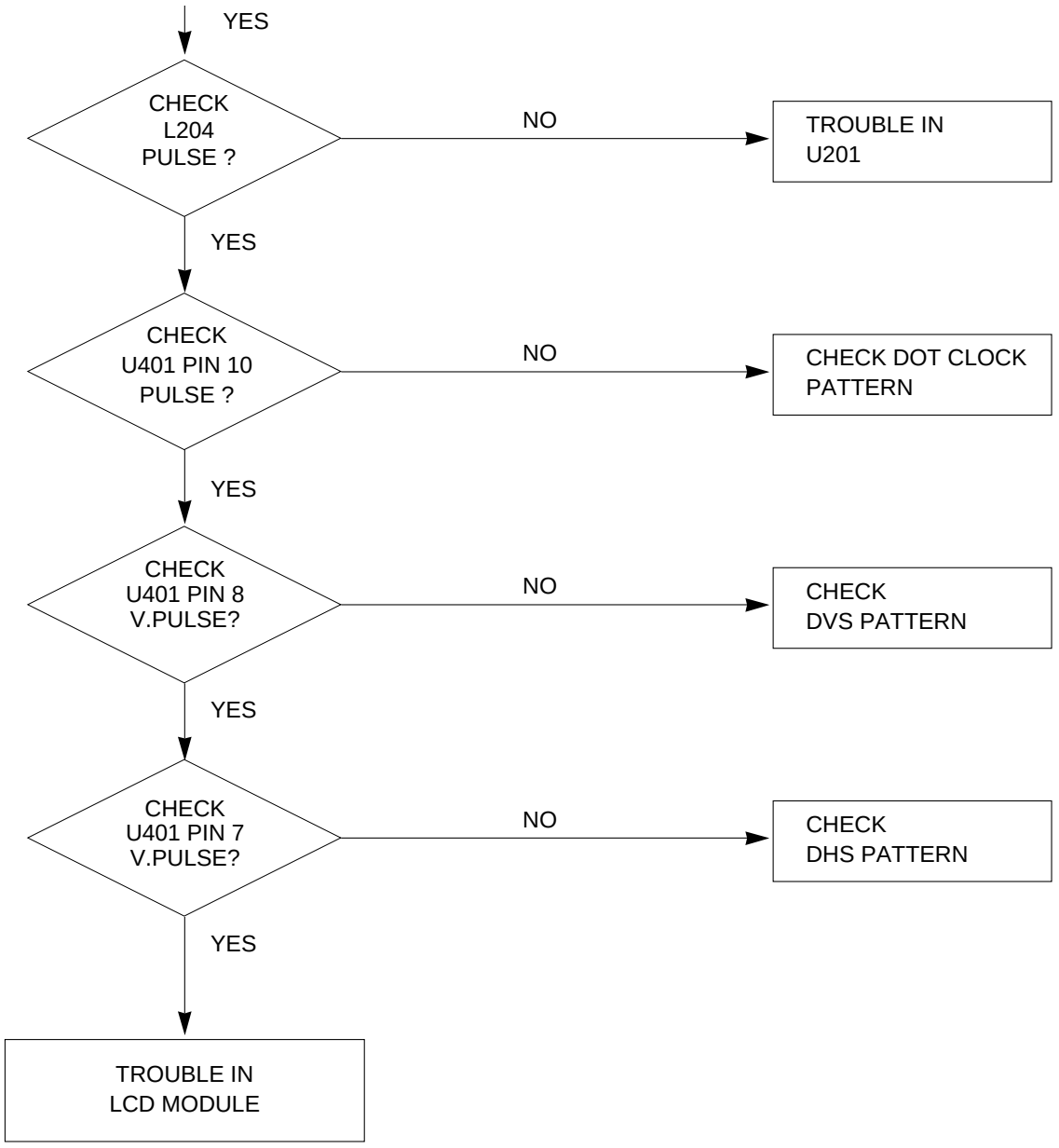
TROUBLESHOOTING GUIDE

1. NO POWER

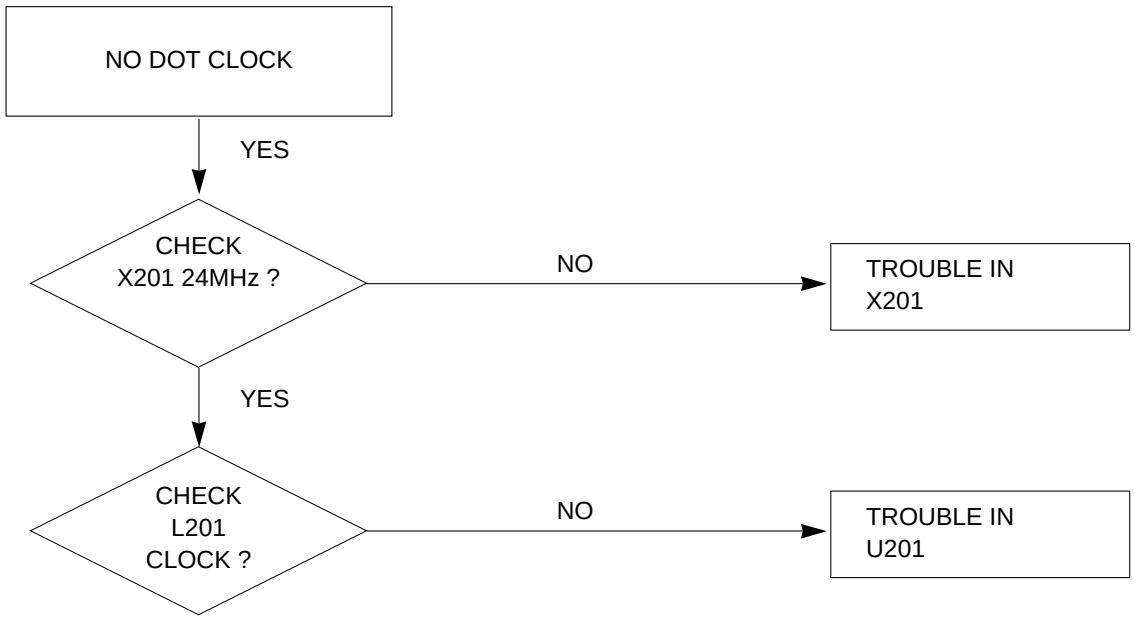


2. NO RASTER

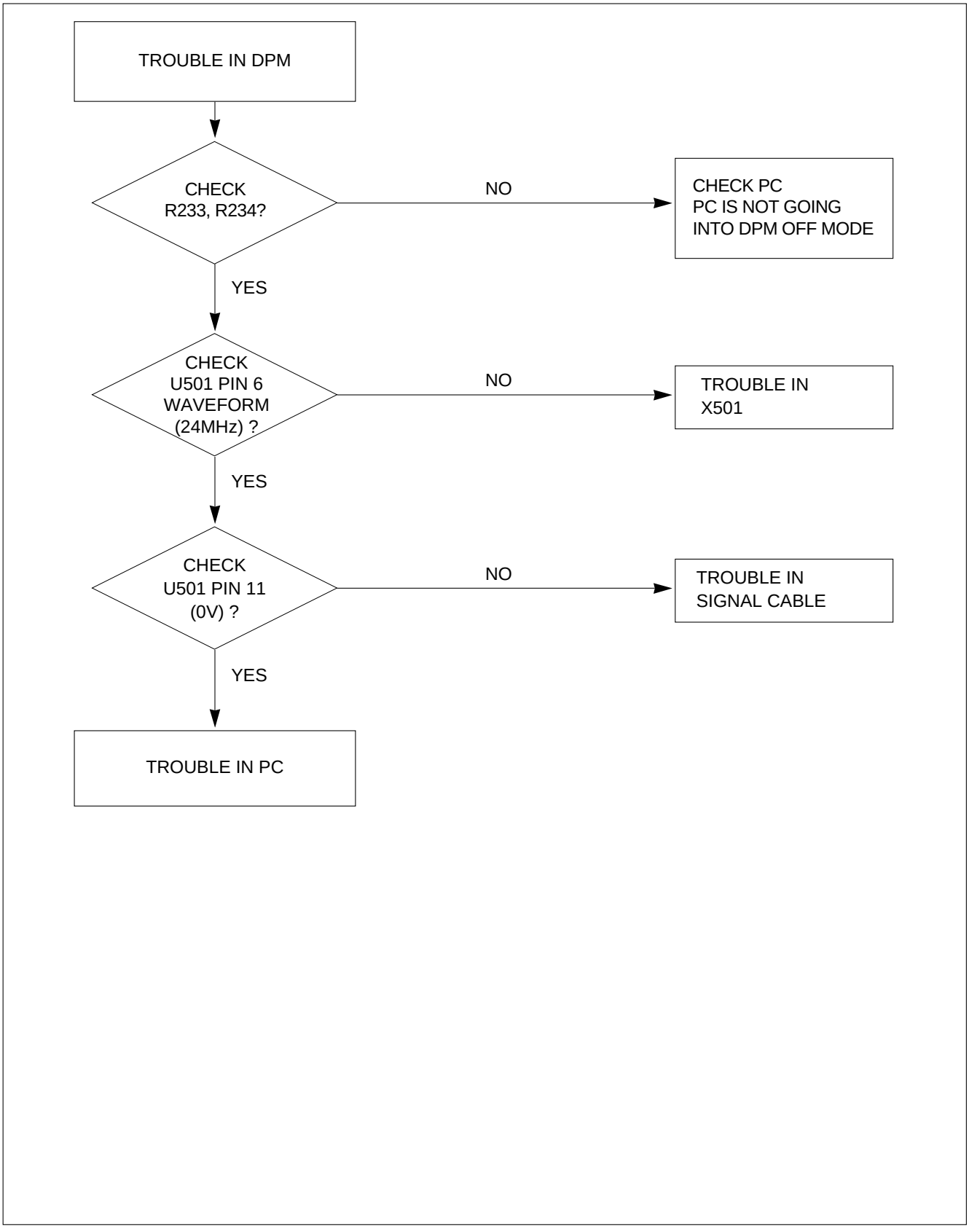

NO RASTER
CHECK
J702 PIN 1, 2, 3
(12V) ?
NO
TROUBLE IN
POWER ADATER
or L703, L704
YES
CHECK
J702 PIN 8 (5V) ?
NO
TROUBLE IN
INVON PATTERN
YES
CHECK
X501
H. PULSE ?
NO
TROUBLE IN
X501
YES
CHECK
U201(GM5020) ?
NO
TROUBLE IN
U201
YES
CHECK
L201, L202, L203
PULSE?
NO
TROUBLE IN
U201
YES
CHECK
U301, U302, U303
PIN 35
MEMORYCLK?
NO
TROUBLE IN
U201


YES
CHECK
L204
PULSE ?
NO
TROUBLE IN
U201
YES
CHECK
U401 PIN 10
PULSE ?
NO
CHECK DOT CLOCK
PATTERN
YES
CHECK
U401 PIN 8
V.PULSE?
NO
CHECK
DVS PATTERN
YES
CHECK
U401 PIN 7
V.PULSE?
NO
CHECK
DHS PATTERN
YES
TROUBLE IN
LCD MODULE

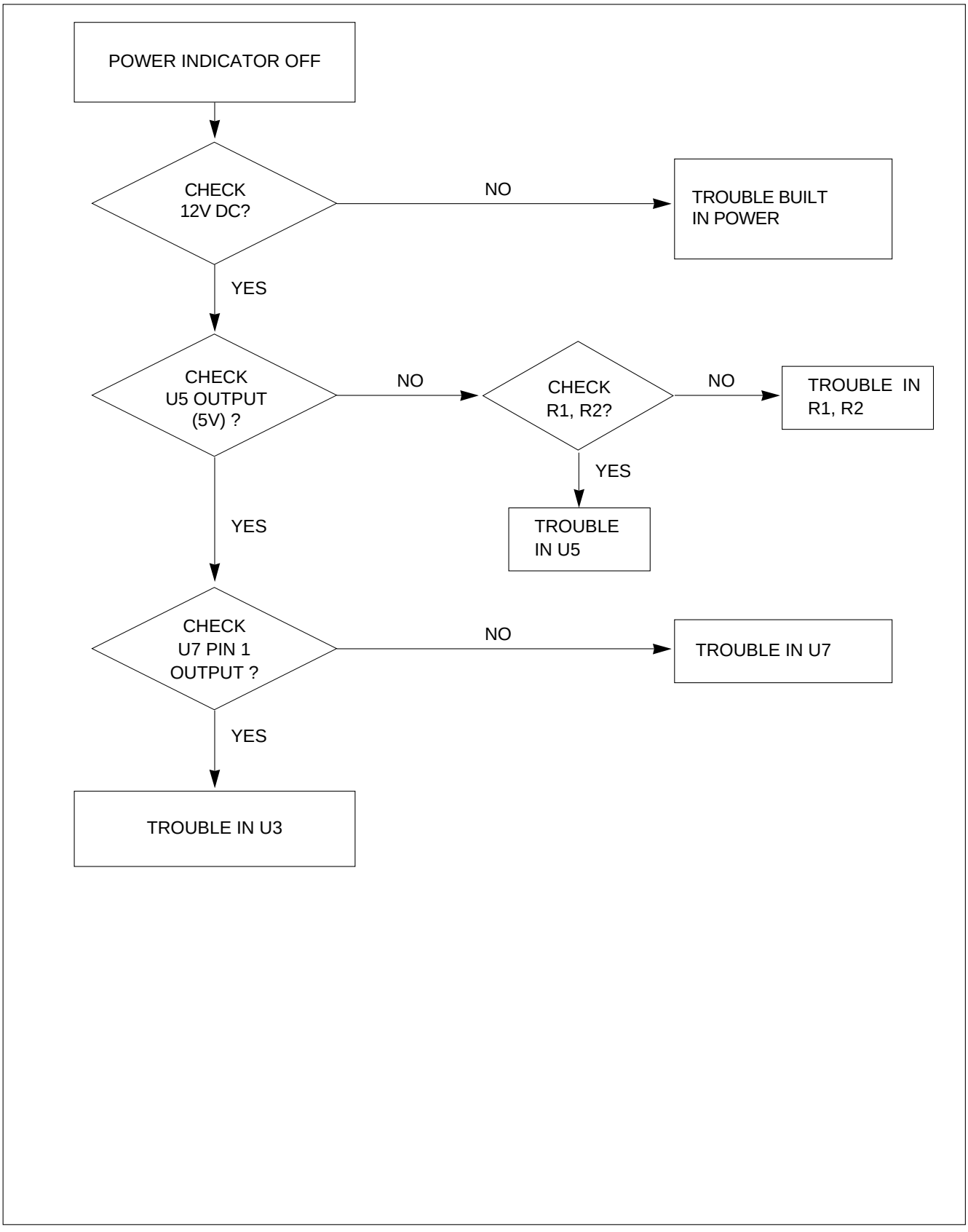
3. NO CLOCK (CLOCK GENERATOR)



