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

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-42
FACTORY MODEL: LB700G
MODEL: FLATRON L1710S (LB700G-GU)
FLATRON L1710S (LB700G-GD)
FLATRON L1710S (LB700G-GL)

***( ) 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	: 17 inch
Pixel Pitch	: 0.264 (H) x 0.264 (V)
Color Depth	: 6-bit + FRC(16.2M)
Electrical Interface	: LVDS
Surface Treatment	: Anti-Glare, Polarizer Hardness
Operating Mode	: Normally White
Backlight Unit	: 4-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

(AU Module)

Left : -55° min., -70°(Typ) Right : +55° min., +70°(Typ)
Top :+55° min., +70°(Typ) Bottom : -55°min., -70°(Typ)

(Hydis Module)

Left : -60° min., -65°(Typ) Right : +60° min., +65°(Typ)
Top :+40° min., +45°(Typ) Bottom : -60°min., -65°(Typ)

(LPL Module)

Left : -70°(Typ) Right : +70°(Typ)
Top : +60°(Typ) Bottom : -60°(Typ)

2-2. Luminance : 200(min), 250(Typ)

2-3. Contrast Ratio : 200(min), 450(Typ) ***- AU, Hydis***
300(min), 400(Typ) ***- LPL***

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

• Type : Separate Sync,
SOG (Sync On Green)
Composite Sync

3-2. Video Input Signal

1) Type	: R, G, B Analog
2) Voltage Level	: 0~0.7 V
a) Color 0, 0	: 0 Vp-p
b) Color 7, 0	: 0.35 Vp-p
c) Color 15, 0	: 0.7 Vp-p
3) Input Impedance	: 75 Ω

3-3. Operating Frequency

Horizontal	: 30 ~ 83kHz (Digital: 71kHz)
Vertical	: 56 ~ 75Hz

4. Max. Resolution

Analog : 1280 x 1024 / 75Hz

5. POWER SUPPLY

5-1. Power : AC 100~240V, 50/60Hz , 1.0A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 40 W	GREEN
STAND-BY	OFF/ON	OFF	less than 3 W	AMBER
SUSPEND	ON/OFF	OFF	less than 3 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 3 W	AMBER
POWER S/W OFF	-	-	less than 1 W (@120V AC)	OFF

6. ENVIRONMENT

6-1. Operating Temperature:	10°C~35°C (50°F~95°F) (Ambient)
6-2. Relative Humidity	: 10%~80% (Non-condensing)
6-3. MTBF	: 50,000 Hours(Min)

7. DIMENSIONS (with TILT/SWIVEL)

Width	: 370 mm (14.57")
Depth	: 222.5 mm (8.76")
Height	: 421 mm (16.57")

8. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 6.0 kg (13.23 lbs)
Gross Weight	: 7.6 kg (16.76 lbs)

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

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

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

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

⚠ CAUTION

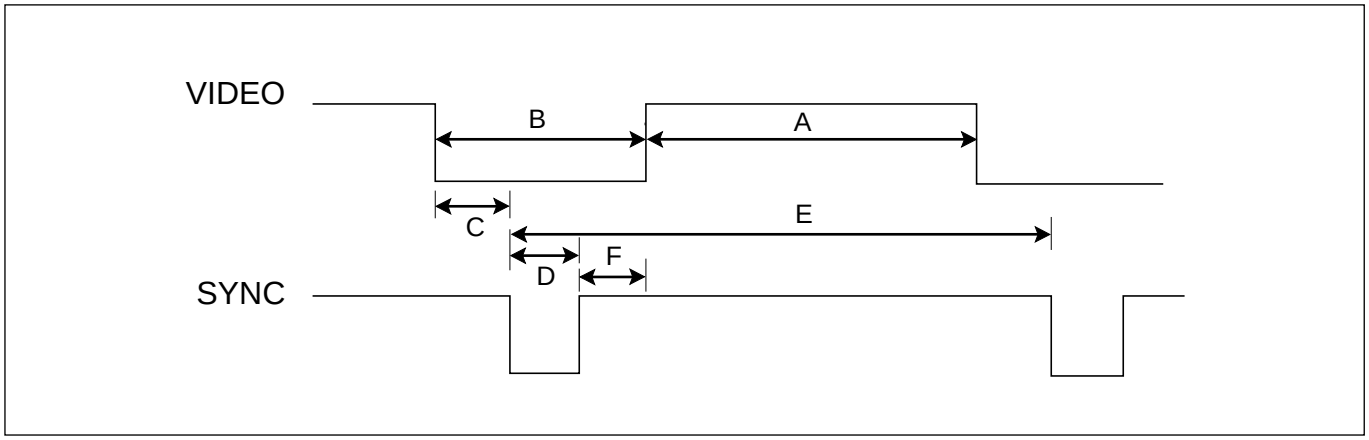
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

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

TIMING CHART



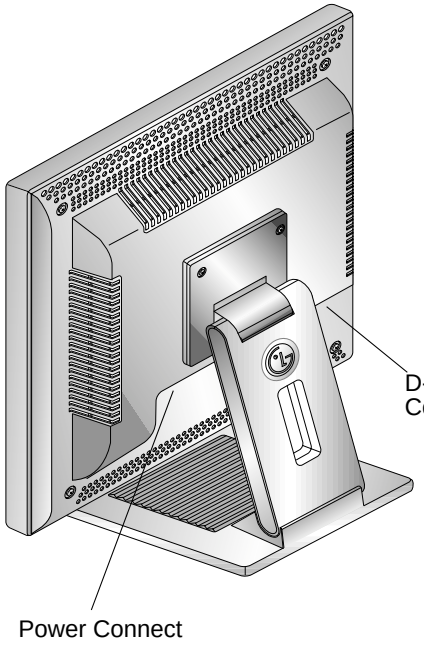
<< Dot Clock **(MHz),** Horizontal Frequency **(kHz)**, Vertical Frequency **(Hz)**, Horizontal etc... **(µs)**, Vertical etc... **(ms) >>**

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	–		70.8Hz	449	350	37	2	60	
2	H	–	28.321	31.468	900	720	18	108	54	**720x400 70Hz**
	V	+		70.09	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	+	40.0	37.879	1056	800	40	128	88	**800x600 60Hz**
	V	+		60.317	628	600	1	4	23	
6	H	+	49.5	46.875	1056	800	16	80	160	**800x600 75Hz**
	V	+		75.0	625	600	1	3	21	
7	H	+/–	57.283	49.725	1152	832	32	64	224	**832x624 75Hz**
	V	+/–		74.55	667	624	1	3	39	
8	H	–	65.0	48.363	1344	1024	24	136	160	**1024x768 60Hz**
	V	–		60.0	806	768	3	6	29	
9	H	–	78.75	60.123	1312	1024	16	96	176	**1024x768 75Hz**
	V	–		75.029	800	768	1	3	28	
10	H	+/–	100.0	68.681	1456	1152	32	128	144	**1152x870 75Hz**
	V	+/–		75.062	915	870	3	3	39	
11	H	+/–	92.978	61.805	1504	1152	18	134	200	**1152x900 65Hz**
	V	+/–		65.96	937	900	2	4	31	
12	H	+	108.0	63.981	1688	1280	48	112	248	**1280x1024 60Hz**
	V	+		60.02	1066	1024	1	3	38	
13	H	+	135.0	79.976	1688	1280	16	144	248	**1280x1024 75Hz**
	V	+		75.035	1066	1024	1	3	38	

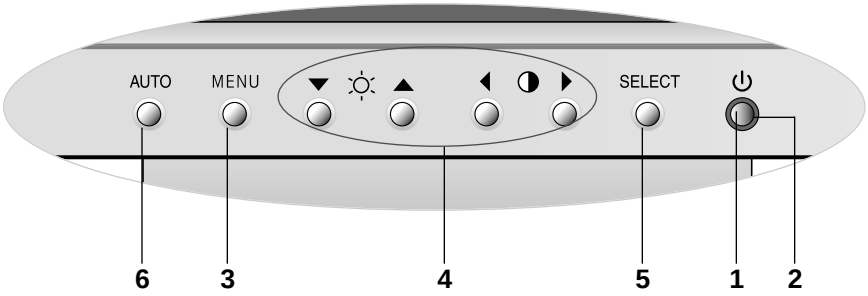
OPERATING INSTRUCTIONS

FRONT VIEW

REAR VIEW



Front Control Panel



1. Power ON/OFF Button
Use this button to turn the monitor on or off.

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

3. MENU Button
Use these buttons to enter or exit the On Screen Display.

4. ▼▲◀▶ Button
Use these buttons to choose or adjust items in the On Screen Display.

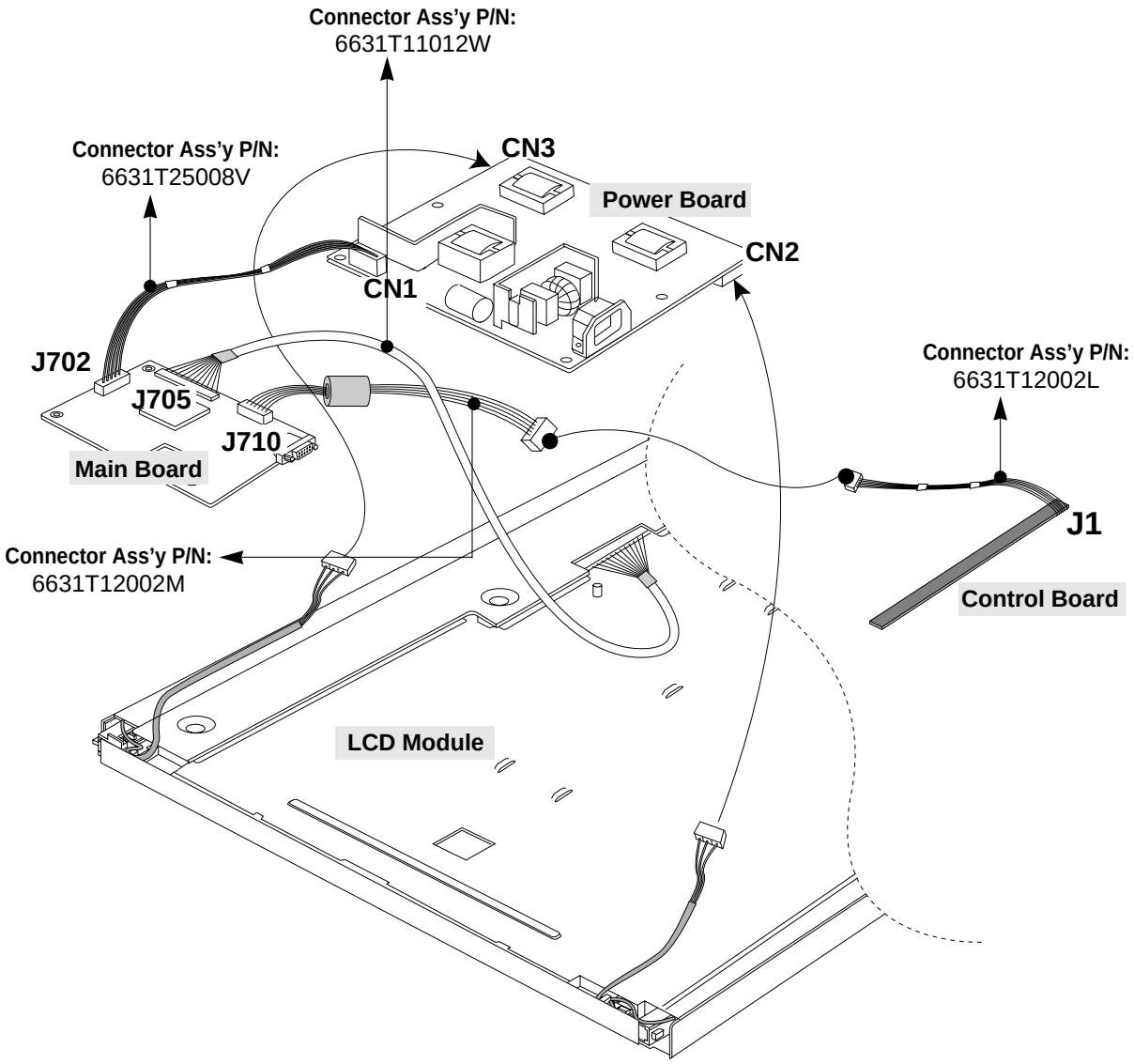
5. SELECT Button
Use this button to enter a selection in the On Screen Display.
Use this button to scanning auto adjust.

