

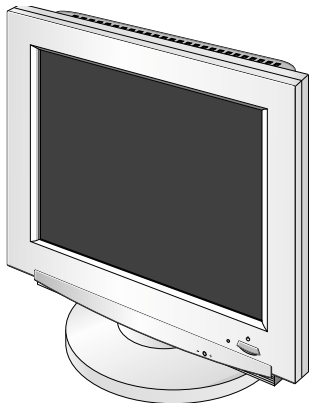
COLOR MONITOR SERVICE MANUAL

CHASSIS NO. : CL-11

MODEL: FPD1800, LG881Y

CAUTION

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



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SPECIFICATIONS

1. LCD CHARACTERISTICS

Type : Color Active Matrix TFT LCD
 Size : 18.1inch (45.97cm)
 Pixel Pitch : 0.2805mm(H) x 0.2805mm(V)
 Pixel Format : 1280 x 1024 pixels
 RGB Stripe Arrangement
 Color Depth : 8-bit, color (24 bits)
 Active Video Area : 359mm x 287mm
 Surface Treatment : Anti-Glare, Hard Coating (3H)
 Backlight Unit : CCFL (Cold Cathode
 Fluorescent Lamp)
 Electrical Interface : DVI-D

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10
 Left : 80°
 Right : 80°
 Top : 80°
 Bottom : 80°

2-2. Luminance : 200 min.(Center of screen)
 2-3. Contrast Ratio : 200 min : 1

3. SIGNAL (Refer to the Timing Chart)

3-1. Type : TMDS Digital
 3-2. Voltage Level : 3.3V
 3-3. Input Impedance : 50Ω
 3-4. Operating Frequency
 Horizontal : 64 kHz
 Vertical : 60 Hz

4. POWER SUPPLY

4-1. Power Adaptor
 Input : AC 90~264V, 50/60Hz 1.4~0.7A
 Output : DC 12V 5.8A ⊖ ⊕

4-2. Power Consumption

MODE	SIGNAL	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON	ACTIVE	less than 50W	GREEN
DPM	OFF	OFF	less than 5 W	ORANGE
POWER OFF	-	-	less than 5 W	OFF

5. ENVIRONMENT

5-1. Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)
 (Ambient)
 5-2. Relative Humidity : 5% ~ 90%
 (Non-condensing)
 5-3. Altitude : 0~10,000 feet

6. DIMENSIONS (with TILT/SWIVEL)


Width : 434.0mm (17.09")
 Depth : 235.0mm (9.25")
 Height : 443.1mm (17.44")

7. WEIGHT (with TILT/SWIVEL)

Net Weight : 9.0kg (19.84 lbs)
 Gross Weight : 12.3kg (27.12 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 Gateway 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

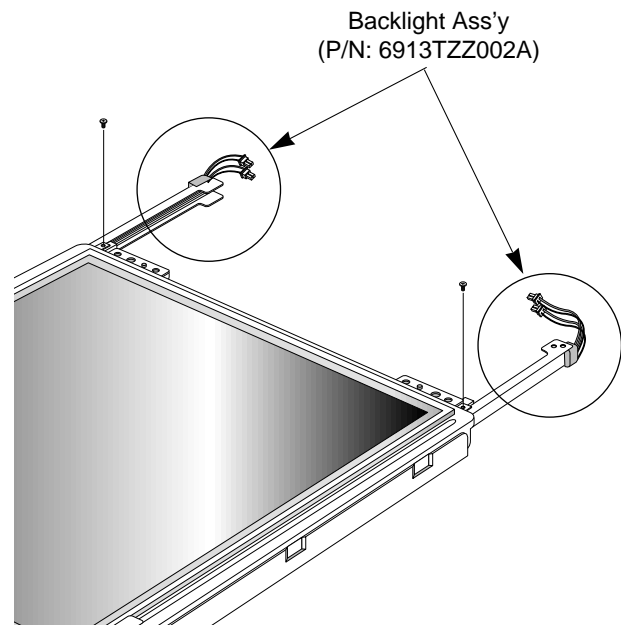
BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must turn off the power button or 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.

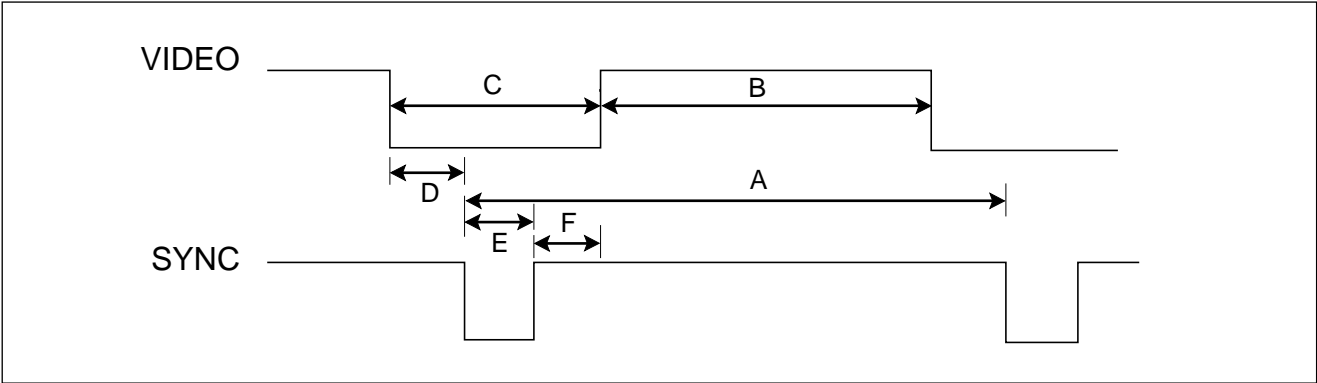
CAUTION

IF BRIGHTNESS OF THE LCD MODULE DARKEN, REPLACE THE BACKLIGHT ONE OR ALL.

- There is two backlight, and be careful of treatment it.
- MTBF (Mean Time Between Failure) of a backlight is about 30,000 hours(minimum 20,000 hours).