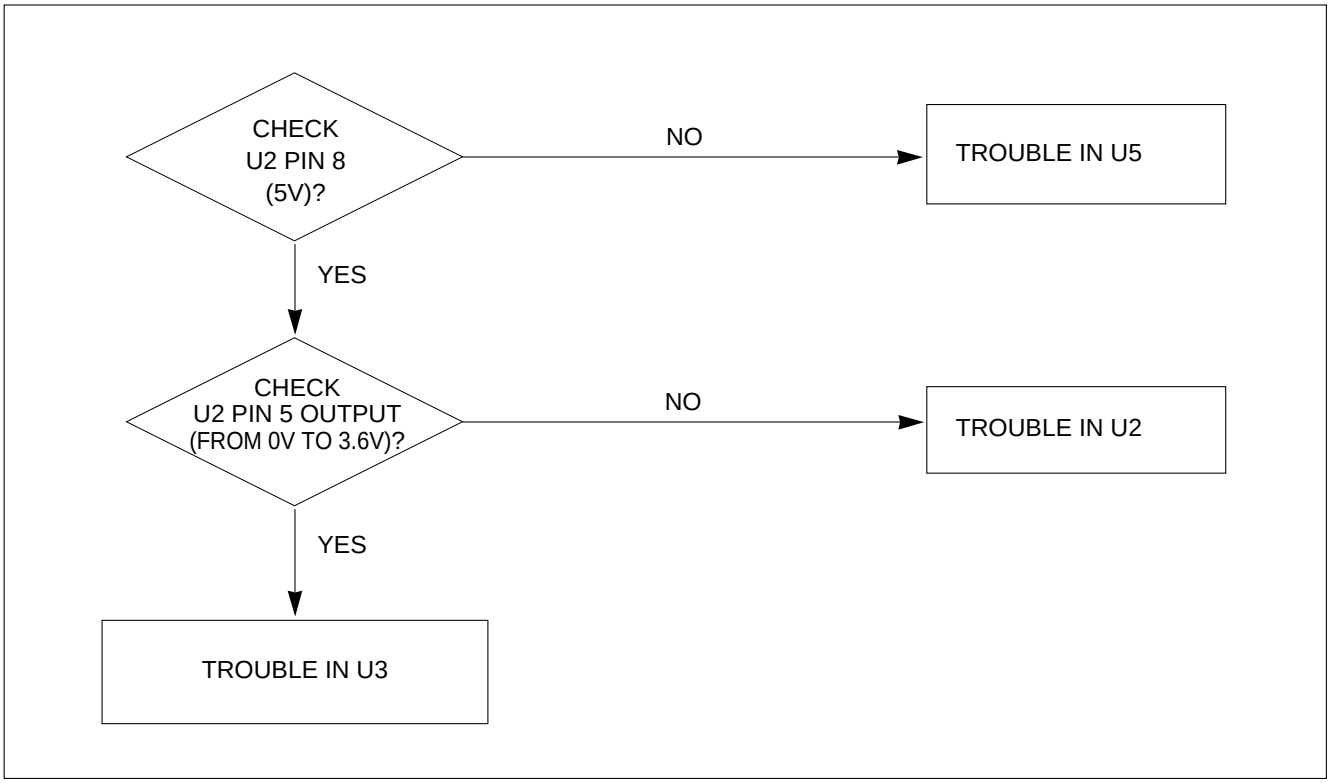
4. TROUBLE IN DPM



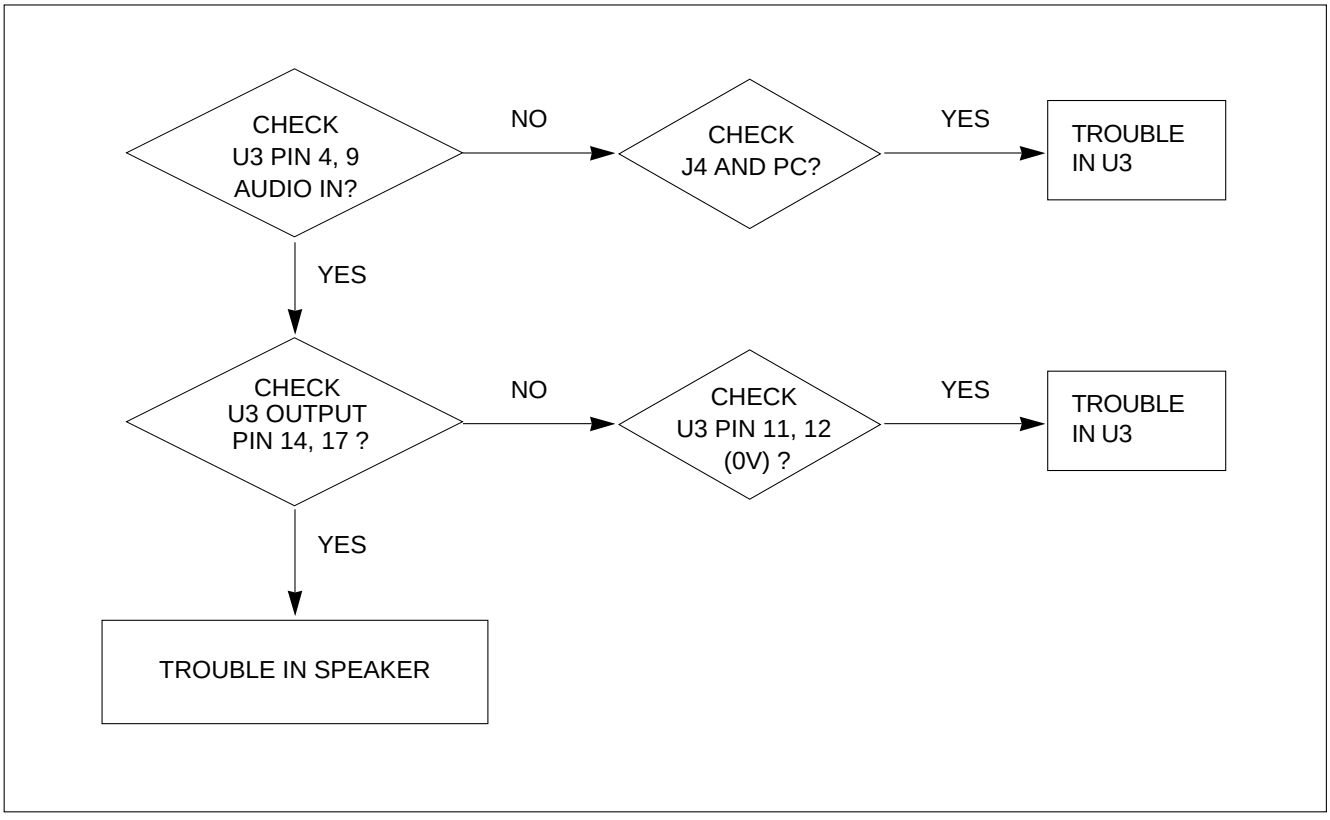
5. AUDIO NO POWER



6. NO VOLUME CONTROL

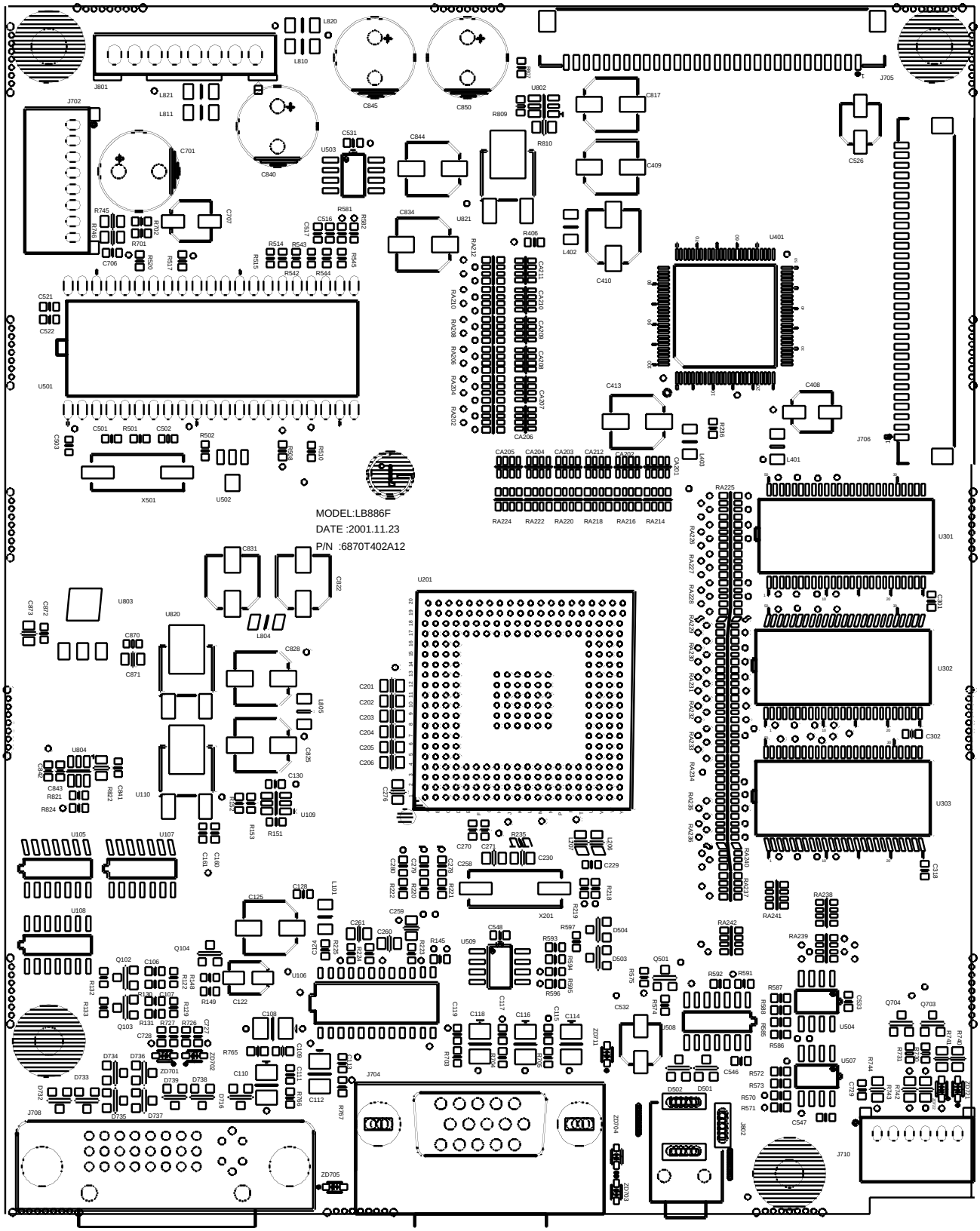


7. AUDIO NO OUTPUT

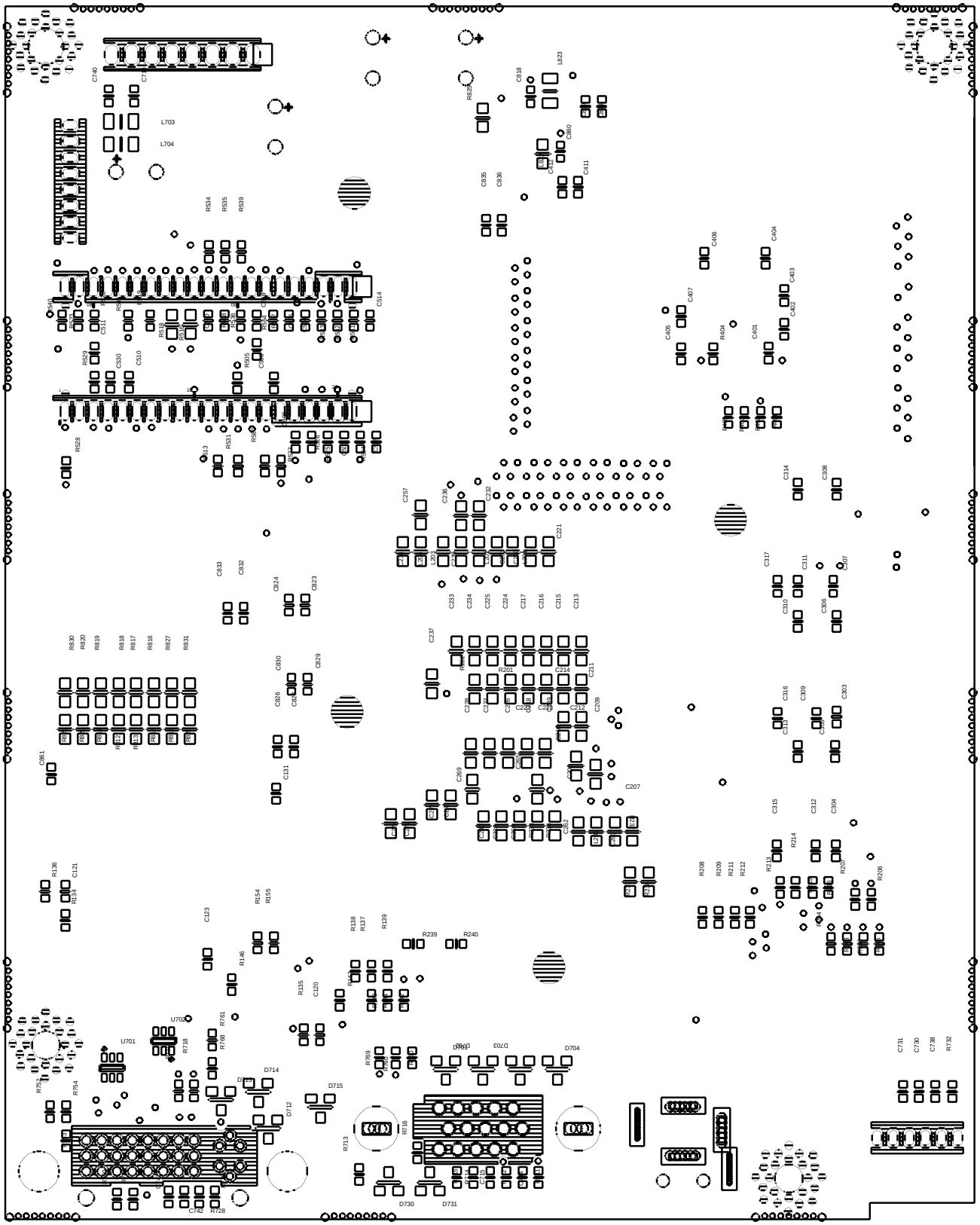


PRINTED CIRCUIT BOARD

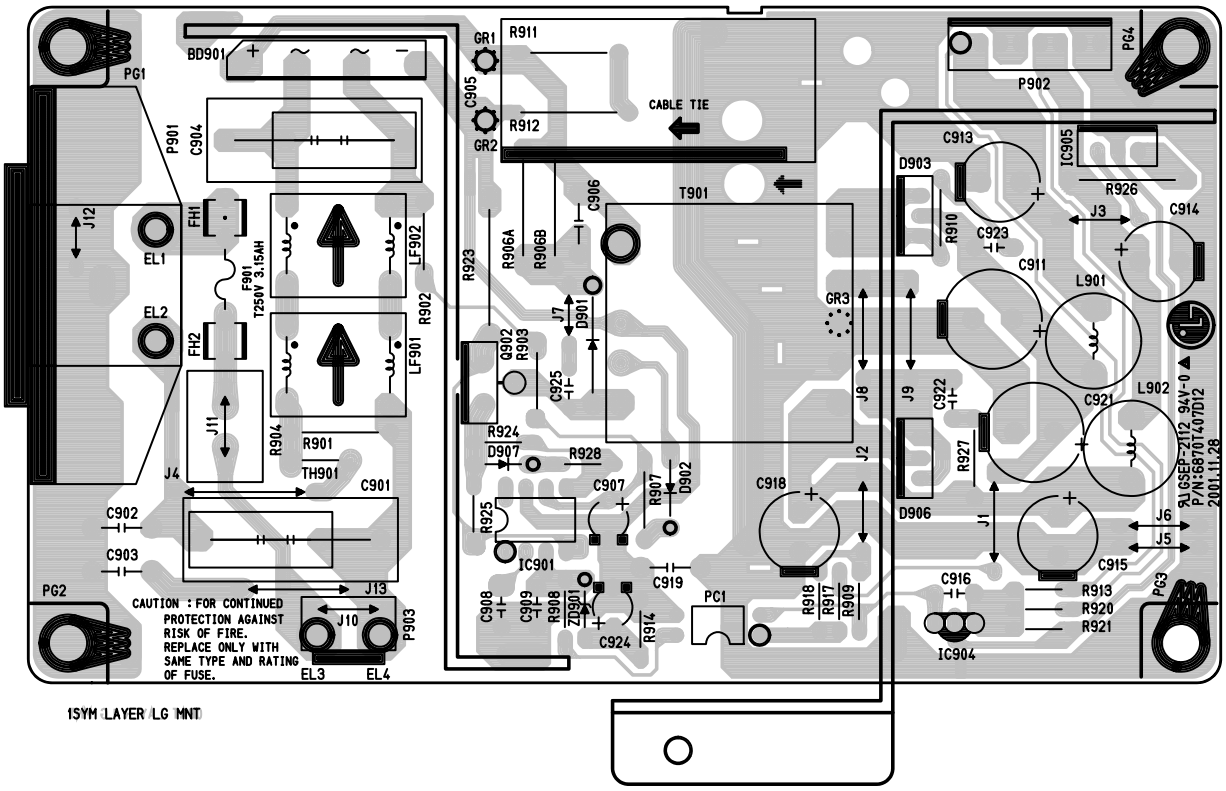
1. MAIN BOARD (Component Side)