6. AUTO Button
Use this button to enter a selection in the on screen display.

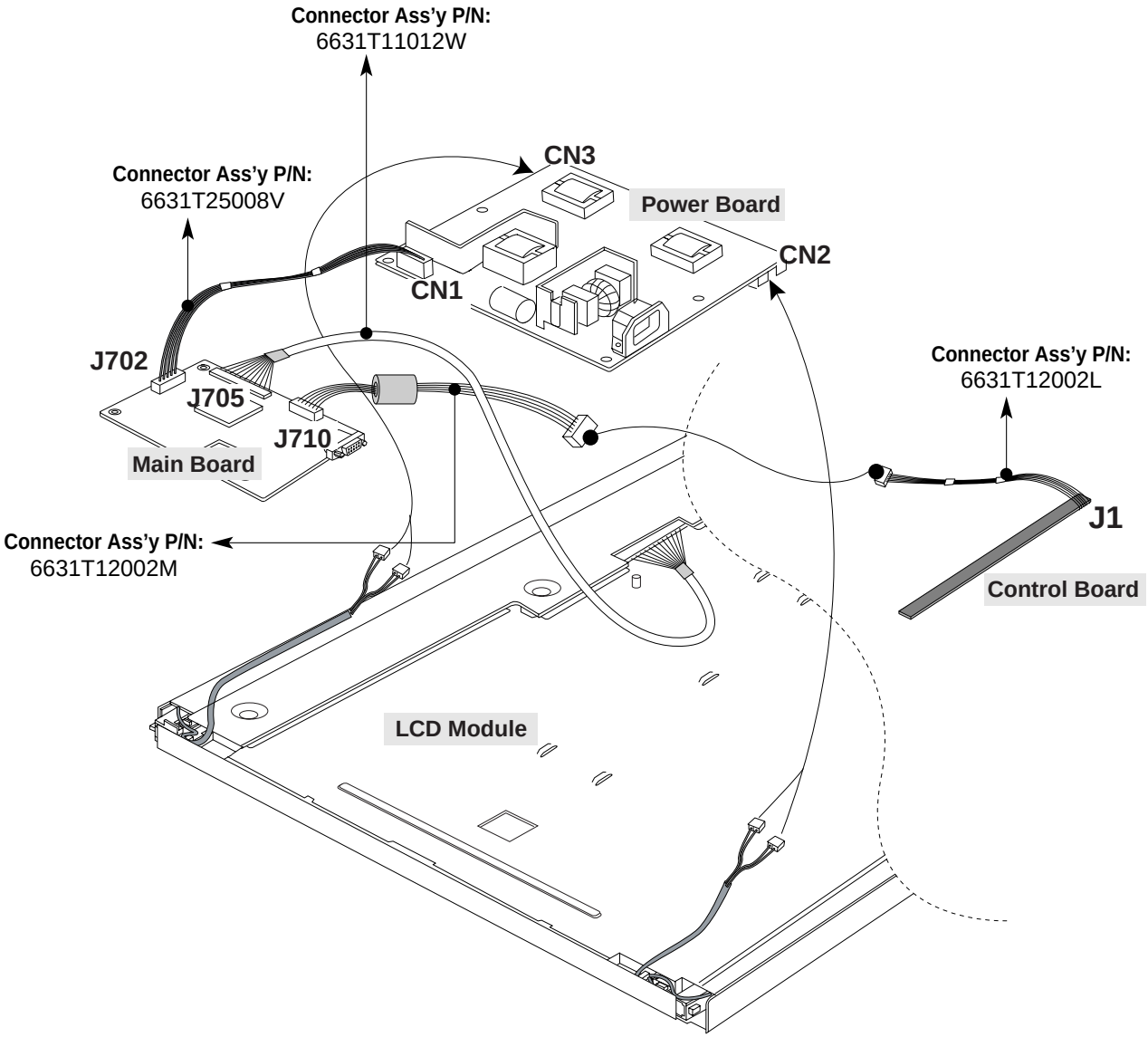
*** AUTO adjustment function**

TO the **AUTO** 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.

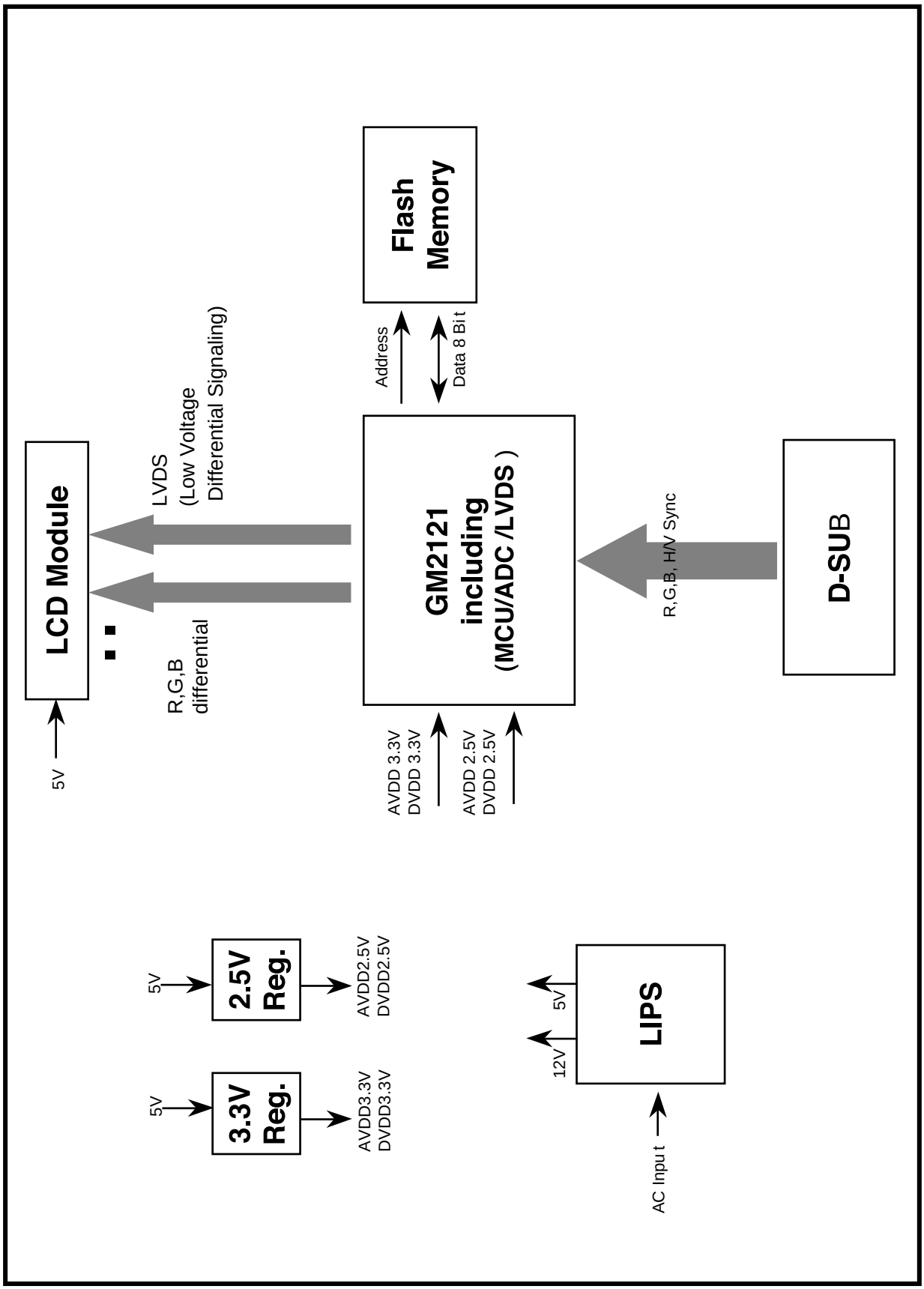
WIRING DIAGRAM
(AU Module)



WIRING DIAGRAM
(Hydis Module / LPL Module)



BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

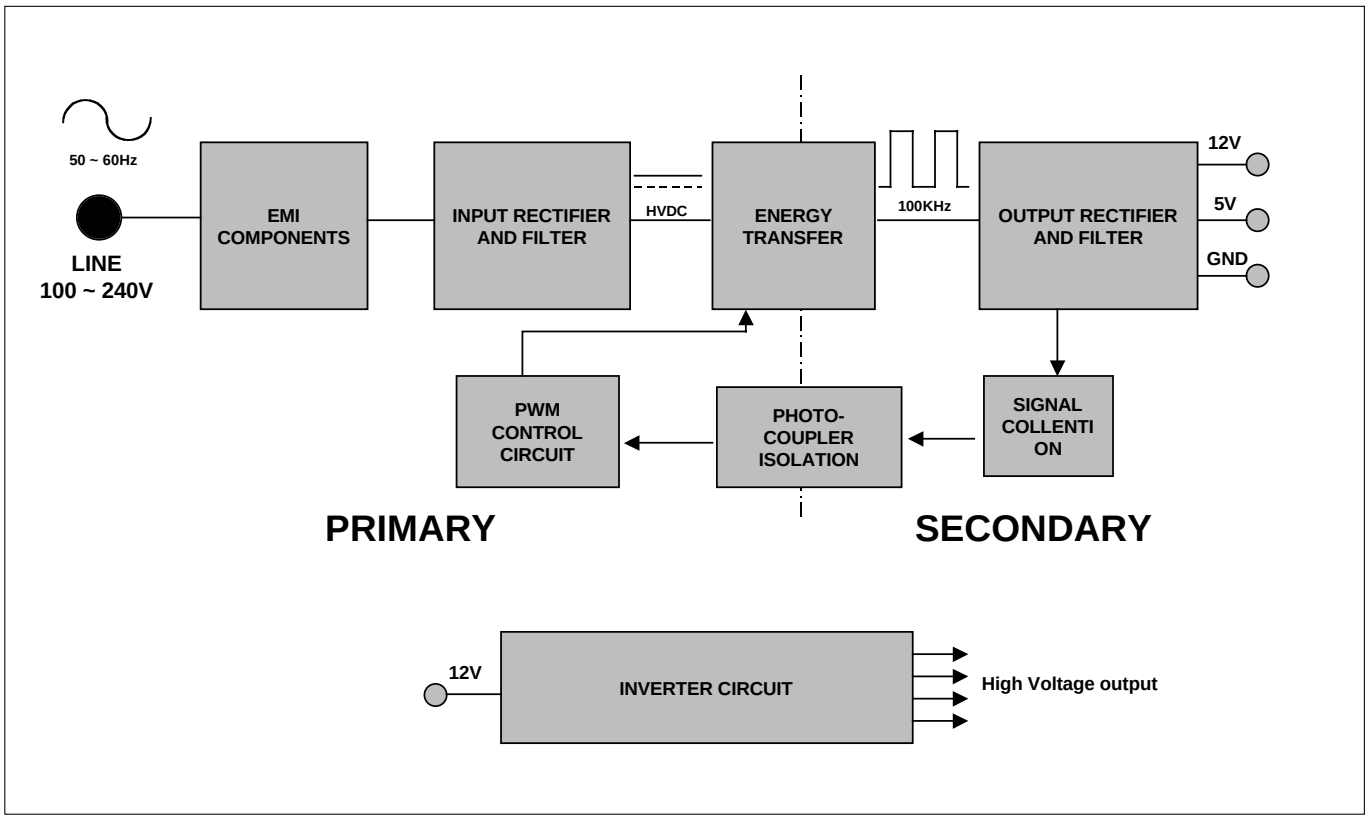
1. Video Controller Part & Display Data Transmitter Part.

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 pixel clock.
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, Flash-ROM IC which stores program data, Reset IC.
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/ Transmitter are merged to one chip ‘Gm2121’ by Genesis.
This part transmit digital signal from the Scaler to the receiver of module.

2. Power Part

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

LIPS Board Block Diagram



Operation description_LIPS

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

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

3. Energy Transfer.
This part function is 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 achieve the stabilized dc output voltage.

6. Signal collection.
This part function is to collect the any change from the dc output and feed back to the primary through photo transistor.

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

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 LB700G on the IBM compatible PC.
3) Select EEPROM → Init → Initialize command and Enter.
4) This will make all data to default state.
5) Select COLOR→ PRESET START command and Enter.

2. Adjustment for White Balance
1) Display Black pattern at SXGA/60Hz.
2) Select COLOR → BIAS CALIBRATION command and Enter.
3) No attempt to manually adjust, BIAS data is automatically adjusted and saved to the EEPROM.
4) Display Full White pattern at SXGA/60Hz.
5) Select GAIN CALIBRATION command and Enter.
6) 6500K and 9300K are automatically adjusted and saved to the EEPROM.
7) Select COLOR → PRESET END command and Enter.

3. Adjustment for EDID
1) Use this procedure only when there is some probelm on EDID data.
2) Connect the D-sub cable.
3) Select EDID → Write EDID[A0] command and Enter.

