

COLOR MONITOR SERVICE MANUAL

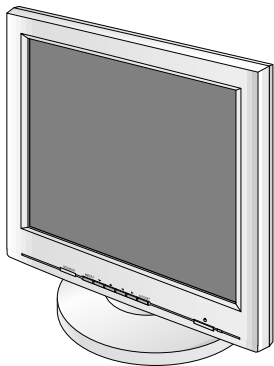
CHASSIS NO. : CL-29

FACTORY MODEL: LB782F

MODEL: FPD1700

CAUTION

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



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SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT Color LCD Module
Size	: 17 inch (43.2 cm diagonal)
Pixel Pitch	: 0.264(H) x 0.264(V)
Electrical Interface	: LVDS
Color Depth	: 8-bits, 16,777,216 colors
Size (mm)	: 383.5(H) x 306(V) x 20.0(D) Typ
Surface Treatment	: Anti-Glare, Hard Coating (3H)
Operating Mode	: Normally white
Backlight Unit	: Four-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

Left : 70° Typ. ,	Right : 70° Typ.
Top : 45° Typ. ,	Bottom : 65° Typ.

2-2. Luminance	: 170 cd/m ² (min) --- 9300K 200 (min.) 250 (typ.) --- 6500K
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2-3. Contrast Ratio	: 400 typ.
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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
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3-2. Video Input Signal

1) Type	: R, G, B Analog
2) Voltage Level	: 0~0.714 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 ~ 80 kHz
Vertical	: 56 ~ 85 Hz

4. POWER SUPPLY

4-1. Power

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 45 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 : 5% ~ 95%
(Non-condensing)

6. DIMENSIONS (with TILT/SWIVEL)

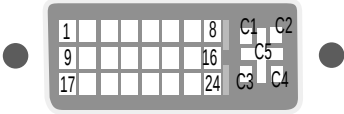
Width	: 400 mm (15.74")
Depth	: 235 mm (9.25")
Height	: 427 mm (16.81")

7. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 7.5 kg (16.54 lbs)
Gross Weight	: 9.3 kg (20.51 lbs)

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.

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.)

⚠ WARNING

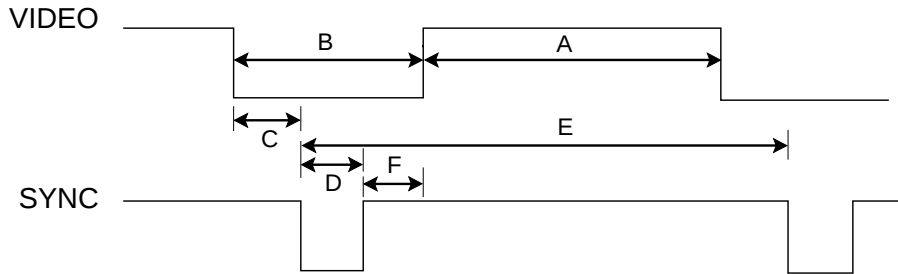
BE CAREFUL ELECTRIC SHOCK !

- 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.

⚠ CAUTION

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

TIMING CHART

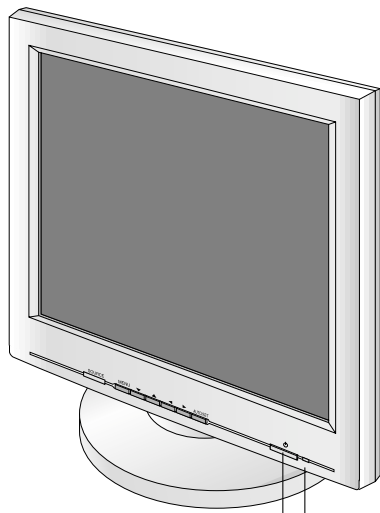


<< Dot Clock (MHz), Horizontal Frequency (kHz), Vertical Frequency (Hz), Horizontal etc... (μs), Vertical etc... (ms) >>

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	31.469	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	-	31.5	37.5	840	640	16	64	120	640x480 75Hz
	V	-		75	500	480	1	3	16	
4	H	-	36.0	43.269	832	640	56	56	80	640x480 85Hz
	V	-		85.0	509	480	1	3	25	
5	H	-	25.175	31.469	800	640	16	96	48	640x480 60Hz
	V	+		59.94	525	480	10	2	33	
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	

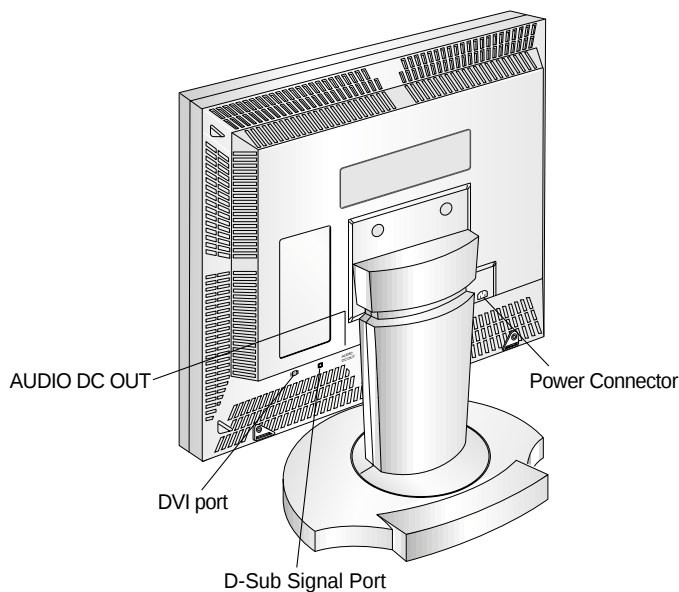
OPERATING INSTRUCTIONS

FRONT VIEW

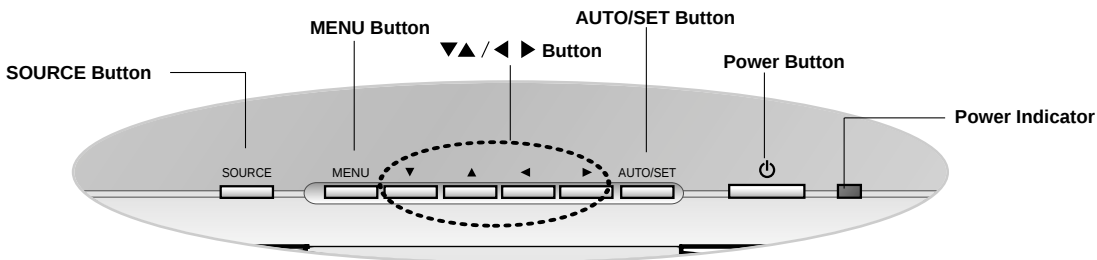


Power ON/OFF Button
Power (DPMS) Indicator

REAR VIEW



Front Control Panel



1. 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.

2. MENU Button

Use this button to enter or exit the on screen display.

3. ▲/▼/▶/◀ 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.

4. 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.



5. MENU, ▶ Button

Press the hold the MENU button and ▶ button for 3 seconds: the message "CONTROLS LOCKED" appears.

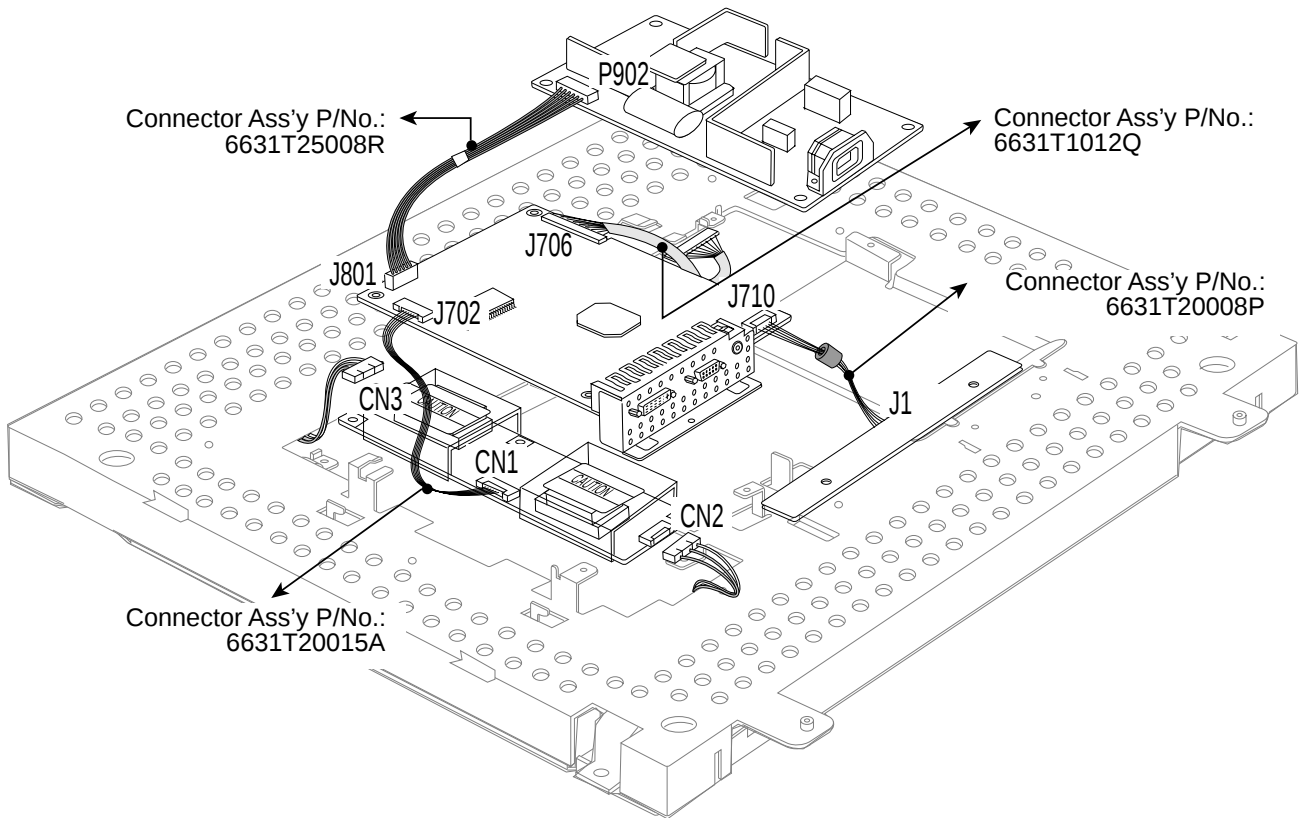


You can unlock the OSD controls at any time by pushing the MENU, ▶ button for 3 seconds:

the message "CONTROLS UNLOCKED" will appear.



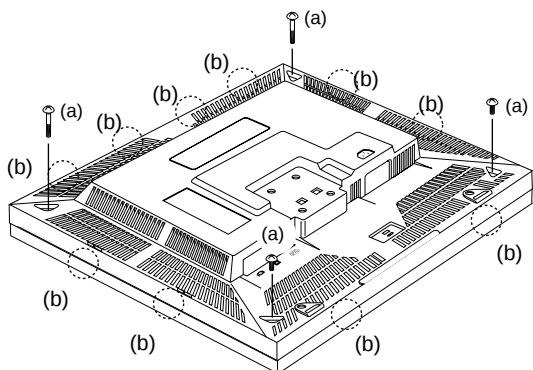
WIRING DIAGRAM



DISASSEMBLY

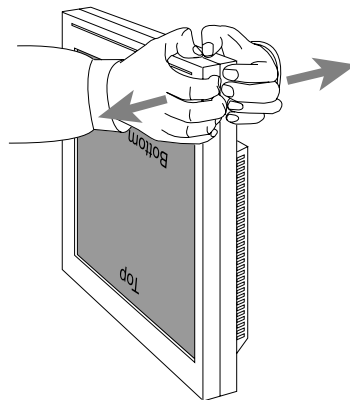
BACK COVER REMOVAL

Caution: When you open the Back cover, Be careful! Dont stress the Control Board Connector.

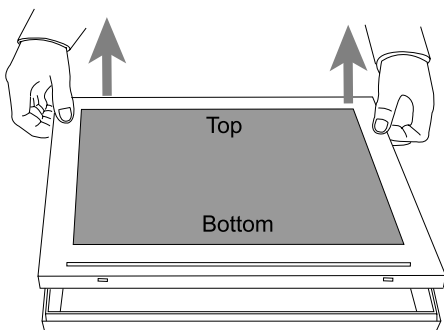


(b) Latch Point

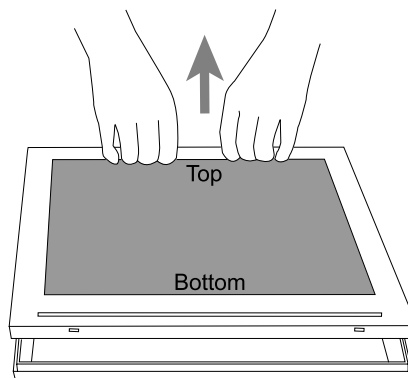
- 1) Set the Monitor face downward.
- 2) Remove four screws (a).



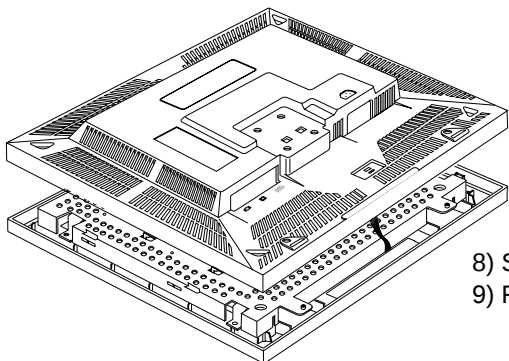
- 3) Set the Monitor as picture.
- 4) Release the bottom & side latch.