2. MAIN BOARD (Solder Side)

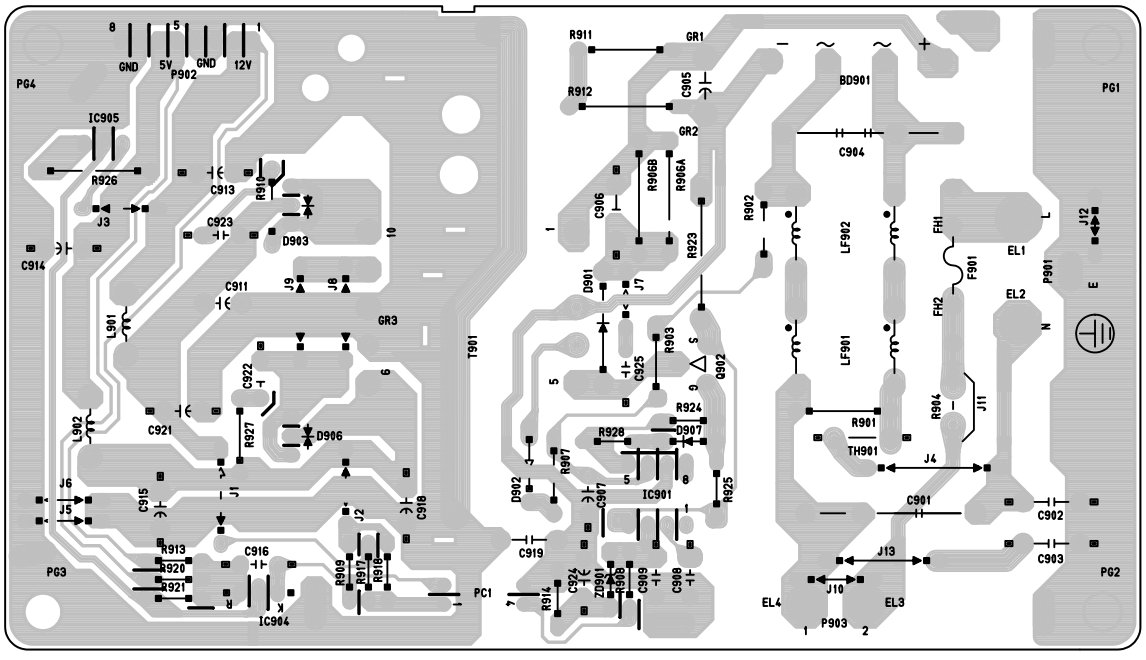


3. POWER BOARD (Component Side)



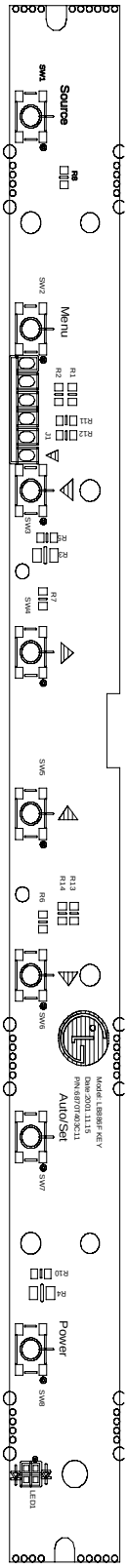
1SYM LAYER LG MNT

4. POWER BOARD (Solder Side)

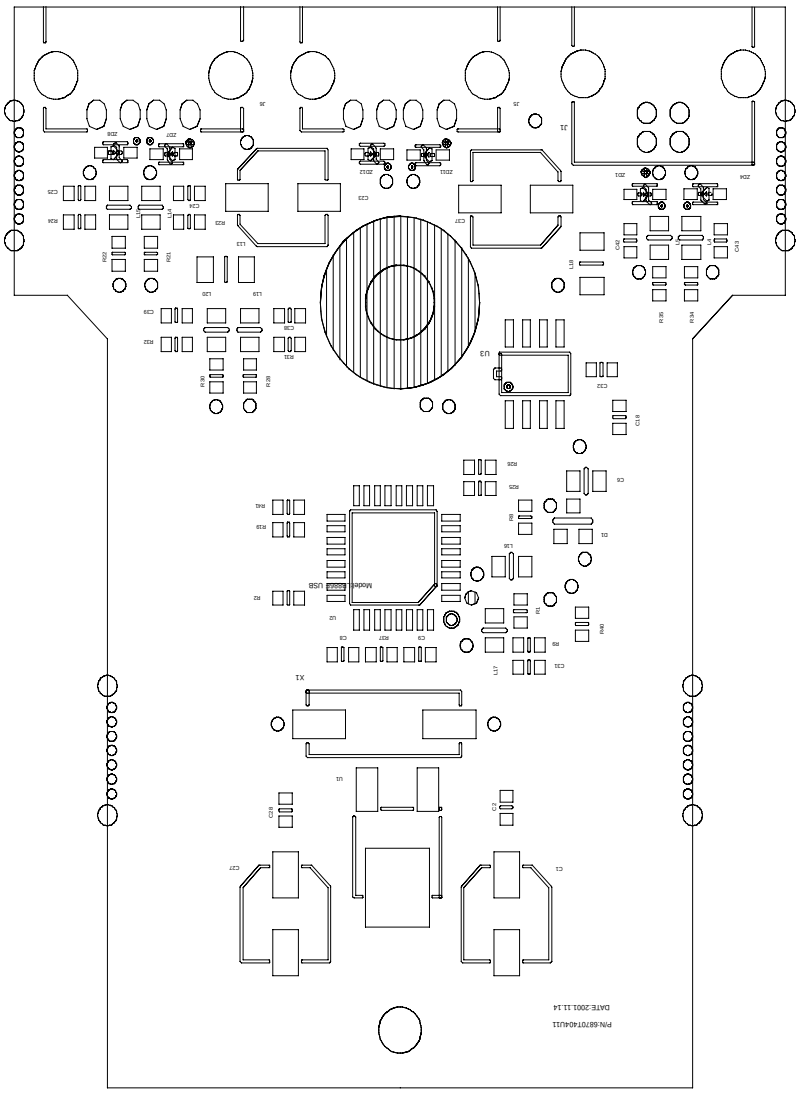


0SYM LAYER LG MNT

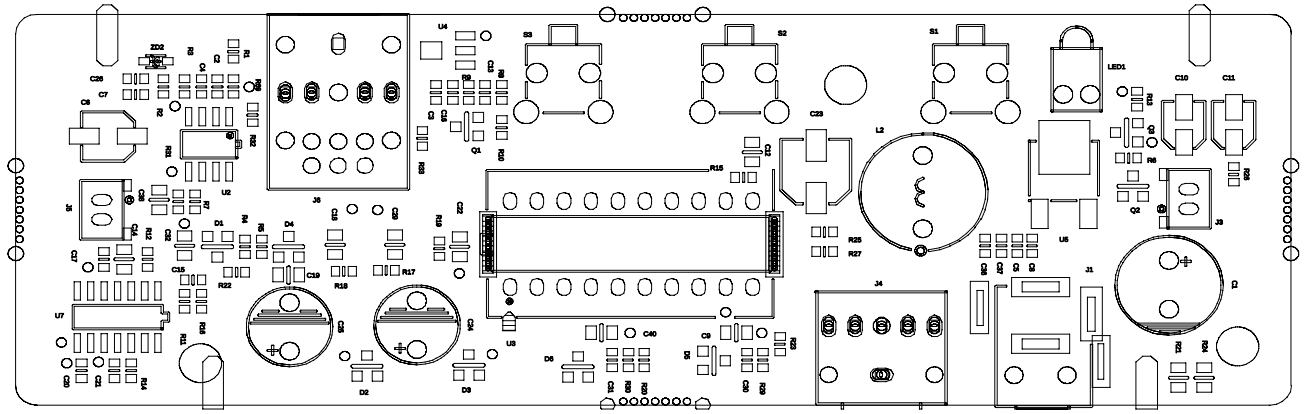
5. CONTROL BOARD



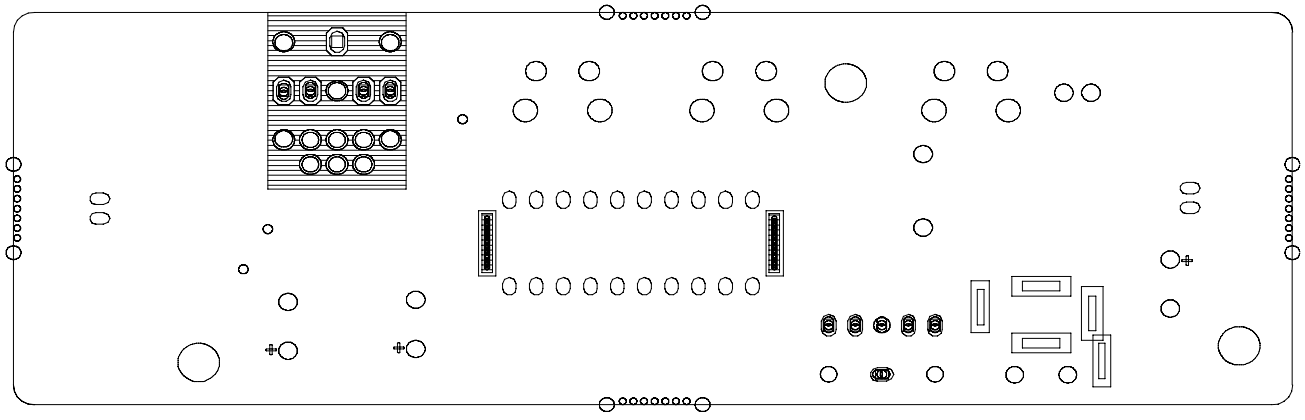
6.USB BOARD



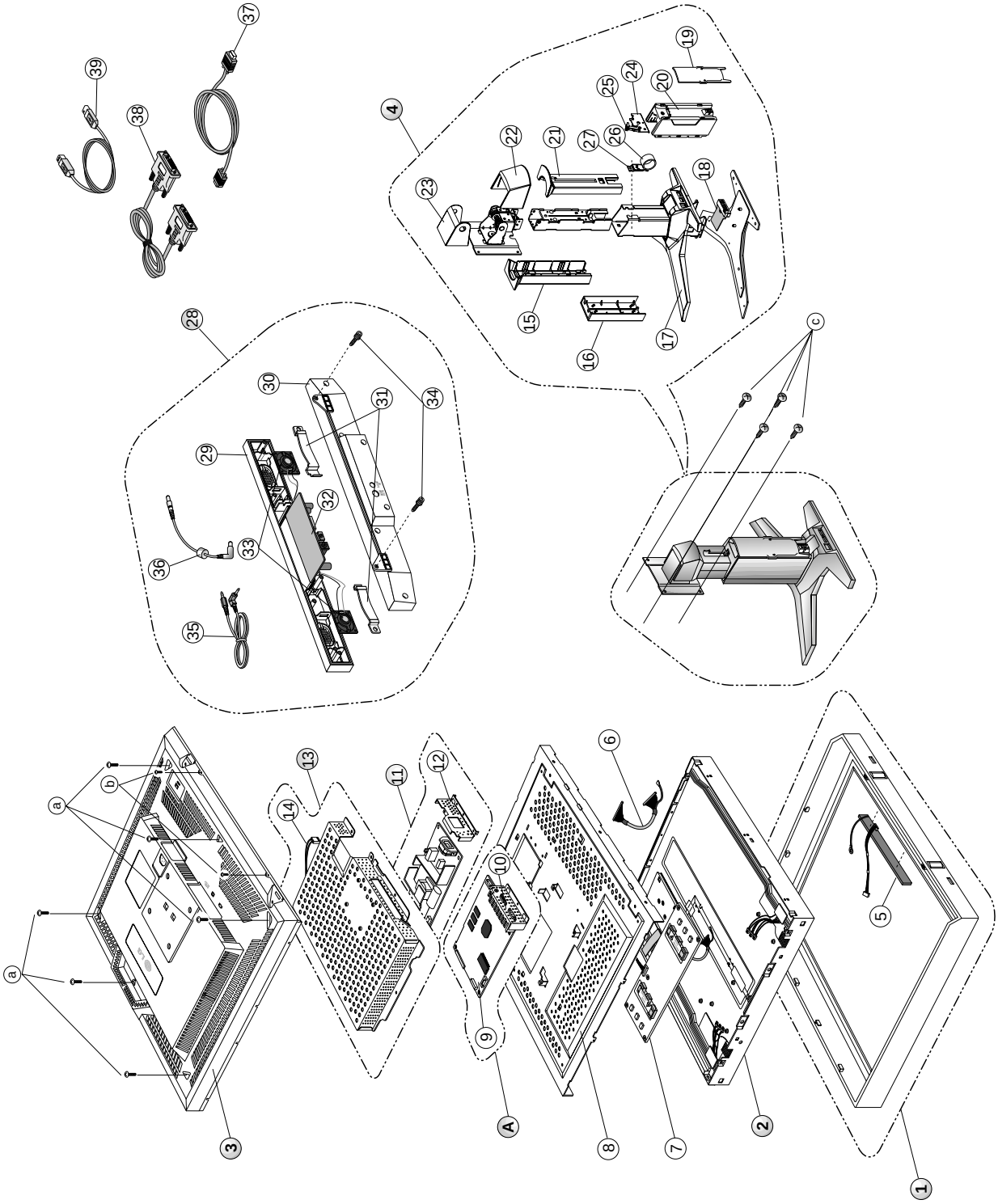
7. SPEAKER BOARD (Component Side)



8. SPEAKER BOARD (Solder Side)



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

*** Note:** Safety mark ⚠

Ref. No.	Part No.		Description
1	3091TKL032C	⚠	CABINET ASSEMBLY, LB886F BRAND - SPK
2	6304FLP023A		LCD(LIQUID CRYSTAL DISPLAY), "LM181E05-C4M1 LG PHILPS TFT COLOR 18.1" SXGA
3	3809TKL022D	⚠	BACK COVER ASSEMBLY, LB886F . EQ22 COLOR
4	3043TKK086B		TILT SWIVEL ASSEMBLY , LB886F, HIPS-60HR
5	6871TST273A		PWB(PCB) ASSEMBLY, SUB, LB886F CONTROL TOTAL BRAND CL-29
6	6631T11012P		CONNECTOR ASSEMBLY, 30P H-H 100MM UL20276 PANEL LINK LB886F
7	6633TZA008B	⚠	INVERTER ASSEMBLY, ALPS KUBNKM030A 6-LAMP LB886F/LI884E
8	4951TKS078B		METAL ASSEMBLY, FRAME MAIN - LB886F
9	6871TMT275B		PWB(PCB) ASSEMBLY,MAIN, LB886F ALLGS BRAND CL-29 TOTAL
10	4814TKK188A		SHIELD, INTERFACE 18.1" NARROW
11	6871TPT219B		PWB(PCB) ASSEMBLY, POWER, LB886F POWER TOTAL BRAND CL-29
12	4814TKK187A		SHIELD, REAR LB886F
13	4951TKK071F		METAL ASSEMBLY, REAR LB782F
14	6631T25005D	⚠	CONNECTOR ASSEMBLY, SWITCH(GY)+CONN.ASSYP H-W 180MM UL 1617 AWG 22
15	3550TKK220A		COVER, LB886F STAND TOP FRONT
16	3550TKK218B		COVER, LB886F STAND FRONT HIPS-60HR
17	3550TKK222B		COVER, LB886F BASE TOP HIPS-60HR
18	6871TUT015A		PWB(PCB) ASSEMBLY, USB, LB886F SUB TOTAL BRAND CL-29
19	3550TKK223B		COVER, LB886F PIECE CABLE, HIPS-60HR
20	3550TKK219B		COVER, LB886F STAND REAR, HIPS-60HR
21	3550TKK221A		COVER, LB886F STAND TOP REAR
22	3550TKK217B		COVER, LB886F HINGE REAR, HIPS-60HR
23	3550TKK216B		COVER, LB886F HINGE TOP, HIPS-60HR
24	4950TKK346A		METAL, PLATE STOPPER, LB886F
25	3550TKK224A		COVER, PIECE LOCK
26	4970TKK008A		SPRING, COIL, PLATE NO DIM, FOR STAND T=0.45 LB886F
27	4950TKK345A		METAL, FIX SPRING, LB886F
28	3551TKS039A		COVER ASSEMBLY, LB886F SPEAKER - BRAND(ABS-EQ22)
29	3550TKS057B		COVER, LB886F SPEAKER -FRONT(ABS-EQ22)
30	3550TKS058B		COVER, LB886F SPEAKER -BACK(ABS-EQ22)
31	4950TKK337A		METAL, FIX SPEAKER (LM568E)
32	6871TST288A		PWB(PCB) ASSEMBLY, SUB, LB886F SOUND TOTAL BRAND CL-29
33	6401TZZ027A		SPEAKER ASSEMBLY, LB886F -18" LCD
34	1SZZTMT002B		SCREW, DRAWING, D3.0 L13.0 SUS27/FN LB782F(BRAND)
35	6852TAZ006G		CORD, A/V, A/V KHC-LG-3-0008 UL 2851 #28 1560MM GRAY(85964) K
36	6852TAZ004J		CORD, LINE, DC CABLE UNIXTAR 160 GRAY LB886F,ANGLE TYPE
37	6850TD9001B		CABLE, D-SUB, UL 2990-9C DT 1870MM GRAY(85964) LB886F WITH S/R
38	6866TDV004H		CABLE, DVI, UL20276 DT 2000MM GRAY(85964) LB886F DM
39	6866TDU002D		SIGNAL CABLE, UL20276SB10P+2C AWG#30 DT 1870MM GRAY(85964) BRAND
A	3313TL8014B		MAIN TOTAL ASSEMBLY, LB886F BRAND CL-29
a	1SZZTER001F		SCREW, DRAWING, D3.0 L10.0 (MSWR/FZMCW1)
b	332-113N		SCREW, PVP+3*12(MSWR/FZMW)
c	332-105F		SCREW, PVS+4*10(MSWR/FZMW)