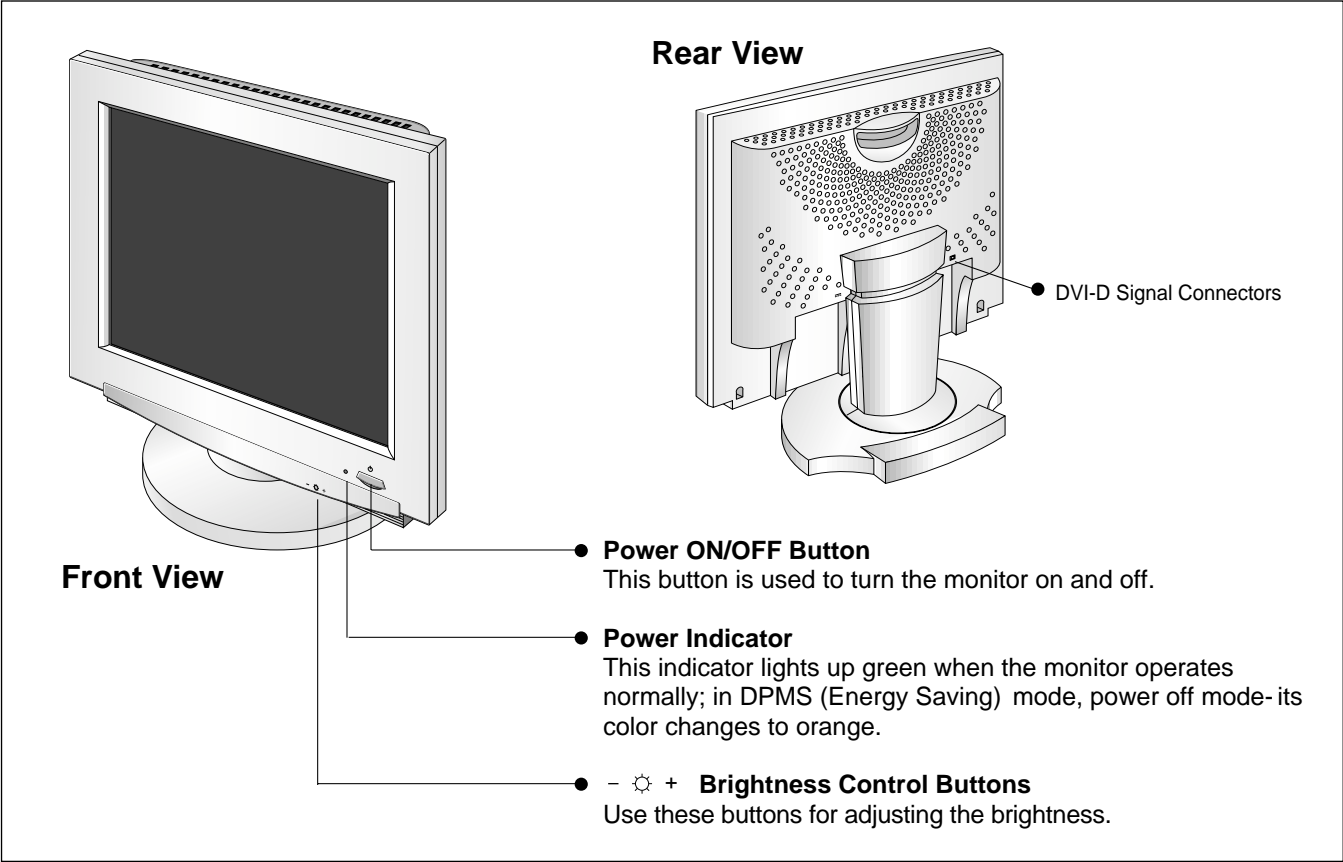


TIMING CHART

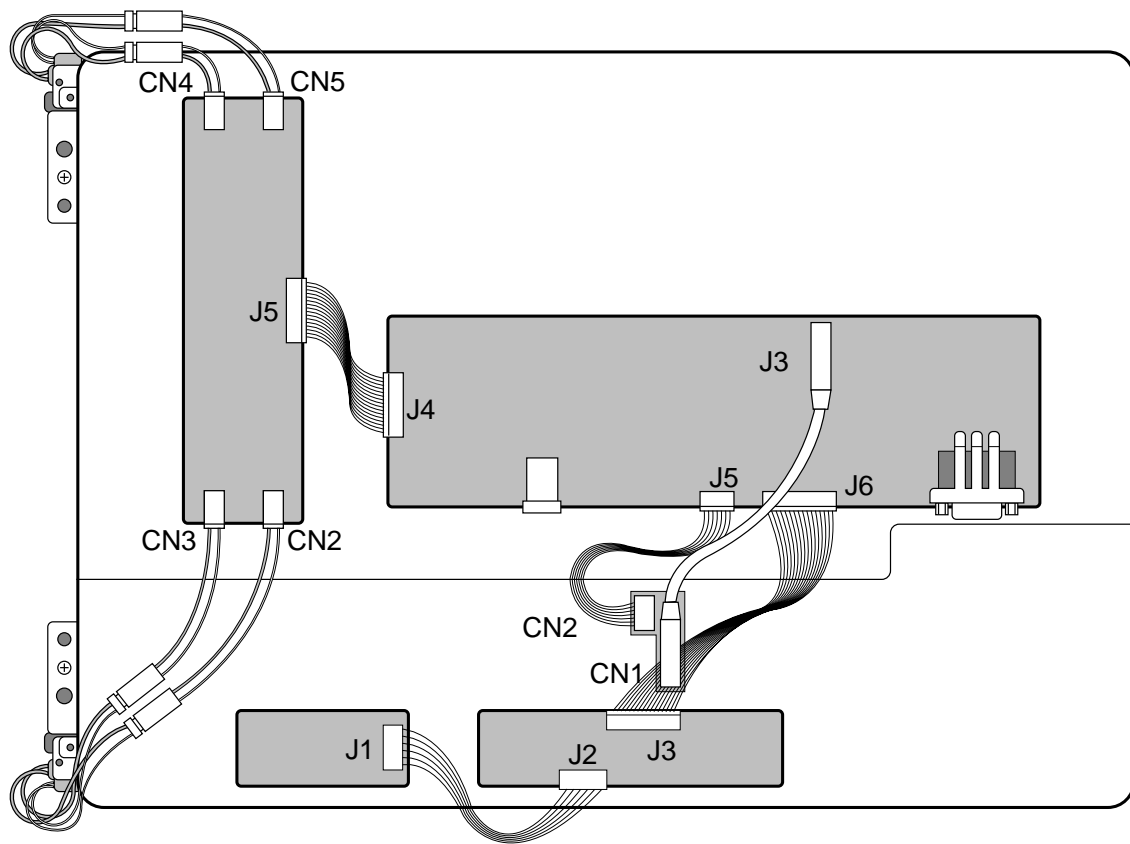


MODE	Sync Polarity	Dot Clock	Frequency	Total Period (A)	Video Active Time (B)	Blanking Time (C)	Front Porch (D)	Sync Duration (E)	Back Porch (F)	Resolution
1	H (Pixels)	108.0MHz	63.981KHz	1688	1280	408	48	112	248	1280 X 1024
	V (Lines)		60.02Hz	1066	1024	42	1	3	38	

OPERATING INSTRUCTIONS



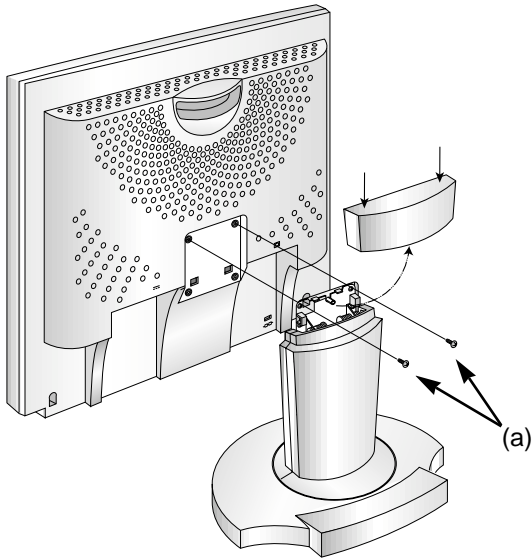
WIRING DIAGRAM



DISASSEMBLY

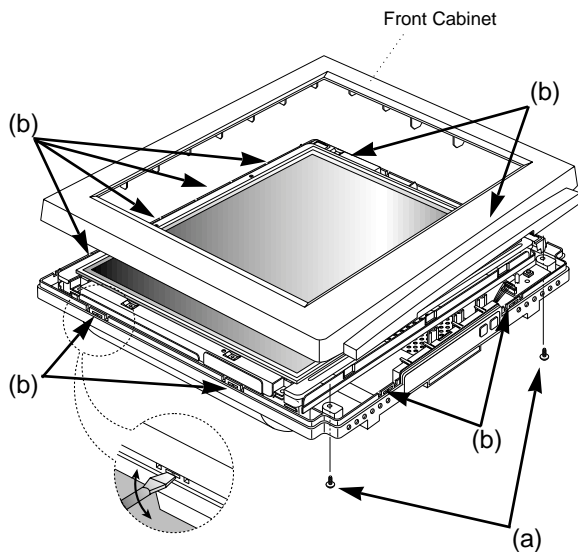
1. TILT/SWIVEL REMOVAL

- 1) Remove Hinge Cover.
(Push the tilt cover both side).
- 2) Remove two screws (a).
- 3) Remove the Tilt/swivel.



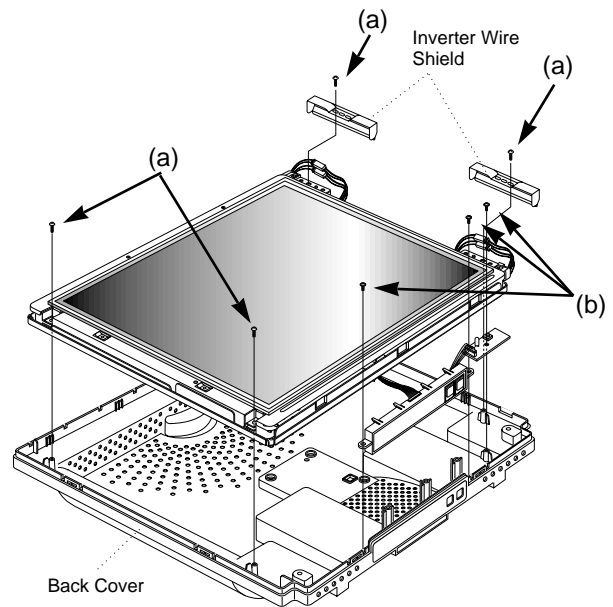
2. FRONT CABINET REMOVAL

- 1) Remove two screws (a).
- 2) Release ten latches (b).
- 3) Remove the Front Cabinet.



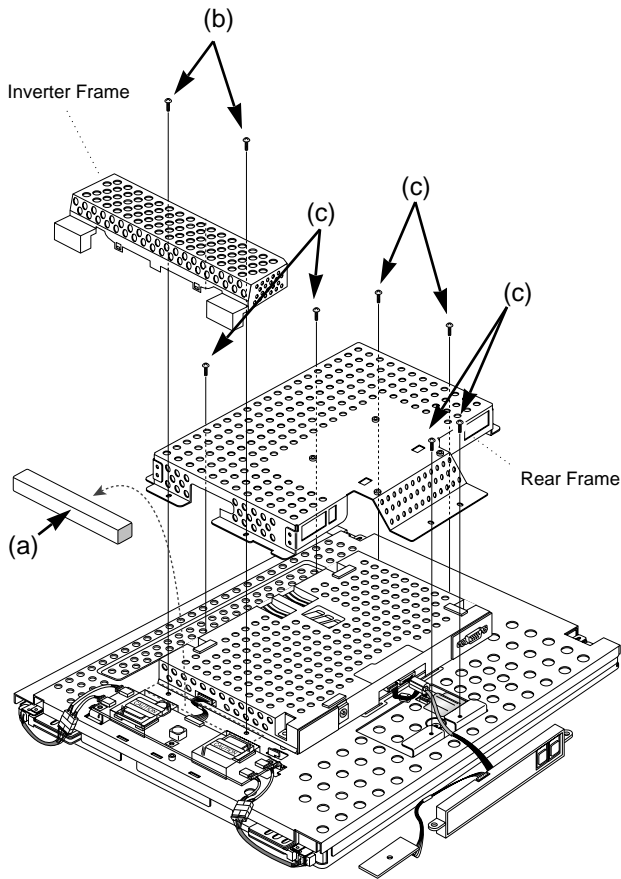
3. INVERTER WIRE SHIELD & BACK COVER REMOVAL

- 1) Remove four screws (a).
- 2) Remove two Inverter Wire Shield.
- 3) Remove three screws (b).
- 4) Remove the Back Cover.



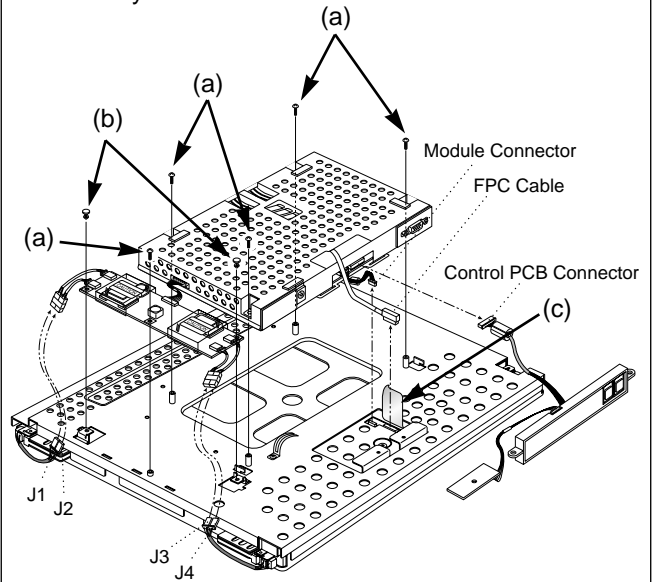
4. INVERTER FRAME & REAR SHIELD REMOVAL

- 1) Remove sponge (a).
- 2) Remove two screws (b).
- 3) Remove the Inverter Frame.
- 4) Remove six screws (c).
- 5) Remove the Rear Frame.