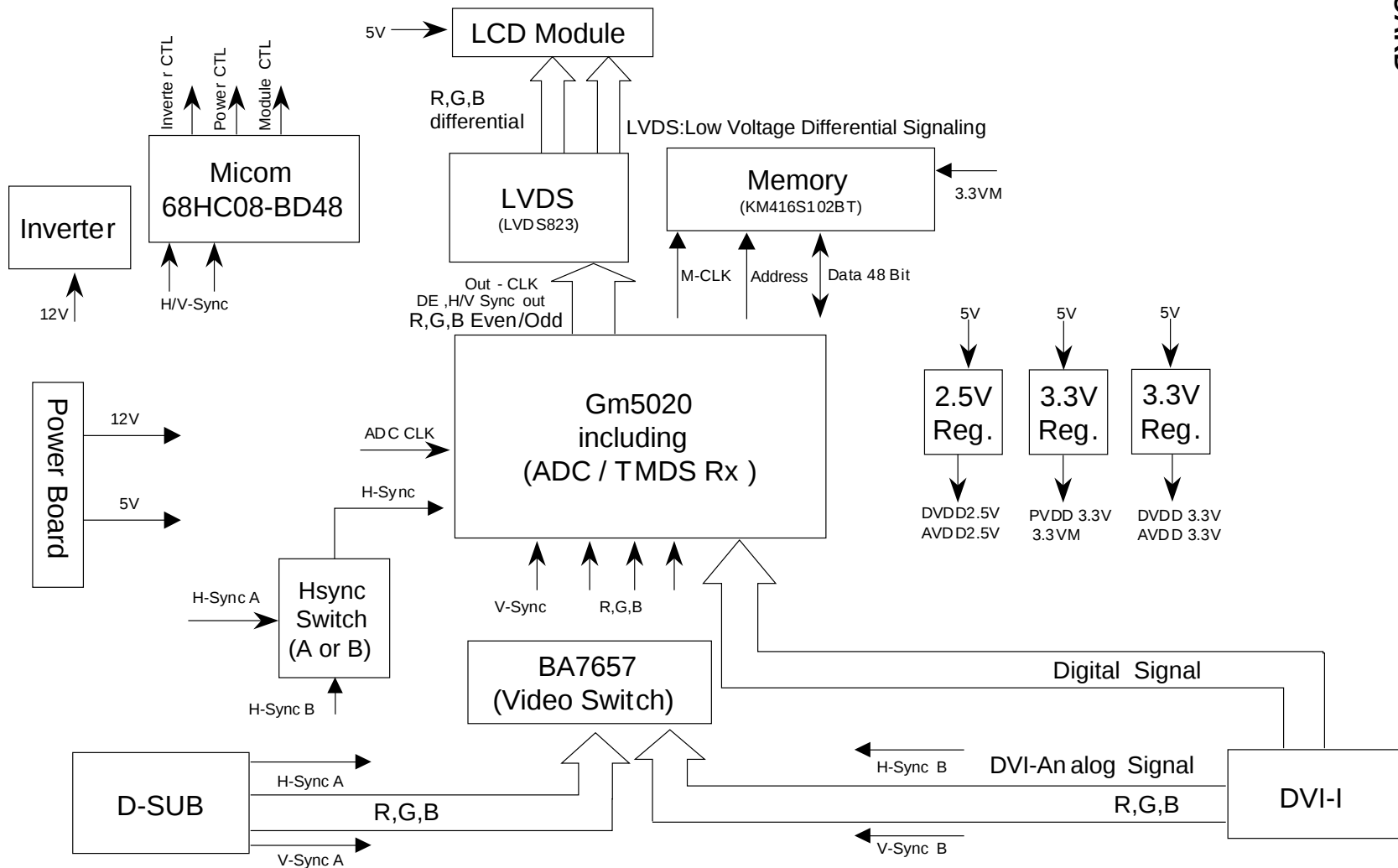
- 5) Set the Monitor face upward.
- 6) Release the up side latch.



- 7) Release the center position latch.



- 8) Set the Monitor face downward.
- 9) Remove the Back cover.



DESCRIPTION OF BLOCK DIAGRAM (Main Board)

1. Input signal switching part.

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

2. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a 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 to 1280 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.

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 which are supplied from signal cable.

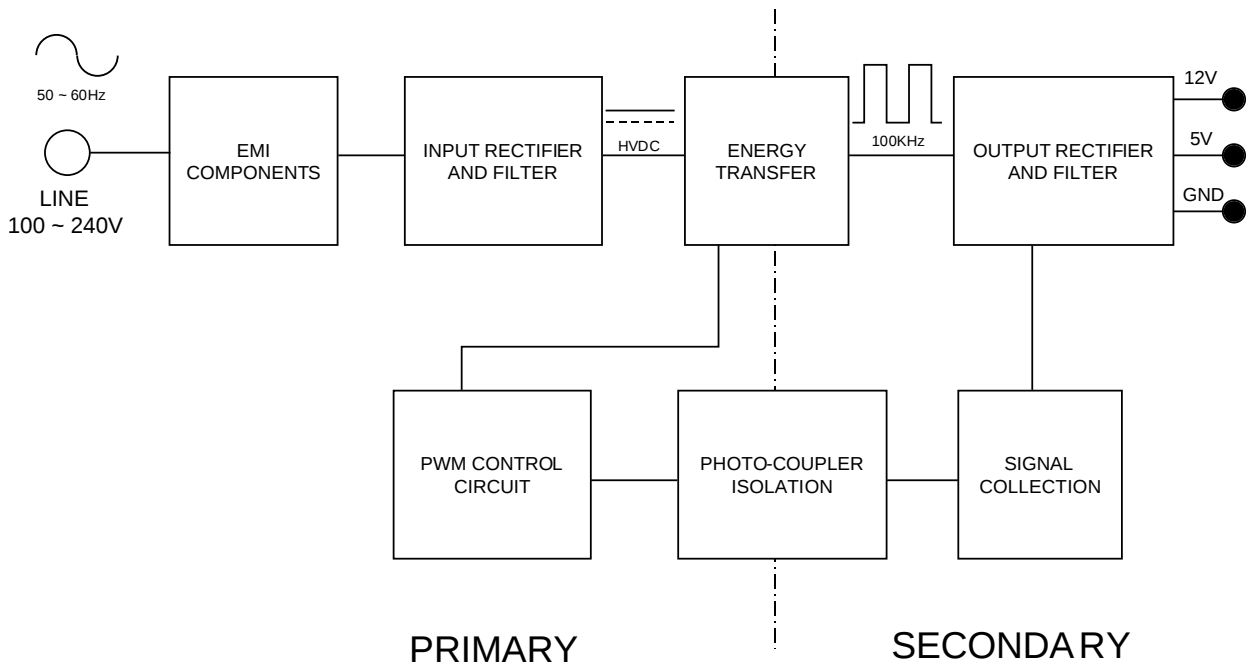
The controlled data of each modes is stored in EEPROM.

6. Inverter

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

BLOCK DIAGRAM

POWER BOADR



DESCRIPTION OF BLOCK DIAGRAM

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 LB782F 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) 6500K 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 problem 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.

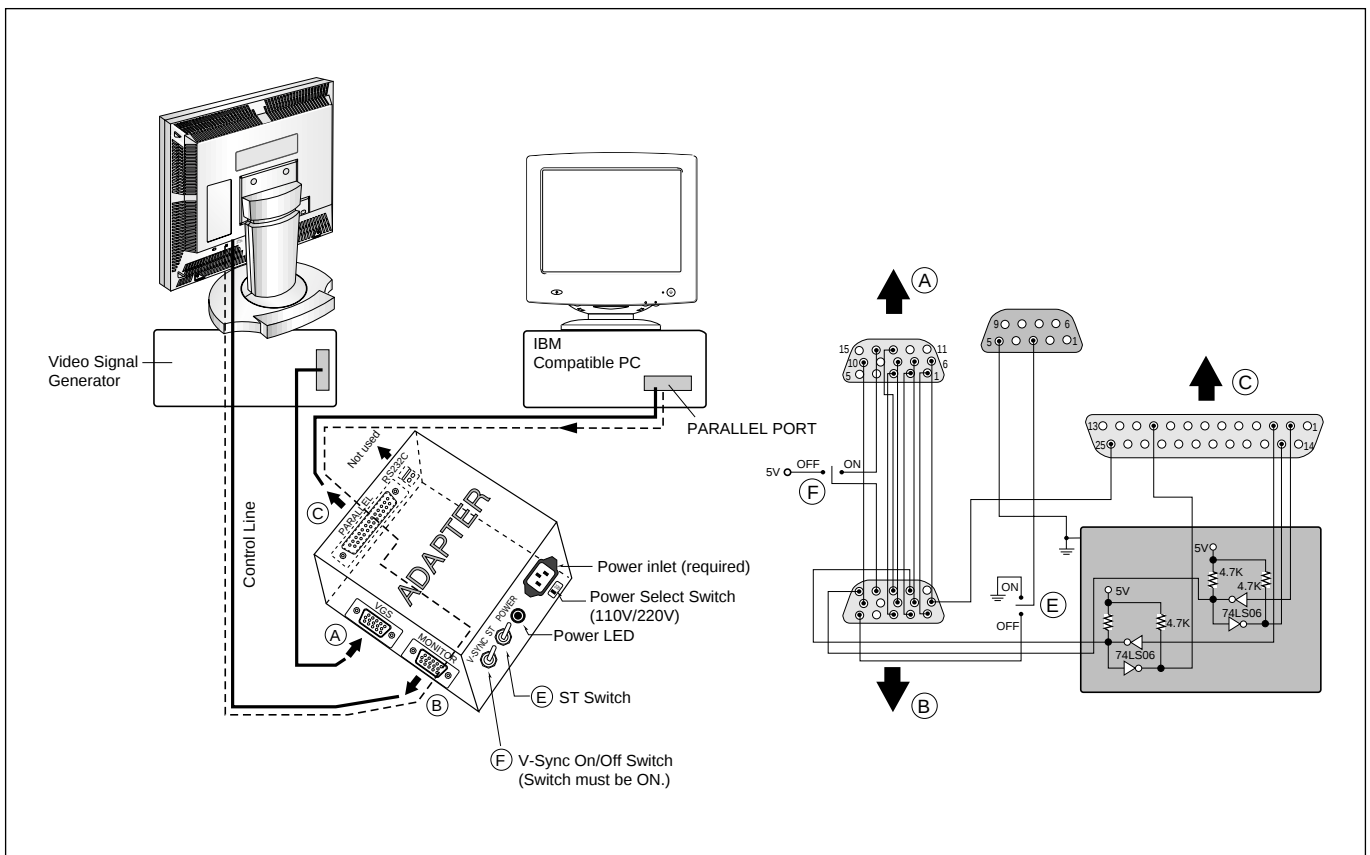
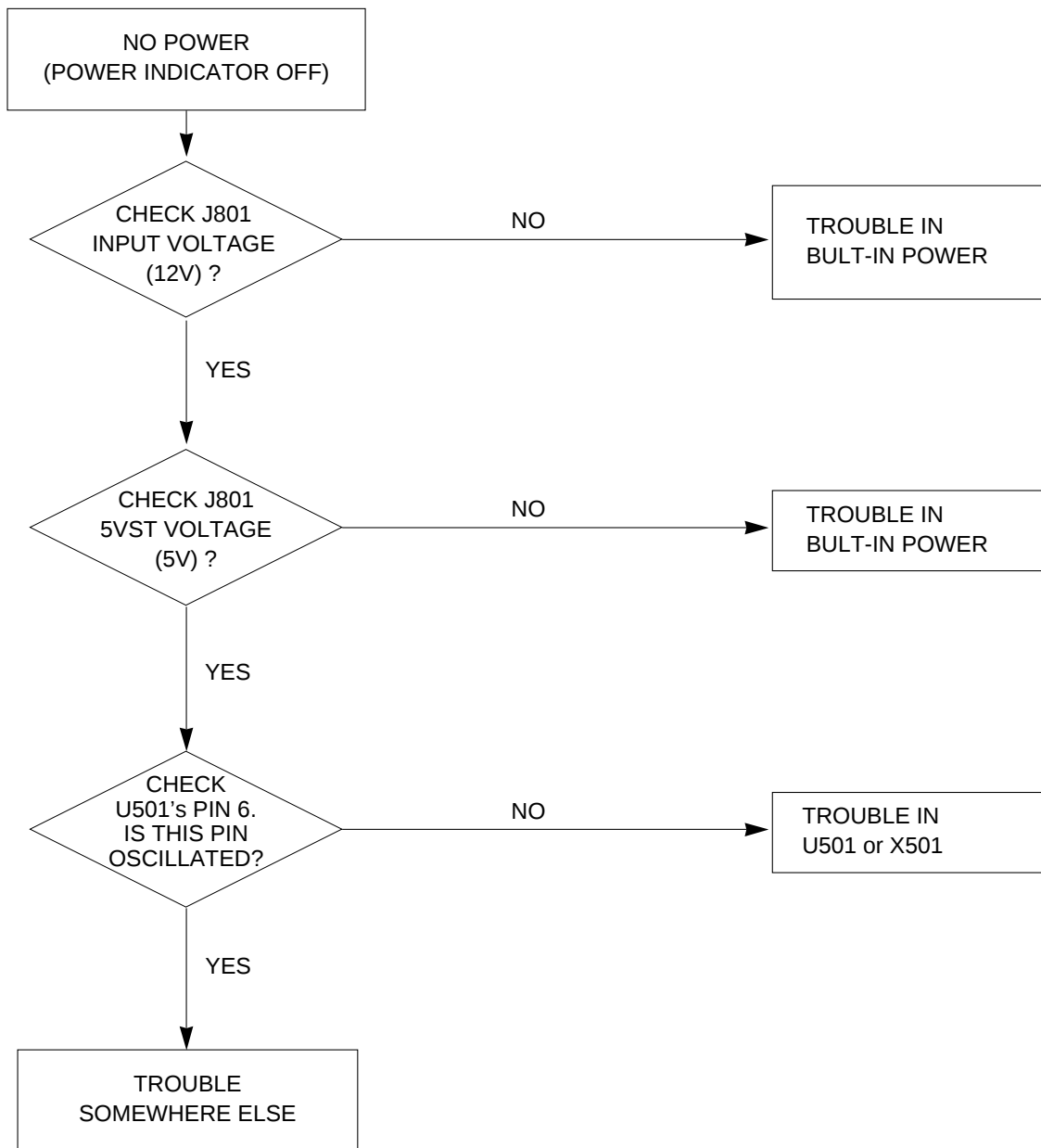