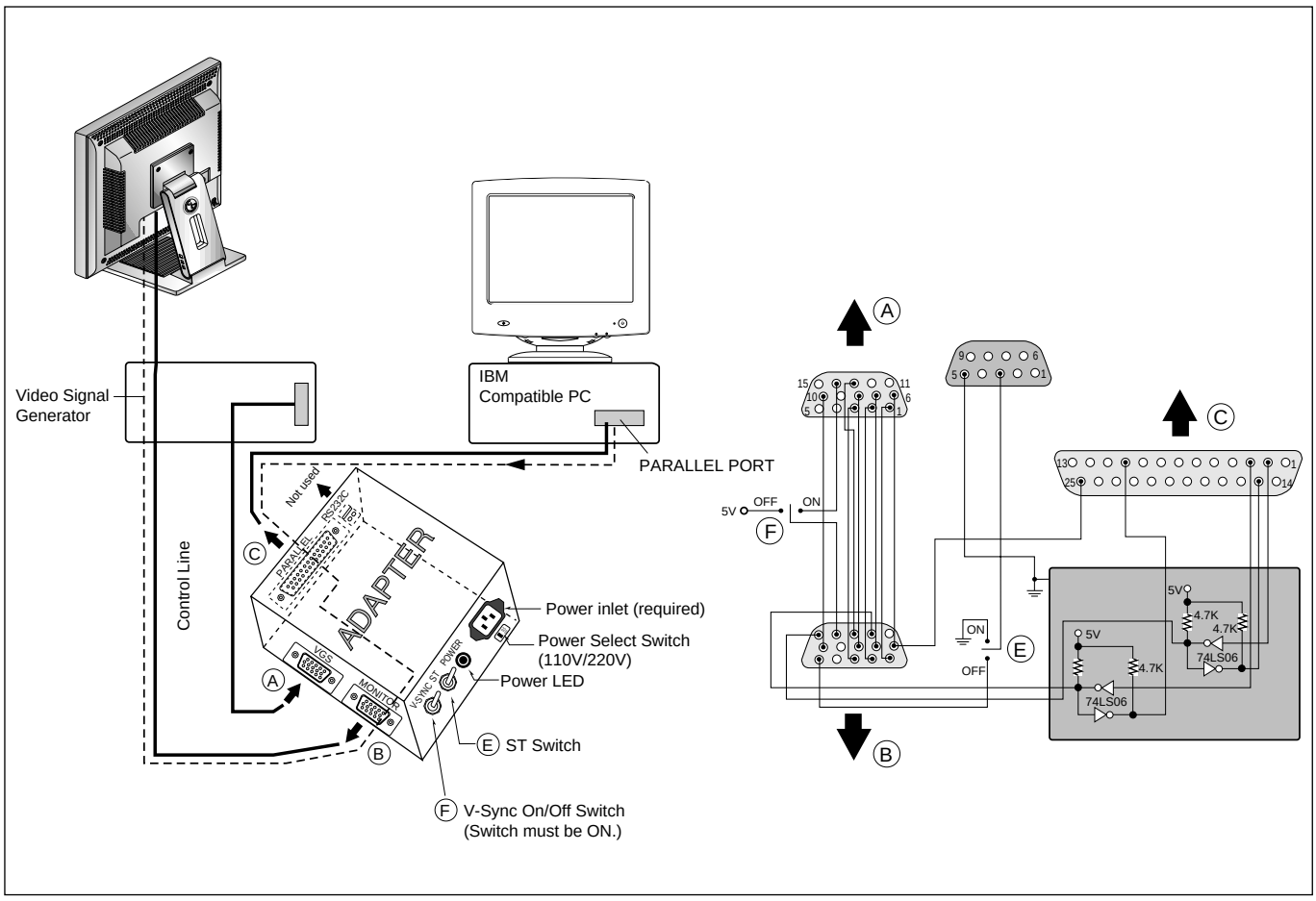
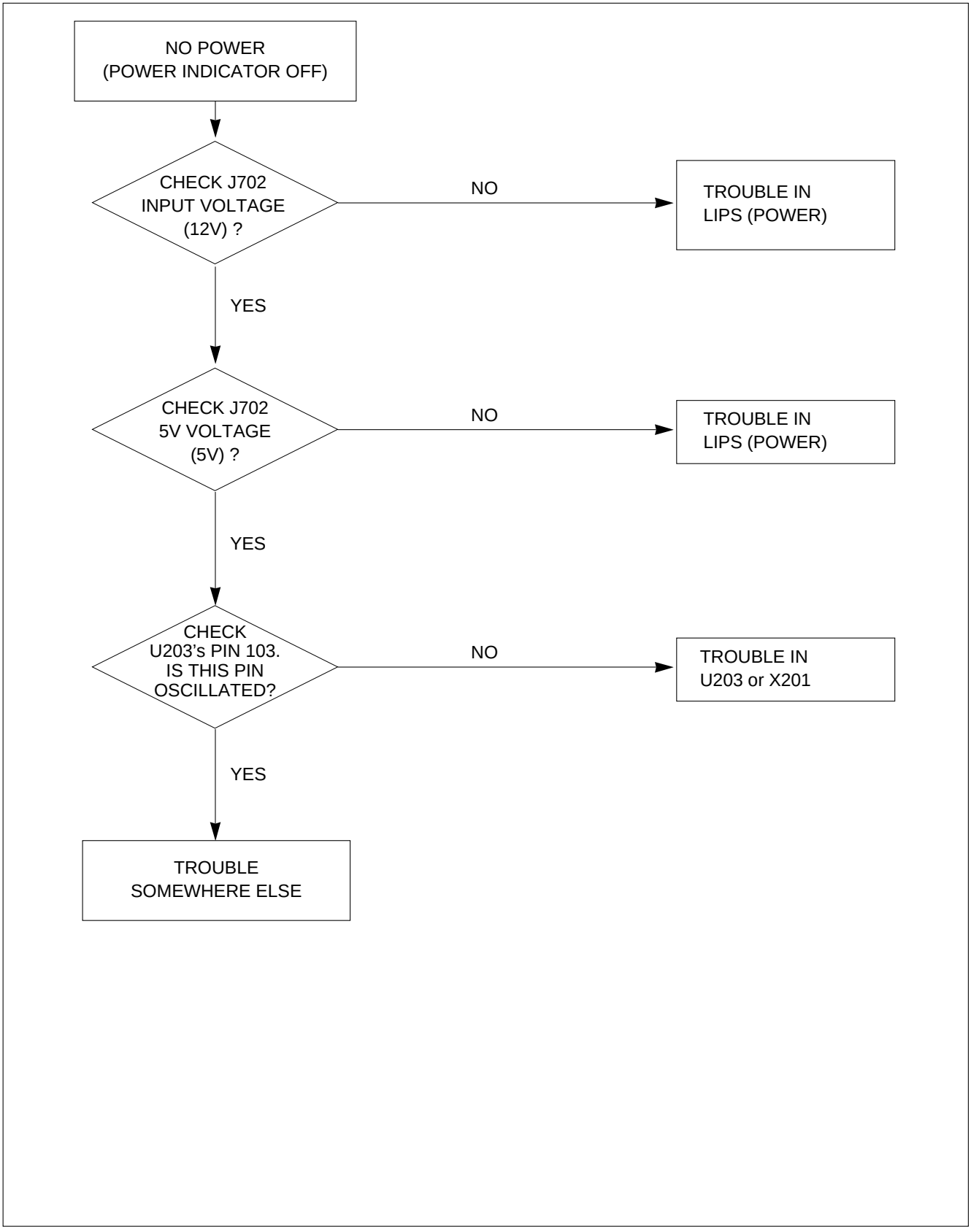


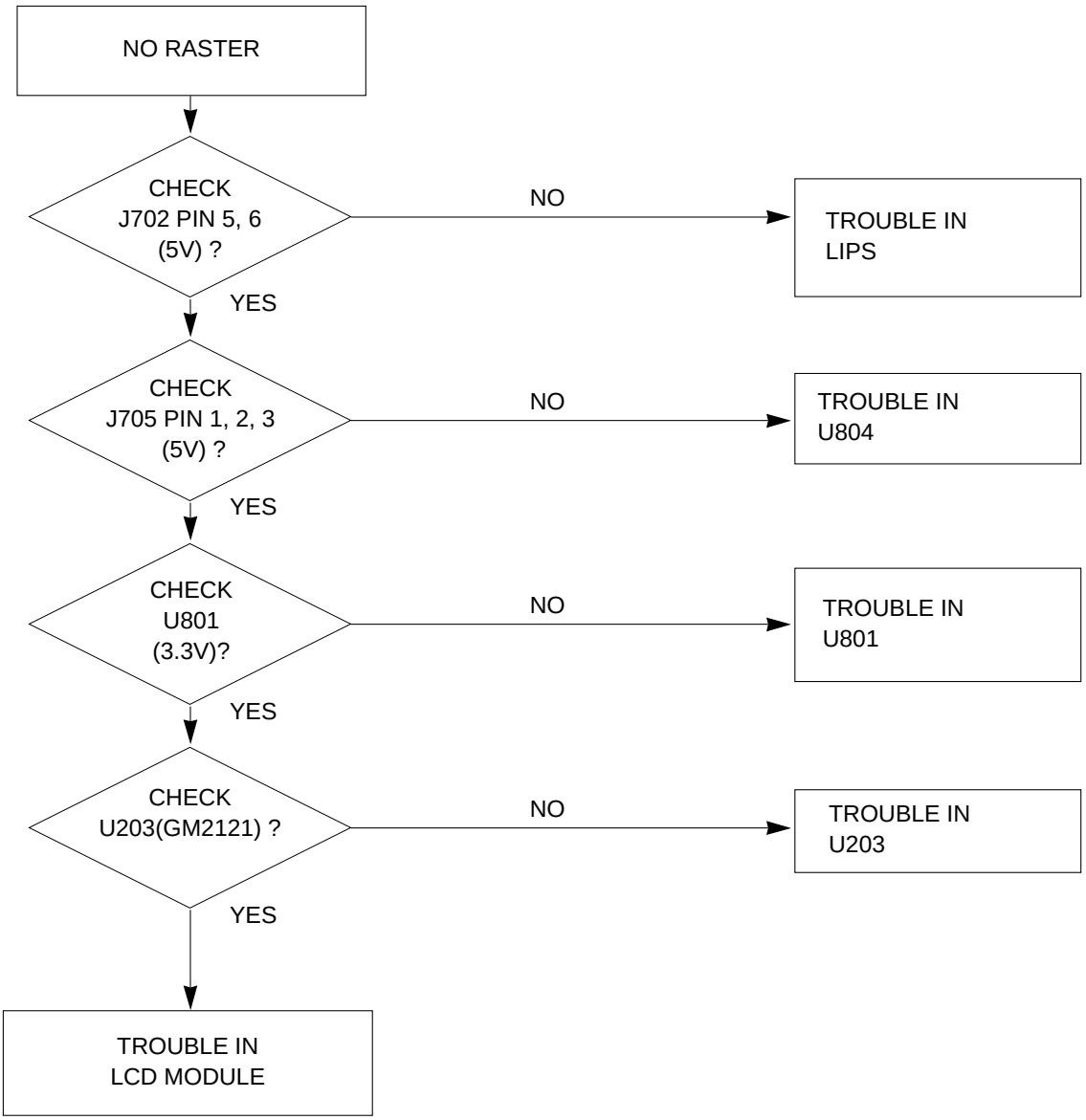
Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