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. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C106	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C107	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C108	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C109	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C110	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C111	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C112	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C113	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C114	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C115	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C116	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C117	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C118	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C119	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C120	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C122	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C123	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C124	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C125	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C128	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C130	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C131	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C160	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C161	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C201	0CH3103K516	10000PF 50V K B 2012 R/TP
		C202	0CH3103K516	10000PF 50V K B 2012 R/TP
		C203	0CH3103K516	10000PF 50V K B 2012 R/TP
		C204	0CH3103K516	10000PF 50V K B 2012 R/TP
		C205	0CH3103K516	10000PF 50V K B 2012 R/TP
		C206	0CH3103K516	10000PF 50V K B 2012 R/TP
		C207	0CH3103K516	10000PF 50V K B 2012 R/TP
		C208	0CH3103K516	10000PF 50V K B 2012 R/TP
		C209	0CH3103K516	10000PF 50V K B 2012 R/TP
		C210	0CH3103K516	10000PF 50V K B 2012 R/TP
		C211	0CH3103K516	10000PF 50V K B 2012 R/TP
		C212	0CH3103K516	10000PF 50V K B 2012 R/TP
		C213	0CH3103K516	10000PF 50V K B 2012 R/TP
		C214	0CH3103K516	10000PF 50V K B 2012 R/TP
		C215	0CH3103K516	10000PF 50V K B 2012 R/TP
		C216	0CH3103K516	10000PF 50V K B 2012 R/TP
		C217	0CH3103K516	10000PF 50V K B 2012 R/TP
		C218	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C219	0CH3103K516	10000PF 50V K B 2012 R/TP
		C220	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C221	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C222	0CH3103K516	10000PF 50V K B 2012 R/TP
		C223	0CH3103K516	10000PF 50V K B 2012 R/TP
		C224	0CH3103K516	10000PF 50V K B 2012 R/TP
		C225	0CH3103K516	10000PF 50V K B 2012 R/TP
		C226	0CH3103K516	10000PF 50V K B 2012 R/TP
		C227	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C228	0CH3103K516	10000PF 50V K B 2012 R/TP

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C229	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C230	0CH6150K416	15PF 50V J NP0 2012 R/TP
		C231	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C232	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C233	0CH3103K516	10000PF 50V K B 2012 R/TP
		C234	0CH3103K516	10000PF 50V K B 2012 R/TP
		C235	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C236	0CH6680K416	68PF 50V J NP0 2012 R/TP
		C237	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C258	0CH6150K416	15PF 50V J NP0 2012 R/TP
		C259	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/T
		C260	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/T
		C261	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/T
		C262	0CH6330K416	33PF 50V J NP0 2012 R/TP
		C264	0CH6221K416	220PF 50V J NP0 2012 R/TP
		C265	0CH6470K416	47PF 50V J NP0 2012 R/TP
		C269	0CH3103K516	10000PF 50V K B 2012 R/TP
		C270	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C271	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C272	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C273	0CH3103K516	10000PF 50V K B 2012 R/TP
		C274	0CH3103K516	10000PF 50V K B 2012 R/TP
		C275	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C276	0CH3103K516	10000PF 50V K B 2012 R/TP
		C278	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C279	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C280	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C301	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C302	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C303	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C304	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C305	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C306	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C307	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C308	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C309	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C310	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C311	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C312	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C313	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C314	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C315	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C316	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C317	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C318	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C401	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C402	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C403	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C404	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C405	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C406	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C407	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C408	0CH8226F691	22UF 16V M 105STD (CYL) R/TP
		C409	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C410	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C411	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C412	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C413	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C501	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C502	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C503	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C504	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C505	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C506	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C507	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C508	0CK222CK51A	2200PF 1608 50V 10% R/TP B(Y
		C510	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C511	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C513	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C514	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C515	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C516	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C517	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C519	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C520	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C521	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C522	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C526	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C531	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C532	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C533	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C548	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C701	0CE477EH618	470UF KMG 25V M FL TP 5
		C706	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C707	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C710	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C714	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C715	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C727	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C728	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C729	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C730	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C731	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C738	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C740	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C817	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C818	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C819	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C820	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C822	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C823	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C824	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C825	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C826	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C827	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C828	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C829	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C830	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C831	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C832	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C833	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C834	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C835	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C836	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C840	0CE477EH618	470UF KMG 25V M FL TP 5
		C841	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C842	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C843	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C844	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C845	0CE477EH618	470UF KMG 25V M FL TP 5
		C850	0CE477EH618	470UF KMG 25V M FL TP 5
		C860	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C861	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C870	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C871	0CH6101K416	100PF 50V J NP0 2012 R/TP
		C872	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C873	0CH6101K416	100PF 50V J NP0 2012 R/TP
		DIODEs		
		D501	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D502	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D503	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D504	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D701	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D702	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D703	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D704	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D712	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D713	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D714	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D715	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D716	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D730	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D731	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D732	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D733	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D734	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D735	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D736	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D737	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D738	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D739	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D903	0DRIR00011B	16CTQ100 I.R ST TO220 100V 1
		D906	0DRIR00021A	30CTQ060 I.R ST TO220 60V 30
		ZD701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD702	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD703	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD704	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD705	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD711	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD721	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD722	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ICs		
		U105	0IMO741420B	MC74HCT14ADR2 14P,SOIC TP LE
		U106	0IRH765700B	BA7657F 24P,SOP TP INPUT SIG
		U107	0ITI748600N	SN74F86DR 14SOIC TP 2-INPUT
		U108	0IPH740800H	74F08D 14P,SOIC TP QUAD 2-IN
		U109	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-
		U110	0ISS780500H	KA78M05-R 3P,D-PAK TP 5V 0.5
		U201	0IPRPGN001A	GM5020 GENESIS 292P,PBGA TRA
		U301	0IEB121616A	M12L16161A-7T 50P TSOP ST 16
		U302	0IEB121616A	M12L16161A-7T 50P TSOP ST 16
		U303	0IEB121616A	M12L16161A-7T 50P TSOP ST 16
		U401	0ILNRTH001A	THC63LVD823 THINE MICROSYSTE
		U501	0IZZTSZ160A	42P BK

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		U502	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		U503	0ICS240813B	CAT24WC08J-TE13 8P,SOIC R/TP
		U504	0ISS524202A	S524C20D21-SCT0 8SOP-225 R/T
		U509	0ISS524202A	S524C20D21-SCT0 8SOP-225 R/T
		U701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		U802	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-
		U803	0IPMGFA003B	RC1117S-2.5 FAIRCHILD SOT-22
		U804	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-
		U820	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U821	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
	COILs & COREs			
		L101	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L201	0RH0562D622	56 1/10W 5 D.R/TP
		L202	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L203	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L204	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L205	6210TCE001R	HB-1S2012-400JT CERATECH 201
		L206	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L207	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L401	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L402	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L403	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L703	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L704	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L804	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L805	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L810	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L811	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L820	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L821	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L822	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L823	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
	TRANSISTOR			
		Q102	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q103	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP
		Q104	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q703	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q704	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q902	0TFFN10004A	INFINEON SPP11N60C2 ST TO220
	RESISTORs			
		R122	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R129	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R130	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R131	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R132	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R133	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R134	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R135	0RJ4703D677	470K OHM 1/10 W 5% 1608 R/TP
		R139	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R140	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R141	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R142	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R145	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R146	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R147	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R149	0RJ2000D677	200 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R150	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R151	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R153	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R154	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R155	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R201	0RH2001D622	2.0K 1/10W 5 D.R/TP
		R202	0RH2001D622	2.0K 1/10W 5 D.R/TP
		R203	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R204	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R206	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R207	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R209	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R210	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R211	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R212	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R213	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R214	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R215	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R216	0RJ1002D677	10K 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	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R221	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R222	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R223	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R224	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R225	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R233	0RH0222D622	22 1/10W 5 D.R/TP
		R234	0RH0222D622	22 1/10W 5 D.R/TP
		R235	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R236	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R237	0RH0000D622	0 1/10W P-TYPE TAPPING
		R238	0RH0000D622	0 1/10W P-TYPE TAPPING
		R239	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R240	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R401	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R402	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R404	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R405	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R406	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R501	0RJ1004D677	1000000 OHM 1/10 W 5% 1608 R
		R502	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R505	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R508	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R511	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R512	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R513	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R514	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R515	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R516	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R517	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R518	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R519	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R522	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R523	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R524	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R525	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R526	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R527	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R528	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R529	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R531	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R534	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R535	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R536	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R537	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R538	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R539	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R540	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R541	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R542	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R543	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R544	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R545	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R564	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R580	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R581	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R582	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R585	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R586	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R587	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R588	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R591	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R592	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R593	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R594	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R595	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R596	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R597	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R701	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R703	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R704	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R705	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R711	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R712	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R713	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R714	0RJ1801D677	1.8K OHM 1/10 W 5% 1608 R/TP
		R715	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R716	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R718	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R719	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R726	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R727	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R729	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R730	0RJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R731	0RJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R740	0RH0000D622	0 1/10W P-TYPE TAPPING
		R741	0RH0000D622	0 1/10W P-TYPE TAPPING
		R742	0RH0000D622	0 1/10W P-TYPE TAPPING
		R743	0RH0000D622	0 1/10W P-TYPE TAPPING
		R744	0RH0000D622	0 1/10W P-TYPE TAPPING
		R745	0RH0000D622	0 1/10W P-TYPE TAPPING
		R746	0RH0000D622	0 1/10W P-TYPE TAPPING
		R752	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R753	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R760	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R761	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R765	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R766	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R767	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R768	0RJ1801D677	1.8K OHM 1/10 W 5% 1608 R/TP
		R769	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R807	0RH0000D622	0 1/10W P-TYPE TAPPING
		R809	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R810	0RH5600D622	560 1/10W 5 D.R/TP
		R811	0RH0332D622	33 1/10W 5 D.R/TP
		R812	0RH0332D622	33 1/10W 5 D.R/TP
		R813	0RH0332D622	33 1/10W 5 D.R/TP
		R814	0RH0332D622	33 1/10W 5 D.R/TP
		R815	0RH0332D622	33 1/10W 5 D.R/TP
		R816	0RH0332D622	33 1/10W 5 D.R/TP
		R817	0RH0332D622	33 1/10W 5 D.R/TP
		R818	0RH0332D622	33 1/10W 5 D.R/TP
		R819	0RH0332D622	33 1/10W 5 D.R/TP
		R820	0RH0332D622	33 1/10W 5 D.R/TP
		R821	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R822	0RH5600D622	560 1/10W 5 D.R/TP
		R824	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R826	0RH0332D622	33 1/10W 5 D.R/TP
		R827	0RH0332D622	33 1/10W 5 D.R/TP
		R828	0RH0332D622	33 1/10W 5 D.R/TP
		R829	0RH0332D622	33 1/10W 5 D.R/TP
		R830	0RH0332D622	33 1/10W 5 D.R/TP
		RA202	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA204	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA206	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA208	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA210	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA212	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA214	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA216	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA218	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA220	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA222	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA224	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA225	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA226	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA227	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA228	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA229	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA230	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA231	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA232	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA233	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA234	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA235	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA236	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA237	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA238	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA239	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA240	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA241	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		RA242	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP
		OTHERs		
		J802	6612TAH003A	DJ-023 KSD R/ANGLE LB563B
		X201	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM
		X501	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM
		POWER BOARD		
⚠		C901	0CBZTBU002B	BULK PCX2 335 474K
⚠		C902	0CKZTBU003B	SC E 332M 12.5BW7 250V BK7.5

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
⚠		C903	0CKZTBU003B	SC E 332M 12.5BW7 250V BK7.5
⚠		C904	0CBZTBU002C	BULK PCX2 335 104M
		C905	0CZZTAB002C	KMF 18*40 SYE / SWE 400V 120
		C906	0CK10302945	0.01UF 2KV Z F TR
		C907	0CE476EK638	47UF KMG 50V M FM5 TP 5
		C908	0CQ2721N419	2700PF 100V J PE NI TP
		C909	0CK1020K515	1000PF 50V K B TR
		C911	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C913	0CE108BF630	1000UF KME 16V M FM5 BULK
		C914	0CE228ED630	2200UF KMG,RD 10V 20% BULK F
		C915	0CE228ED630	2200UF KMG,RD 10V 20% BULK F
		C916	181-288L	MKT 100V 823JTR PHS26823
		C918	0CE228ED630	2200UF KMG,RD 10V 20% BULK F
		C919	0CKZTBU003B	SC E 332M 12.5BW7 250V BK7.5
		C921	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C922	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 10
		C923	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 10
		C924	0CE336BH638	33UF KME 25V M FM5 TP5
		BD901	0DD360000DA	D3SBA60 BK SHINDENGEN 600V
		D901	0DD400709CB	UF4007 TP G.I DO204AL 1000V
		D902	0DR400409AB	UF4004 TP G.I DO204AL 400V 1
		D907	0DS113309AA	1SS133 TP ROHM KOREA DO34 90
		ZD901	0DZ470009BC	GDZ4.7B TP GRANDE DO34 0.5W
		IC901	0IPMGIH001A	ICE2AS01 INFINEON 8P,DIP ST
		IC904	0ISS431000A	KA431AZ (LM431AZ)
		IC905	0ISS780500F	KA7805
		L901	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB8
		L902	150-A85F	LX31 GET BAR CHOKE,3.3UH,LB8
⚠		LF901	6200TZZ001A	- GO BK L/FILTER,9MH,LB886F
⚠		LF902	6200TZZ001A	- GO BK L/FILTER,9MH,LB886F
		R901	0RD6803A609	680K OHM 1/2 W (7.0) 5% TA52
		R902	0RD3902A609	39K OHM 1/2 W (7.0) 5% TA52
		R903	0RD3902A609	39K OHM 1/2 W (7.0) 5% TA52
		R904	6322TA080AA	TP8D13 DAEWOO +/- 15% 110/2
		R906A	0RX5102J609	51KOHM 1 W 5% TA52
		R906B	0RX5102J609	51KOHM 1 W 5% TA52
		R907	0RD0102Q609	10 1/4W(3 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	0RN1102F409	11K 1/6W 1% TA52
		R914	0RD1002Q609	10K 1/4W(3 5% TA52
		R917	0RD1201Q609	1.20K 1/4W(3 5% TA52
		R918	0RD1000Q609	100 1/4W(3 5% TA52
		R920	0RN4702F409	47K 1/6W 1% TA52
		R921	0RN2701F409	2.70K 1/6W 1% TA52
		R923	0RB0330K607	0.33 OHM 2 W 5% TA62
		R924	0RD0752Q609	75 1/4W(3 5% TA52
		R925	0RD1002Q609	10K 1/4W(3 5% TA52
		R926	0RN0471H609	4.7 OHM 1/2 W 5% TA52
		R927	0RD0102A609	10 OHM 1/2 W (7.0) 5% TA52
		R928	0RD0202Q609	20 1/4W(3 5% TA52
⚠		F901	131-040C	3150MA 250V 5.2X20 CY/GL UL
		FH1	430-858C	AFC-520 BAE EUN TA
		FH2	430-858C	AFC-520 BAE EUN TA
⚠		P901	6620TKB002A	BAE EUN AC UNIVERSAL 3PIN BL
		P903	366-164A	YW396-03AV YEONHO 3P 3.96MM
⚠		PC1	0ILI817000E	LTV-817M B 4P BK PHOTO COUPL
⚠		T901	6170TMZ125B	EER3016 340UH V-10PIN LB886F
		TH901	971-0054	TIN 50MM TAPING