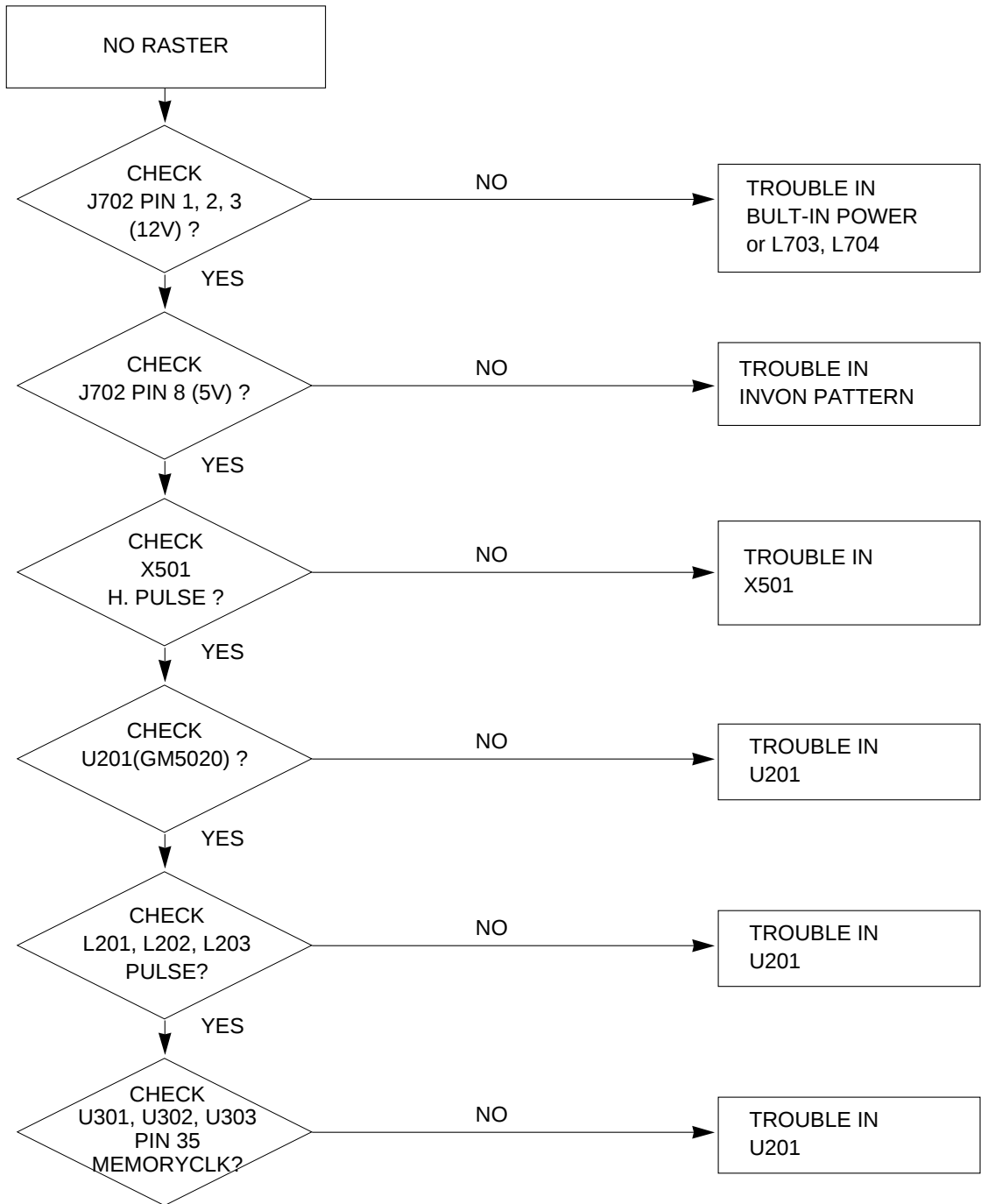
Figure 1. Cable Connection

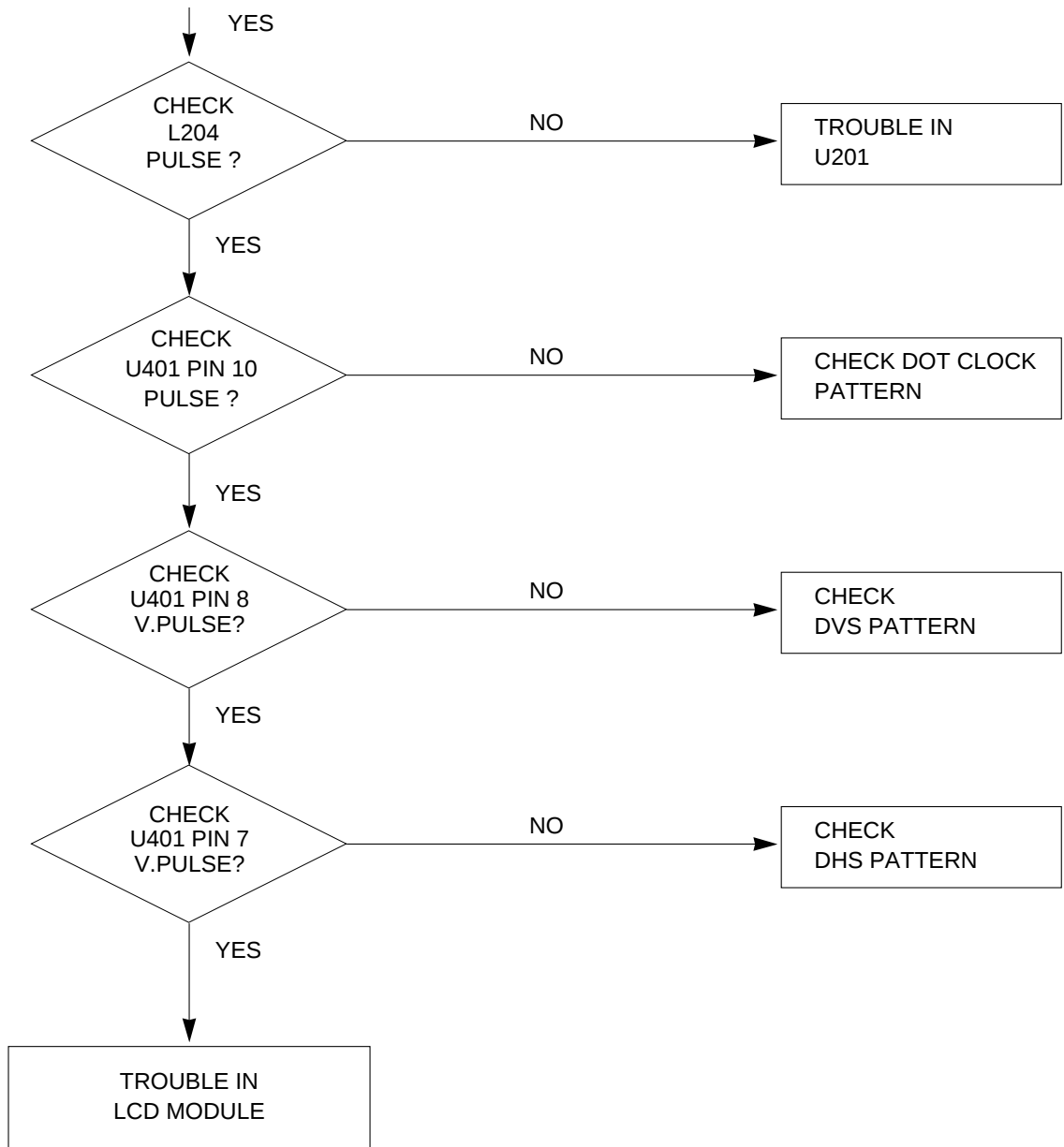
TROUBLESHOOTING GUIDE

1. NO POWER

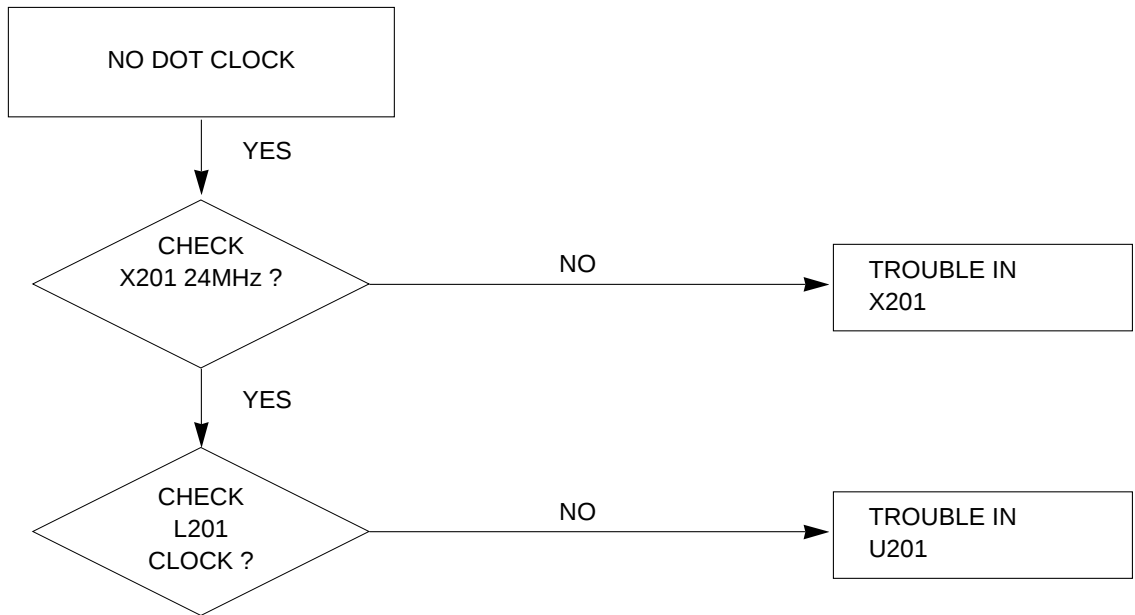


2. NO RASTER

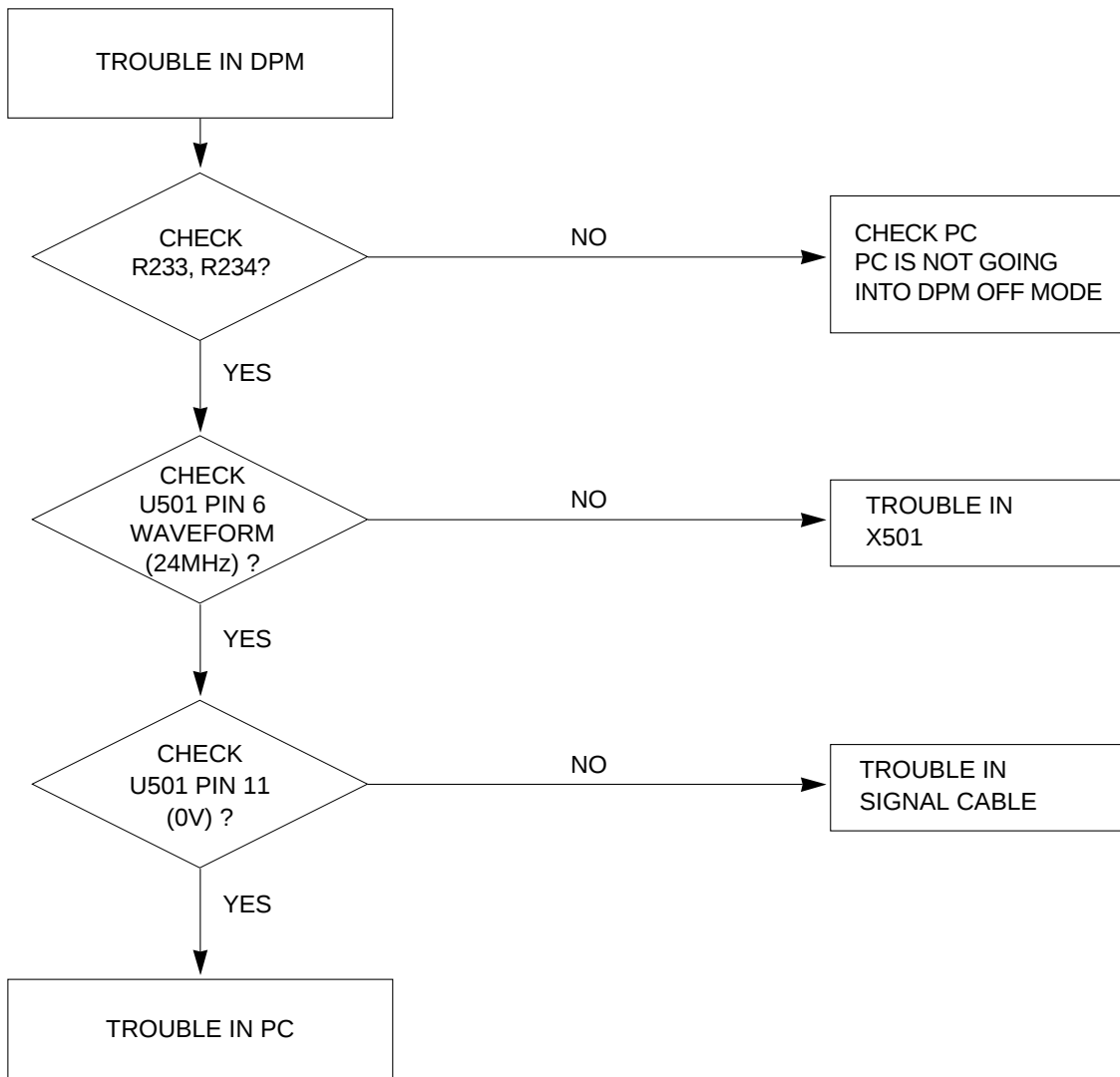


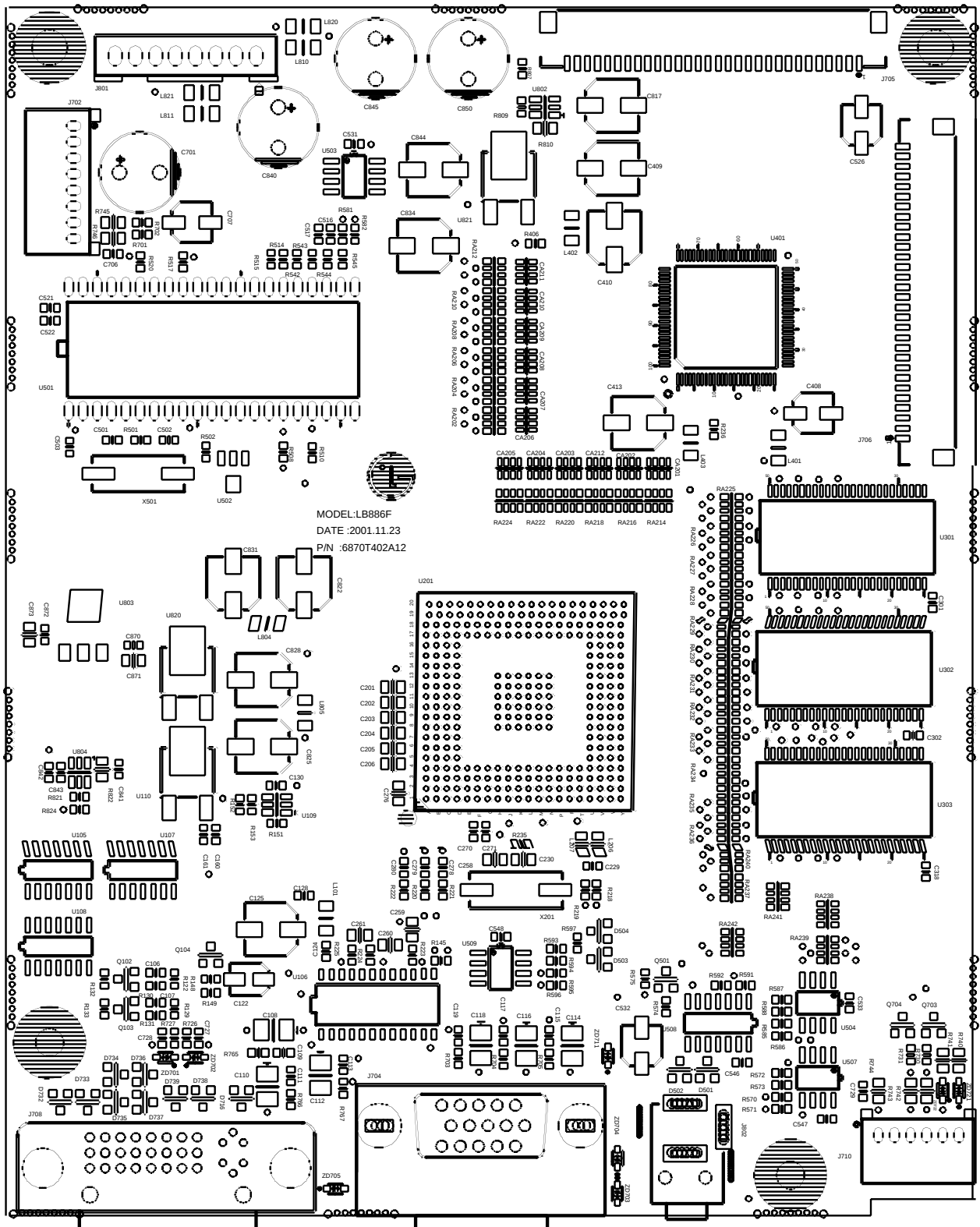


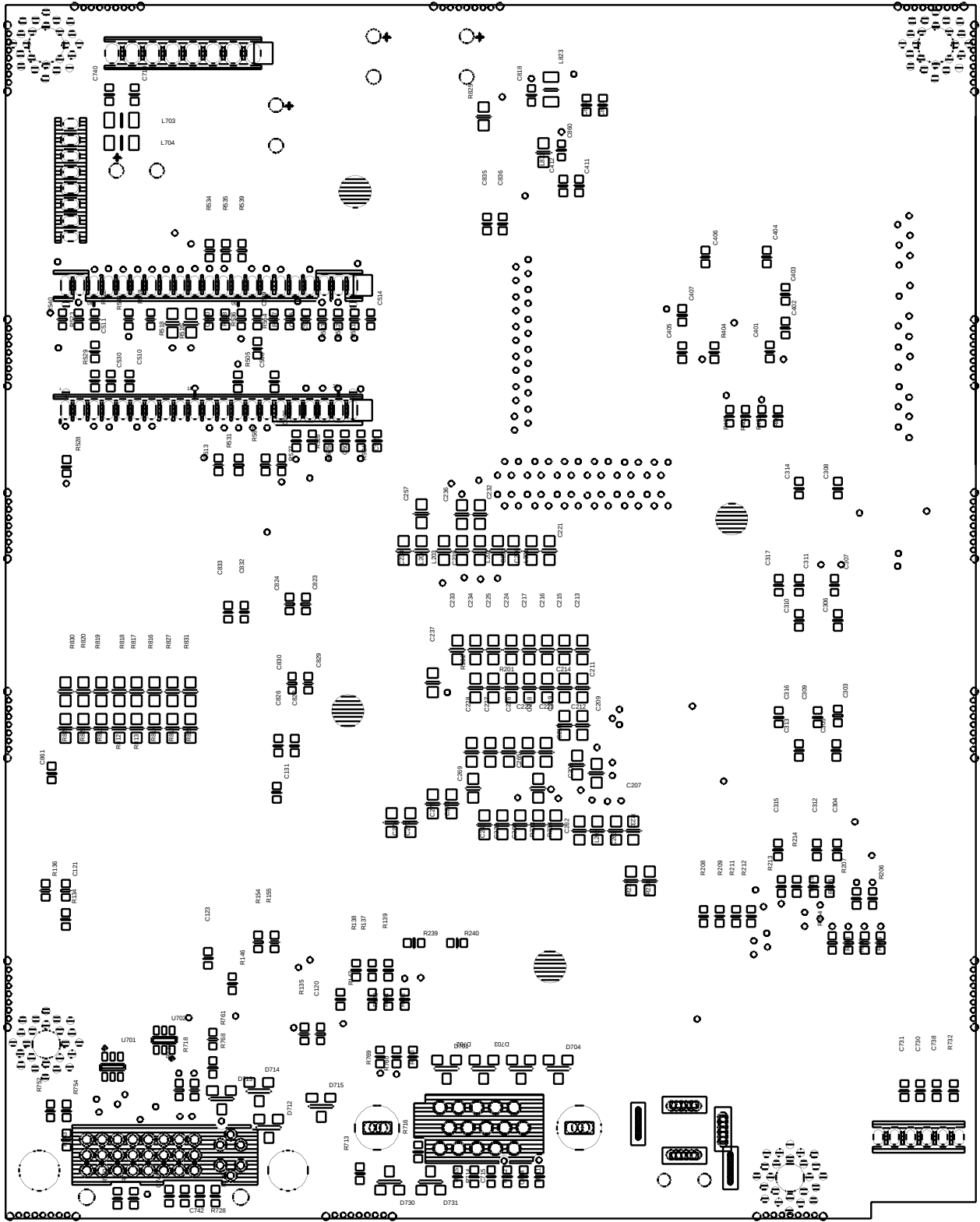
3. NO CLOCK (CLOCK GENERATOR)