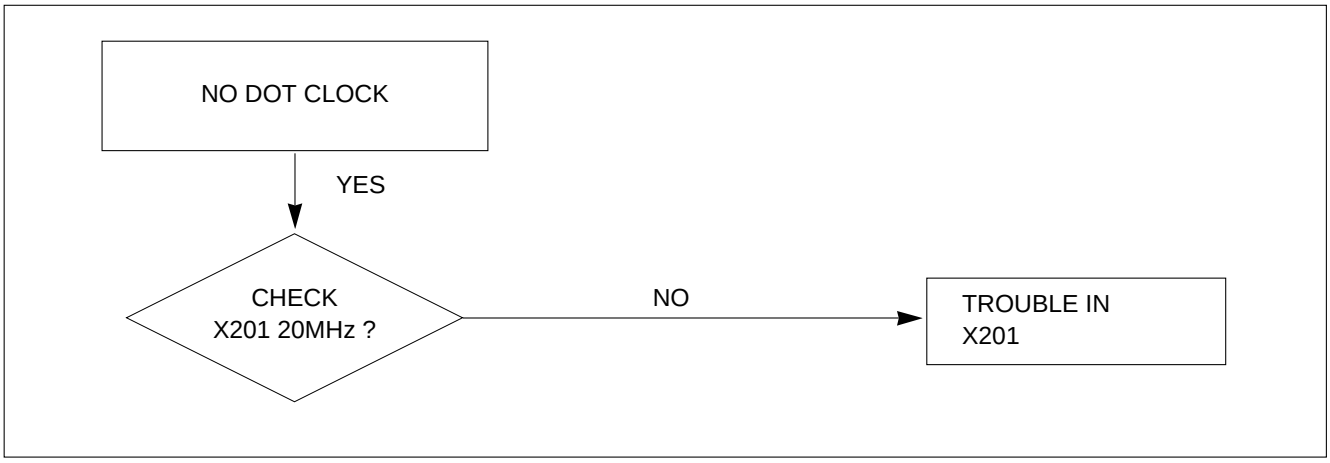
1. NO POWER



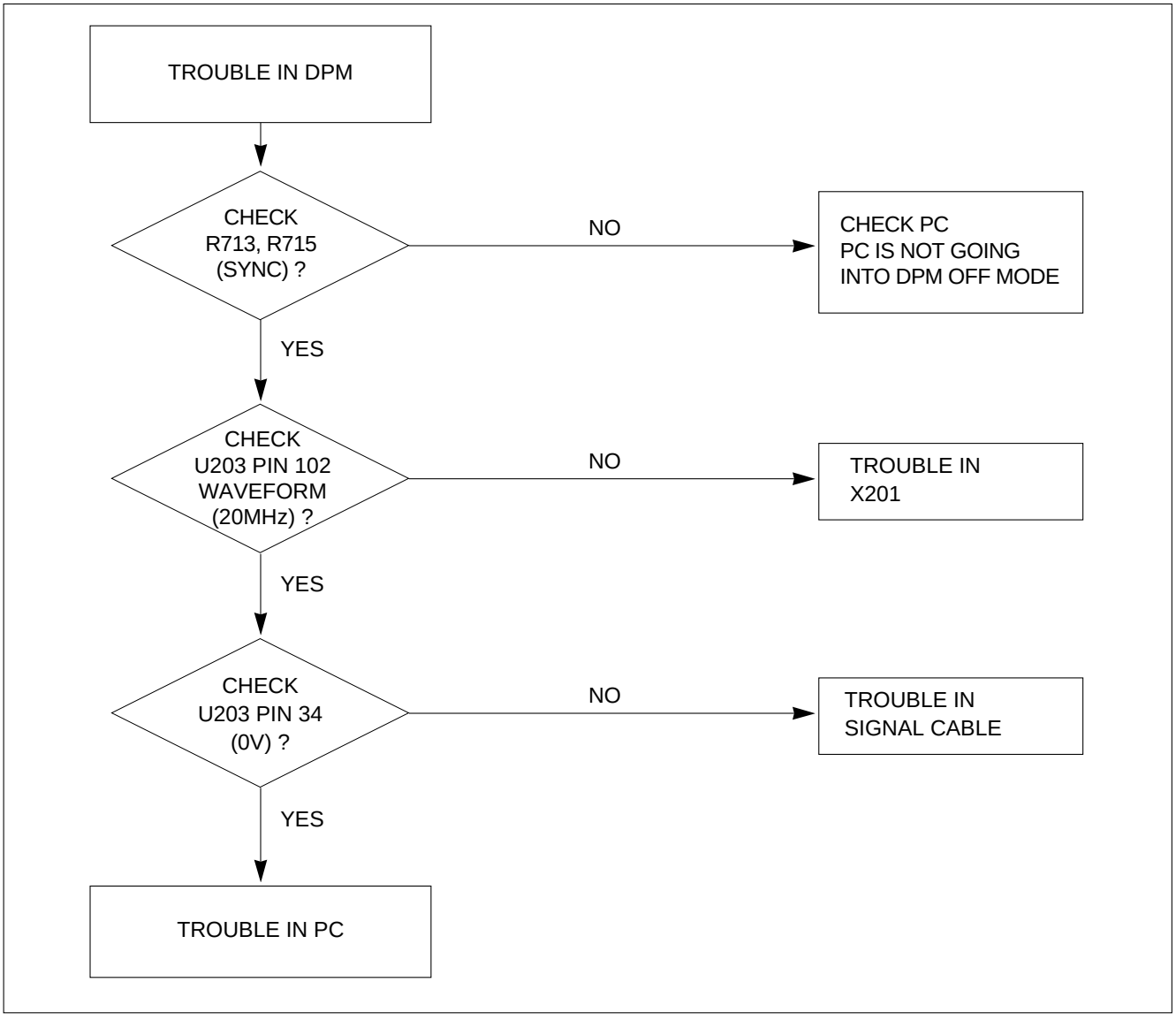
2. NO RASTER


NO RASTER
CHECK
J702 PIN 5, 6
(5V) ?
NO
TROUBLE IN
LIPS
YES
CHECK
J705 PIN 1, 2, 3
(5V) ?
NO
TROUBLE IN
U804
YES
CHECK
U801
(3.3V)?
NO
TROUBLE IN
U801
YES
CHECK
U203(GM2121) ?
NO
TROUBLE IN
U203
YES
TROUBLE IN
LCD MODULE