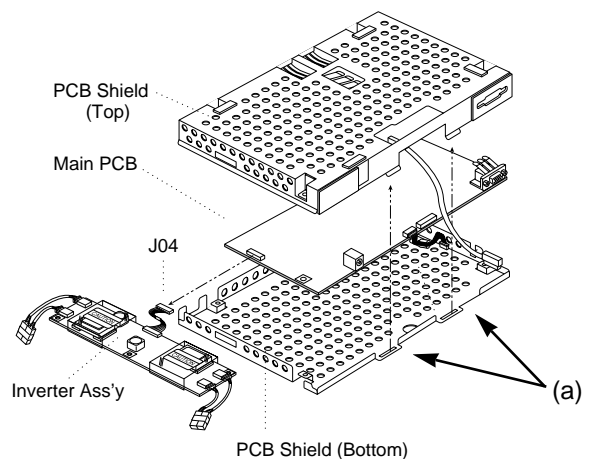
5. MAIN TOTAL ASS'Y REMOVAL

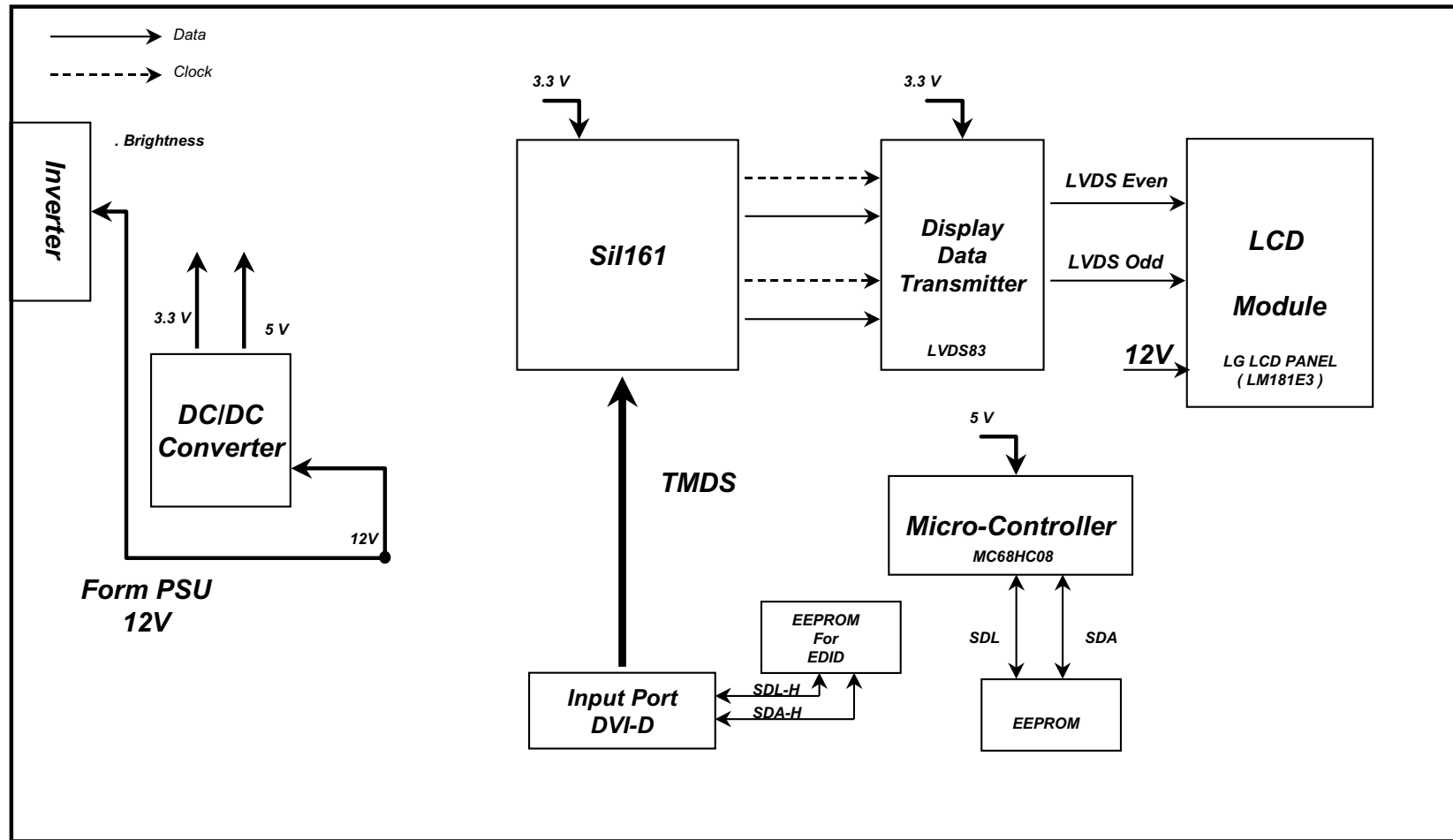
- 1) Disconnect J1, J2, J3 and J4.
- 2) Remove five screws (a).
- 3) Remove two fixers (b).
- 4) Remove Aluminium Tape (c).
- 5) Disconnect FPC Cable, Module Connector and Control PCB Connector.
- 6) Remove Main Total Ass'y and Inverter PCB Ass'y.



6. MAIN PCB SHIELD REMOVAL

- 1) Disconnect J04.
- 2) Remove Inverter Ass'y from the Main PCB.
- 3) Release two latches (a).
- 4) Divide Top Shield, Main PCB, and Bottom Shield.





BLOCK DIAGRAM

DESCRIPTION OF BLOCK DIAGRAM

1. DC/DC Converter

This circuit supplies stand-by 5V(+5Vst) and regular 5V(+5V) for using LM2674 and LM2596S from AC/DC adapter (+12V). The +5V voltage supply to 3.3V voltage regulator.

2. Micro-Controller

This circuit consists of one EEPROM IC(24C02) which stores the control data for system and communicates DDC(Display Data Channel) and oscillator(X2).

The operating procedures of Micro-Controller and its associated circuit are as follows;

- 1) The system controller detects frequency of vertical sync from Si161A(U1) 47pin through AHC86(U10). The controller controls the power switching IC (SI4925) by the detection of vertical sync(H/V Sync).
- 2) The Micro-Controller controls the brightness of inverter by using the key control button and store the data to EEPROM (24C02).

3. LVDS Circuit

LVDS transmitter (U2, U3) delivers digital signal to the receiver of module by the voltage swing of 1V. The peripheral circuitry of transmitter gets the DHS, DVS, DEN, DISPCLK signal, output LVDS signal. At the power down mode, MICOM lets the power down signal be low and shutdown pin be active low.

4. T.M.D.S Receiver

The Si161A gets the T.M.D.S. video signal converted T.M.D.S. to 2 channel TTL level. The output 8-bit R, G, B, DHS, DVS and DE signal to the transmitter(U2, U3).

ADJUSTMENT

All adjustment are thoroughly checked and corrected when the monitor leaves the factory, but sometimes several minor adjustment may be required.

- Alignment appliances and tools.
 - IBM compatible PC.
 - Alignment Adapter and Software.
 - DVI-D Connector.

- Install the cable for adjustment such as Figure 1 and run the alignment program on the DOS for IBM compatible PC.

1. DDC Data Write Procedure

- 1) Use this procedure only when there is some problem on 24LC02(DDC support IC).
- 2) Select **EEPROM** -> **Write EDID** command and *Enter*.
- 3) This will write the EDID data to 24LC02.