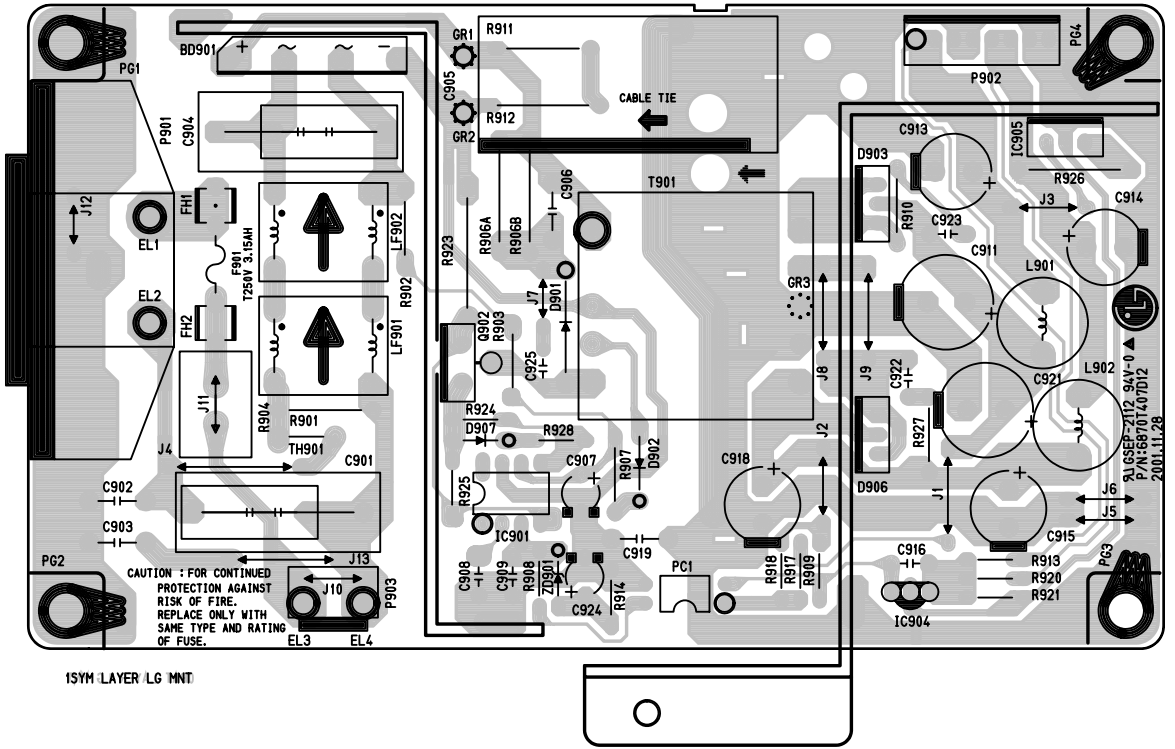
4. TROUBLE IN DPM



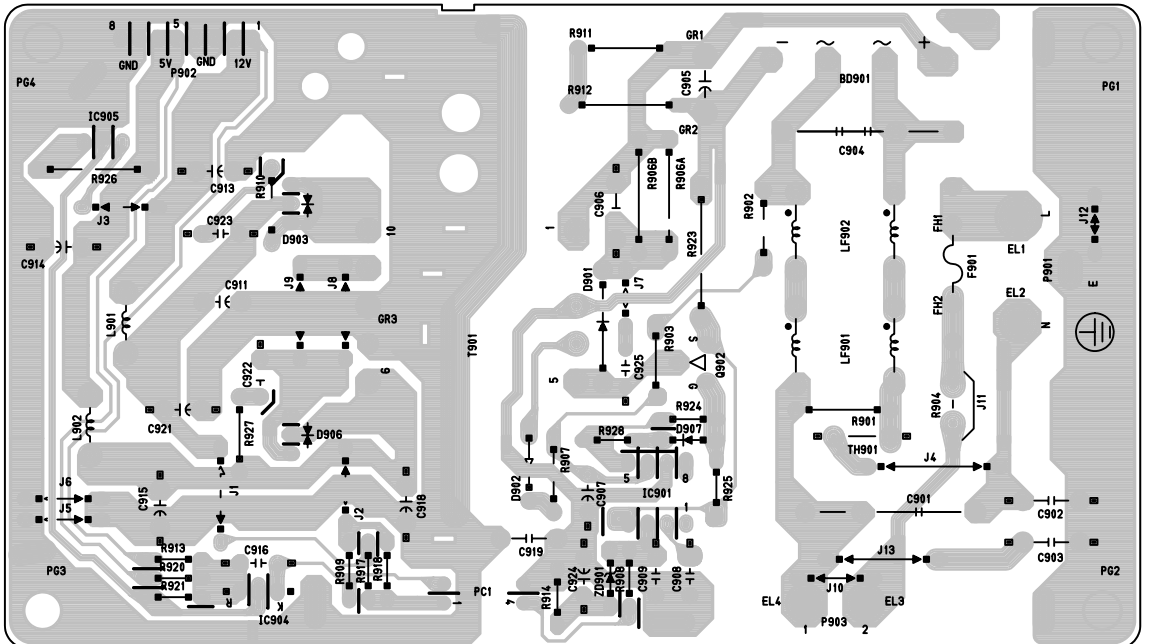


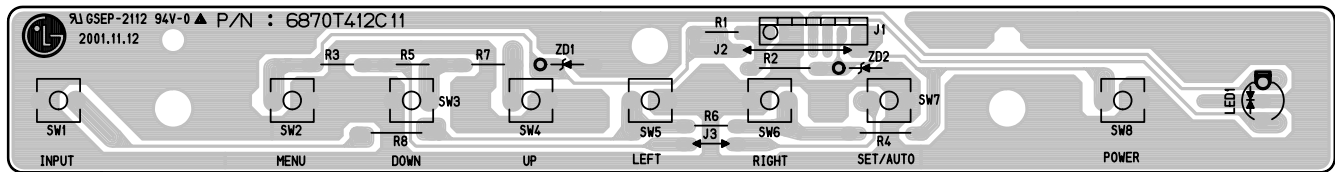


3. POWER BOARD (Component Side)

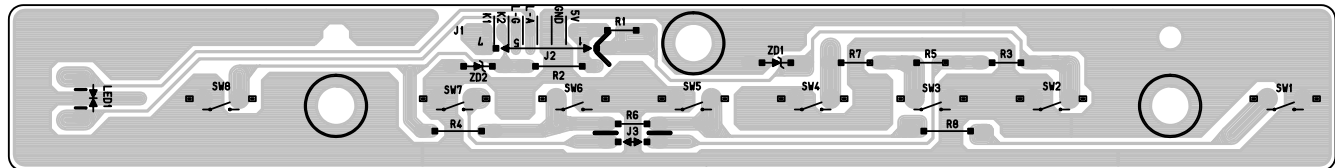


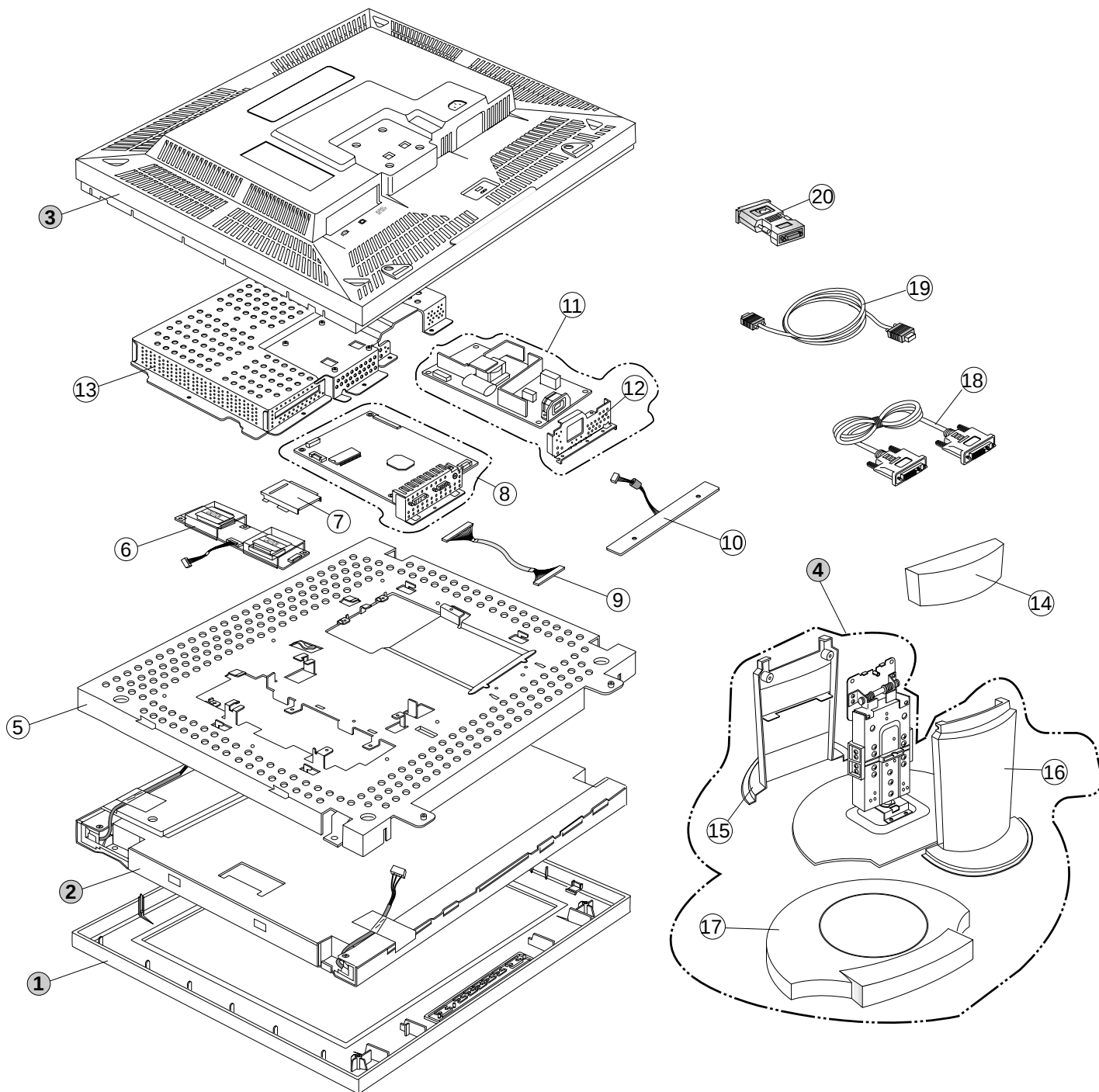
4. POWER BOARD (Solder Side)





6. CONTROL BOARD (Solder Side)





EXPLODED VIEW PARTS LIST

Note:  SAFETY Mark

Ref. No.	Part No.	Description	
1	3091TKL031D		CABINET ASSEMBLY, LB782F G/WAY 3090TKL031 -17" LCD
2	6304FHD002A		LCD(LIQUID CRYSTAL DISPLAY) HT17E11-200 HYUNDAI 17.0 INCH SXGA(1280 X 1024)
3	3809TKL021B		BACK COVER ASSEMBLY, LB782F 3808TKL026A
4	3043TKK037M		TILT SWIVEL ASSEMBLY LB782F . NO USB
5	4951TKS082A		METAL ASSEMBLY, FRAME HYDIS LB782F
6	6633TZA011A		INVERTER ASSEMBLY, LG-PHILIPS NMC1804,4-LAMP AU MODULE LB782
7	4814TKK200A		SHIELD INVERTER LB782F
8	3313TL7001B		MAIN TOTAL ASSEMBLY LB782F AXAGE G/WAY CL-29
9	6631T11012Q		CONNECTOR ASSEMBLY, 30P H-H 150MM UL20276 PANEL LINK LB782F
10	6871TST276A		PWB(PCB) ASSEMBLY,SUB, LB782F CONTROL TOTAL BRAND
11	6871TPT220A		PWB(PCB) ASSEMBLY,POWER, LB782F POWER TOTAL BRAND NO SWITCH
12	4814TKK187A		SHIELD REAR LB886F
13	4950TKS189A		METAL REAR LB782F
14	3550TKK053A		COVER LB880B HINGE BRAND 18.1" LCD
15	3550TKK050A		COVER LB880B STAND FRONT BRAND 18,1" LCD
16	3550TKK051J		COVER LB782F STAND REAR
17	3550TKK052K		COVER LB782F STAND TOP -GATEWAY
18	6866TDV004C		CABLE,DVI, UL20276 DT 2000MM GRAY(85964) LB885C DM
19	6850TD9001A		CABLE,D-SUB, UL 2990-9C(7.5) DT 1870MM GRAY(85964) BRAND DM
20	6634TFZ004A		ADAPTER,SIGNAL, DVI-I(MAIL)-VGA(FMAIL) UNIXTAR 19P 15P LB885C

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. 2. 01.				
*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(Y5P
		C110	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C111	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C112	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C113	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C114	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C115	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C116	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C117	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C118	DCH7476C621	47UF 6.3V M 3528 TP(-)
		C119	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		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) SM
		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(Y5P
		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

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		C229	0CC102CK41A	1000PF 1608 50V 5% R/TP NPO
		C230	0CH6150K416	15PF 50V J NPO 2012 R/TP
		C231	0CH6680K416	68PF 50V J NPO 2012 R/TP
		C232	0CH6680K416	68PF 50V J NPO 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 NPO 2012 R/TP
		C236	0CH6680K416	68PF 50V J NPO 2012 R/TP
		C237	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C258	0CH6150K416	15PF 50V J NPO 2012 R/TP
		C259	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/TP
		C260	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/TP
		C261	0CH3682K516	6800PF 50V K B(Y5P) 2012 R/TP
		C262	0CH6330K416	33PF 50V J NPO 2012 R/TP
		C264	0CH6221K416	220PF 50V J NPO 2012 R/TP
		C265	0CH6470K416	47PF 50V J NPO 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(Y5P)
		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	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C279	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C280	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C301	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C302	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C303	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C304	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C305	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C306	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C307	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C308	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C309	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C310	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C311	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C312	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C313	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C314	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C315	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C316	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C317	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C318	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C401	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C402	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C403	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C404	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C405	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C406	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C407	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P)
		C408	0CH8226F691	22UF 16V M 105STD (CYL) R/TP
		C409	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM

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		C410	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C411	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C412	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C413	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		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(Y5P
		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(Y5P
		C522	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C526	0CH8106J691	10UF 35V M 105STD (CYL) R/TP
		C531	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		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(Y5P
		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(Y5P
		C731	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C738	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C740	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C817	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C818	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C819	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C820	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C822	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C823	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C824	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C825	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C826	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C827	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C828	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C829	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C830	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C831	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C832	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C833	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C834	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C835	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C836	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C840	0CE477EH618	470UF KMG 25V M FL TP 5
		C841	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0

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		C842	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C843	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C844	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		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 3
		D502	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D503	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D504	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23 3
		D701	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D702	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D703	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D704	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D712	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D713	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D714	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D715	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D716	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D730	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D731	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D732	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D733	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D734	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D735	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D736	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D737	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D738	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D739	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		ZD701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD702	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD703	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD704	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD705	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD711	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD721	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD722	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
ICs				
		U105	0IMO741420B	MC74HCT14ADR2 14P,SOIC TP LEVE
		U106	0IRH765700B	BA7657F 24P,SOP TP INPUT SIG.
		U107	0ITI748600N	SN74F86DR 14SOIC TP 2-INPUT EX
		U108	0IPH740800H	74F08D 14P,SOIC TP QUAD 2-INPU
		U109	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-6
		U110	0ISS780500H	KA78M05-R 3P,D-PAK TP 5V 0.5A