3. NO CLOCK (CLOCK GENERATOR)

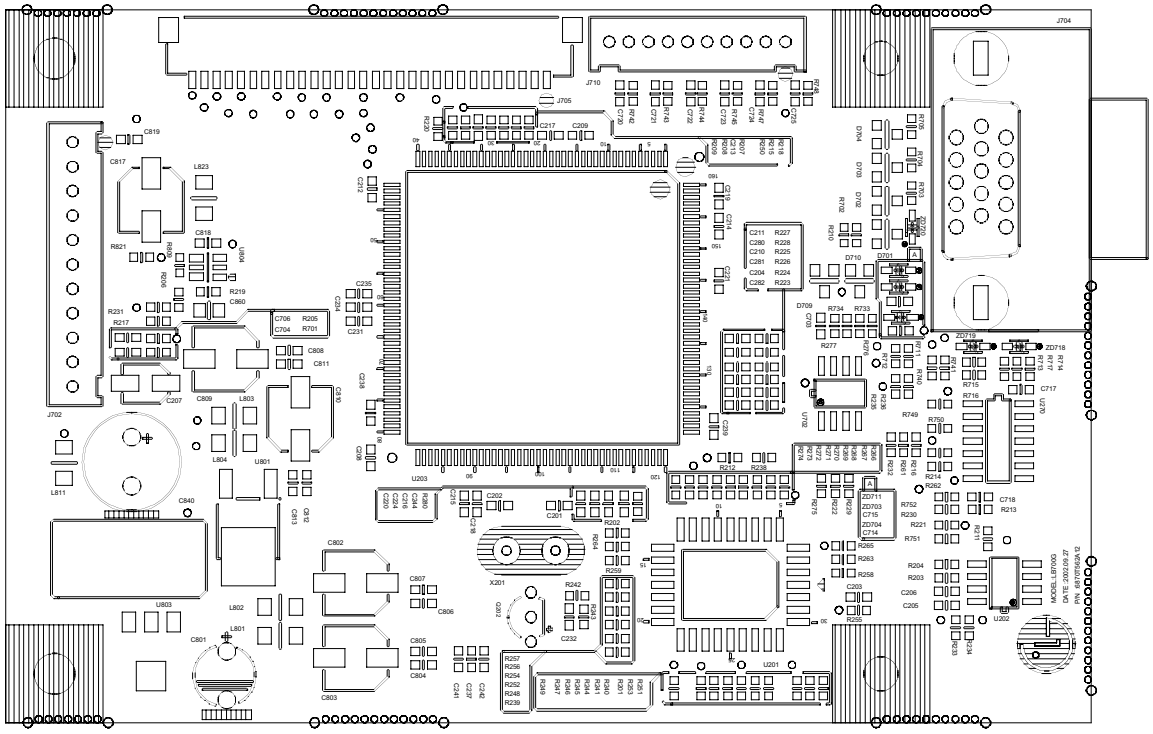


4. TROUBLE IN DPM

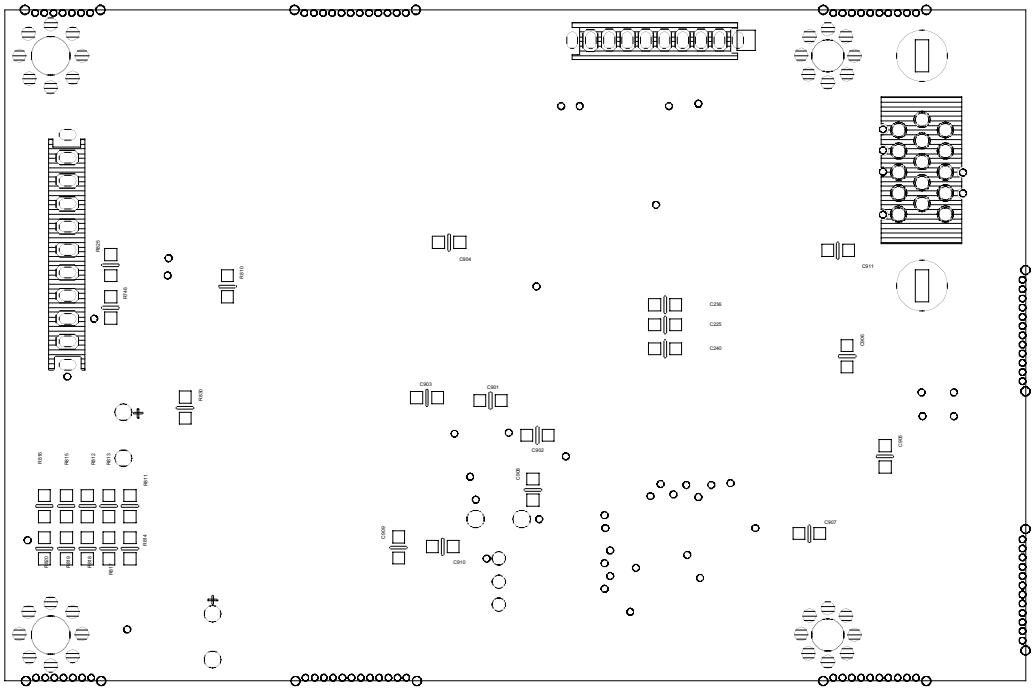


PRINTED CIRCUIT BOARD

1. MAIN BOARD (Component Side)

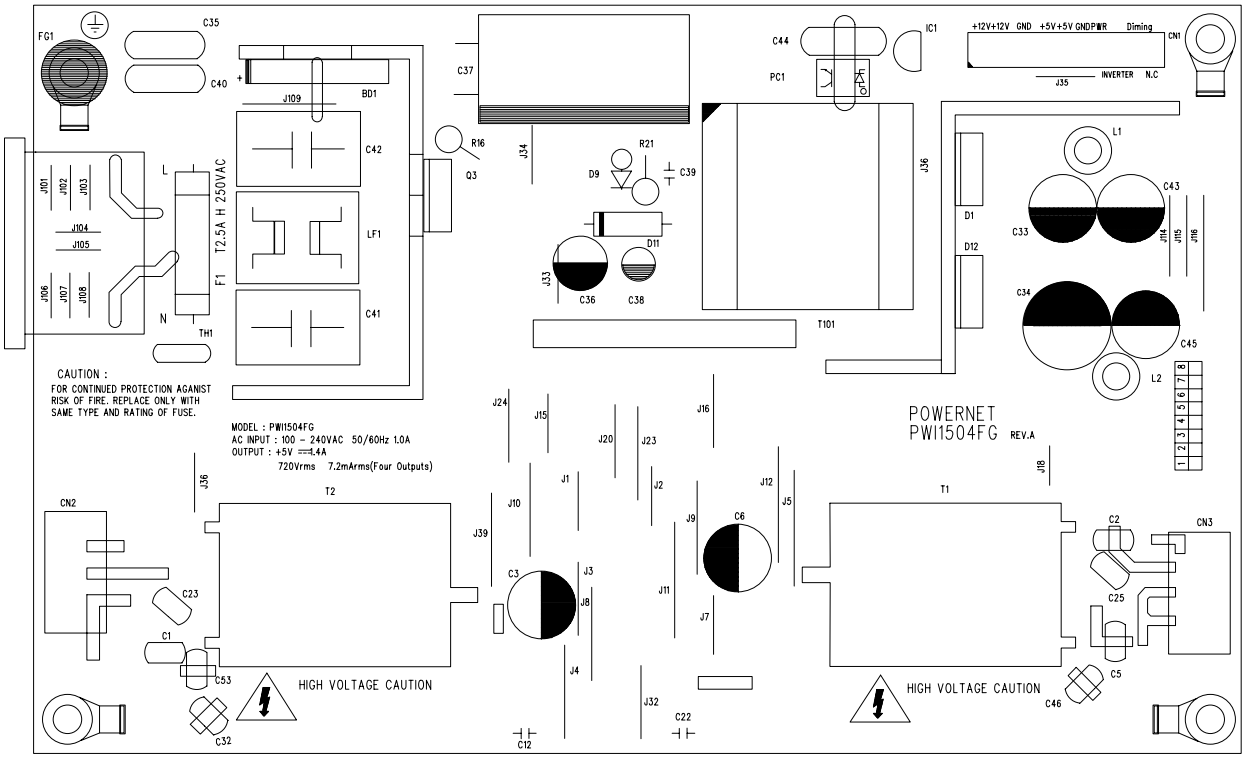


2. MAIN BOARD (Solder Side)

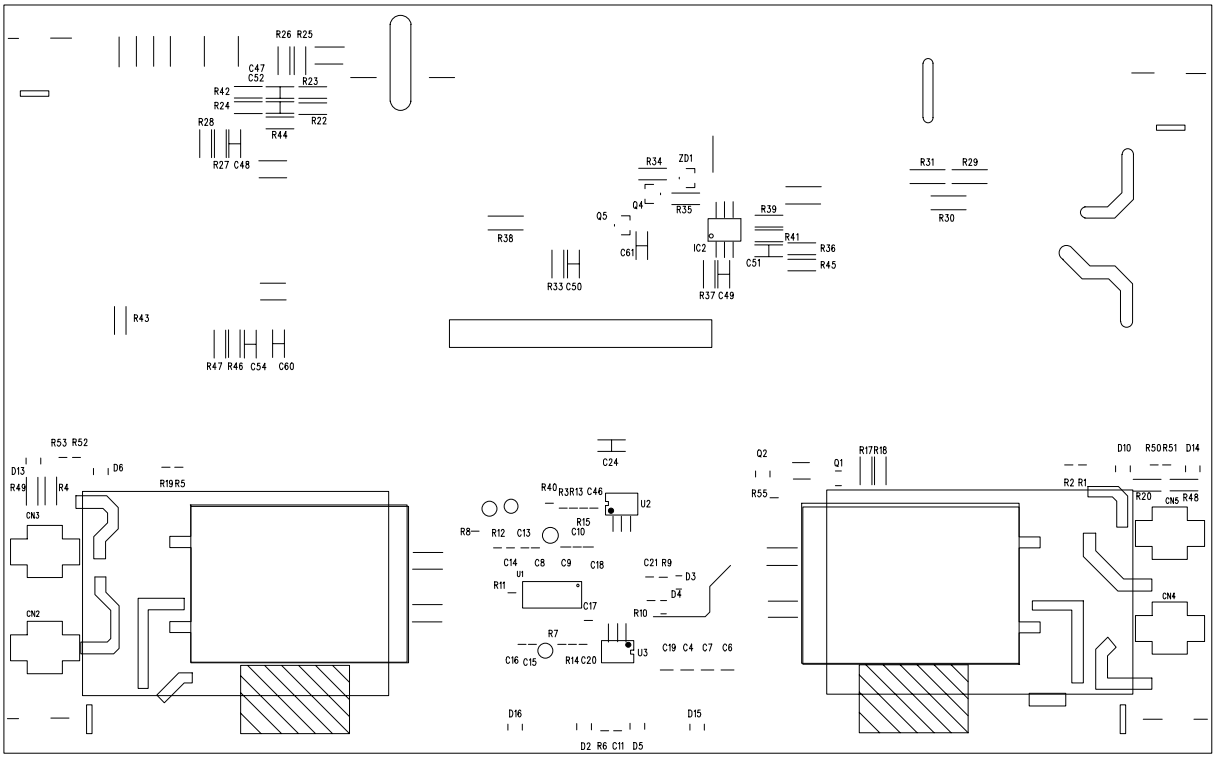


To apply the **AU Module**.

3. ADAPTER BOARD (Component Side)

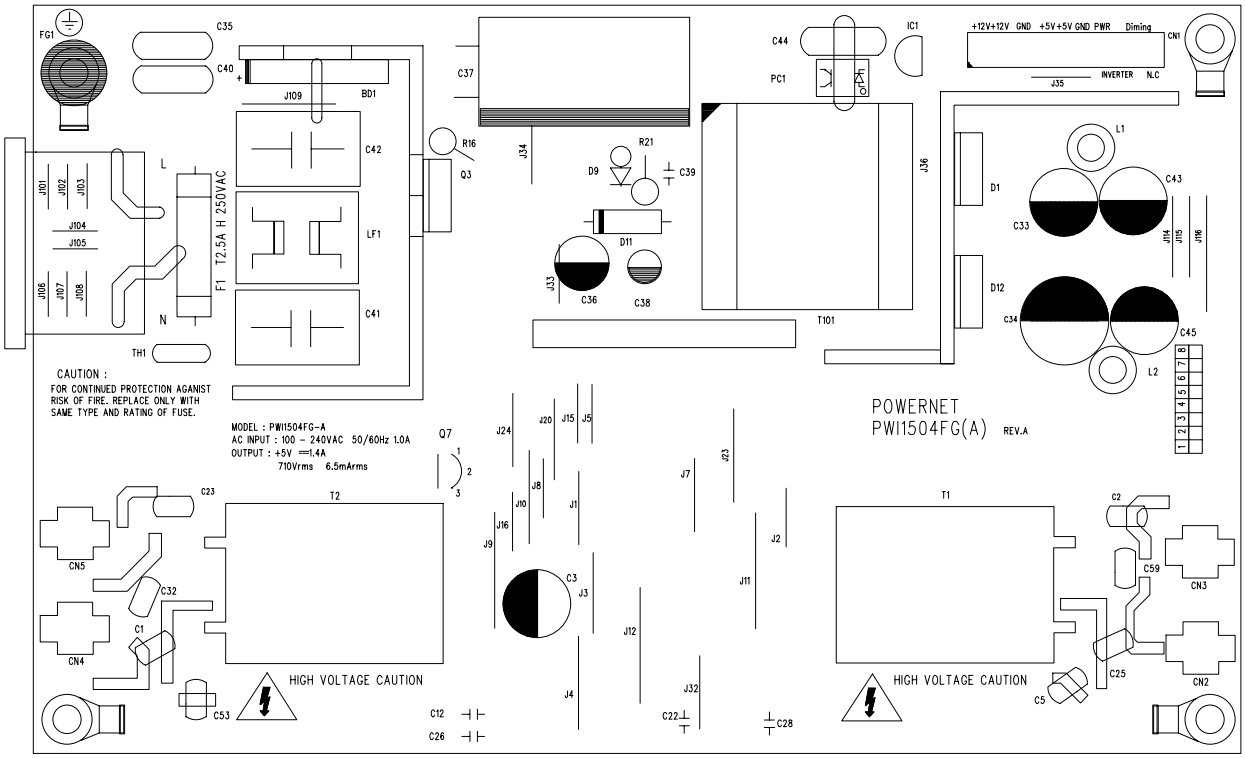


4. ADAPTER BOARD (Solder Side)

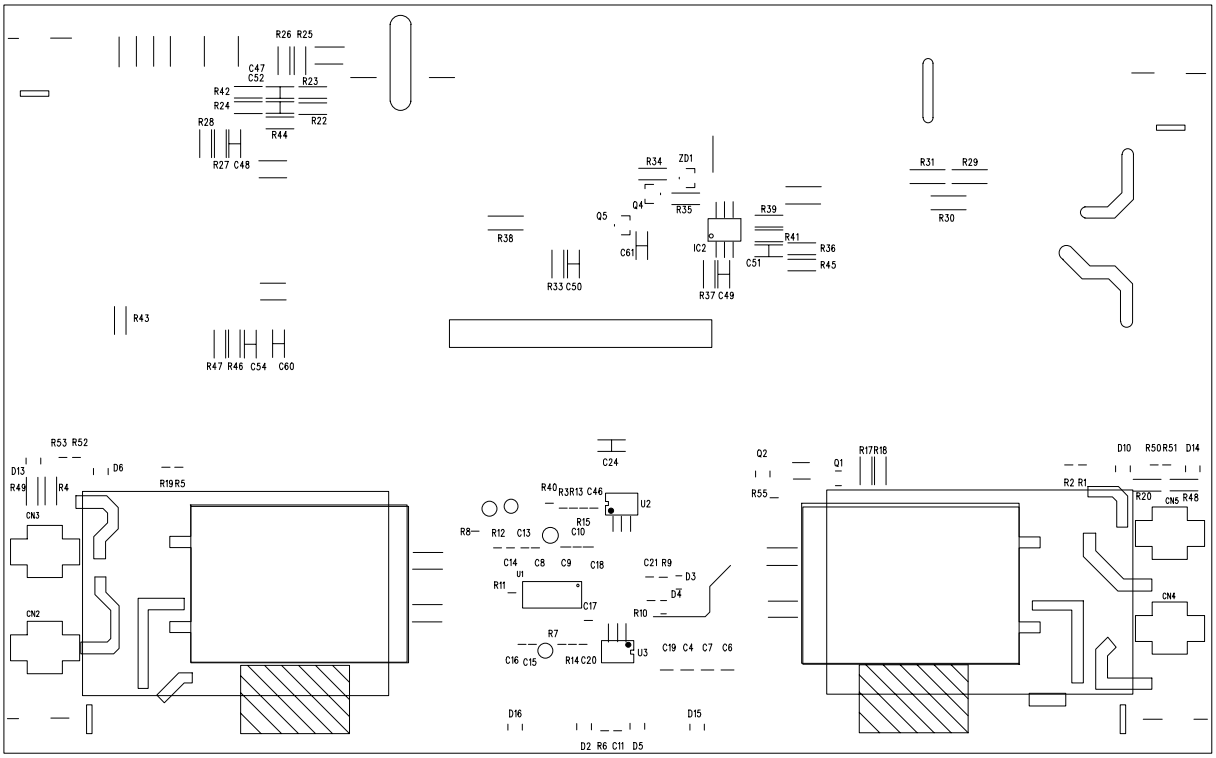


To apply the **HYDIS Module**.

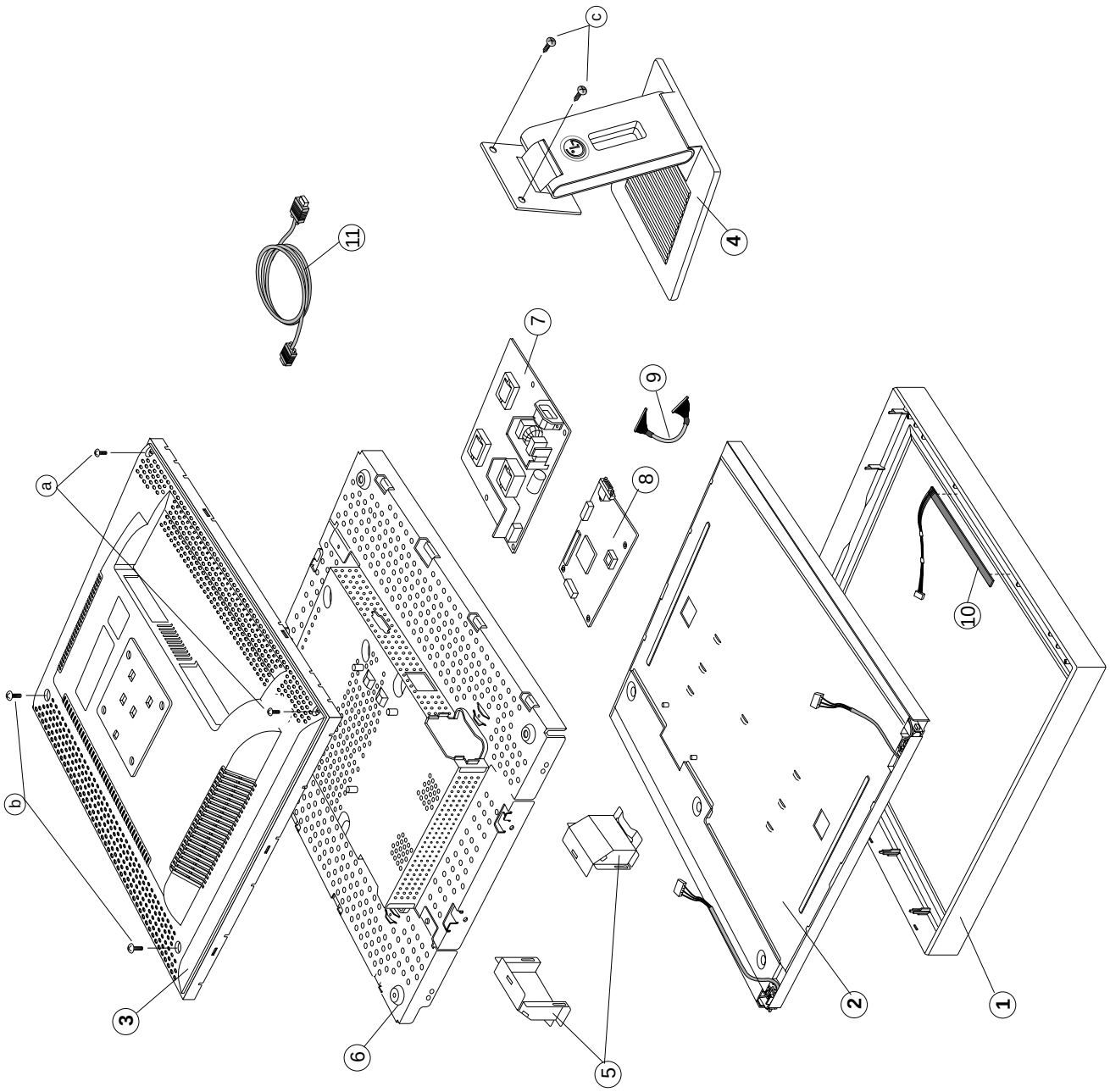
5. ADAPTER BOARD (Component Side)