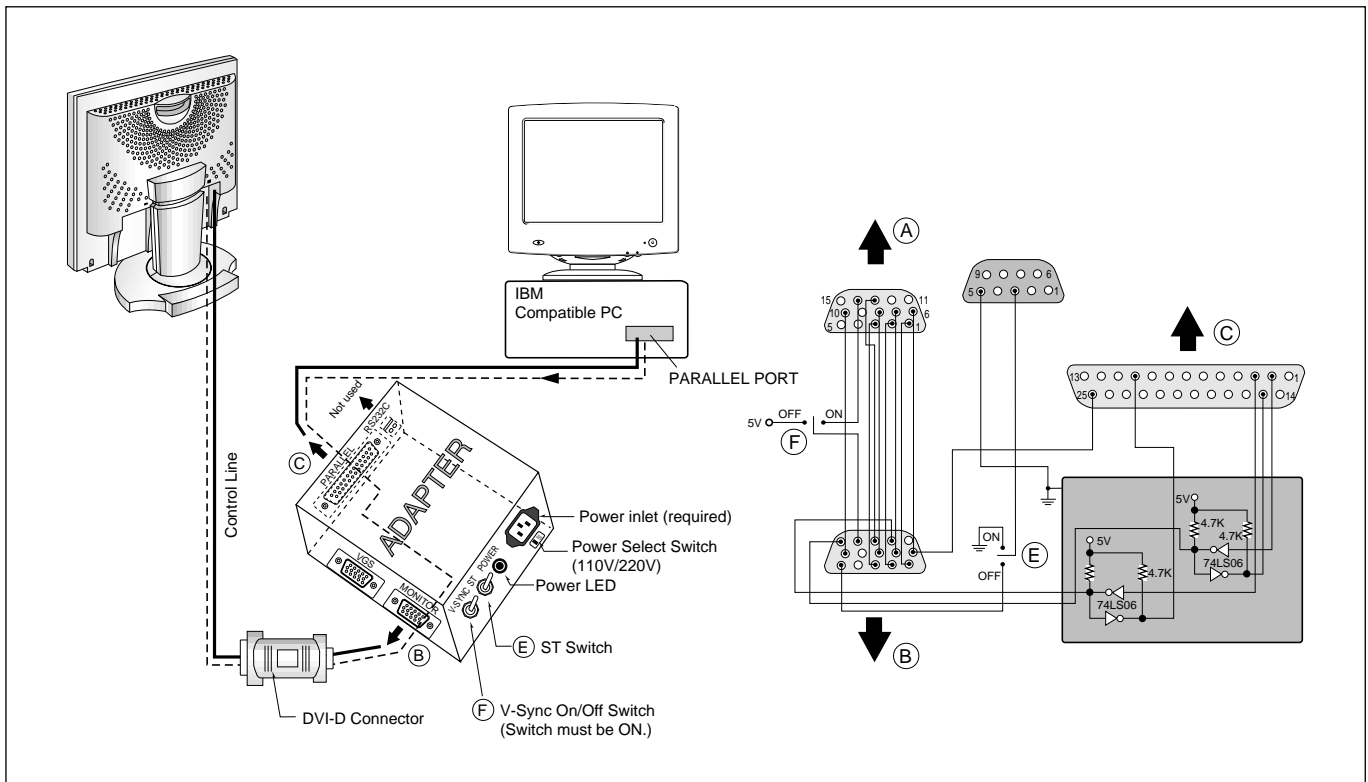
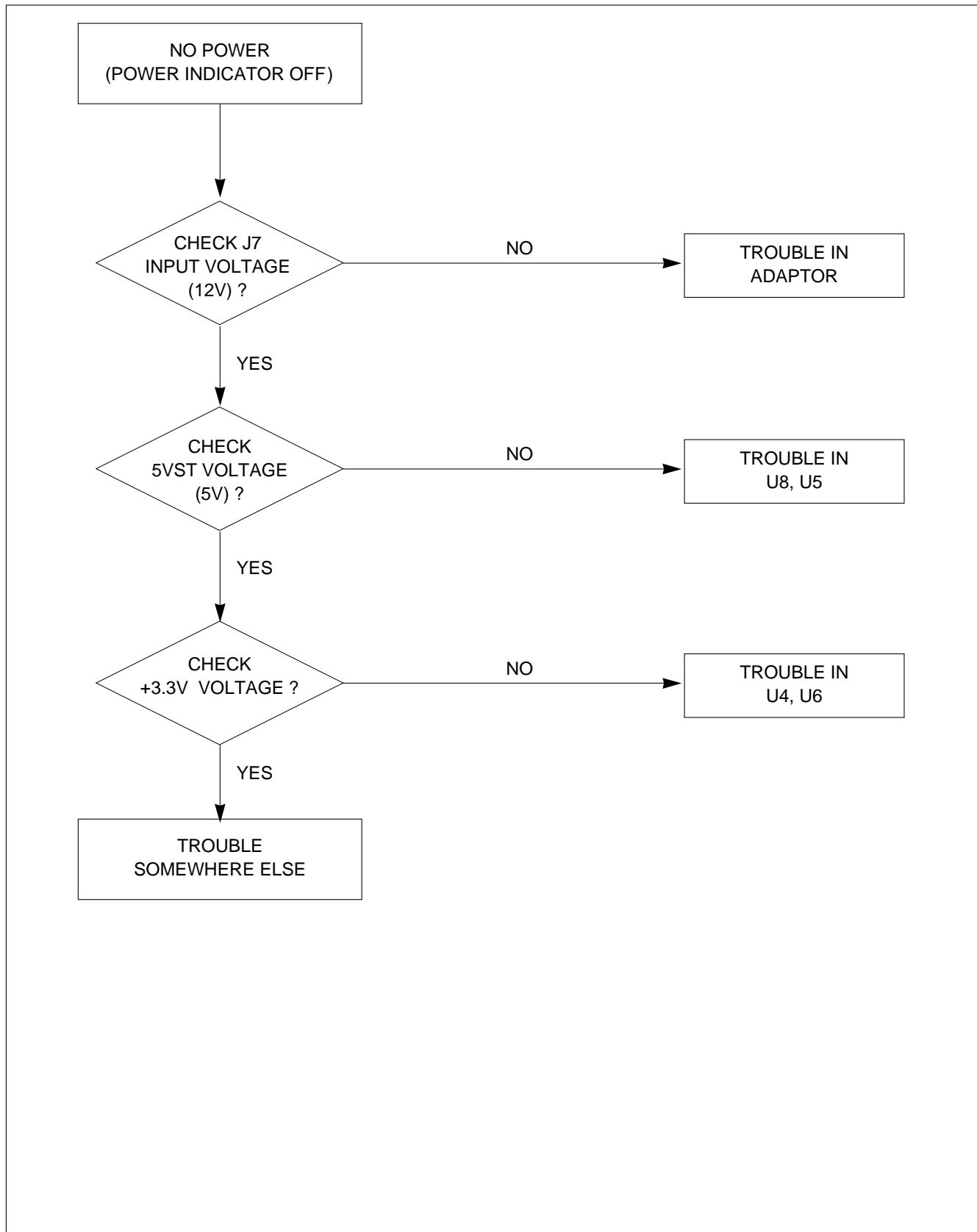


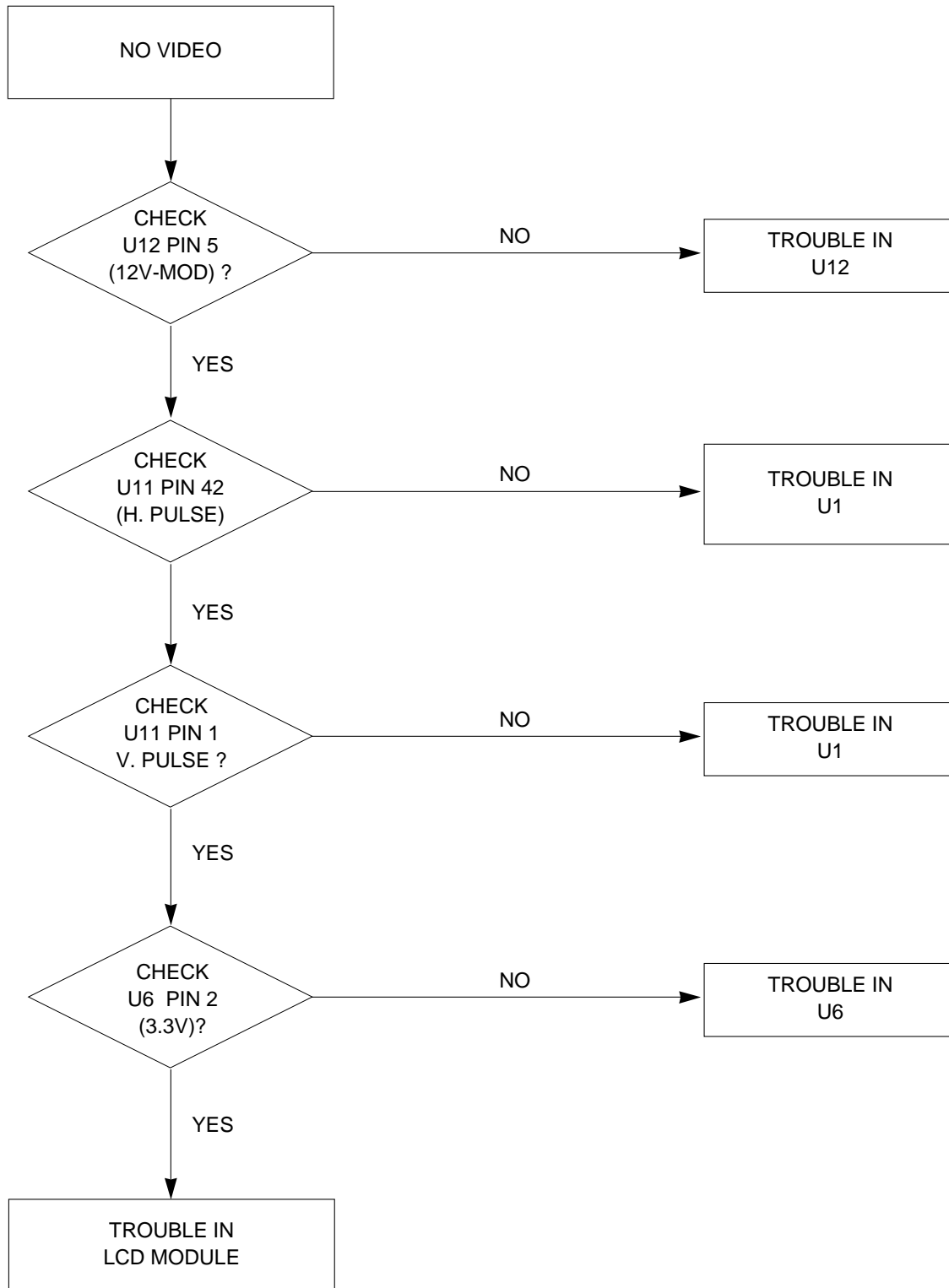
Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