		U201	0IPRPGN001A	GM5020 GENESIS 292P,PBGA TRAY
		U301	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(
		U302	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(
		U303	0IEB121616A	M12L16161A-7T 50P TSOP ST 16M(
		U401	0ILNRTH001A	THC63LVD823 THINE MICROSYSTEMS
		U501	0IZZTSZ164A	LB782F 42PIN DIP BK MICOM
		U502	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOLTA
		U503	0ICS240813B	CAT24WC08J-TE13 8P,SOIC R/TP 8
		U504	0ISS524202A	S524C20D21-SCT0 8SOP-225 R/TP

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		U509	OISS524202A	S524C20D21-SCT0 8SOP-225 R/TP
		U701	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		U802	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-6
		U803	OIPMGFA003B	RC1117S-2.5 FAIRCHILD SOT-223
		U804	0TFFC80009A	FAIRCHILD FDC6326L R/TP SOT-6
		U820	OIRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		U821	OIRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
COILS & CORES				
		L101	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L201	0RH0562D622	56 1/10W 5 D.R/TP
		L202	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L203	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L204	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L205	6210TCE001R	HB-1S2012-400JT CERATECH 2012M
		L206	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L207	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L401	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L402	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L403	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L703	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L704	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L804	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L805	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L810	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L811	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L820	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L821	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
		L822	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L823	6210TCE001G	HH-1M3216-501 CERATEC 3216MM R
TRANSISTOR				
		Q102	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP S
		Q103	0TR390409AE	FAIRCHILD KST3904(LGEMTF) TP S
		Q104	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q703	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q704	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
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
		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

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		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	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R221	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R222	0RJ1000D677	100 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/T
		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
		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

DATE: 2002. 2. 01.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R536	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R537	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R538	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R539	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R540	ORJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R541	ORJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R542	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R543	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R544	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R545	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R564	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R580	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R581	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R582	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R585	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R586	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R587	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R588	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R591	ORJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R592	ORJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R593	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R594	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R595	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R596	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R597	ORJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R701	ORJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R703	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R704	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R705	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R711	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R712	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R713	ORJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R714	ORJ1801D677	1.8K OHM 1/10 W 5% 1608 R/TP
		R715	ORJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R716	ORJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R718	ORJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R719	ORJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R726	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R727	ORJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R729	ORJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R730	ORJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R731	ORJ2700D677	270 OHM 1/10 W 5% 1608 R/TP
		R740	ORH0000D622	0 1/10W P-TYPE TAPPING
		R741	ORH0000D622	0 1/10W P-TYPE TAPPING
		R742	ORH0000D622	0 1/10W P-TYPE TAPPING
		R743	ORH0000D622	0 1/10W P-TYPE TAPPING
		R744	ORH0000D622	0 1/10W P-TYPE TAPPING
		R745	ORH0000D622	0 1/10W P-TYPE TAPPING
		R746	ORH0000D622	0 1/10W P-TYPE TAPPING
		R752	ORJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R753	ORJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R760	ORJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R761	ORJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R765	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R766	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R767	ORJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R768	ORJ1801D677	1.8K OHM 1/10 W 5% 1608 R/TP
		R769	ORJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R809	ORJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R810	ORH5600D622	560 1/10W 5 D.R/TP
		R811	ORH0332D622	33 1/10W 5 D.R/TP
		R812	ORH0332D622	33 1/10W 5 D.R/TP

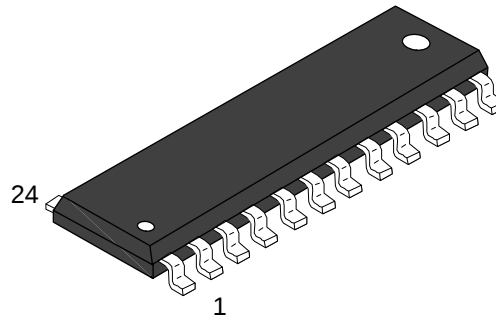
DATE: 2002. 2. 01.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R813	ORH0332D622	33 1/10W 5 D.R/TP
		R814	ORH0332D622	33 1/10W 5 D.R/TP
		R815	ORH0332D622	33 1/10W 5 D.R/TP
		R816	ORH0332D622	33 1/10W 5 D.R/TP
		R817	ORH0332D622	33 1/10W 5 D.R/TP
		R818	ORH0332D622	33 1/10W 5 D.R/TP
		R819	ORH0332D622	33 1/10W 5 D.R/TP
		R820	ORH0332D622	33 1/10W 5 D.R/TP
		R821	ORJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R822	ORH5600D622	560 1/10W 5 D.R/TP
		R824	ORJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R825	ORH0000D622	0 1/10W P-TYPE TAPPING
		R826	ORH0332D622	33 1/10W 5 D.R/TP
		R827	ORH0332D622	33 1/10W 5 D.R/TP
		R828	ORH0332D622	33 1/10W 5 D.R/TP
		R829	ORH0332D622	33 1/10W 5 D.R/TP
		R830	ORH0332D622	33 1/10W 5 D.R/TP
		RA202	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA204	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA206	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA208	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA210	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA212	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA214	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA216	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA218	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA220	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA222	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA224	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA225	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA226	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA227	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA228	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA229	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA230	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA231	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA232	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA233	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA234	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA235	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA236	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA237	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA238	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA239	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA240	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA241	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA242	ORHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
OTHERs				
		X201	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM 20
		X501	6202TST001E	SX-1 SUNNY CHIP 24MHZ 30PPM 20
POWER BOARD				
		BD901	0DD360000DA	D3SBA60 BK SHINDENGEN 600V 2
		C901	0CBZTBU002B	BULK PCX2 335 474K
		C902	0CKZTBU003C	SC E 472M 14.0BW7 250V BK7.5 S
		C903	0CKZTBU003C	SC E 472M 14.0BW7 250V BK7.5 S
		C904	0CBZTBU002C	BULK PCX2 335 104M
		C905	0CZZTAB002C	KMF 18*40 SYE / SWE 400V 120UF
		C906	0CK10302945	0.01UF 2KV Z F TR