6. ADAPTER BOARD (Solder Side)



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
1	3091TKL053B	CABINET ASSEMBLY, LB700G BRAND 3090TKL053A HF350U
2	6304FHD005A	LCD(LIQUID CRYSTAL DISPLAY), HT17E12-100 **HYUNDAI TFT** COLOR LVDS TYPE SSM
	6304FAU005A	LCD(LIQUID CRYSTAL DISPLAY), M170EN05 **AU TFT** COLOR 17.0" SXGA LVDS SMM
	6304FLP058A	LCD(LIQUID CRYSTAL DISPLAY), M170E01-A4 **LG PHILPS TFT** COLOR 17.0" TFT LCD**(LB700G-GL)**
3	3809TKL035B	BACK COVER ASSEMBLY, LB700G 3808TKL039A HF350U
4	3043TKK091E	TILT SWIVEL ASSEMBLY, LM805L -HIPS NO USB
5	4814TKK231A	SHIELD INVERTER, LAMP WIRE,LB700K
6	4951TKS094D	METAL ASSEMBLY, FRAME LB700G (HYUNDAI) **(LB700G-GD)**
	4951TKS094B	METAL ASSEMBLY, FRAME LB700G(AU) **(LB700G-GU)**
	4951TKS094F	METAL ASSEMBLY, FRAME LB700G(LPL) **(LB700G-GL)**
7	6871TPT243A	PWB(PCB) ASSEMBLY,POWER, AI-0019 POWER TOTAL LIENCHANG LB700K LIPS FOR HYDIS/LPL **(LB700G-GD)**, **(LB700G-GL)**
	6871TPT237B	PWB(PCB) ASSEMBLY,POWER,LB700K POWER TOTAL POWERNET PWI1504FG-A 12V /1.2A 5V/1A LIPS FOR HYDIS **(LB700G-GD)**, **(LB700G-GL)**
	6871TPT241A	PWB(PCB) ASSEMBLY,POWER, 17" HYDIS(LB700K) POWER TOTAL SPI FSP026-2PI01 **(LB700G-GD)**, **(LB700G-GL)**
	6871TPT241B	PWB(PCB) ASSEMBLY,POWER, 17" AU(LB700K) POWER TOTAL SPI F SP026 -2PI02**(LB700G-GU)**
	6871TPT237A	PWB(PCB) ASSEMBLY,POWER, LB700K POWER TOTAL POWERNET PWI1504FG 12V/1.2A 5V/1A LIPS FOR AUO**(LB700G-GU)**
8	3313TL7008A	MAIN TOTAL ASSEMBLY, LB700G.ASRDG BRAND CL-43
9	6631T11012W	CONNECTOR ASSEMBLY, 30P H-H 200MM UL20276 LG708G
10	6871TST321A	PWB(PCB) ASSEMBLY,SUB, LB800K CONTROL TOTAL BRAND CL-42
11	6850TD9001A	CABLE,D-SUB, UL 2990-9C(7.5) DT 1870MM GRAY(85964) BRAND DM
a	1SZZTMF008A	SCREW,DRAWING, D3.0 L6.0 MSWR/FZMY
b	332-113S	SCREW,DRAWING, D3.0 L12.0 MSWR/BK
c	332-105G	SCREW,DRAWING, PVS+4*10(MSWR/BK)

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
* NOTE : **S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

DATE: 2004. 05. 12.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C201	0CC120CK41A	12PF 1608 50V 5% R/TP NP0
		C202	0CC120CK41A	12PF 1608 50V 5% R/TP NP0
		C203	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C204	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C205	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C206	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C207	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C208	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C209	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C210	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C211	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C212	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C213	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C214	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C215	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C216	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C217	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C218	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C219	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C220	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C221	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C224	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C225	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C231	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C232	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C234	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C235	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C236	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C237	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C238	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C239	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C240	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C241	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C242	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C244	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C280	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C281	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C282	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C703	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C704	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C706	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C714	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C715	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C717	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C718	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C720	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C721	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C722	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C723	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C724	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C725	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
		C801	0CE107EF638	100UF KMG 16V M FM5 TP 5

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C802	0CH8107D611	100UF 10V 20% 85STD (CYL) R/T
		C803	0CH8107D611	100UF 10V 20% 85STD (CYL) R/T
		C804	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C805	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C806	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C807	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C808	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C809	0CH8476F611	47UF 16V 20% 85STD (CYL) R/TP
		C810	0CH8476F611	47UF 16V 20% 85STD (CYL) R/TP
		C811	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C812	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C813	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C817	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C818	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C819	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5
		C840	0CE477EH618	470UF KMG 25V M FL TP 5
		C860	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C911	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		DIODEs		
		D701	0DS226009AA	KDS226 TP KEC SOT-23 80V 300
		D702	0DS226009AA	KDS226 TP KEC SOT-23 80V 300
		D703	0DS226009AA	KDS226 TP KEC SOT-23 80V 300
		D704	0DS226009AA	KDS226 TP KEC SOT-23 80V 300
		D709	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		D710	0DS301109AA	MMBD301LT1 TP MOTOROLA SOT23
		ZD703	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ZD704	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ZD711	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ZD718	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ZD719	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ZD720	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 2
		ICs		
		U201	0IMMRAL002A	"AT49F001N-70JC ATMEL 32PIN,PL"
		U201	0IZZTSZ213A	ATMEL/STM 32PIN ST OTP LB700G
		U202	0IMMRSS040C	S524A60X51(SCT0) SAMSUNG ELEC
		U203	0IPRPGN004A	"GM2121 GENESIS 160P,PQFP TRAY"
		U270	0ISTLFA058A	"74F14SCX FAIRCHILD 14P,SOIC R"
		U702	0ISS524202B	S524A40X21(SCT0) SAMSUNG ELEC
		U801	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATO
		U803	0IPMGFA003B	RC1117S-2.5 FAIRCHILD SOT-223
		U804	0TFVI80023A	VISHAY SI3865DV R/TP TSOP-6 8
		COILs & COREs		
		L801	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L802	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L803	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L804	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L811	6210TCE001G	HH-1M3216-501 CERATEC 3216MM
		L823	6210TCE001G	HH-1M3216-501 CERATEC 3216MM

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		TRANSISTOR		
		Q202	0IKE702900D	KIA7029AP TO-92 TP 2.9V DETEC
		RESISTORs		
		R201	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R203	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R204	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R205	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R207	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R209	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R210	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R211	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R212	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R213	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R214	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R215	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R216	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R217	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R218	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R219	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R221	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R222	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R223	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R224	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R225	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R226	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R227	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R228	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R229	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R230	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R231	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R232	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R233	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R234	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R238	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R242	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R243	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R244	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R246	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R248	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R250	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R253	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R255	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R258	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R261	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R262	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R265	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R273	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R275	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R276	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R277	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R701	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R702	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	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R712	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R713	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R714	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP

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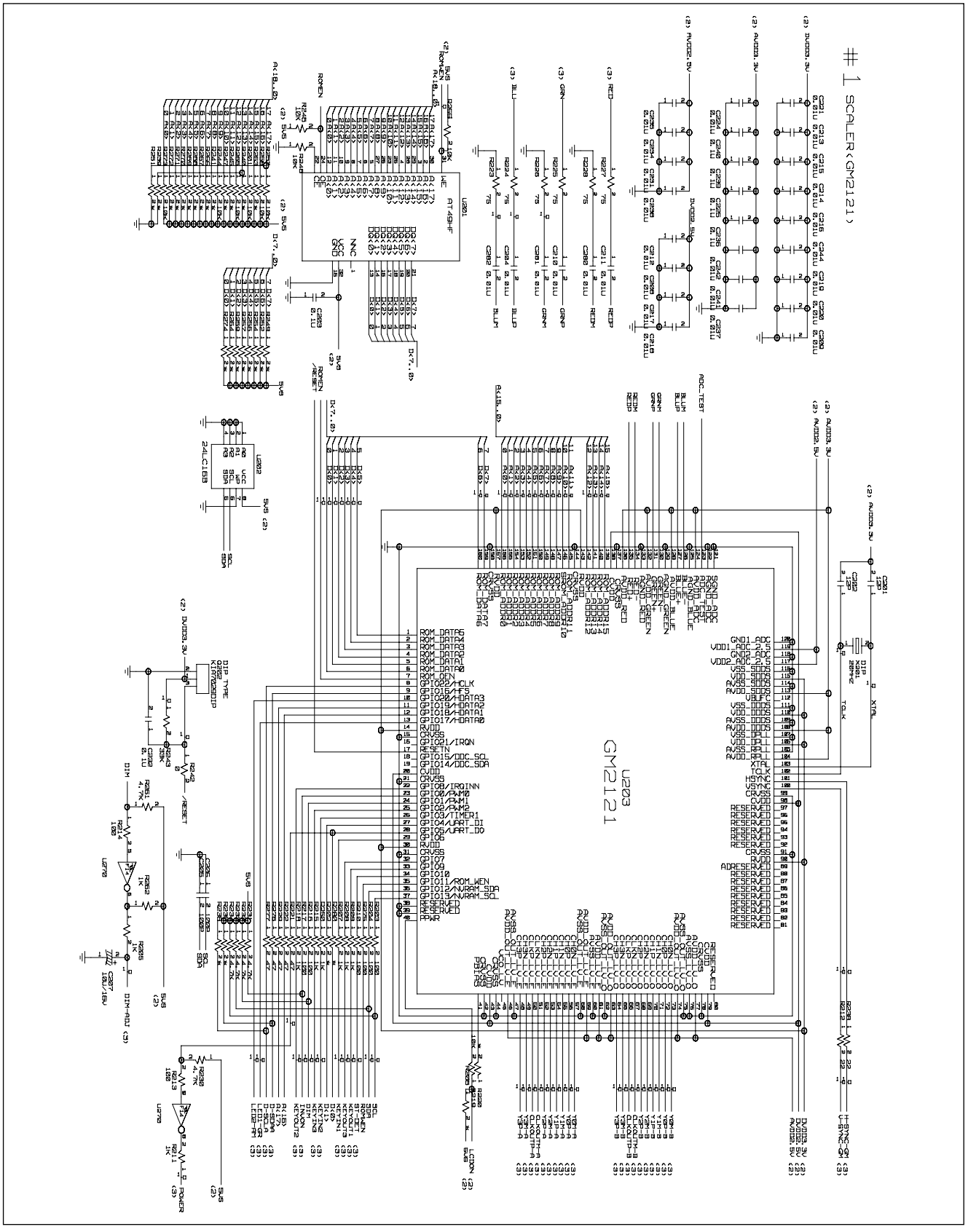
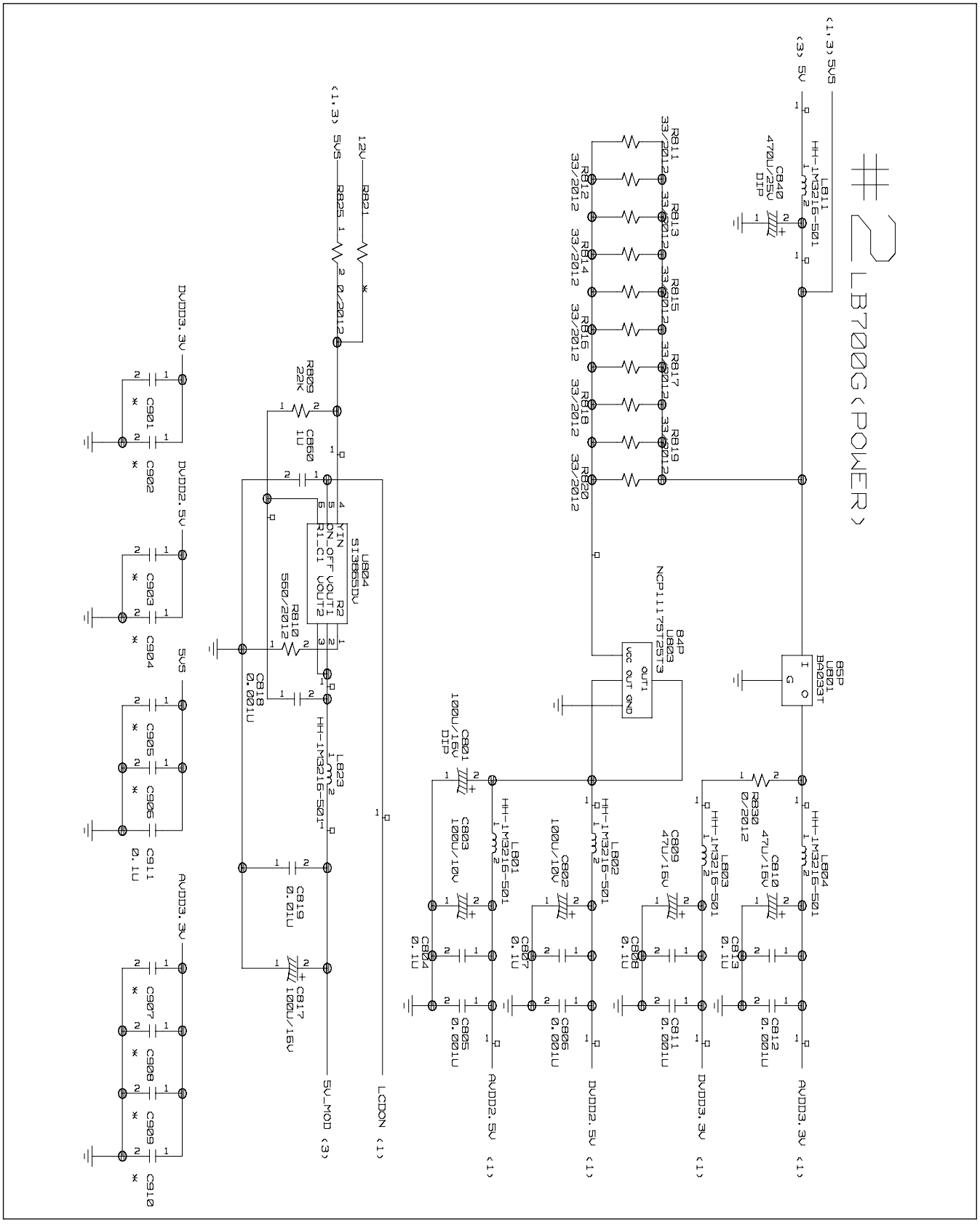
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R715	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R716	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R717	0RJ2201D677	2200 OHM 1/10 W 5% 1608 R/TP
		R733	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R734	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R740	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R741	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R742	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R743	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R744	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R745	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R746	0RH0000D622	0 1/10W P-TYPE TAPPING
		R747	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R748	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R749	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R750	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R752	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		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
		R825	0RH0000D622	0 1/10W P-TYPE TAPPING
		R830	0RH0000D622	0 1/10W P-TYPE TAPPING
		OTHERs		
		X201	6212AA2004B	HC-49U TXC 20.0MHZ +/- 30 PPM
		CONTROL BOARD		
		LED1	0DLLT0208AA	LITEON LTST-C155KGJSKT R/TP G
		SW1	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW2	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW3	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW4	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW5	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW6	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW7	140-058E	SKHV10910B LGEC NON 12V 20A H
		SW8	140-058E	SKHV10910B LGEC NON 12V 20A H