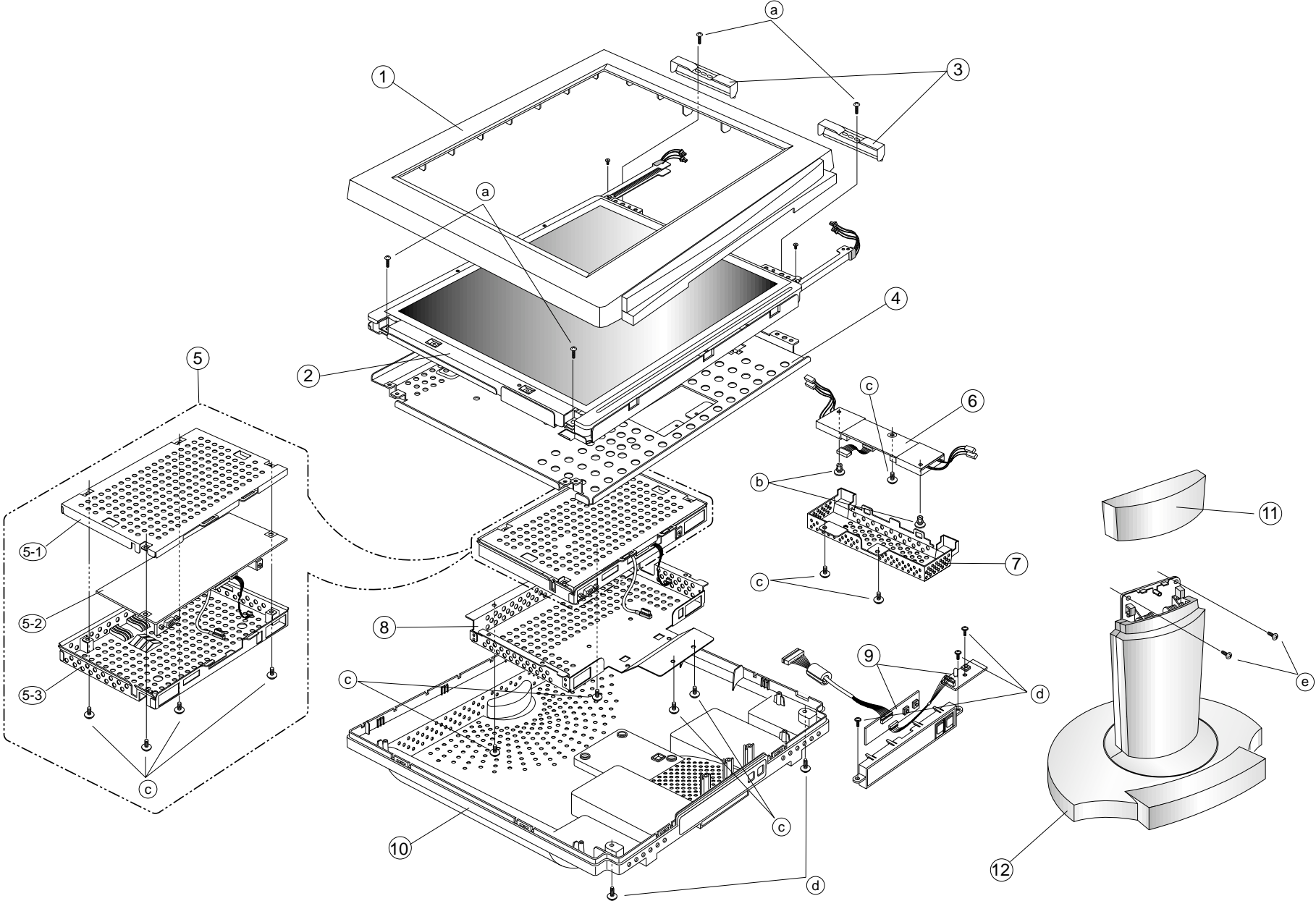
1. NO POWER



2. NO RASTER



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Material
1	3091TKL010A	CABINET ASS'Y	1	PC+ABS
2	6304TLT181N	LCD MODULE, LGE TFT LCD LM181E3-A2 18.1"	1	
3	4814TKK064A	INVERTER WIRE SHIELD	2	SPTE
4	4951TKS034B	METAL ASS'Y, MAIN FRAME	1	
5	3313TL8006A	MAIN TOTAL ASS'Y	1	
5-1	4950TKK049B	PCB SHIELD (BOTTOM)	1	SPTE
5-2	6871TMT158A	MAIN PCB ASS'Y	1	
5-3	4950TKK048J	PCB SHIELD (TOP)	1	SPTE
6	6633TZA004A	INVERTER ASS'Y	1	
7	4814TKK067A	INVERTER SHIELD	1	SPTE
8	4950TKS097A	METAL, REAR FRAME	1	SBHG1
9	6871TST156A	KEY CONTROL PCB ASS'Y	1	
10	3809TKL006D	BACK COVER ASS'Y	1	PC+ABS
11	3550TKK053F	HINGE COVER	1	PC+ABS
12	3043TKK037F	TILT SWIVEL ASS'Y	1	PC+ABS
a	332-095E	SCREW, PZP+3x16 (MSWR/FZMW)	4	STEEL
b	4930TKK014A	HOLDER, FIXER	2	
c	332-110A	SCREW, PZS+3x6 (MSWR/FZMY)	13	STEEL
d	332-095C	SCREW, PZP+3x12 (MSWR/FZMY)	5	STEEL
e	332-105F	SCREW, PVS+4x10 (MSWR/FZMW)	2	STEEL

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

MODEL: FPD1800, LG881Y			DATE: 2000. 4. 1.		
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	REMARK
MAIN BOARD					
CAPACITORS					
		C1	0CH7476F661	CAPACITOR, CHIP[TANTALUM], 47UF 16V M 7343 TP(-)	
		C2	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C3	0CH6102K406	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 1000PF 50V J SL 2012 R/TP	
		C4	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C5	0CH6102K406	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 1000PF 50V J SL 2012 R/TP	
		C6	0CH8107J611	CAPACITOR, CHIP[AL. ELECTROLYTIC], 100UF 35V M 85STD(CYL) R/TP	
		C7	0CH8107J611	CAPACITOR, CHIP[AL. ELECTROLYTIC], 100UF 35V M 85STD(CYL) R/TP	
		C8	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C9	0CH7227D661	CAPACITOR, CHIP[TANTALUM], 220UF 10V M 7343 TP(-)	
		C10	0CH7106F621	CAPACITOR, CHIP[TANTALUM], 10UF 16V M 3528MM TP(-)	
		C11	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C12	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C13	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C14	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C15	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C16	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C17	0CH6102K406	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 1000PF 50V J SL 2012 R/TP	
		C18	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C19	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C20	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C21	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C22	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C24	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C26	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C27	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C28	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C29	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C30	0CH7476F661	CAPACITOR, CHIP[TANTALUM], 47UF 16V M 7343 TP(-)	
		C31	0CH6102K406	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 1000PF 50V J SL 2012 R/TP	
		C32	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C33	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C34	0CH7227D661	CAPACITOR, CHIP[TANTALUM], 220UF 10V M 7343 TP(-)	
		C35	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C36	0CE4776F618	CAPACITOR, AL.ELECTROLYTIC, 470U SMS 16V M FM5 TP5	
		C37	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C38	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C39	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C40	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C41	0CH6560K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 56PF 50V J NP0 2012 R/TP	
		C42	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C43	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C44	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C45	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C46	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C47	0CH6560K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 56PF 50V J NP0 2012 R/TP	
		C48	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C49	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C50	0CH7227D661	CAPACITOR, CHIP[TANTALUM], 220UF 10V M 7343 TP(-)	
		C51	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C52	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C53	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C54	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C60	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C61	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C62	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C63	0CH6120K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 12PF 50V J NP0 2012 R/TP	

MODEL: FPD1800, LG881Y				DATE: 2000. 4. 1.	
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	REMARK
		C64	0CH6120K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 12PF 50V J NP0 2012 R/TP	
		C65	0CH6271K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 270PF 50V J NP0 2012 R/TP	
		C67	0CH6101K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 100PF 50V J NP0 2012 R/TP	
		C68	0CH6101K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 100PF 50V J NP0 2012 R/TP	
		C69	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C70	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C71	0CH6101K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 100PF 50V J NP0 2012 R/TP	
		C72	0CH6101K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 100PF 50V J NP0 2012 R/TP	
		C83	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C84	0CE4776F618	CAPACITOR, AL.ELECTROLYTIC, 470U SMS 16V M FM5 TP5	
		C85	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C86	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C87	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C89	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C90	0CH7106F621	CAPACITOR, CHIP[TANTALUM], 10UF 16V M 3528MM TP(-)	
		C91	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C92	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C93	0CH8107J611	CAPACITOR, CHIP[AL. ELECTROLYTIC], 100UF 35V M 85STD(CYL) R/TP	
		C94	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C95	0CH3103K516	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 10000PF 50V K B 2012 R/TP	
		C96	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C97	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C98	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C99	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C100	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C101	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C102	0CH6221K416	CAPACITOR, CHIP[CERAMIC LD-LESS TC], 220PF 50V J NP0 2012 R/TP	
		C103	0CH7106F621	CAPACITOR, CHIP[TANTALUM], 10UF 16V M 3528MM TP(-)	
		C106	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
		C107	0CH3104K566	CAPACITOR, CHIP[CERAMIC LD-LESS HD], 0.1UF 50V K X 2012 R/TP	
DIODEs					
		D1	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D2	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D3	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D4	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D5	0DS301109AA	DIODE, SWITCHING, MMBD301LT1 TP MOTOROLA SOT23 30V 13NA 200NA	
		D6	0DS301109AA	DIODE, SWITCHING, MMBD301LT1 TP MOTOROLA SOT23 30V 13NA 200NA	
		D7	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D8	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D9	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		D10	0DS226009AA	DIODE, SWITCHING, KDS226 TP KEC SOT-23 80V 300MA 2A 4NS 0.5UA	
		ZD3	0DZ560009DA	DIODE, ZENER, UDZ S 5.6B TP ROHM-K SOD323 200MW 5.6V 5MA .PF	
		ZD4	0DZ560009DA	DIODE, ZENER, UDZ S 5.6B TP ROHM-K SOD323 200MW 5.6V 5MA .PF	
		ZD5	0DR340009AA	DIODE, RECTIFIER, MBRS340 TP FAIRCHILD NON 40V 3A 80A .SEC 2MA	
		ZD6	0DR190309AA	DIODE, RECTIFIER, MBRS190T3 TP MOTOROLA 403A-03 90V 1A 50A 10NS	
		ZD10	0DZ560009DA	DIODE, ZENER, UDZ S 5.6B TP ROHM-K SOD323 200MW 5.6V 5MA .PF	
ICs					
		U1	0IS5161000A	IC, SILICON IMAGE, SII161A 100PTQFP BK TMDS RECEIVER 165MHZ	
		U2	0ITI758300A	IC, TEXAS INSTRUMENT, SN75LVDS83 56P,DDG TP 80MHZ F/LINK	
		U3	0ITI758300A	IC, TEXAS INSTRUMENT, SN75LVDS83 56P,DDG TP 80MHZ F/LINK	
		U4	0INS259650A	IC, NATIONAL SEMICONDUCTOR, LM2596-5V 5LEAD,TO263(S) TP 3A 5V	
		U5	0ISS780500H	IC, SAMSUNG ELECTRONICS, KA78M05-R 3P,D-PAK TP 5V 0.5A REGUL	
		U6	0IRH033200A	IC, ROHM, BA033FP-E2 MOLD-3 TP REGULATOR	
		U7	0IKE704200J	IC, KEC, KIA7042AF SOT-89 TP 4.2V VOLTAGE DETECTOR	
		U8	0INS267450A	IC, NATIONAL SEMICONDUCTOR, LM2674M-5.0 8SOP TP 0.5A 5V S/DOWN	
		U9	0ISS240210A	IC, SAMSUNG ELECTRONICS, KS24C021CS SOP8 TP EEPROM 2K LOW VOL	
		U10	0ITI748600L	IC, TEXAS INSTRUMENT, SN74AHC86D 14P,SOIC TP QUAD 2INPUT XOR	
		U11	0IZZTSZ069A	IC[HYBRID], 42PIN DIP BK LG881Y OPT ASSY	
		U12	0TF492509AA	FET, SI4925DY TP TEMIC 30V 6.1A SO-8	
		U13	0ISS240210A	IC, SAMSUNG ELECTRONICS, KS24C021CS SOP8 TP EEPROM 2K LOW VOL	