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
SOUND BOARD				
		C1	0CE108EF618	1000UF KMG 16V M FL TP 5
		C2	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C3	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C4	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C5	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C6	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C7	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C8	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C9	0CH3105F946	1UF 16V Z F 2012 R/TP
		C10	0CH8105K611	1UF 50V M 85STD(CYL) R/TP
		C11	0CH8105K611	1UF 50V M 85STD(CYL) R/TP
		C12	0CH3105F946	1UF 16V Z F 2012 R/TP
		C13	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C15	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C16	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C18	0CH3105F946	1UF 16V Z F 2012 R/TP
		C21	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C22	0CH3105F946	1UF 16V Z F 2012 R/TP
		C23	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C24	0CE477EF638	470UF KMG 16V M FM5 TP 5
		C25	0CE477EF638	470UF KMG 16V M FM5 TP 5
		C26	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C29	0CH3105F946	1UF 16V Z F 2012 R/TP
		C30	0CC121CK41A	120PF 1608 50V 5% R/TP NP0
		C31	0CC121CK41A	120PF 1608 50V 5% R/TP NP0
		C32	0CH3105F946	1UF 16V Z F 2012 R/TP
		C36	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C37	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C38	0CH3105F946	1UF 16V Z F 2012 R/TP
		C40	0CH3105F946	1UF 16V Z F 2012 R/TP
		D1	0DS181009AA	KDS181 TP KEC SOT-23 80V 3
		D2	0DS226009AA	KDS226 TP KEC SOT-23 80V 30
		D3	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
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		U2	0IXI951100A	X9511WS 8SOP TP PUSH BUTTON
		U3	0ISG749600A	TDA7496L 20DIP BK 2W+2W AMP
		U4	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOL
		U5	0ISS780500H	KA78M05-R 3P,D-PAK TP 5V 0.5
		U7	0IPH401300B	HEF4013BT 14SOP TP DUAL D FL
		Q1	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q2	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		Q3	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NP
		R1	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R2	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R3	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R4	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R5	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R6	0RJ2702D677	27K OHM 1/10 W 5% 1608 R/TP
		R7	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R8	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R9	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R10	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R11	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R12	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R13	0RH0000D622	0 1/10W P-TYPE TAPPING
		R14	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R15	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R16	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R17	0RJ0471D677	4.7 OHM 1/10 W 5% 1608 R/TP

DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R18	0RJ0471D677	4.7 OHM 1/10 W 5% 1608 R/TP
		R19	0RJ3002D677	30000 OHM 1/10 W 5% 1608 R/T
		R20	0RJ3602D677	36K OHM 1/10 W 5% 1608 R/TP
		R21	0RH0101D622	1.0 1/10W 5 TA
		R22	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R23	0RJ3602D677	36K OHM 1/10 W 5% 1608 R/TP
		R24	0RH0101D622	1.0 1/10W 5 TA
		R26	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/T
		R29	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R30	0RJ1502D677	15K 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
		R69	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		J1	6612TAH003A	DJ-023 KSD R/ANGLE LB563B
		J4	6612F00001C	DJ-S360LB KSD STERO R/A LIGH
		J6	6612F00005D	DJ-SW3P-LM KSD STERO R/A LIM
		L2	150-985J	DR10*12 2MH 0.28MM 220.5T R/
		LED1	0DLLT0130AA	LITEON LTL-4231HNBP BK GREEN
		S1	140-058B	EVQ PB2 05K MATUSHITA NON 12
		S2	140-058B	EVQ PB2 05K MATUSHITA NON 12
		S3	140-058B	EVQ PB2 05K MATUSHITA NON 12
		CONTROL BOARD		
		LED1	0DLRH0058AA	ROHM SML-521MYWT86 R/TP GREE
		R1	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R2	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R3	0RH8200D622	820 1/10W 5 D.R/TP
		R4	0RH8200D622	820 1/10W 5 D.R/TP
		R5	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R6	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R7	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R8	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R10	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R11	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R12	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R13	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R14	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		SW1	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW2	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW3	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW4	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW5	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW6	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW7	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		SW8	6600R000002	SKQRAAE010 J-ALPS 12V DC 50M
		USB BOARD		
		C1	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C2	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C6	0CH3105F946	1UF 16V Z F 2012 R/TP
		C8	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C9	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C18	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C23	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C24	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C25	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C27	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C28	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y
		C31	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C32	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

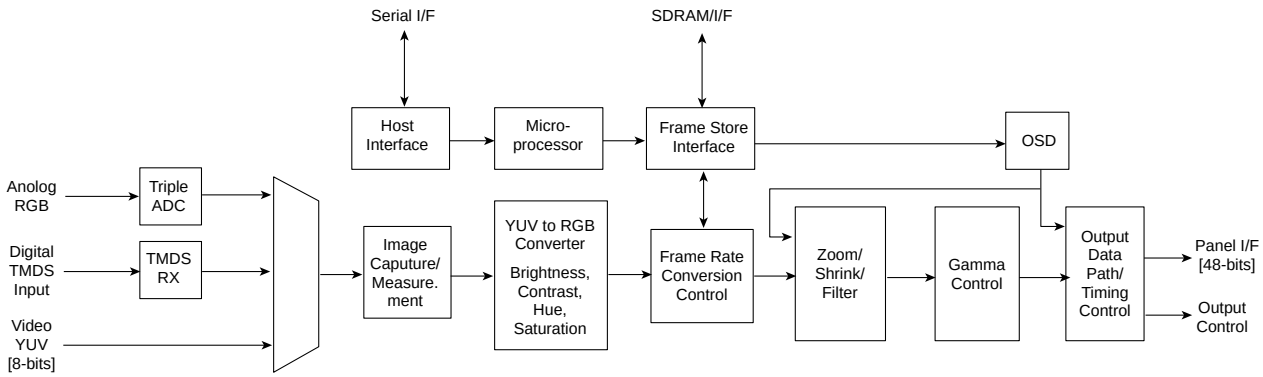
DATE: 2002. 02. 18.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C37	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C38	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C39	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		D1	0DS181009AA	KDS181 TP KEC SOT-23 80V 3
		ZD1	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD4	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
		ZD11	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD12	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		U1	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULAT
		U2	0IPRPTI007A	TUSB2036 TEXAS INSTRUMENT 32
		U3	0ITI204200B	TPS2042ADR TEXAS INSTRUMENT
		L4	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L5	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L13	6210TCE001B	HH-1H3216-500JT CERATEC 3216
		L14	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L15	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L16	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L17	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L18	6210TCE001B	HH-1H3216-500JT CERATEC 3216
		L19	6210TCE001P	HB-1S2012-121JT CERATECH 201
		L20	6210TCE001P	HB-1S2012-121JT CERATECH 201
		R1	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R2	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R8	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R9	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R19	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R21	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R22	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R23	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R24	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R25	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R26	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R28	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R30	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R31	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R32	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R34	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R35	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R37	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R40	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/TP
		R41	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		X1	6202TST001C	SX-1, SUNNY SMD, 6.0MHZ ,50P

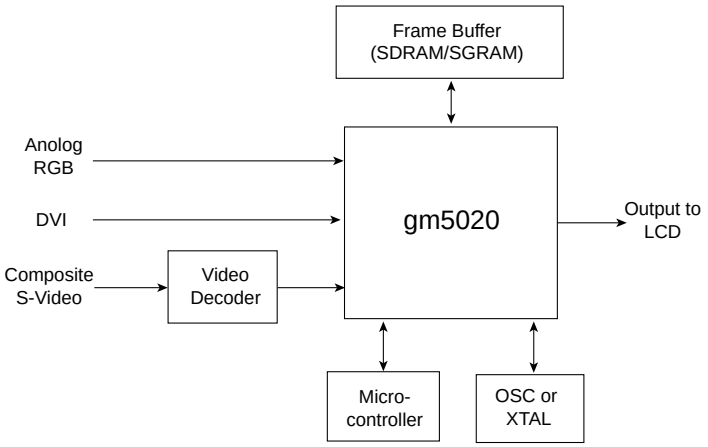
PIN CONFIGURATION

GM5020 GENESIS 292P

FUNCTIONAL BLOCK DIAGRAM



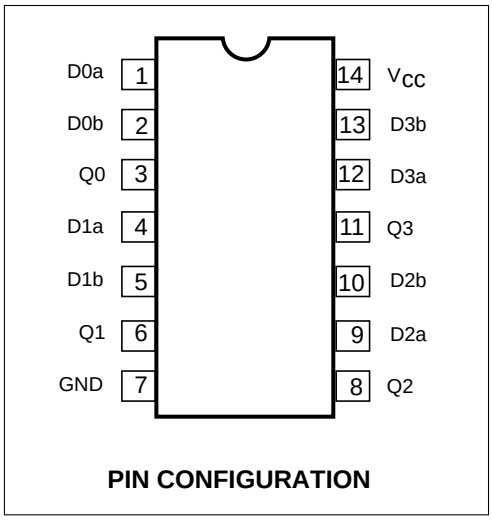
SYSTEM BLOCK DIAGRAM



74F08D 14P SOP TP QUAD 2-INPUT

PIN FUNCTION

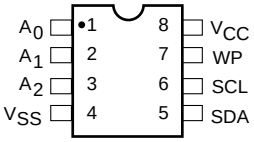
INPUT		OUTPUT
Dna	Dnb	Qn
L	L	L
L	H	L
H	L	L
H	H	H



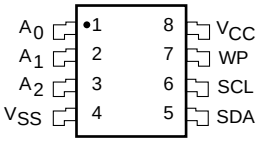
PIN CONFIGURATION

CAT24WC08J-TE13 8P

DIP Package(p)



SOIX Package(J)



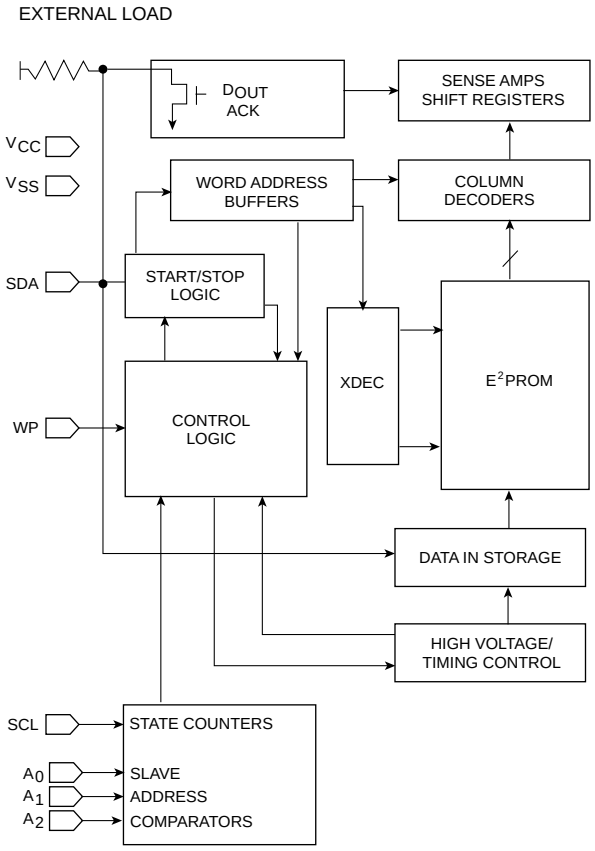
TSSOP Package(U)

PIN CONFIGURATION

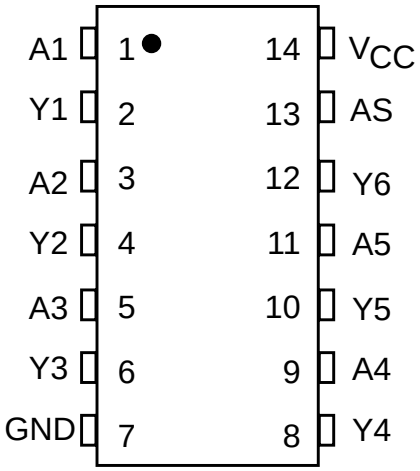
PIN FUNCTION

Pin Name	Function
A0, A1, A2	Device Adress Inputs
SDA	Serial Data/Address
SCL	Serial Clock
WP	Write Protect
Vcc	+1.8V to + 6.0V power Supply
Vss	Ground

BLOCK DIAGRAM

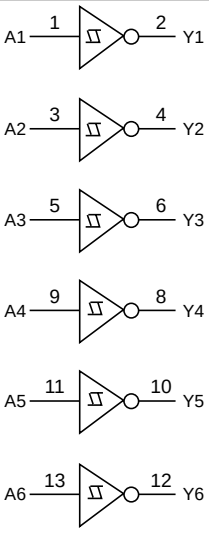


MC74HCT14ADR2 14P

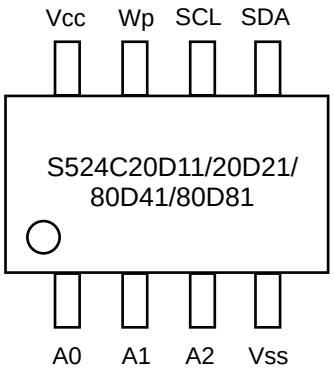


PIN CONFIGURATION

BLOCK DIAGRAM



PIN 14=V_{CC}
PIN 7=GND



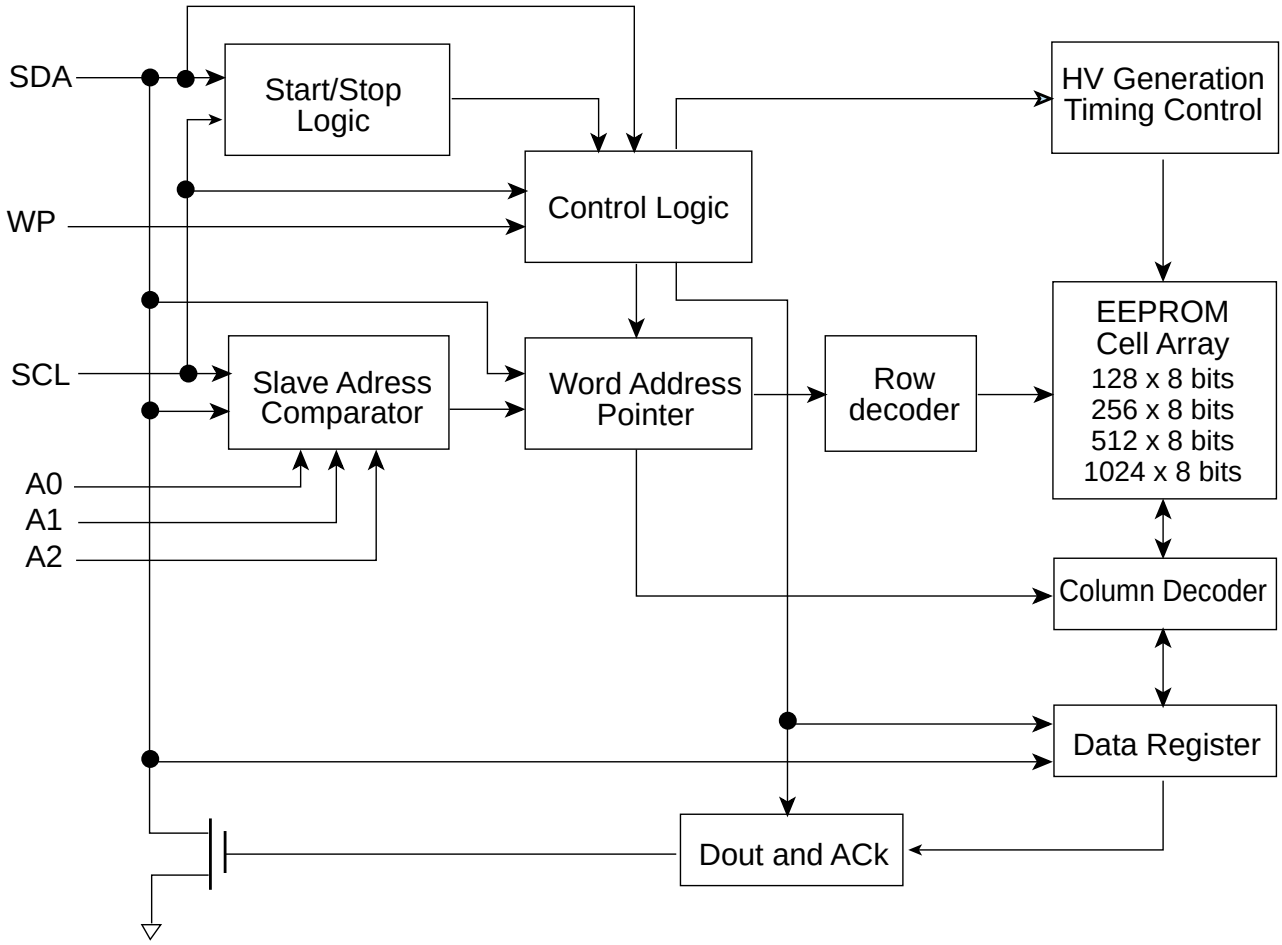
PIN CONFIGURATION

PIN FUNCTION

Name	Type	Description	Circuit Type
A0, A1, A2	Input	Input pins for device address selection. To configure a device adress, these pins should be connected to the Vcc of Vss of the device.	1
Vss	-	Ground pin.	-
SDA	I/O	Bi-directionl 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 Vcc. Typical values for this pull-up resistor are 4.7kΩ (100kHz)and 1kΩ(400kHz).	3
SCL	Input	Schmitt trigger input pin for serial clock input.	2
SDA	I/O	Input pin for hardware write protection control. If you tie this pin to Vcc, the write function is disabled to protect previously written data in the entire memory; if you tie it to Vss, the write function is enabled.	1
Vcc	-	Single power supply.	-