SCHEMATIC DIAGRAM

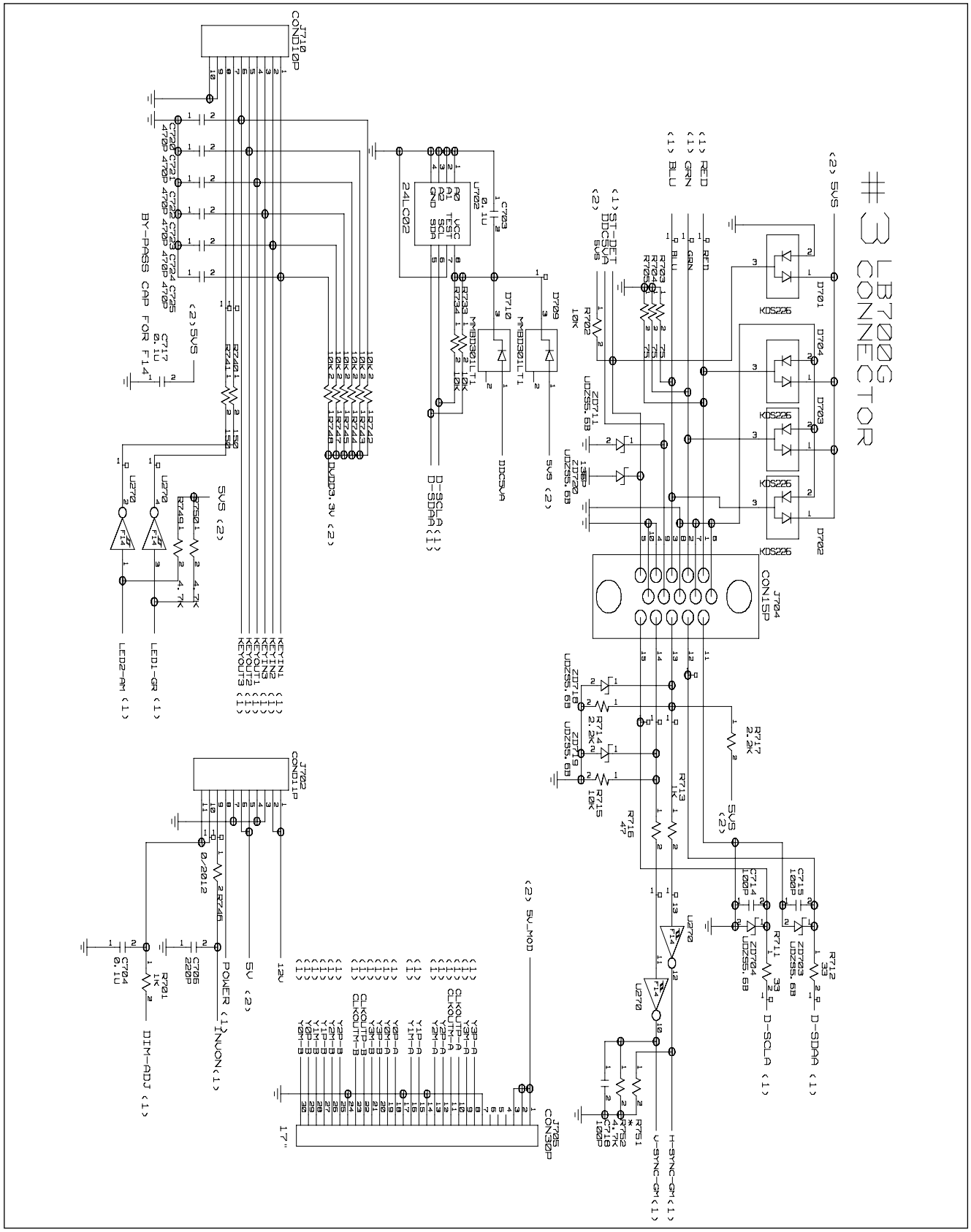
1. GM2121



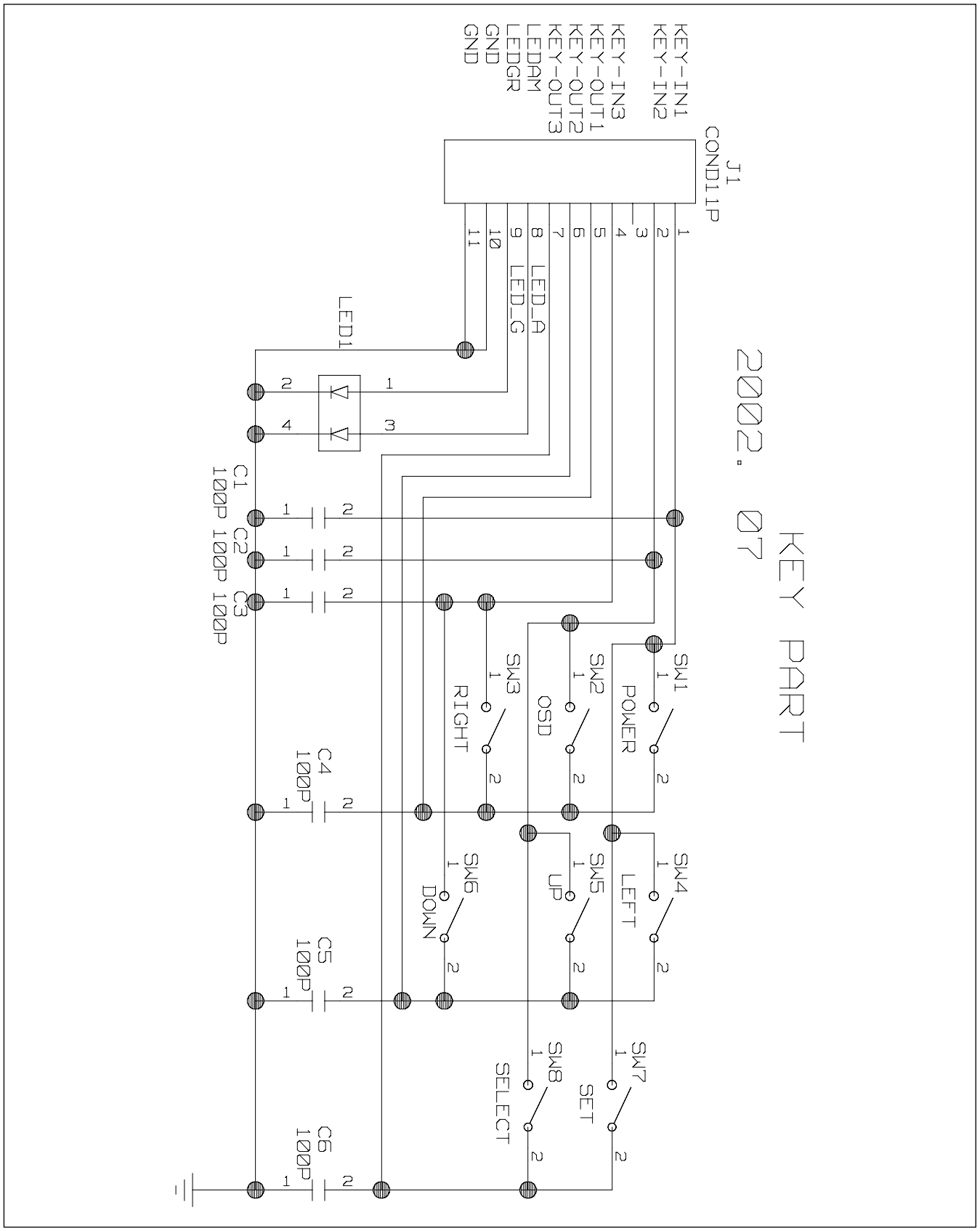
2. POWER


#2 LB700G(POWER)
(1,3)5V5
(3) 5V
LB11
HH-1M3216-501
C840
470U/25V
DIP
R811
33/2012
R812
33/2012
R813
33/2012
R814
33/2012
R815
33/2012
R816
33/2012
R817
33/2012
R818
33/2012
R819
33/2012
R820
33/2012
84P
U803
NCP1117ST25T3
VCC OUT GND
OUT1
85P
U801
BA033T
I
G
O
LB04
HH-1M3216-501
R830
0/2012
C810
47U/16V
C812
0.001U
C813
0.1U
AVDD3.3V (1)
LB03
HH-1M3216-501
C809
47U/16V
C811
0.001U
C808
0.1U
DVDD3.3V (1)
LB02
HH-1M3216-501
C802
100U/10V
C806
0.001U
C807
0.1U
DVDD2.5V (1)
LB01
HH-1M3216-501
C803
100U/10V
C805
0.001U
C804
0.1U
AVDD2.5V (1)
C801
100U/16V
DIP
12V
R821
*
(1,3) 5V5
R825
0/2012
R809
22K
C860
1U
U804
SI3865DV
VIN
ON_OFF VOUT1
R1_C1 VOUT2
R2
R810
560/2012
C818
0.001U
L823
HH-1M3216-501
C819
0.01U
C817
100U/16V
5V_MOD (3)
LCDON (1)
DVDD3.3V
C901
*
C902
*
DVDD2.5V
C903
*
C904
*
5V5
C905
*
C906
*
C911
0.1U
AVDD3.3V
C907
*
C908
*
C909
*
C910
*

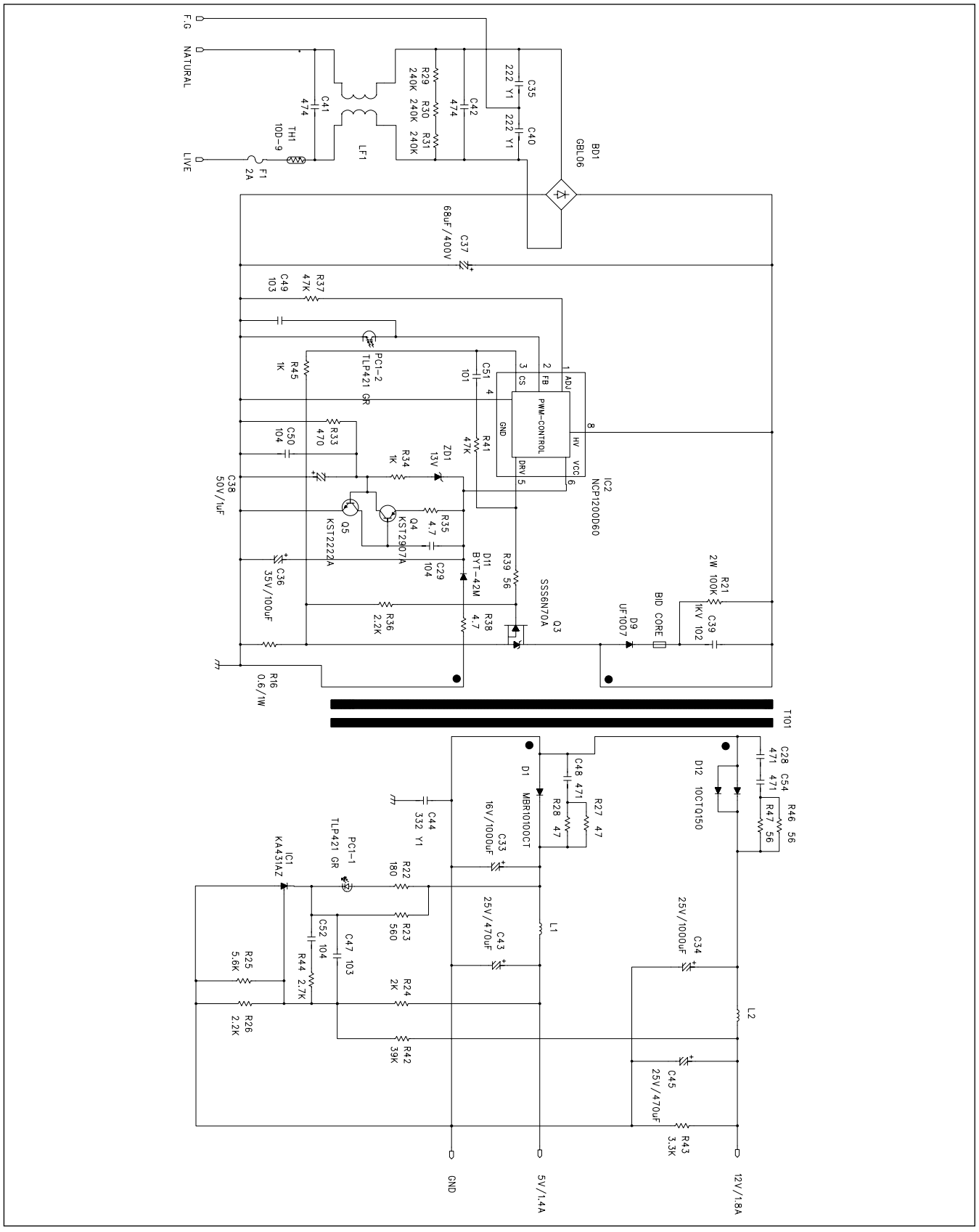
3. CONNECTOR


#3 LB700G CONNECTOR
J710 CON10P
J702 CON11P
J705 CON30P
J704 CON15P
BY-PASS CAP FOR F14
24LC02
KDS226
17"
POWER (1)
DIM-ADJ (1)
D-SCLA (1)
D-SDAA (1)
H-SYNC-GM (1)
V-SYNC-GM (1)
LED1-GR (1)
LED2-AM (1)