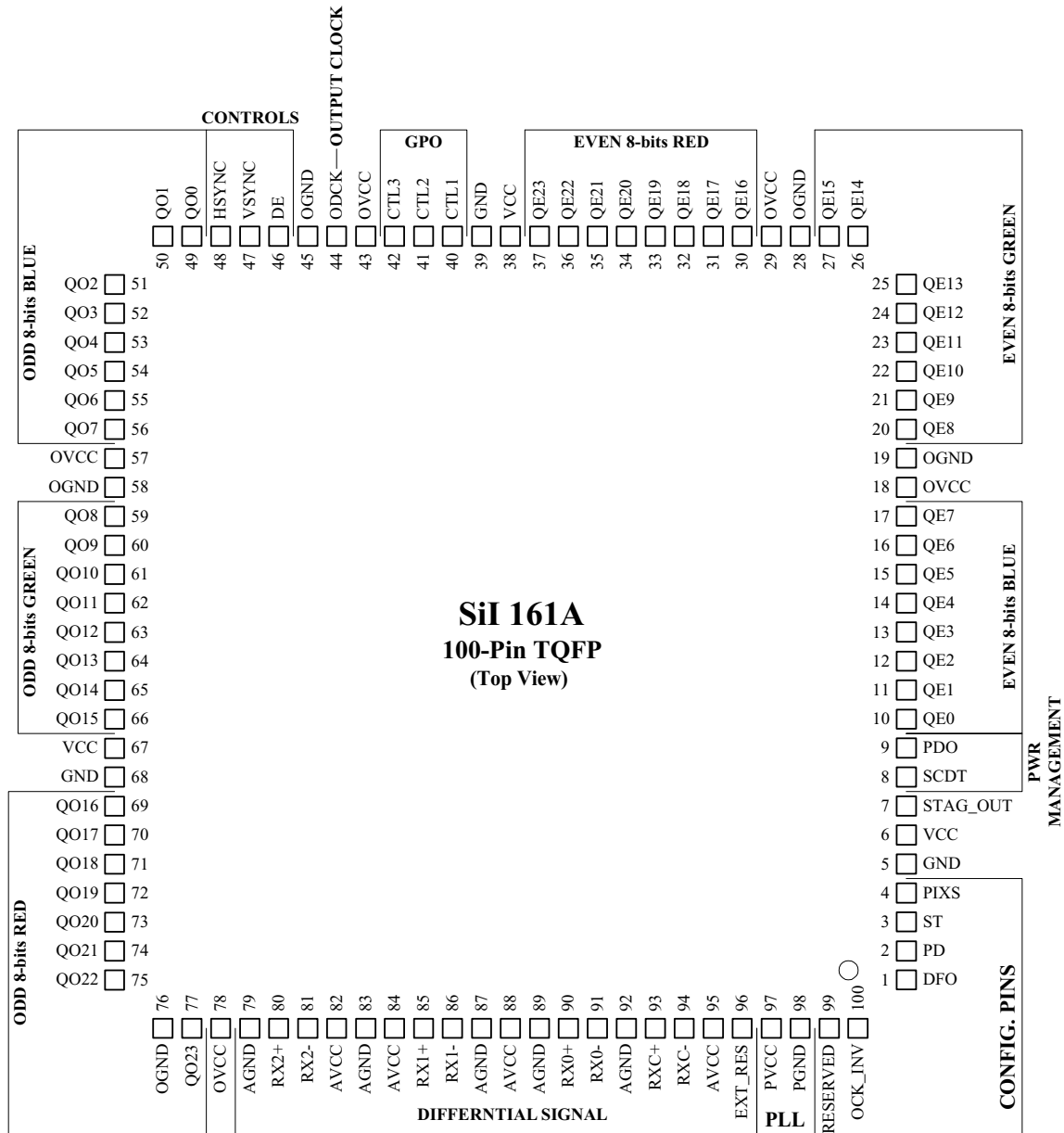
MODEL: FPD1800, LG881Y				DATE: 2000. 4. 1.	
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	REMARK
COILs & COREs					
		L1	6140TBZ007A	COIL,CHOKE, DR10*7(K-30) 100UH 0.4MM 34.5T SMD CHOKE(LCD)	
		L2	6140TBZ016B	COIL,CHOKE, DR10*7(YL-9N) 220UH 0.32MM 75T LI571D	
		L5	6210TCE001G	CORE (CIRC), BEAD, HH-1M3216-501 CERATEC 3216MM R/TP	
		L6	6210TCE001G	CORE (CIRC), BEAD, HH-1M3216-501 CERATEC 3216MM R/TP	
		L13	6210TCE001G	CORE (CIRC), BEAD, HH-1M3216-501 CERATEC 3216MM R/TP	
		L24	6210TCE001G	CORE (CIRC), BEAD, HH-1M3216-501 CERATEC 3216MM R/TP	
		L27	6210TCE001G	CORE (CIRC), BEAD, HH-1M3216-501 CERATEC 3216MM R/TP	
		L201	6200TEZ007A	FILTER(CIRC), CAPACITOR, STC-B SERIES(104B) NIIGATA(FILMAC)	
		L202	6200TEZ007A	FILTER(CIRC), CAPACITOR, STC-B SERIES(104B) NIIGATA(FILMAC)	
TRANSISTORs					
		Q1	0TR162309CA	TRANSISTOR, KSC1623 TP SAMSUNG SOT23 NPN EPI. SILICON TR	
		Q2	0TR162309CA	TRANSISTOR, KSC1623 TP SAMSUNG SOT23 NPN EPI. SILICON TR	
		Q3	0TR162309CA	TRANSISTOR, KSC1623 TP SAMSUNG SOT23 NPN EPI. SILICON TR	
RESISTORs					
		R1	0RH6802D622	RESISTOR, CHIP, 68K 1/10W 5 D.R/TP	
		R2	0RH2702D622	RESISTOR, CHIP, 27K 1/10W 5 D.R/TP	
		R3	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R4	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R5	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R6	0RH5100D622	RESISTOR, CHIP, 510 1/10W 5 D.R/TP	
		R7	0RH1004D622	RESISTOR, CHIP, 1.0M 1/10W 5 D.R/TP	
		R8	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R9	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R10	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R11	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R12	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R13	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R14	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R15	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R16	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R17	0RH0222D622	RESISTOR, CHIP, 22 1/10W 5 D.R/TP	
		R18	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R19	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R20	0RH0222D622	RESISTOR, CHIP, 22 1/10W 5 D.R/TP	
		R21	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R22	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R24	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R25	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R27	0RH4702D622	RESISTOR, CHIP, 47K 1/10W 5 D.R/TP	
		R28	0RH3302D622	RESISTOR, CHIP, 33K 1/10W 5 D.R/TP	
		R29	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R30	0RH0000D622	RESISTOR, CHIP, 0 1/10W P-TYPE TAPPING	
		R31	0RH0000D622	RESISTOR, CHIP, 0 1/10W P-TYPE TAPPING	
		R32	0RH0000D622	RESISTOR, CHIP, 0 1/10W P-TYPE TAPPING	
		R33	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R34	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R35	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R44	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R46	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R50	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R53	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R54	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R56	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R57	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R58	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R59	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R60	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R61	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R62	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R63	0RH1201D622	RESISTOR, CHIP, 1.2K 1/10W 5 D.R/TP	

MODEL:FPD1800, LG881Y				DATE: 2000. 4. 1.	
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	REMARK
		R64	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R65	0RH0000D622	RESISTOR, CHIP, 0 1/10W P-TYPE TAPPING	
		R66	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R67	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R70	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R71	0RH1000D622	RESISTOR, CHIP, 100 1/10W 5 D.R/TP	
		R74	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R75	0RH4700D622	RESISTOR, CHIP, 470 1/10W 5 D.R/TP	
		R76	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R77	0RH4700D622	RESISTOR, CHIP, 470 1/10W 5 D.R/TP	
		R78	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R79	0RH6800D622	RESISTOR, CHIP, 680 OHM 1 / 10 W 5% D R/TP	
		R87	0RH1002D622	RESISTOR, CHIP, 10K 1/10W 5 D.R/TP	
		R88	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
		R89	0RH4701D622	RESISTOR, CHIP, 4.7K 1/10W 5 D.R/TP	
OTHERs					
		J7 X2	6612TAH002A 6202TST001E	JACK,AC/DC POWER, DC-001 UNITOP DC-001 2.0MM (UNITOP) CRYSTAL, SX-1 SUNNY CHIP 24MHZ 30PPM 20PF BK	
CONTROL BOARD					
		LED1	0DL571300AA	LED, ∞SPR571MVW3 TP ROHM GREEN/RED ±10,10MCD	
		R1	0RD1001Q609	RESISTOR, FIXED CARBON FILM, 1K 1/4W(3 5% TA52	
		R2	0RD1001Q609	RESISTOR, FIXED CARBON FILM, 1K 1/4W(3 5% TA52	
		R3	0RD1800Q609	RESISTOR, FIXED CARBON FILM, 180 1/4W(3 5% TA52	
		SW1	140-058E	SWITCH, TACT, SKHV10910B LGEC NON 12V 20A HORIZONTAL 160G	
		SW2	140-058E	SWITCH, TACT, SKHV10910B LGEC NON 12V 20A HORIZONTAL 160G	
		SW5	140-058E	SWITCH, TACT, SKHV10910B LGEC NON 12V 20A HORIZONTAL 160G	
		ZD1	0DZ560009CE	DIODE, ZENER, MTZJ5.6B TP ROHM-K DO34 500MW 5.6V 5MA 26MM	
		ZD2	0DZ560009CE	DIODE, ZENER, MTZJ5.6B TP ROHM-K DO34 500MW 5.6V 5MA 26MM	
MISCELLANEOUS					
△		LCD	6304TLT181N	LCD(LIQUID CRYSTAL DISPLAY), LGE TFT LCD LM181E3-A2 18.1" 1280X1024	
△		INVERTER	6633TZA004A	INVERTER ASSY, SAMSUNG LG1801 FOR 18.1" LCD MNT(LB880B)	
		ADAPTER	6634TBZ006H	ADAPTER,AC-DC, PSCV700101A SAMSUNG 100-240V 12V 5.8A FOR G/WAY	
		P/CORD	174-206F	POWER CORD, SP305+IS14,SVT 18*3C I-SHENG UL/CSA 1830MM CT-098	
		S/CABLE	6866TDV004A	SIGNAL CABLE, UL20276 DT 2000MM GLAY LG881Y(DVID-DVID) DM	