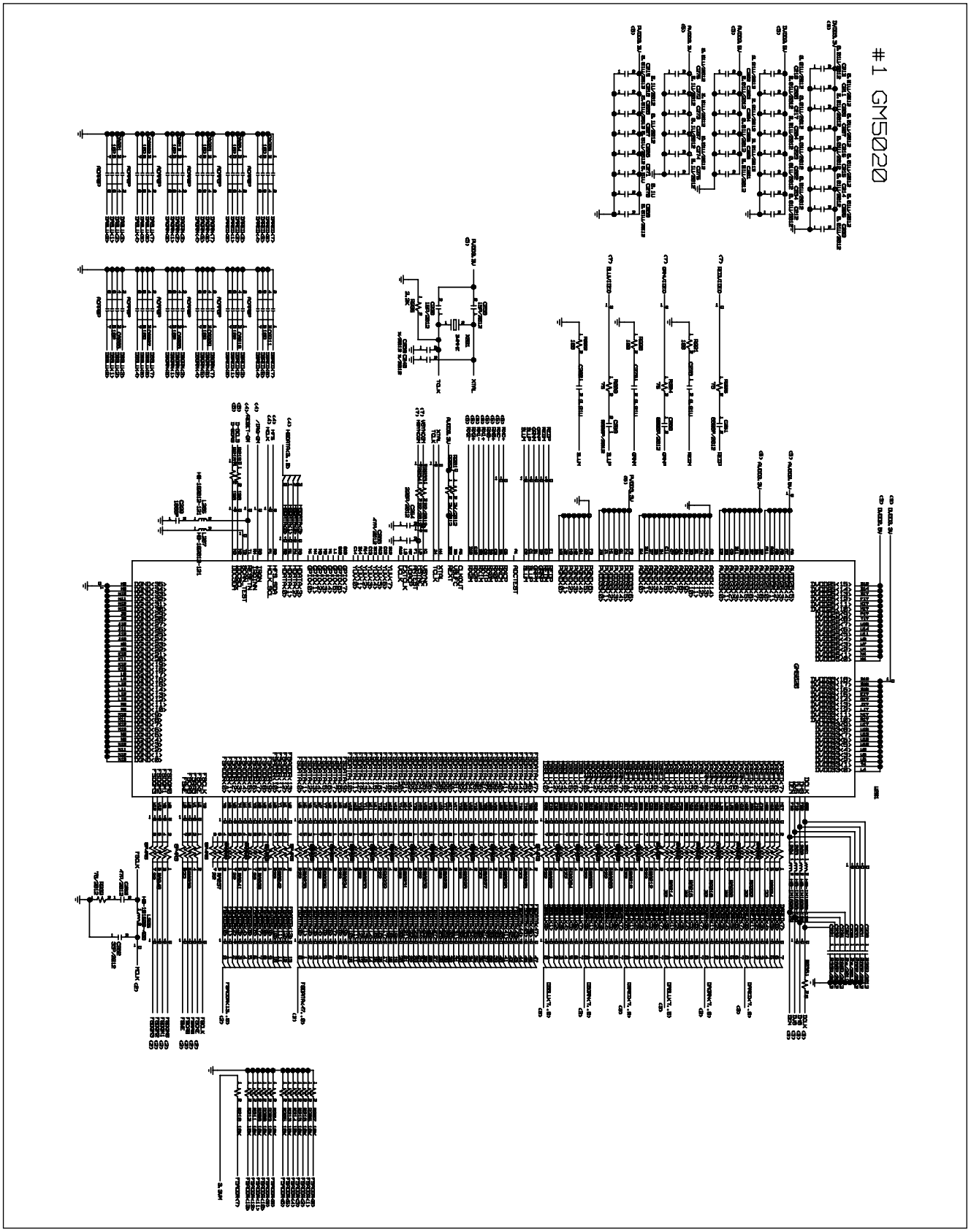
NOTE: See following page for diagrams of pin circuit types 1,2 and 3.

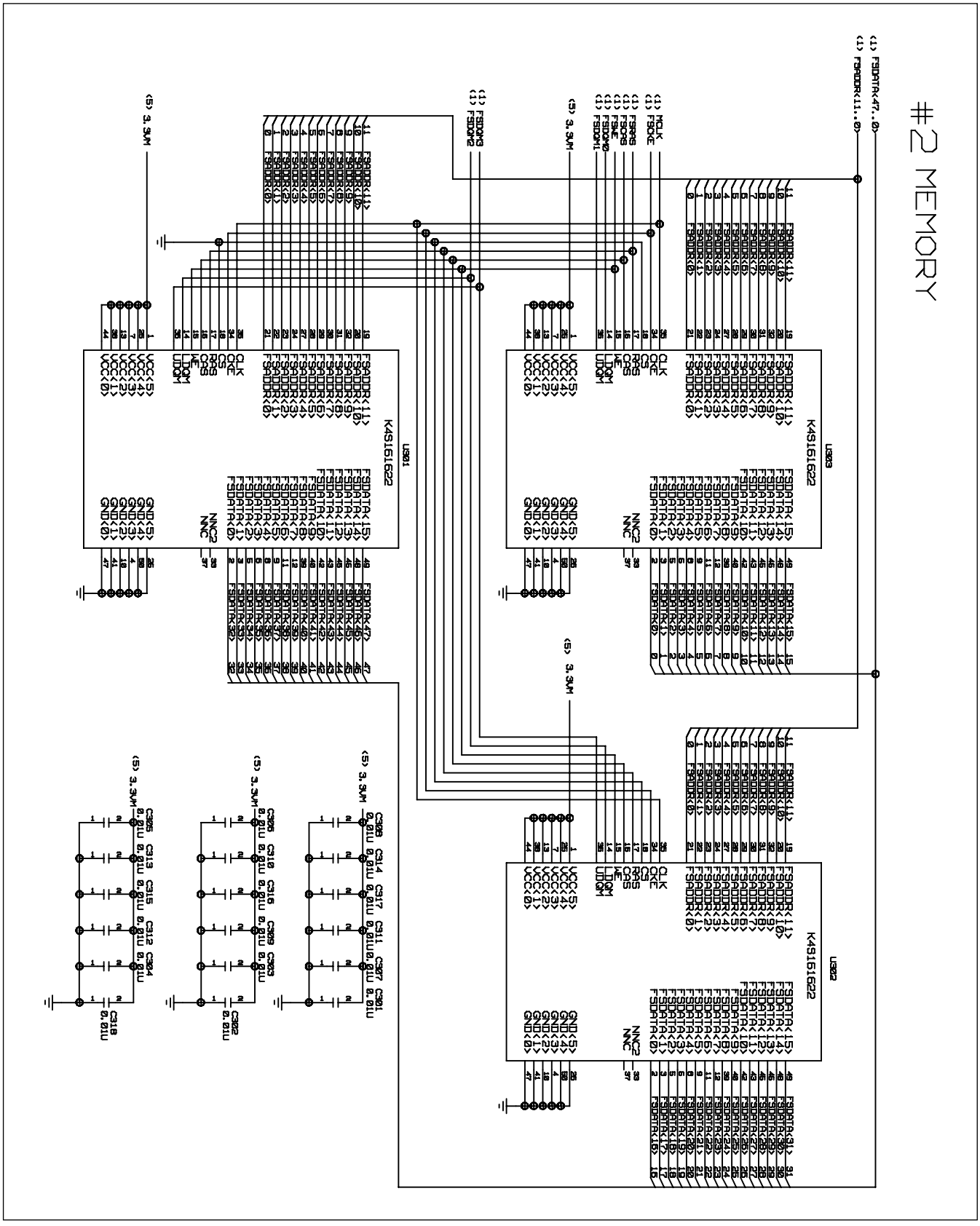
BLOCK DIAGRAM



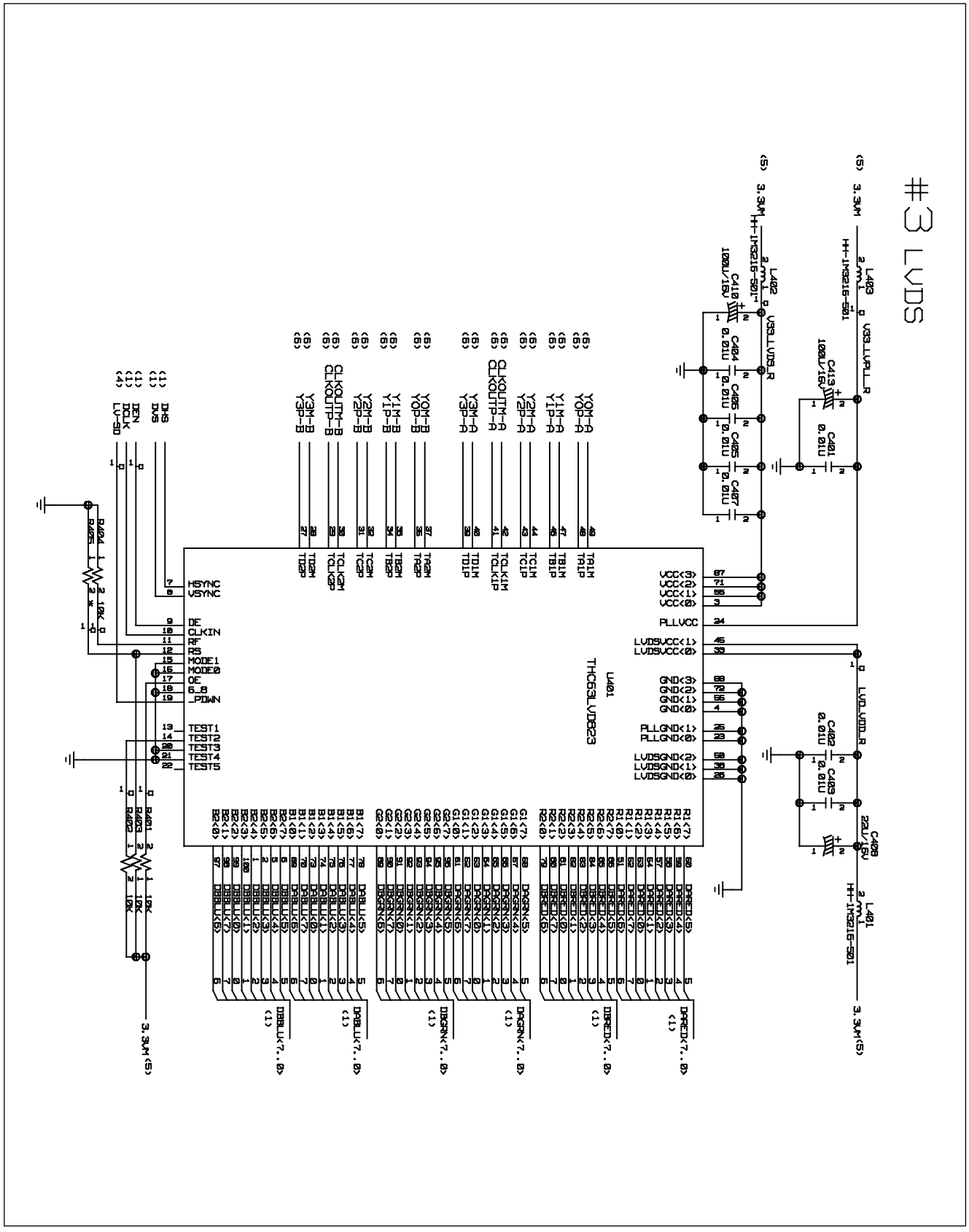
SCHEMATIC DIAGRAM

1. GM5020

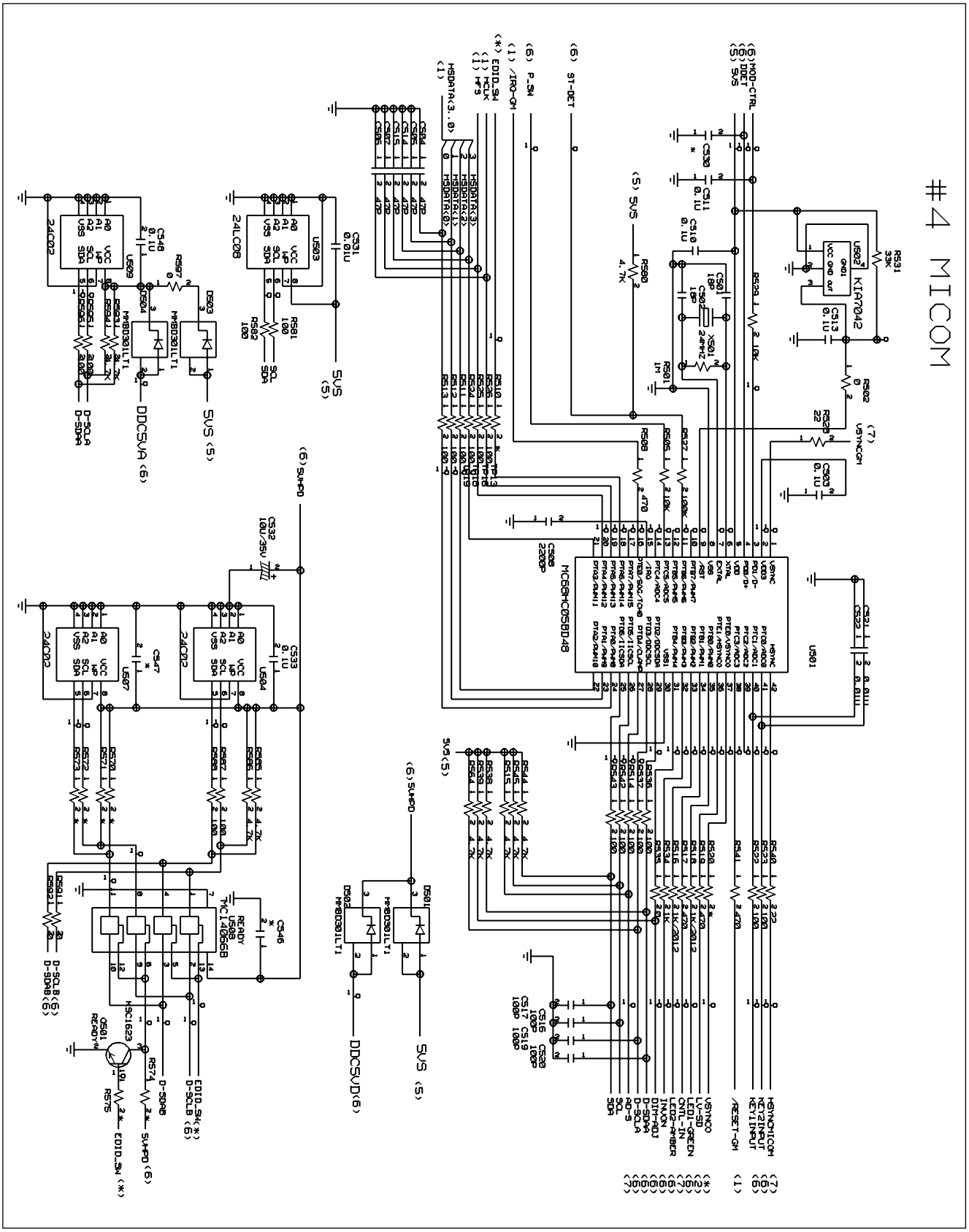



#2 MEMORY
K4S161622
U301
U302
U303
C301
C302
C303
C304
C305
C306
C307
C308
C309
C310
C311
C312
C313
C314
C315
C316
C317
C318
0.01U
3.3VM