DATE: 2002. 2. 01.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		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 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	0CKZTBU003C	SC E 472M 14.0BW7 250V BK7.5 S
		C921	0CE228EF630	2200UF KMG 16V M FM5 BULK
		C922	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000
		C923	0CKZTTA002E	EKR3A102K09FK5 SAMWHA 1KV 1000
		C924	0CE336BH638	33UF KME 25V M FM5 TP5
		D901	0DD400709CB	UF4007 TP G.I DO204AL 1000V 1
		D902	0DR400409AB	UF4004 TP G.I DO204AL 400V 1A
		D903	0DRIR00011B	16CTQ100 I.R ST TO220 100V 16A
		D906	0DRIR00021A	30CTQ060 I.R ST TO220 60V 30A
		D907	0DS113309AA	1SS133 TP ROHM KOREA DO34 90V
		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
		IC901	0IPMGIH001A	ICE2AS01 INFINEON 8P,DIP ST OF
		IC904	0IKE431000B	KIA431 (TP)
		IC905	0ISS780500F	KA7805
		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
		P902	6602T25008G	SMW250-08 YEONHO 2.5MM LOCK S/
△		PC1	0ILI817000E	LTV-817M B 4P BK PHOTO COUPLER
		Q902	0TFFN10003A	INFINEON SPA07N60C2 ST TO220 6
		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
		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	0RN0820H609	0.82 1/2W 5 TA52
		R927	0RD0102A609	10 OHM 1/2 W (7.0) 5% TA52
		R928	0RD0202Q609	20 1/4W(3 5% TA52
△		T901	6170TMZ125A	EER3016 340UH V-10PIN LB886F S
		TH901	6322TA080AA	TP8D13 DAEWOO +/- 15% 110/220
		ZD901	0DZ470009BC	GDZ4.7B TP GRANDE DO34 0.5W 4.

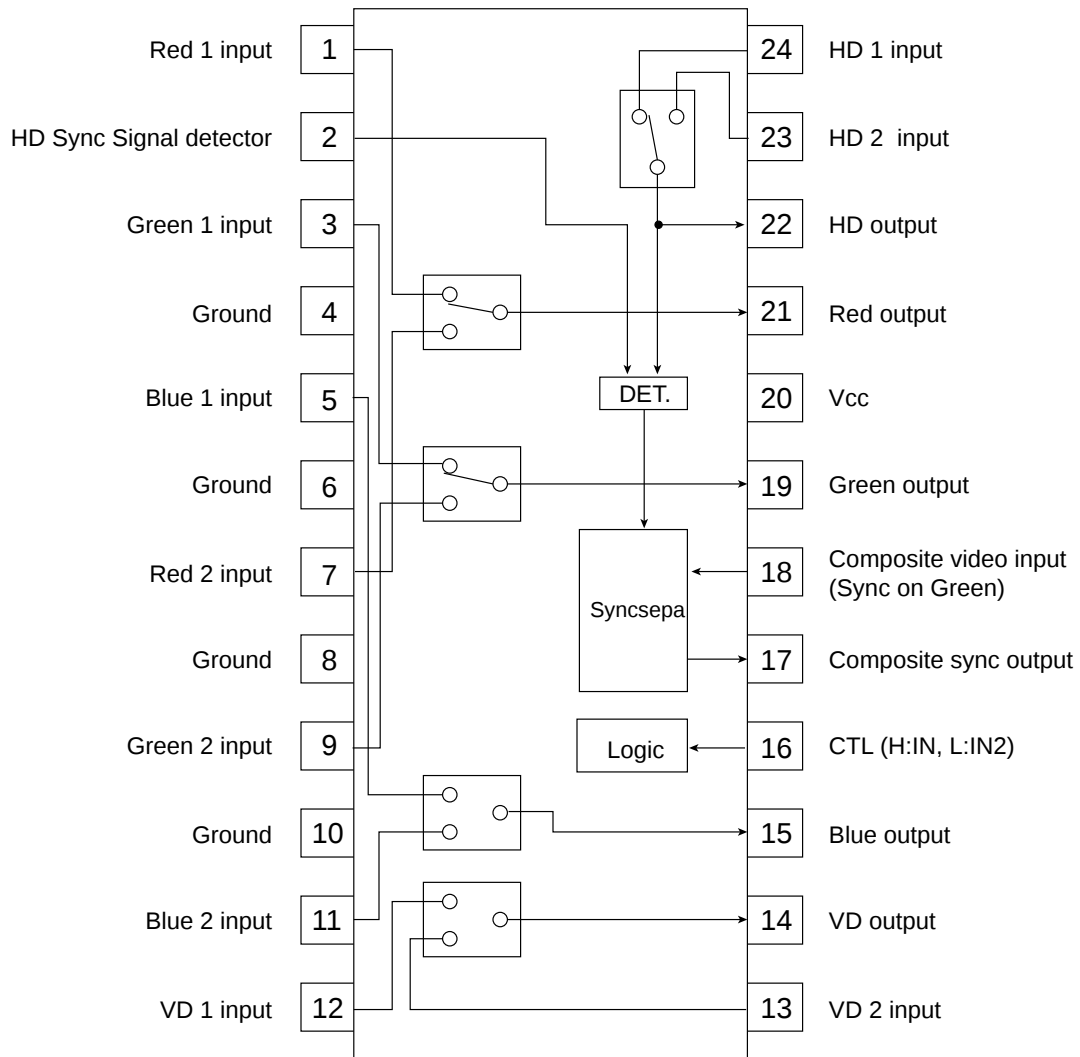
DATE: 2002. 2. 01.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CONTROL BOARD				
		R1	0RD4701Q609	4.70K 1/4W(3 5% TA52
		R2	0RD4701Q609	4.70K 1/4W(3 5% TA52
		R3	0RD8200Q609	820 1/4W(3 5% TA52
		R4	0RD8200Q609	820 1/4W(3 5% TA52
		R5	0RD1501Q609	1.50K 1/4W(3 5% TA52
		R6	0RD1501Q609	1.50K 1/4W(3 5% TA52
		R7	0RD2201Q609	2.20K 1/4W(3 5% TA52
		R8	0RD2201Q609	2.20K 1/4W(3 5% TA52
		SW1	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
		ZD1	0DZ560009CE	MTZJ5.6B TP ROHM-K DO34 500MW
		ZD2	0DZ560009CE	MTZJ5.6B TP ROHM-K DO34 500MW

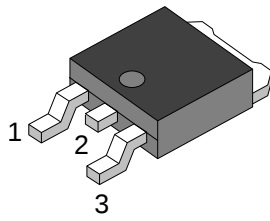
PIN CONFIGURATION

BA7657 Multimedia ICs

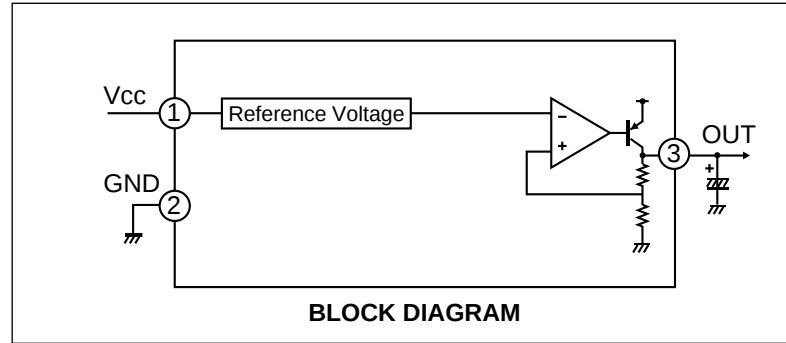
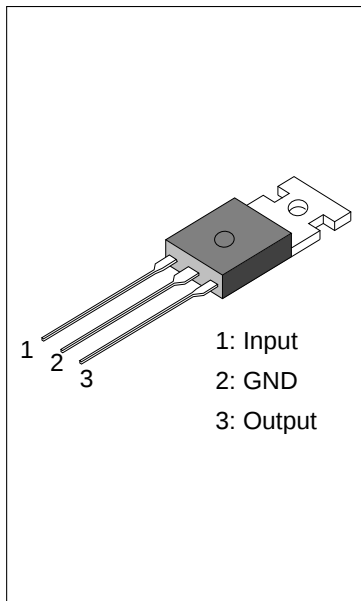