PIN CONFIGURATION

SiI 161A PanelLink® Receiver Preliminary Datasheet

Pin Configurations



Output Pins Description

Pin Name	Pin #	Type	Description
QE23- QE0	See Sil161A Pin Diagram	Out	Output Even Data[23:0] corresponds to 24-bit pixel data for 1-pixel/clock input mode and to the first 24-bit pixel data for 2-pixels/clock mode.
			Output data is synchronized with output data clock (ODCK).
			Refer to the TFT Signal Mapping application note (Sil/AN-0007) which tabulates the relationship between the input data to the transmitter and output data from the receiver.
			A low level on PD or PDO will put the output drivers into a high impedance(tri-state) mode. A weak internal pull-down device brings each output to ground.
QO23- QO0	See Sil161A Pin Diagram	Out	Output Odd Data[23:0] corresponds to the second 24-bit pixel data for 2-pixels/clock mode.
			During 1-pixel/clock mode, these outputs are driven low.
			Output data is synchronized with output data clock (ODCK).
			Refer to the TFT Signal Mapping application note (Sil/AN-0007) which tabulates the relationship between the input data to the transmitter and output data from the receiver.
	44	Out	A low level on PD or PDO will put the output drivers into a high impedance(tri-state) mode. A weak internal pull-down device brings each output to ground.
			Output Data Clock. This output can be inverted using the OCK_INV pin. A low level on PD or PDO will put the output driver into a high impedance (tri-state) mode. A weak internal pull-down device brings the output to ground.
			Output Data Enable. This signal qualifies the active data area. A HIGH level signifies active display time and a LOW level signifies blanking time. This output signal is synchronized with the output data. A low level on PD or PDO will put the output driver into a high impedance (tri-state) mode. A weak internal pull-down device brings the output to ground.
			Output Data Enable. This signal qualifies the active data area. A HIGH level signifies active display time and a LOW level signifies blanking time. This output signal is synchronized with the output data. A low level on PD or PDO will put the output driver into a high impedance (tri-state) mode. A weak internal pull-down device brings the output to ground.
HSYNC VSYNC CTL1 CTL2 CTL3	48	Out	Horizontal Sync input control signal.
	47	Out	Vertical Sync input control signal.
	40	Out	General output control signal 1. This output is not powered down by PDO.
	41	Out	General output control signal 2.
	42	Out	General output control signal 3.
			A low level on PD or PDO will put the output drivers (except CTL1 by PDO) into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground.

Configuration Pins Description

Pin Name	Pin #	Type	Description
OCK_INV	100	In	ODCK Polarity. A LOW level selects normal ODCK output. A HIGH level selects inverted ODCK output. All other output signals are not affected by this pin. They will maintain the same timing no matter the setting of OCK_INV pin.
PIXS	4	In	Pixel Select. A LOW level indicates one pixel (up to 24-bits) per clock mode using QE[23:0]. A HIGH level indicates two pixels (up to 48-bits) per clock mode using QE[23:0] for first pixel and QO[23:0] for second pixel.
DFO	1	In	Output Data Format. For all DVI applications, this pin should be tied LOW.
STAG_OUT	7	In	Staggered Output. A HIGH level selects normal simultaneous outputs on all odd and even data lines. A LOW level selects staggered output drive. This function is only available in 2-pixels per clock mode.
ST	3	In	Output Drive. A HIGH level selects HIGH output drive strength. A LOW level selects LOW output drive strength.

Power Management Pins Description

Pin Name	Pin #	Type	Description
SCDT	8	Out	Sync Detect. A HIGH level is outputted when DE is actively toggling indicating that the link is alive. A LOW level is outputted when DE is inactive, indicating the link is down. Can be connected to PDO to power down the outputs when DE is not detected. The SCDT output itself, however, remains in the active mode at all times.
PDO	9	In	Output Driver Power Down (active LOW). A HIGH level indicates normal operation. A LOW level puts all the output drivers only (except SCDT and CTL1) into a high impedance (tri-state) mode. A weak internal pull-down device brings each output to ground. PDO is a sub-set of the PD description. The chip is not in power-down mode with this pin. There is an internal pull-up resistor that defaults the chip to normal operation if left unconnected. SCDT and CTL1 are not tri-stated by this pin.
PD	2	In	Power Down (active LOW). A HIGH level indicates normal operation and a LOW level indicates power down mode. During power down mode, all output buffers are disabled and brought low, all analog logic is powered down, and all inputs are disabled.

Differential Signal Data Pins Description

Pin Name	Pin #	Type	Description
RX0+	90	Analog	TMDS Low Voltage Differential Signal input data pairs.
RX0-	91	Analog	
RX1+	85	Analog	
RX1-	86	Analog	
RX2+	80	Analog	
RX2-	81	Analog	
RXC+	93	Analog	TMDS Low Voltage Differential Signal input data pairs.
RXC-	94	Analog	
EXT_RES	96	Analog	Impedance Matching Control. Resistor value should be ten times the characteristic impedance of the cable. In the common case of 50Ω transmission line, an external 500Ω resistor must be connected between AVCC and this pin.

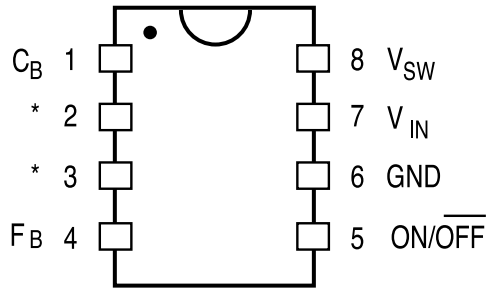
Reserved Pin Description

Pin Name	Pin #	Type	Description
RESERVED	99	In	Must be tied HIGH for normal operation.

Power and Ground Pins Description

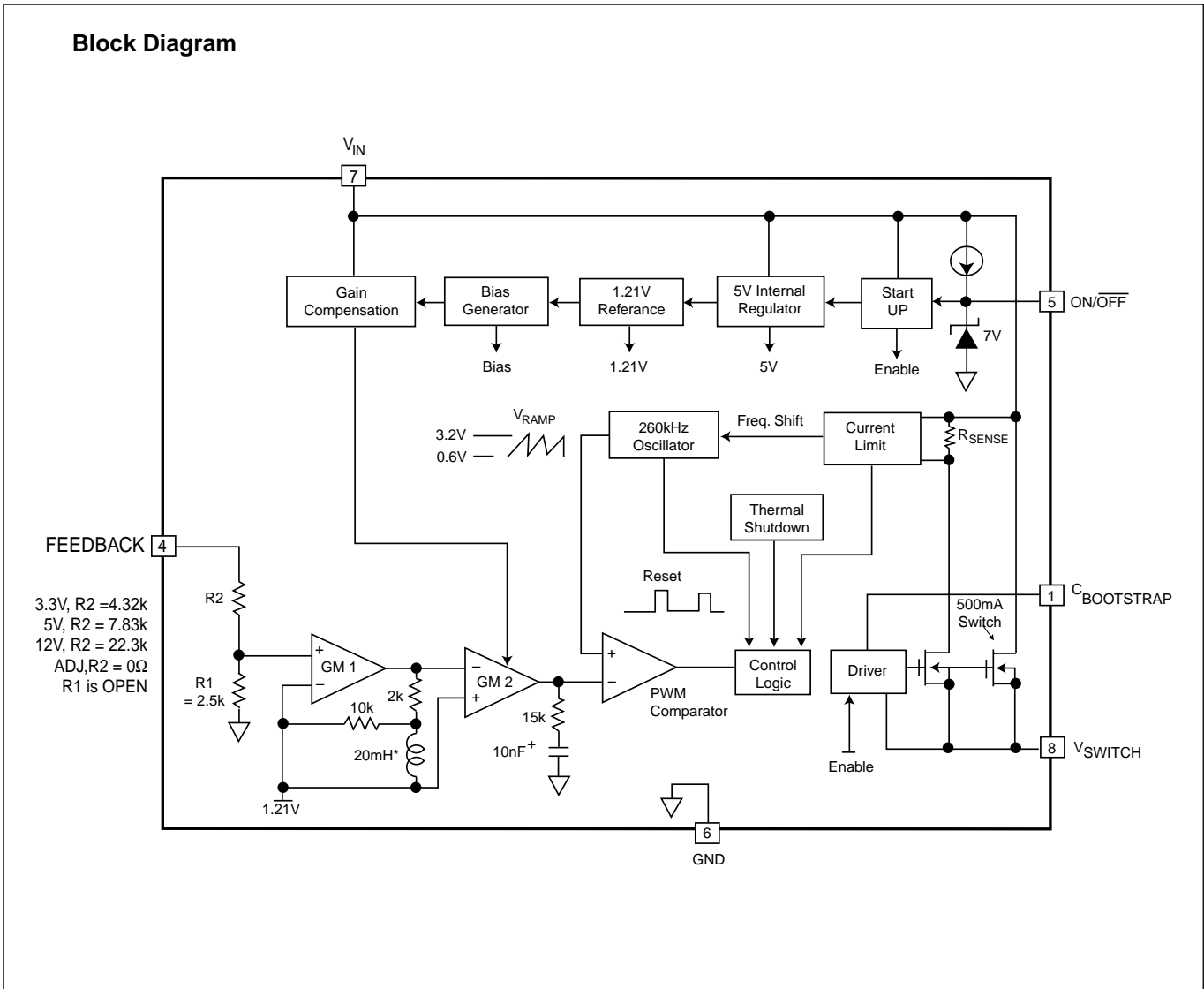
Pin Name	Pin #	Type	Description
VCC	6,38,67	Power	Digital Core VCC, must be set to 3.3V.
GND	5,39,68	Ground	Digital Core GND.
OVCC	18,29,43,57,78	Power	Output VCC, must be set to 3.3V.
OGND	19,28,45,58,76	Ground	Output GND.
AVCC	82,84,88,95	Power	Analog VCC must be set to 3.3V.
AGND	79,83,87,89,92	Ground	Analog GND.
PVCC	97	Power	PLL Analog VCC must be set to 3.3V.
PGND	98	Ground	PLL Analog GND.