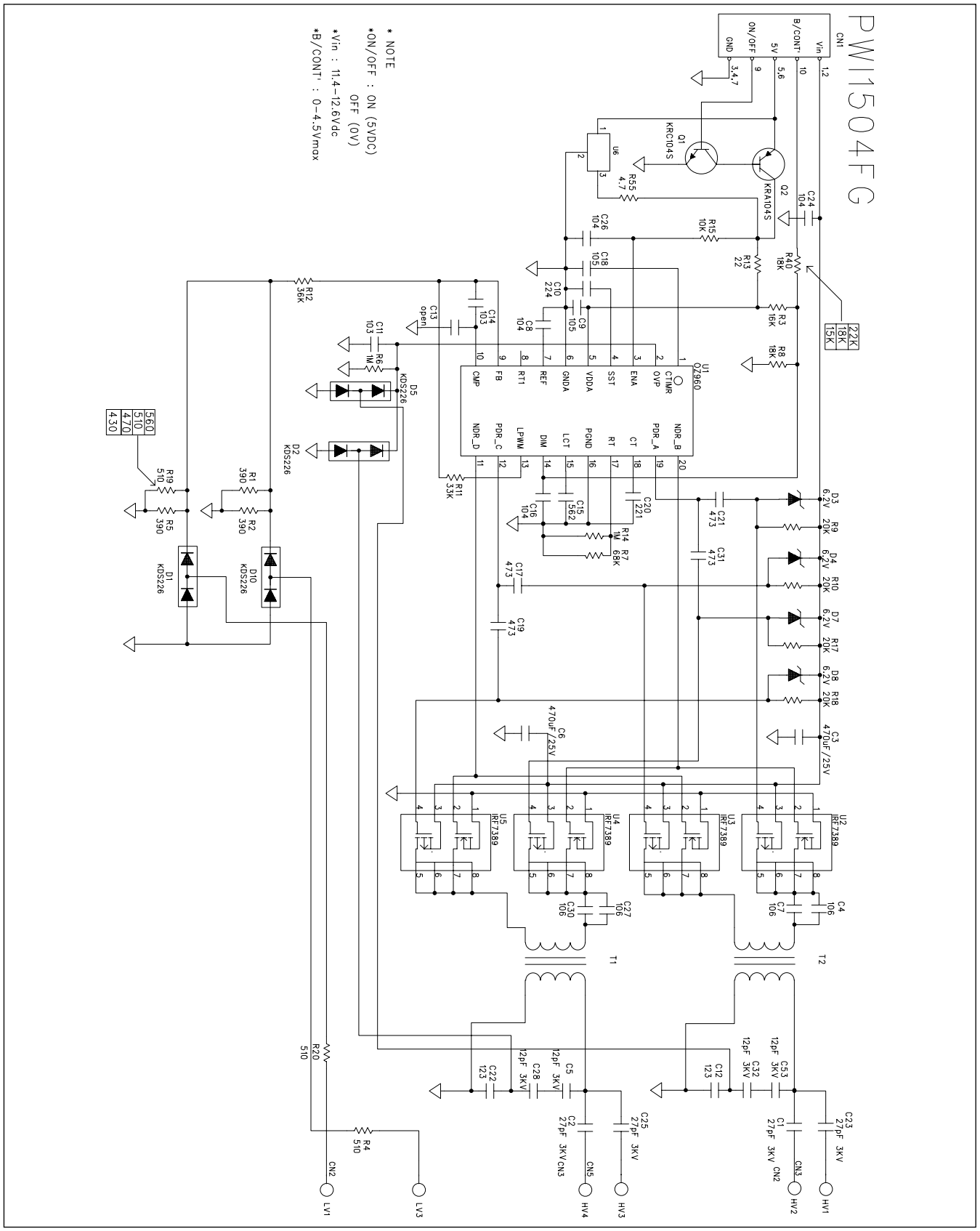
4. CONTROL KEY



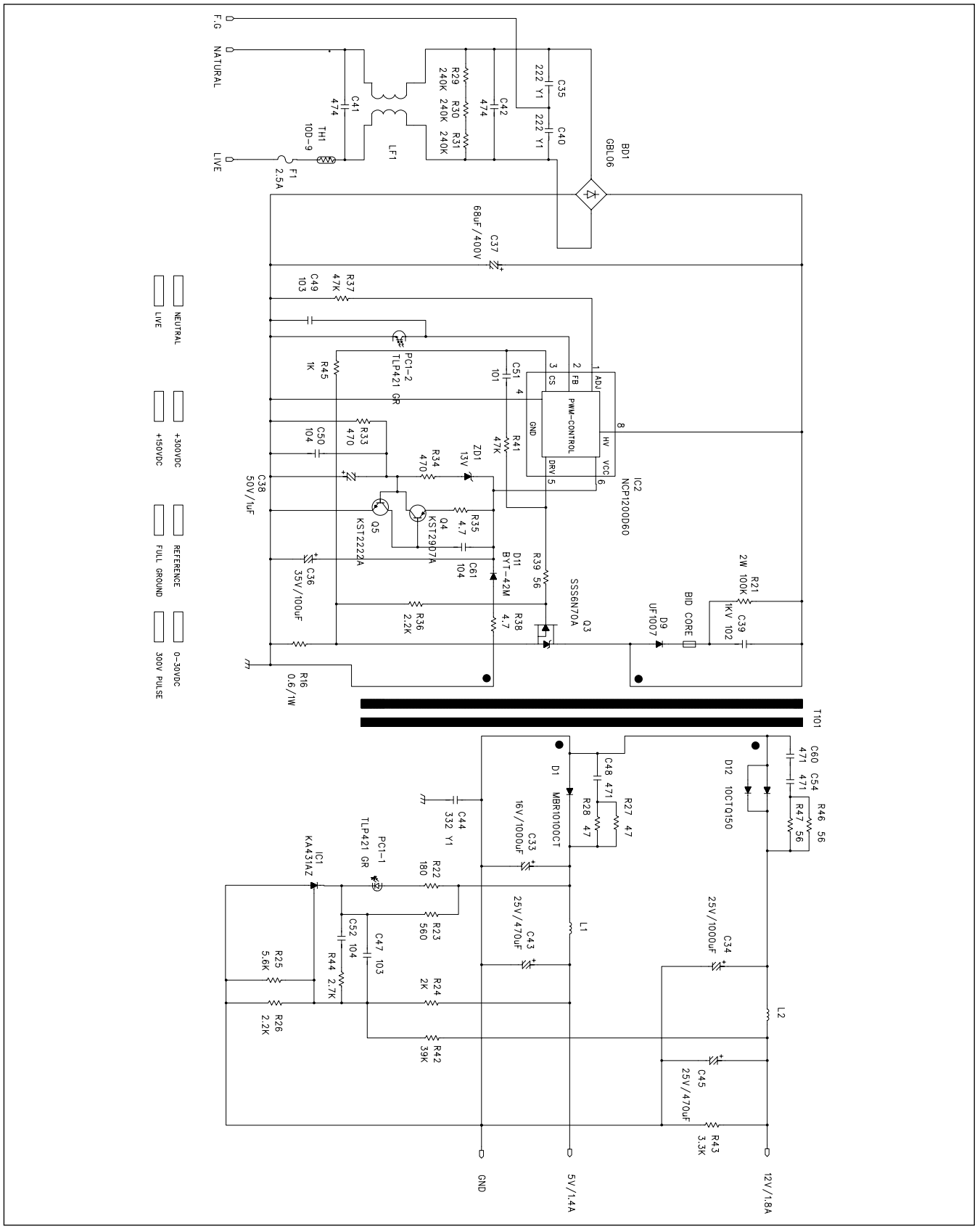
5. ADAPTER (AU Module)



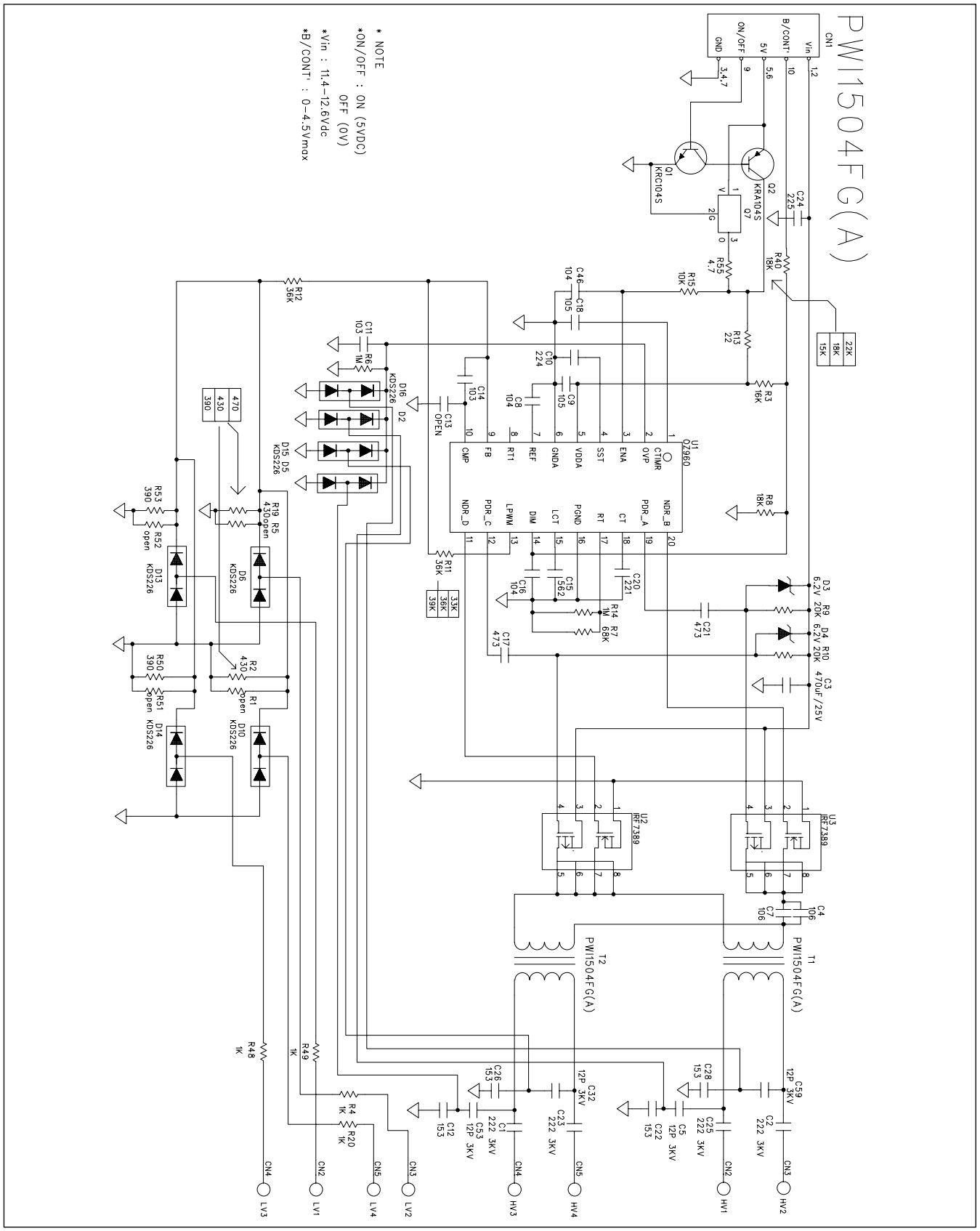
6. INVERTER (AU Module)



7. ADAPTER (HYDIS Module)



8. INVERTER (HYDIS Module)



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