BLOCK DIAGRAM

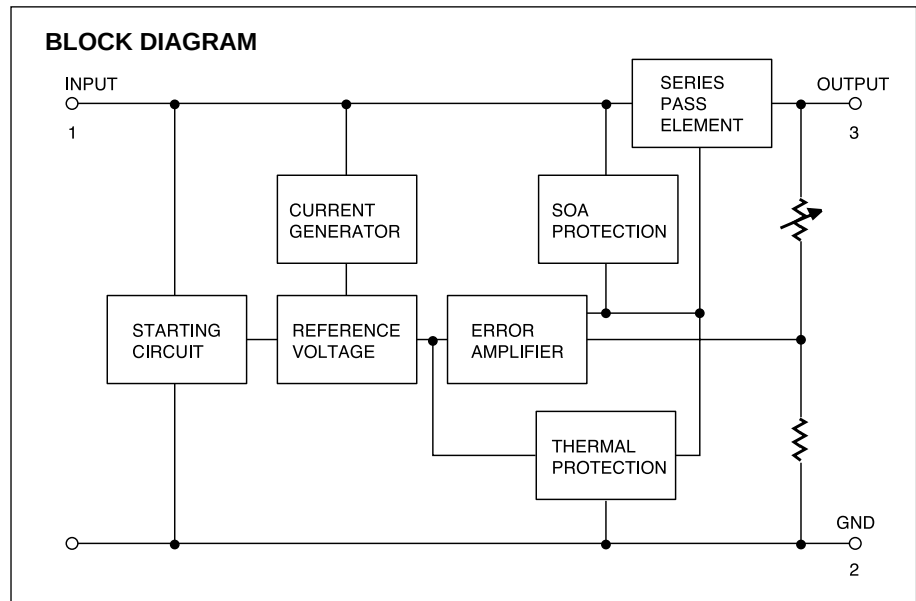


BA033**Low Saturation Voltage type 3-terminal Regulator**

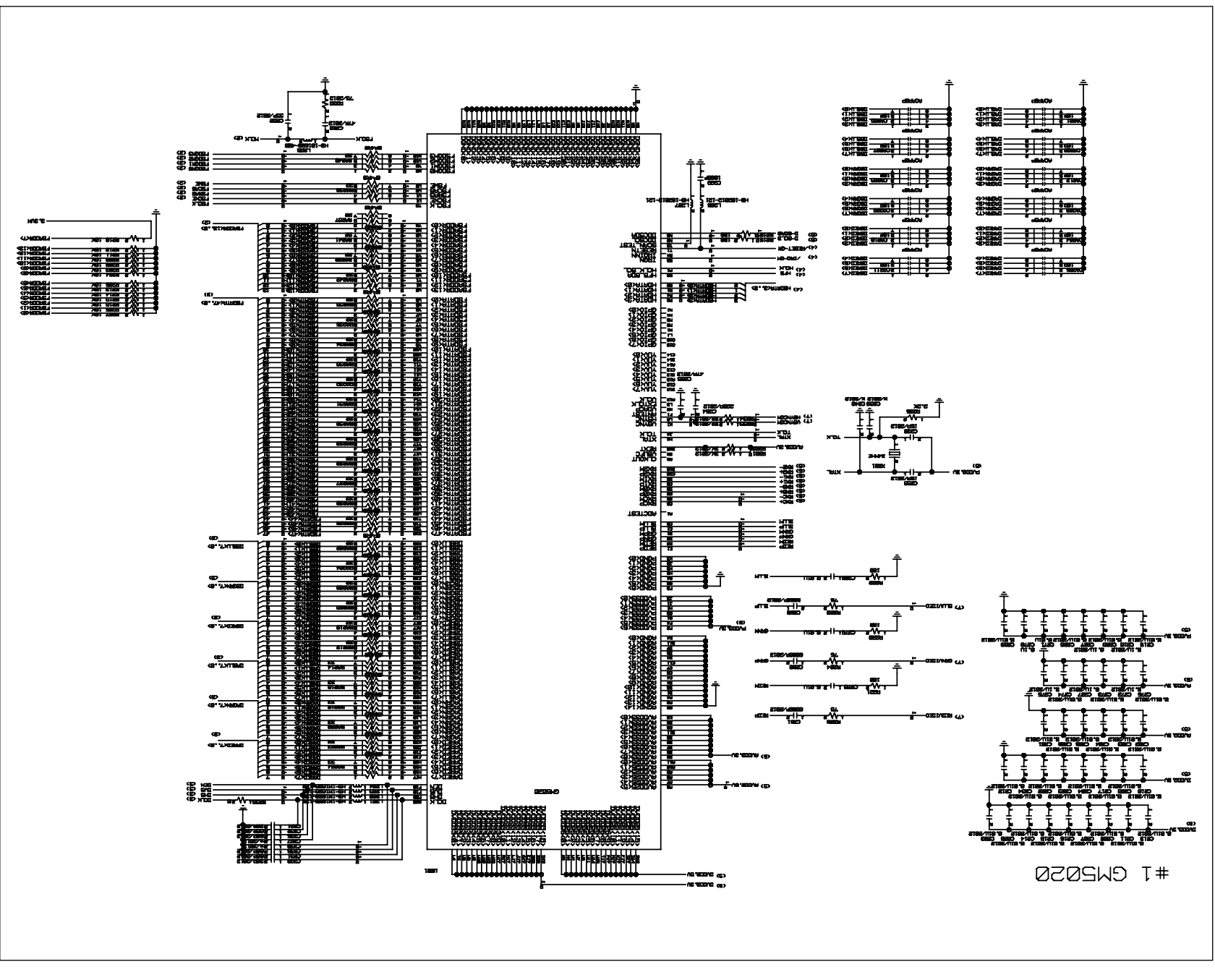
- 1. Vcc
- 2. GND
- 3. OUTPUT

**KA7812 (KA7808 , KA7805)****Positive Voltage Regulator 5V (8V, 12V)**

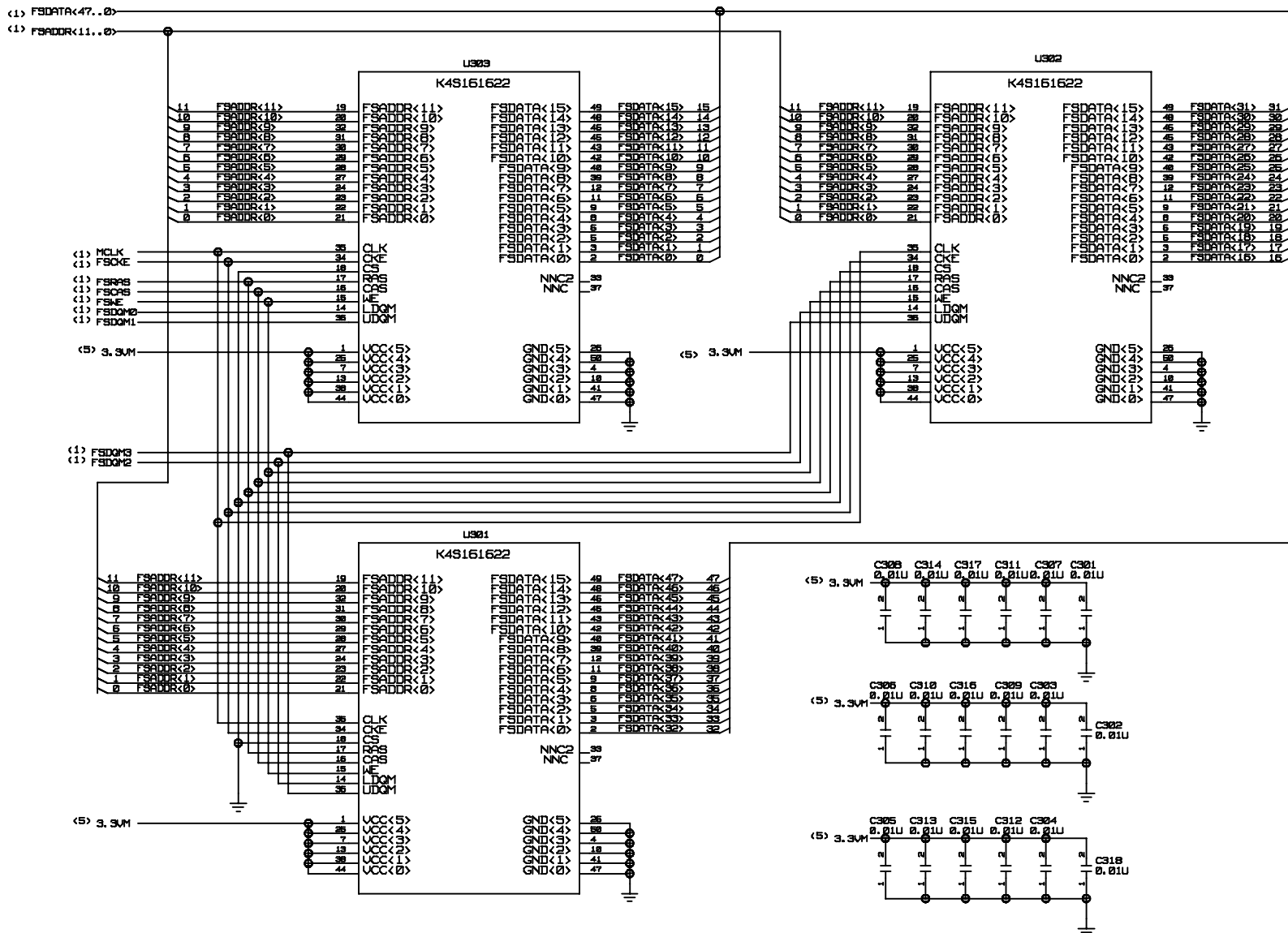
- 1: Input
- 2: GND
- 3: Output



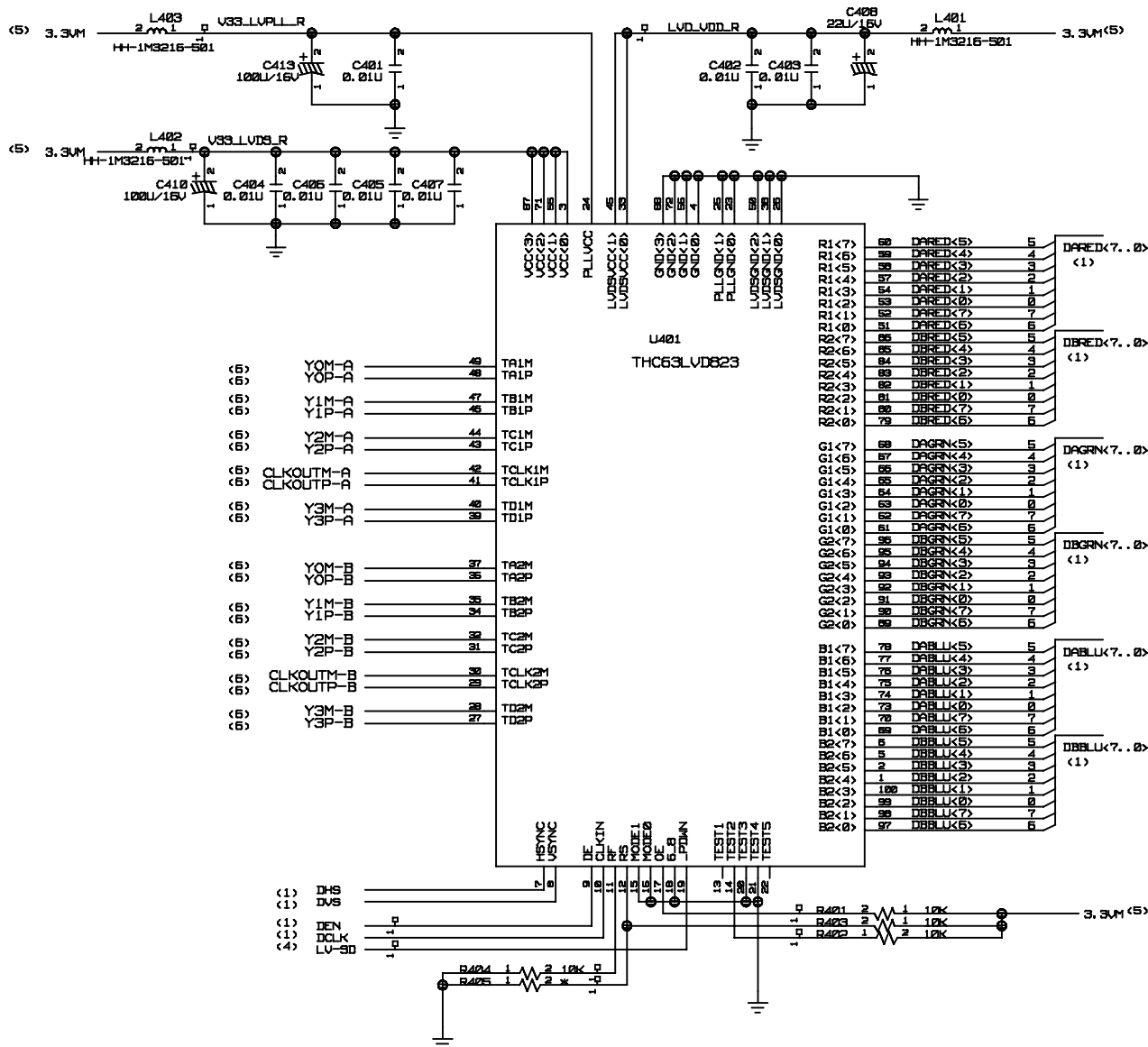
TYPE	PARTS	TYPE	PARTS
1. INPUT 2. GND 3. OUTPUT	Regulator	1. BASE 2. EMITTER 3. COLLECTOR	Transistor
	KA78M05R		KSC1623
1: REFERENCE 2: ANODE 3: CATHODE	KIA431 (Programmable Shunt Regulator)		KIA7042