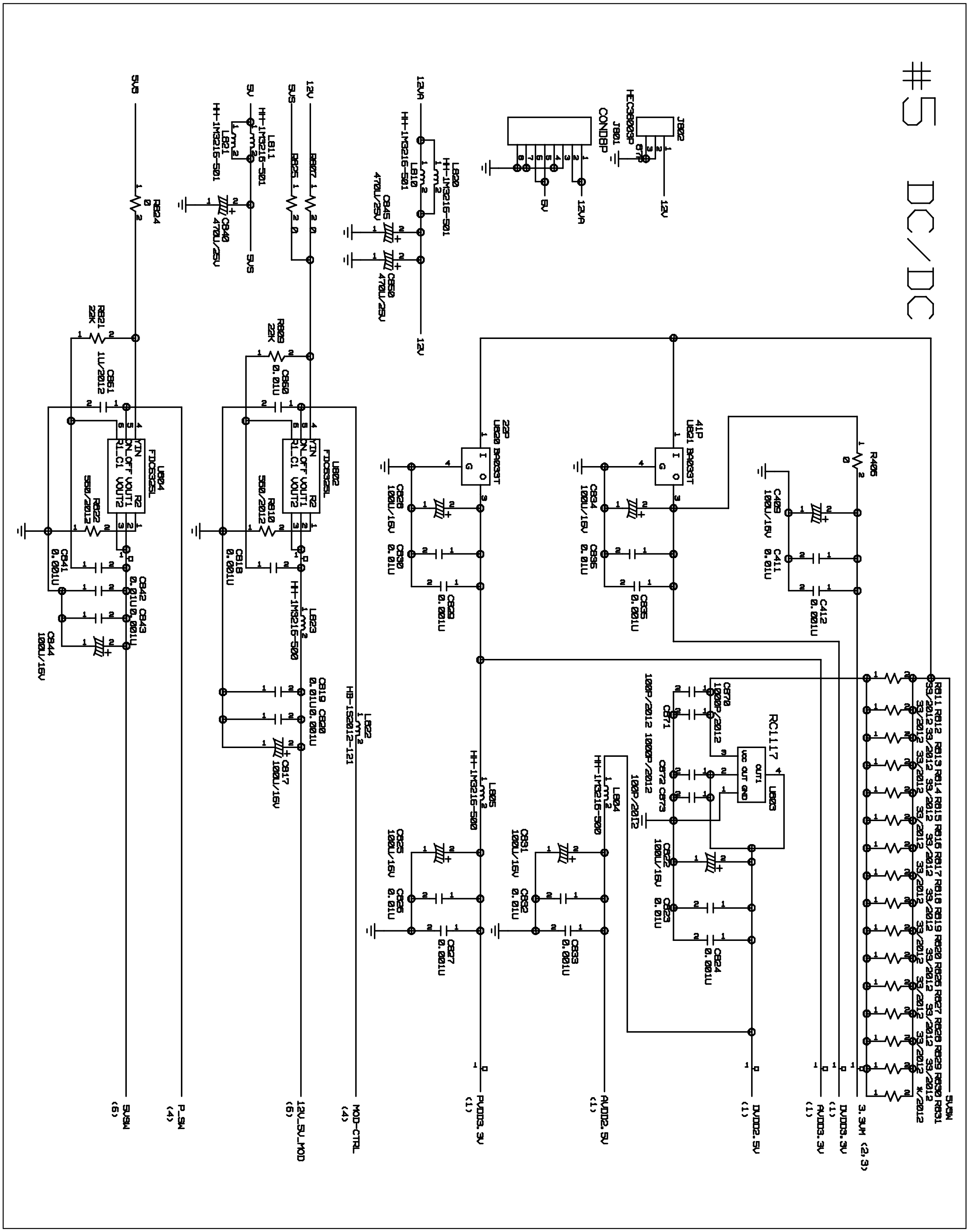
3. LVDS


#3 LVDS
U401
THC63LVDB23
L401
L402
L403
C401
C402
C403
C404
C405
C406
C407
C408
C410
C413
R401
R402
R403
R404
R405
V33LVPLL_R
V33LVDS_R
LVD_VDD_R
3.3VM
HSYNC
VSYNC
DE
CLKIN
R4
R5
MODE1
MODE0
OE
S_B
_PDWN
TEST1
TEST2
TEST3
TEST4
TEST5
PLLVCC
LVDSVCC<1>
LVDSVCC<0>
PLLGND<1>
PLLGND<0>
LVDSGND<2>
LVDSGND<1>
LVDSGND<0>
DHS
DVS
DEN
DCLK
LVSD
DARED<7..0>
DAGRN<7..0>
DABLU<7..0>

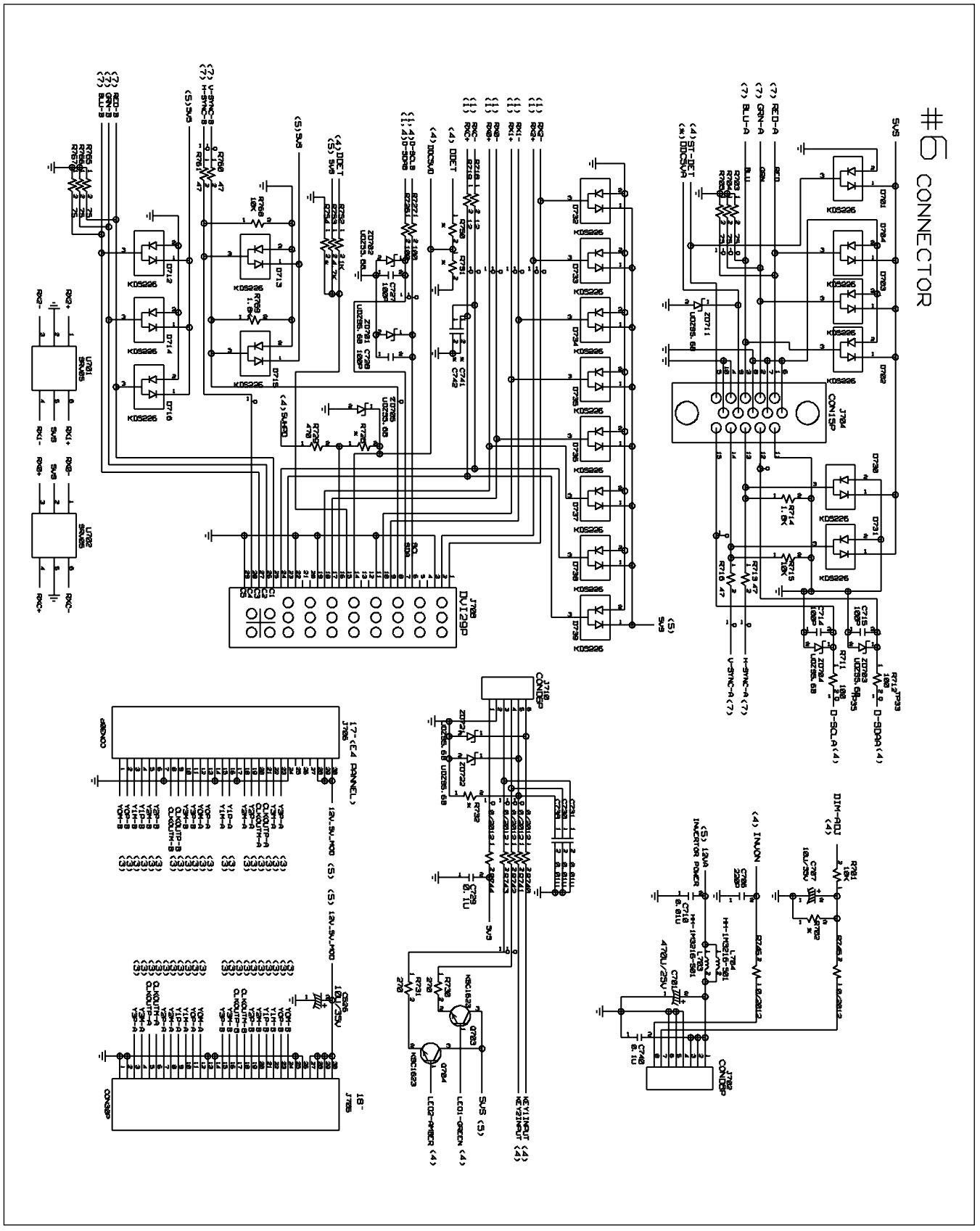
4. MICOM


#4 MICOM
KIA7042
MC68HC05BD48
24C02
24LC08
MMBD301LT1
TMC1406GB
HSC1623
HSYNCMICOM
KEY2INPUT
KEY1INPUT
/RESET-GM
VSYNCO
LED1-GREEN
CNTL-IN
LED2-AMBER
INVON
DIM-ADJ
D-SDAA
D-SCLA
AD-S
SCL
SDA
DDCSVA (6)
DDCSVD(6)
SVS (5)
SVHPD (6)
EDID_SW (*)
D-SDAB
D-SCLB (6)
READY
MOD-CTRL
IDET
SVS
ST-DET
P_SW
/IRQ-GM
EDID_SW
MCLK
MFS
HSDATA(3..0)

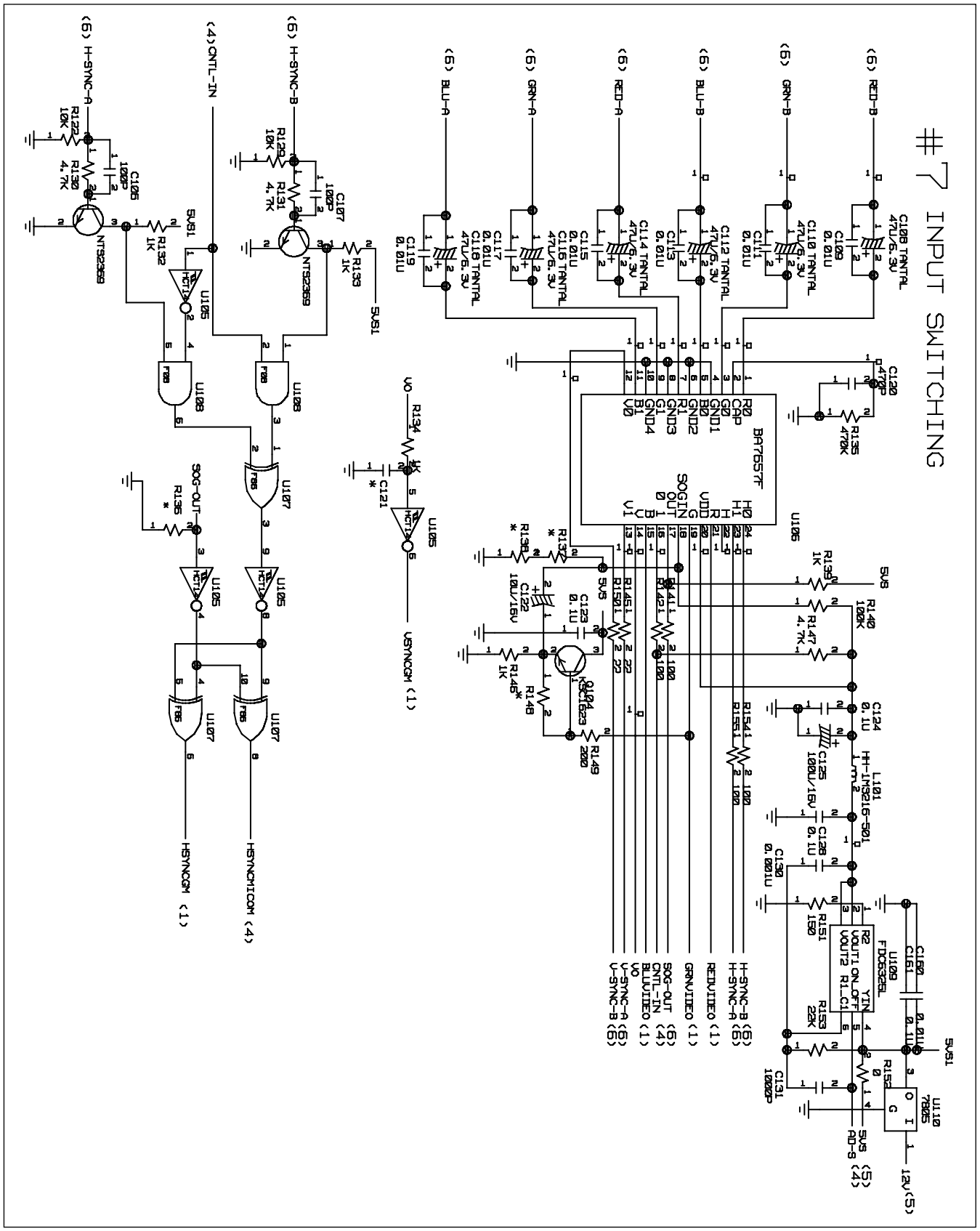
5. DC/DC


#5 DC/DC
RC1117
5VSW
3.3VM (2,3)
DVDD3.3V (1)
AVDD3.3V (1)
DVDD2.5V (1)
AVDD2.5V (1)
PVDD3.3V (1)
MOD-CTRL (4)
12V_5V_MOD (6)
P_SW (4)
5VSW (6)