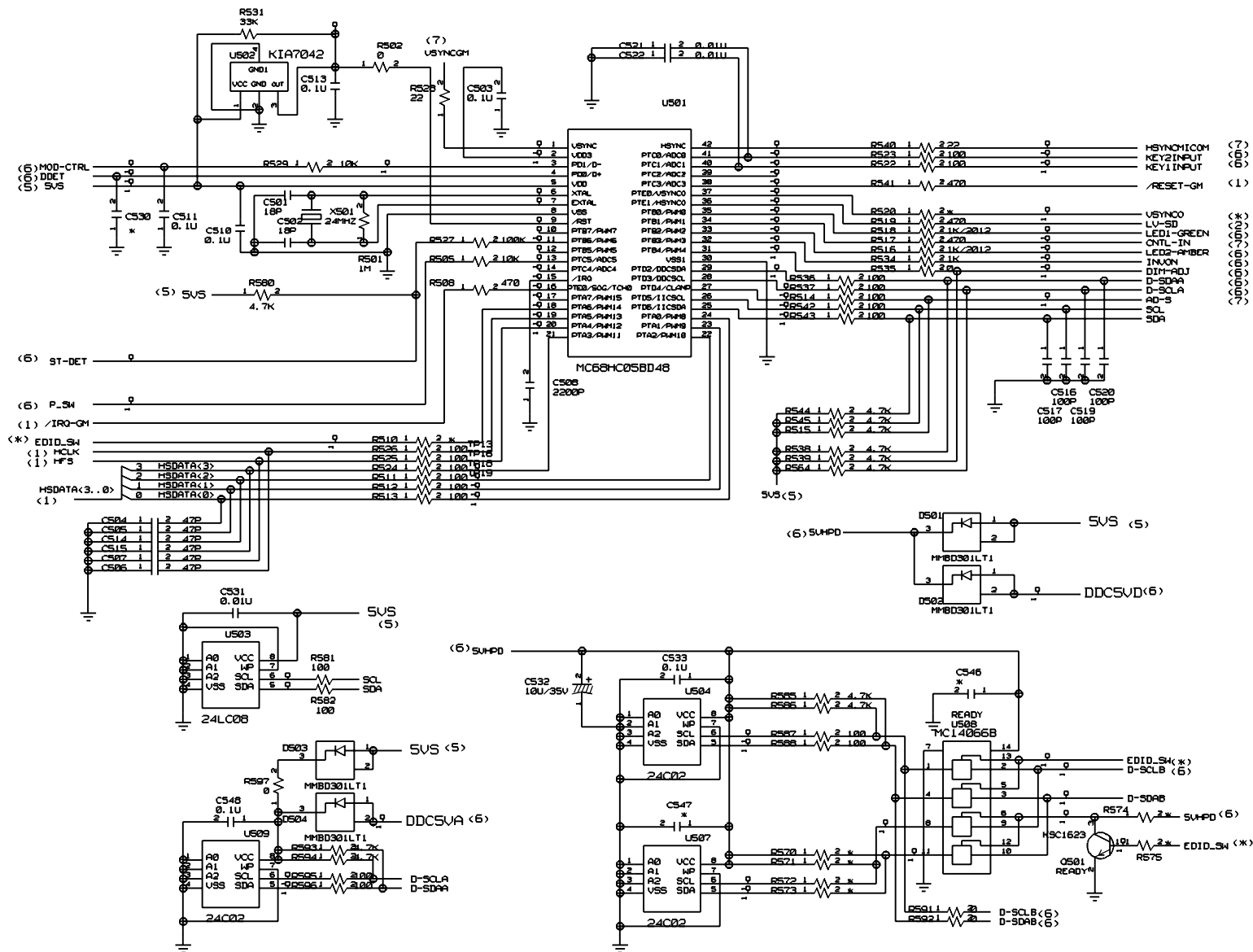
2. MEMORY



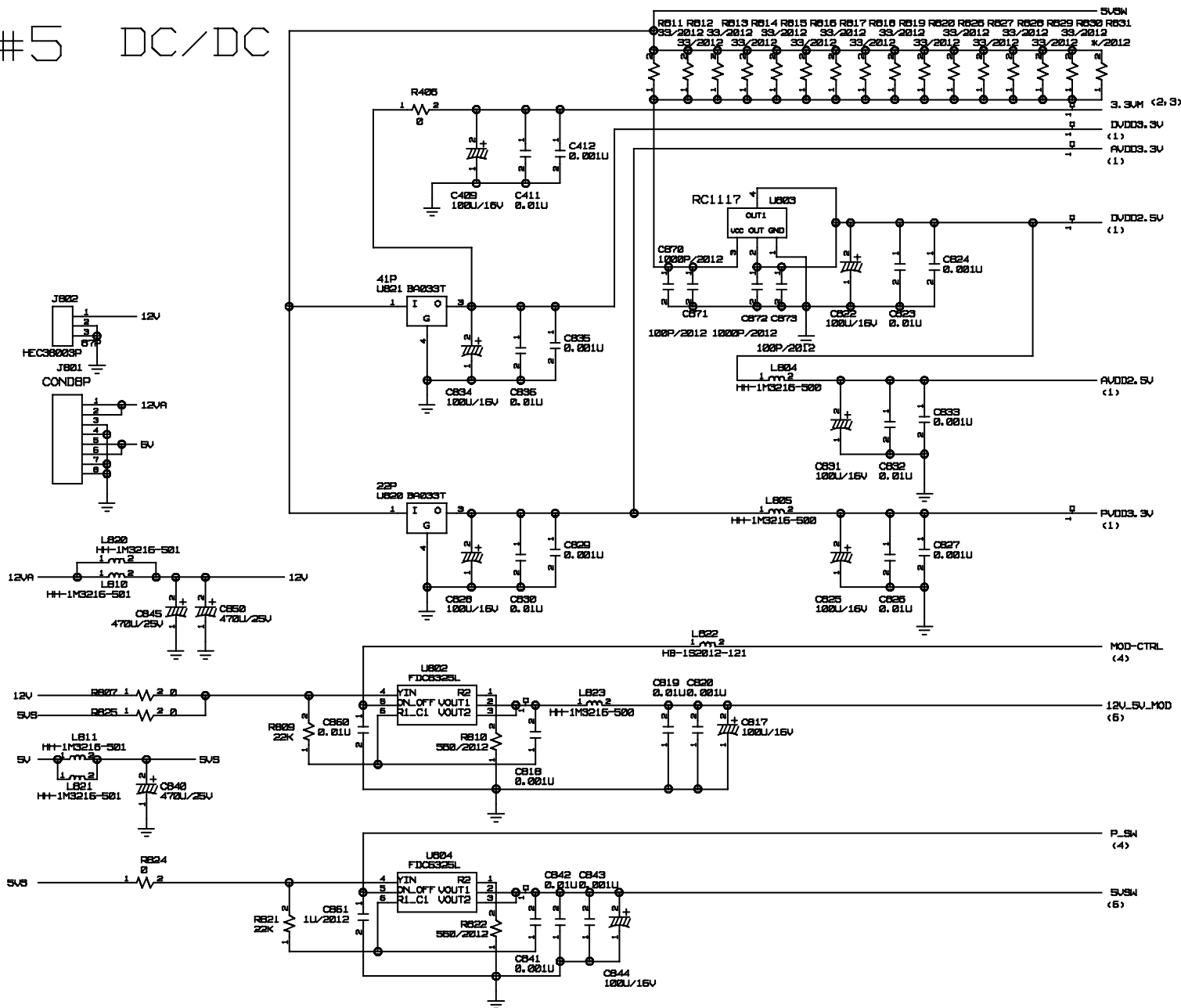
3. LVDS



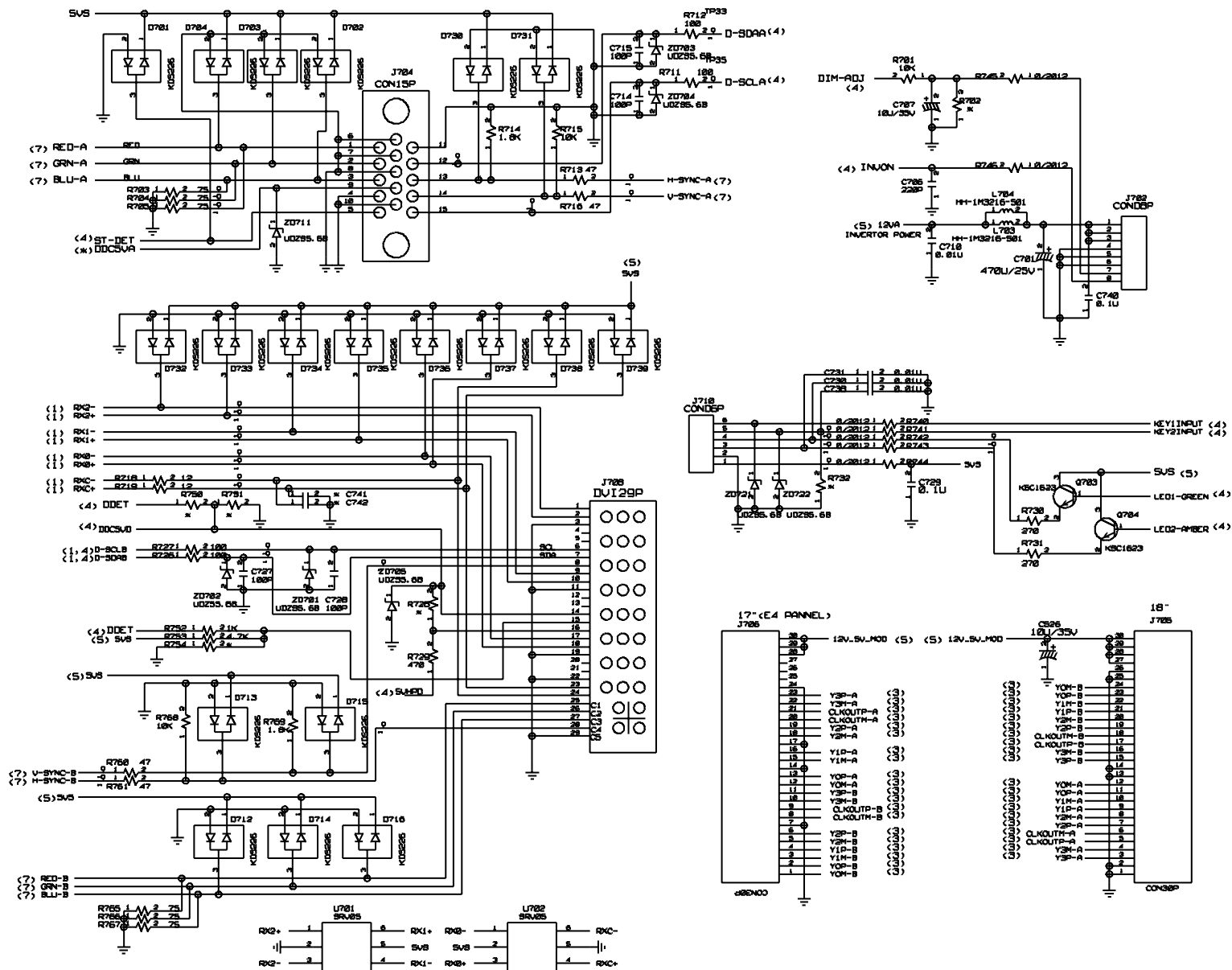
4. MICOM



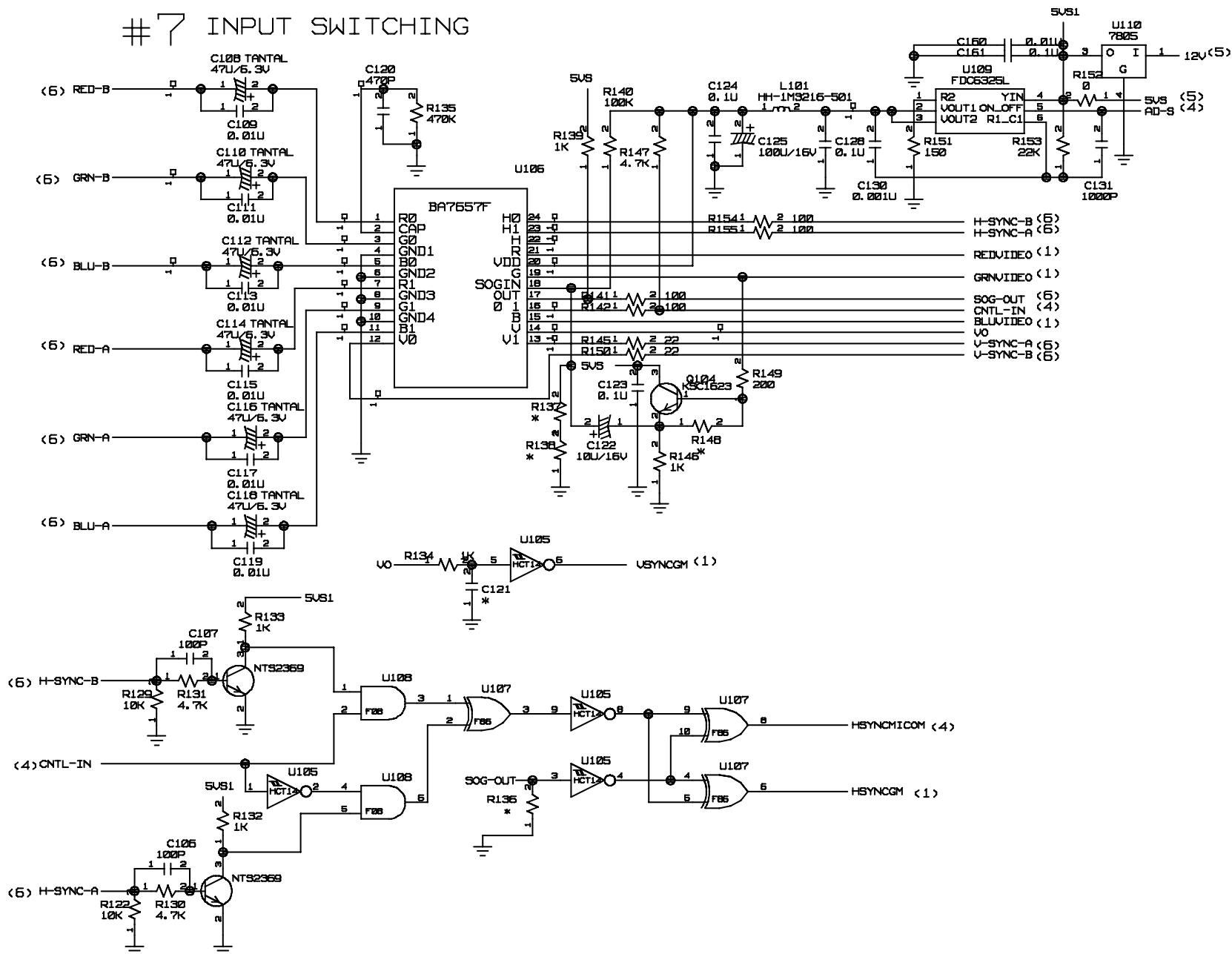
5. DC/DC

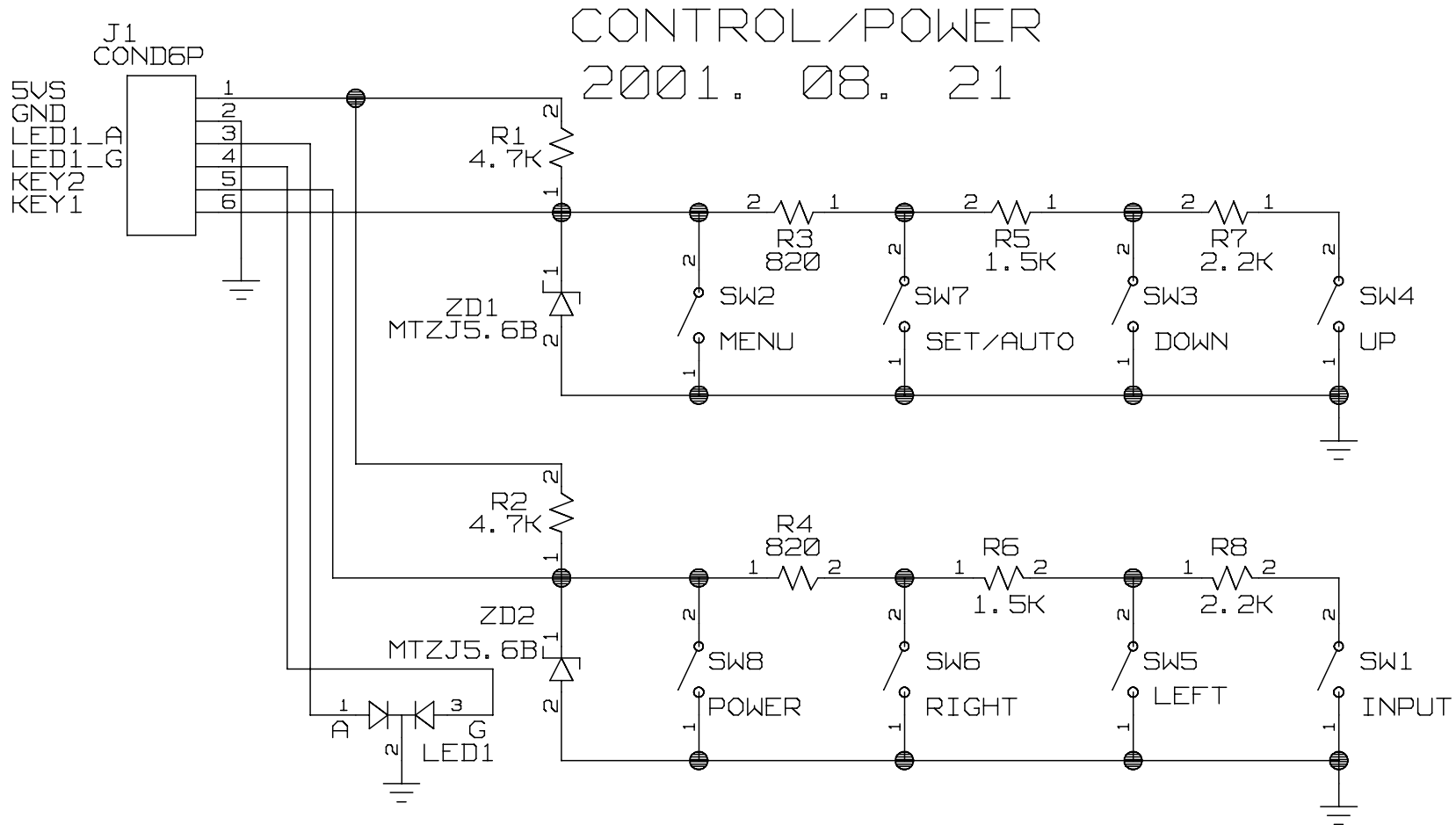


6. CONNECTOR



7. INPUT SWITCHING





LB886F Internal Power Circuit

2001.11.21