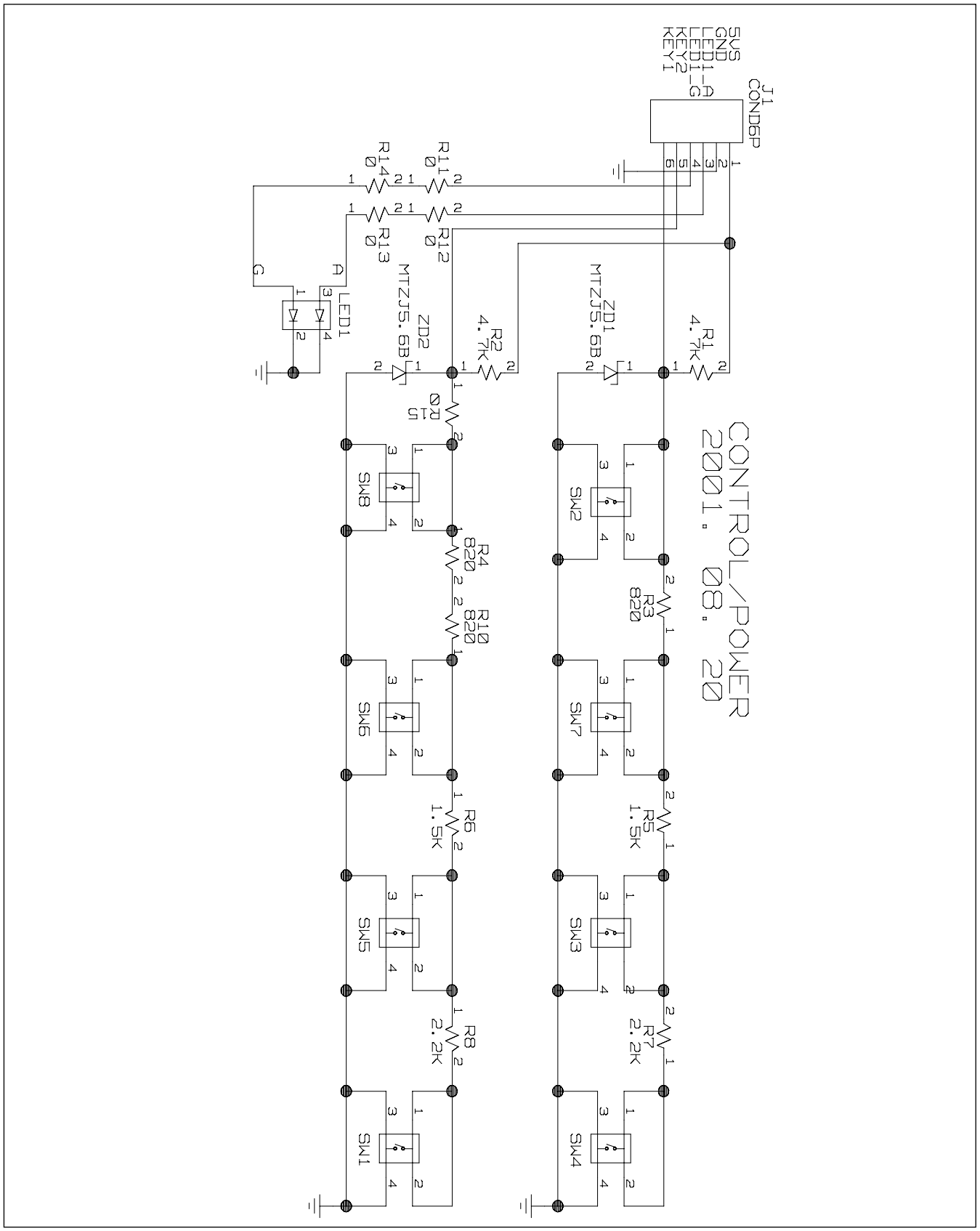
6. CONNECTOR



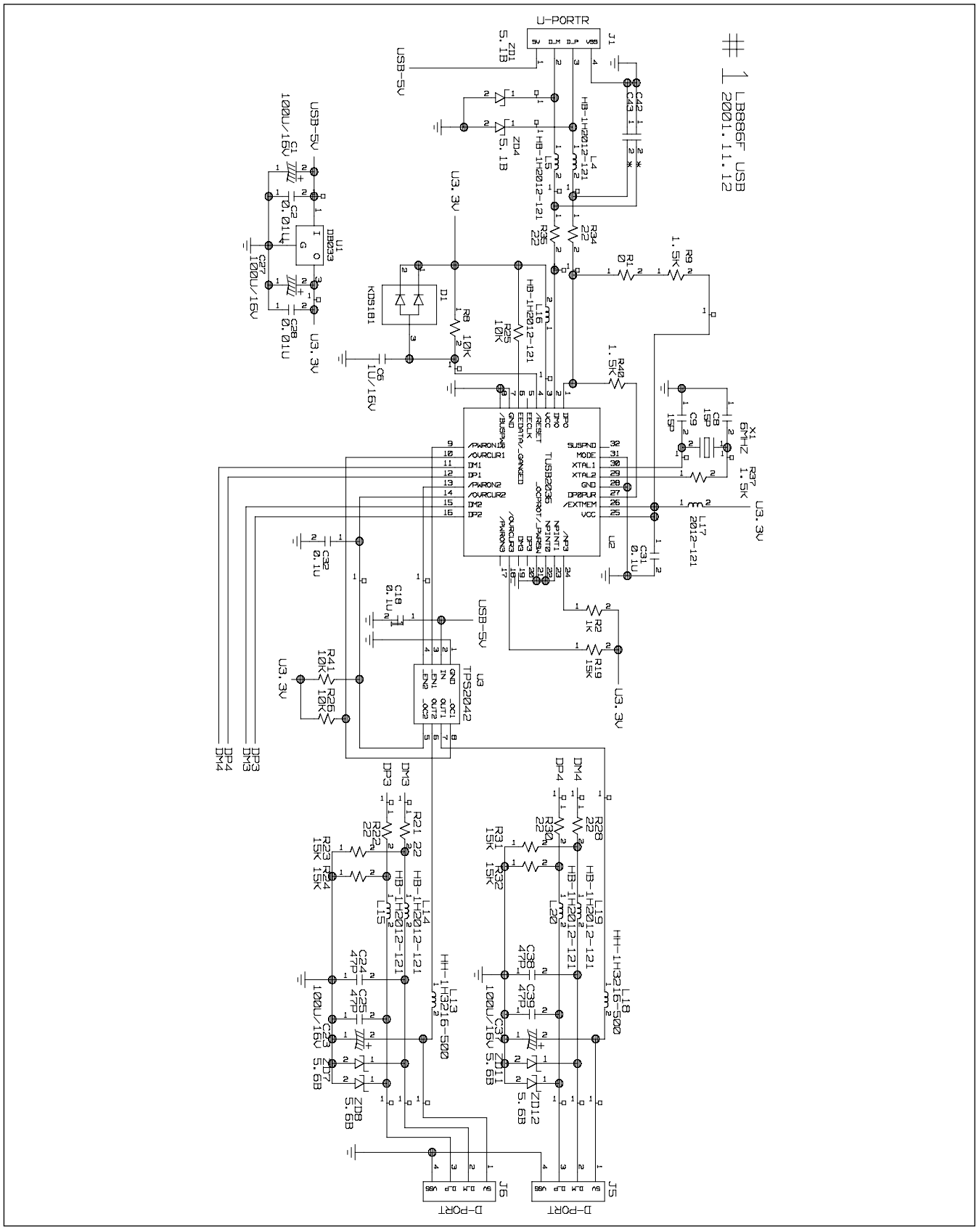
7. INPUT SWITCHING



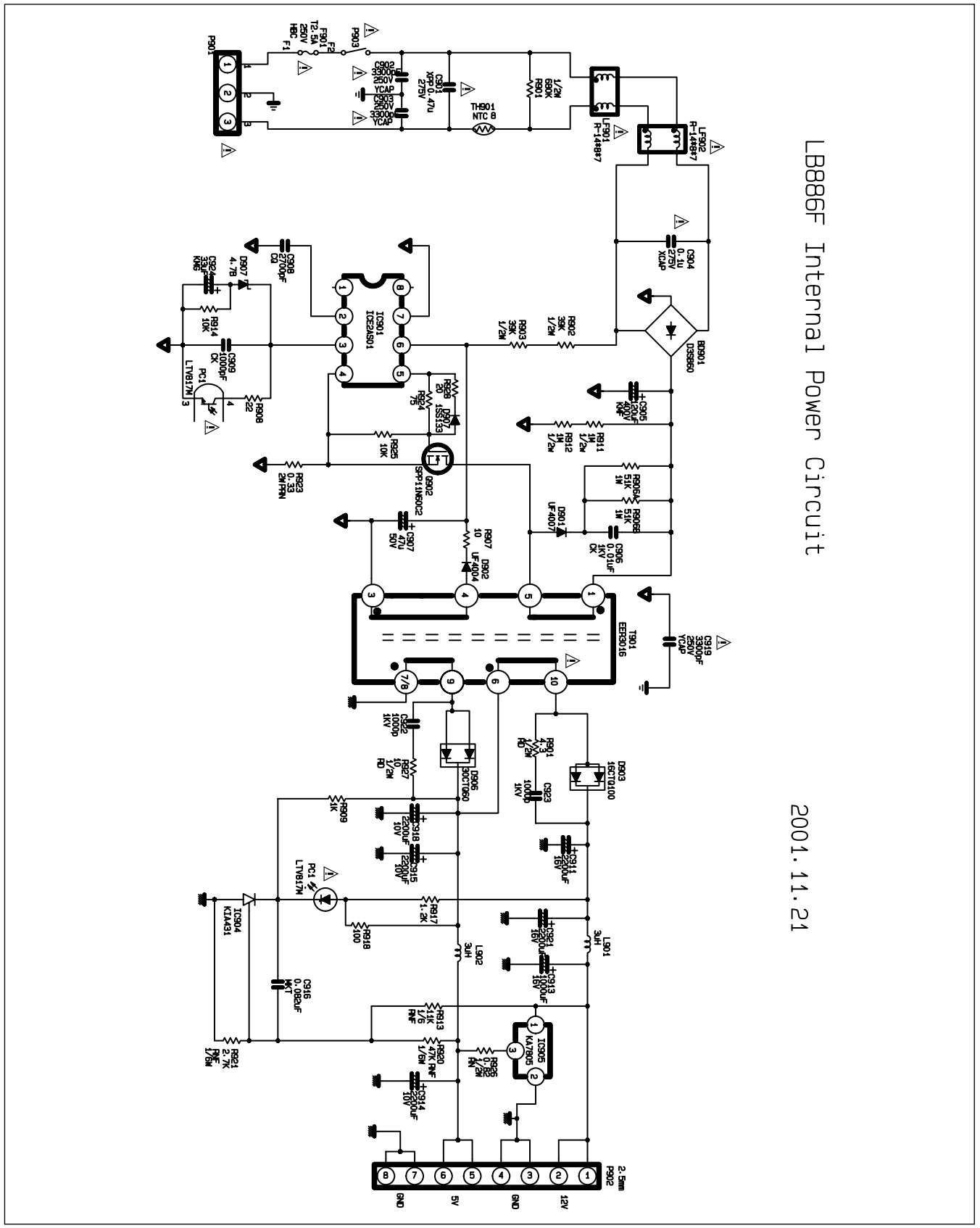
8. CONTROL KEY



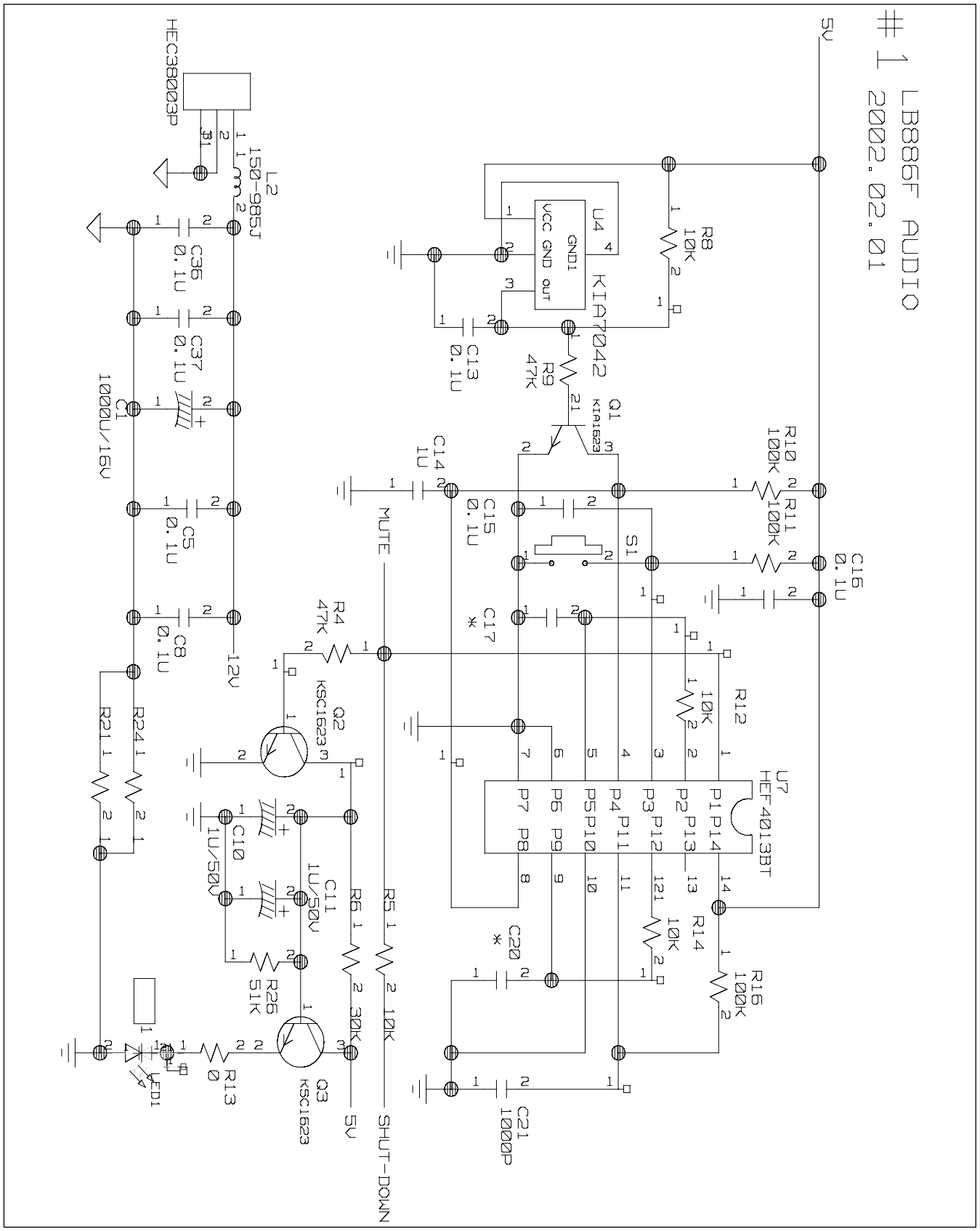
9.USB


LB886F USB
2001.11.12
U-PORTR
USB-5V
U3.3V
TUSB2035
TPS2042
D-PORT
DP3
DM3
DP4
DM4

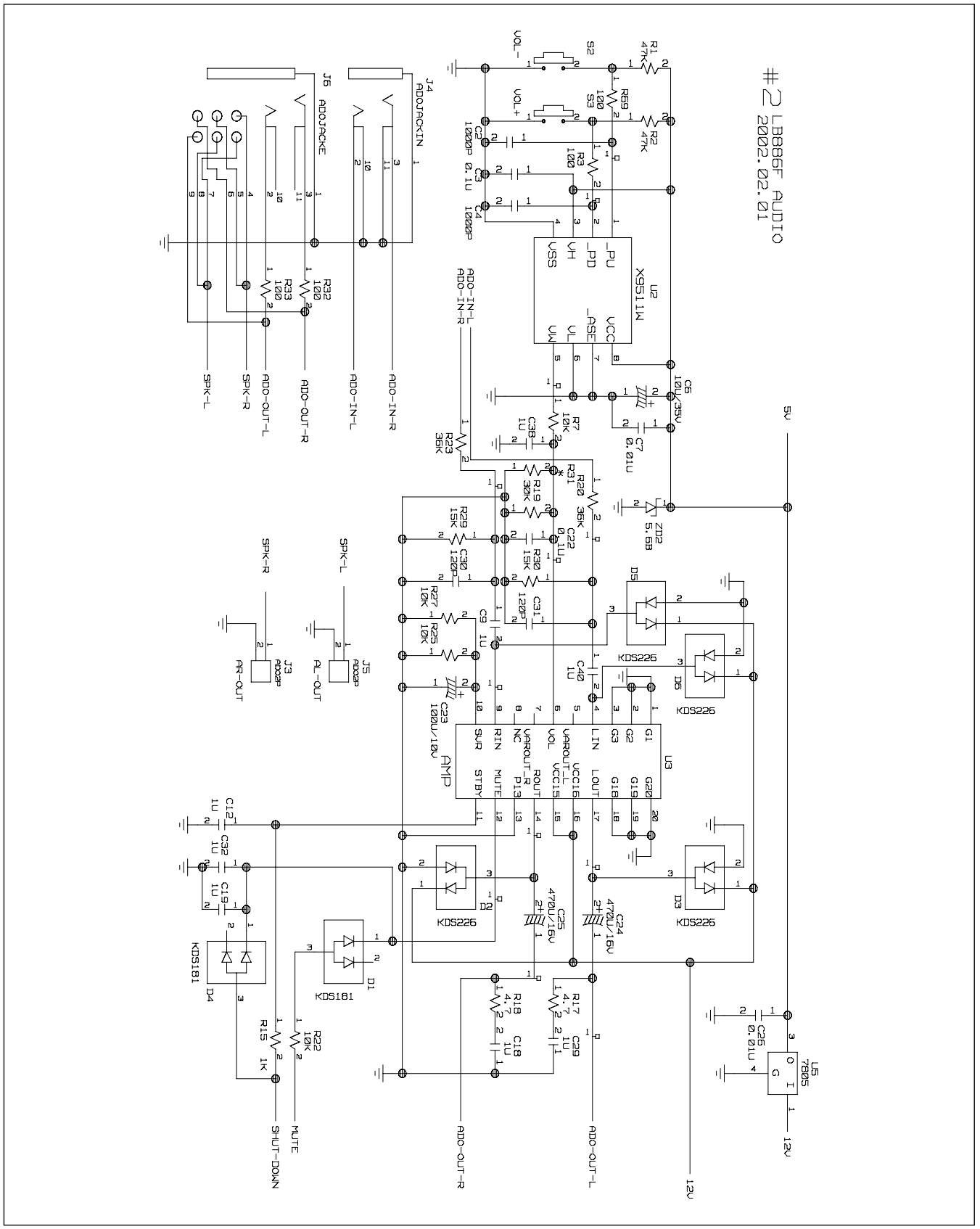
10. POWER


LB886F Internal Power Circuit
2001.11.21
P901
F901 T2.5A 250V
F902 T2.5A 250V
P903
LF901 R-14987
LF902 R-14987
TH901 NTC 8
BD901 D3SB60
IC901 ICE2AS01
T901 EER3016
Q902 SPP11N60C2
D901 UF4007
D902 UF4004
D903 15CTQ100
D904 KIA431
D905 IC905 KA7805
D906 30CTQ60
PC1 LTV817M
P902 2.5mm
GND
5V
GND
12V

11. AUDIO


LB886F AUDIO
2002.02.01
#1
5V
HEC38003P
J1
L2
150-985J
C36
0.1U
C37
0.1U
C1
1000U/16V
C5
0.1U
C8
0.1U
12V
R8
10K
U4
KIA7042
GND1
VCC GND OUT
C13
0.1U
R9
47K
Q1
KIA1623
C14
1U
C15
0.1U
R10
100K
R11
100K
C16
0.1U
S1
MUTE
R4
47K
C17
*
Q2
KSC1623
R12
10K
U7
HEF4013BT
P1 P14
P2 P13
P3 P12
P4 P11
P5 P10
P6 P9
P7 P8
R14
10K
C20
*
R16
100K
C21
1000P
R24
R21
C10
1U/50V
C11
1U/50V
R6
30K
R5
10K
R26
51K
R13
0
Q3
KSC1623
LED1
5V
SHUT-DOWN

12. AUDIO


#2 LB886F AUDIO
2002.02.01
VOL-
VOL+
S2
S3
R1 47K
R2 47K
R59 100
R3 100
C2 1000P
C3 0.1U
C4 1000P
U2 X9511W
_PU
_PD
VH
VSS
_ASE
VCC
VL
VW
C5 10U/35V
C7 0.01U
C38 1U
R7 10K
R23 36K
R31
R20 36K
R19 30K
ZD2 5.6B
5V
R29 15K
C30 120P
R30 15K
C31 120P
C22 0.1U
R27 10K
R25 10K
C9 1U
C23 100U/10V
C40 1U
D5
D6
D3
KDS226
U3
AMP
SVR
RIN
MUTE
STBY
VOL
VCC15
VCC16
LOUT
LIN
G1
G2
G3
G19
G20
C24 470U/16V
C25 470U/16V
C12 1U
C32 1U
C19 1U
D2
D1
KDS181
D4
R15 1K
R22 10K
R17 4.7
R18 4.7
C18 1U
C29 1U
C26 0.01U
U5 7805
12V
MUTE
SHUT-DOWN
ADO-OUT-R
ADO-OUT-L
SPK-L
SPK-R
AR-OUT
AL-OUT
J3 ADD2P
J5 ADD2P
J6 ADDJACKE
J4 ADDJACKIN
ADO-IN-L
ADO-IN-R
ADO-OUT-L
ADO-OUT-R
R32 100
R33 100

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