Pin Configuration



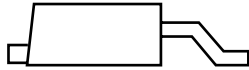
Top View

Block Diagram

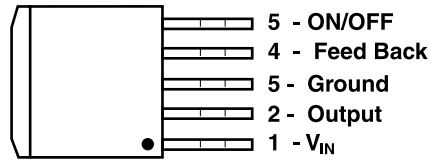


LM2596 Simple Switcher® Power Converter 150kHz 3A Step-Down Voltage Regulator

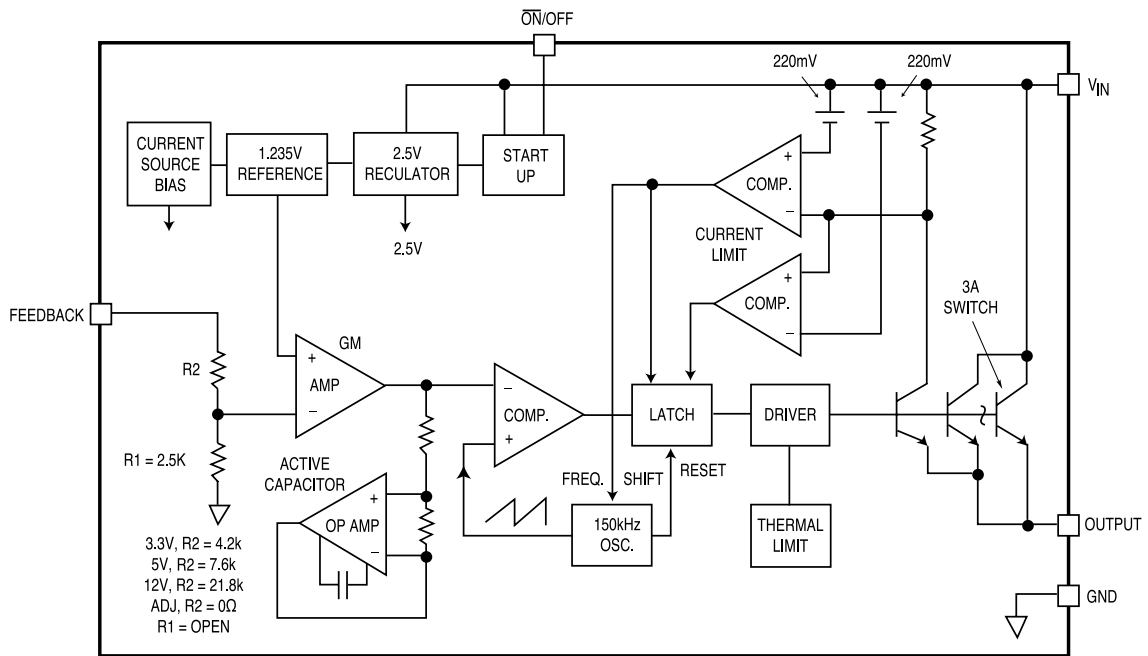
Side View



Top View

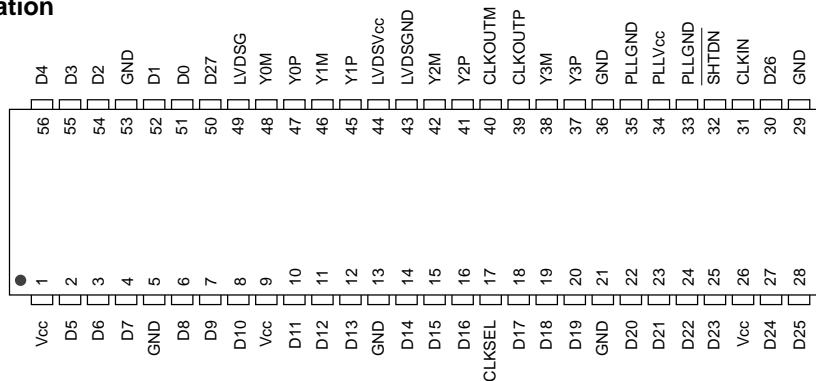


BLOCK DIAGRAM

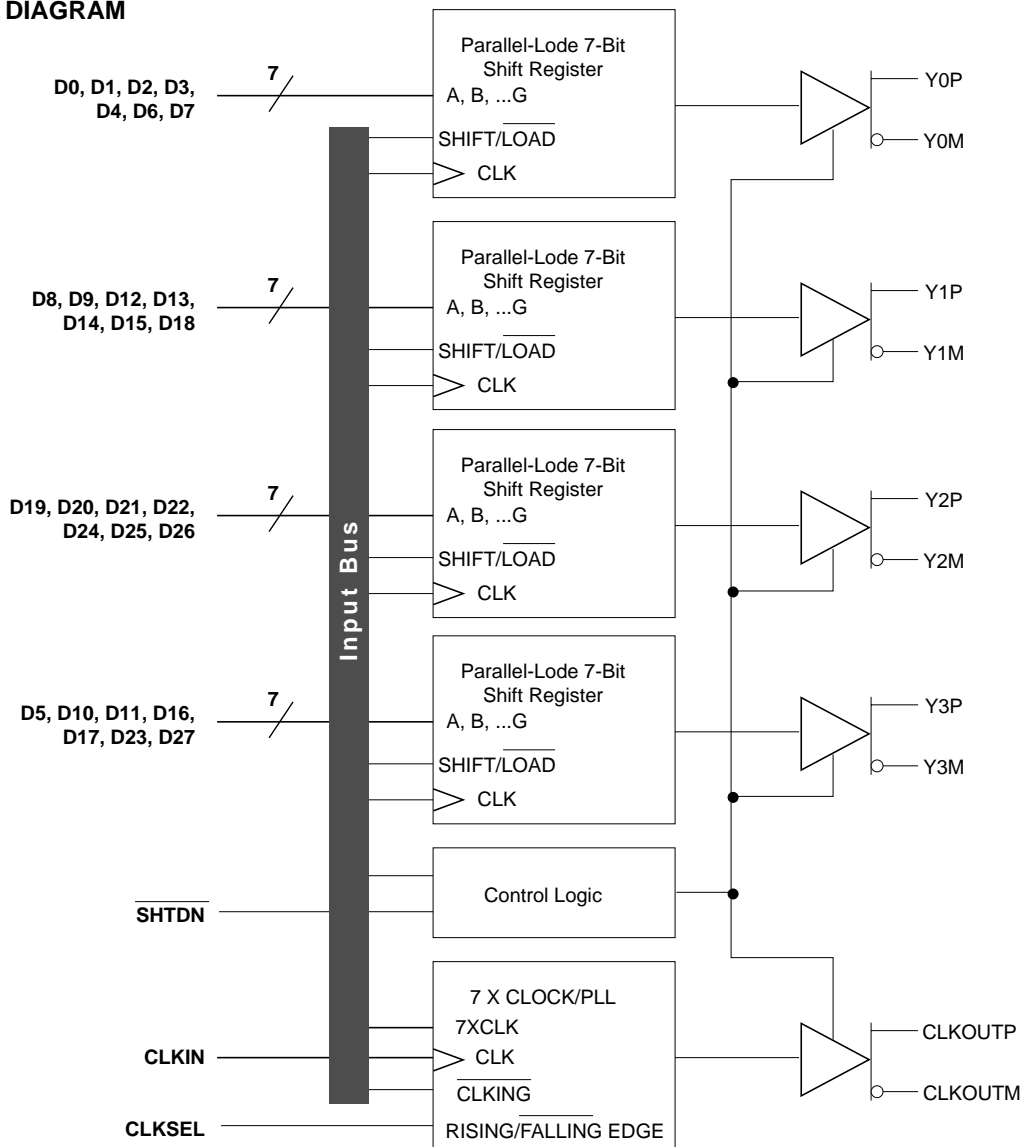


SN75LVDS83 FLATLINK™ TRANSMITTER

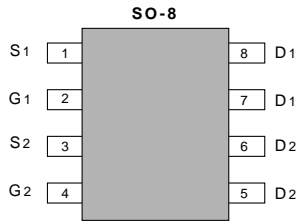
Pin Configuration



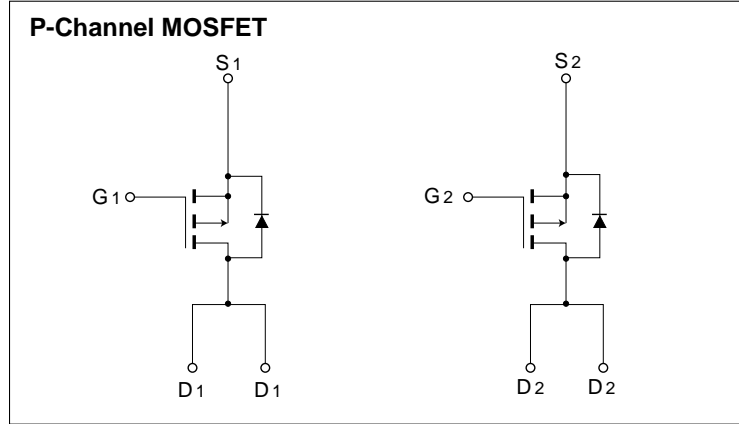
BLOCK DIAGRAM



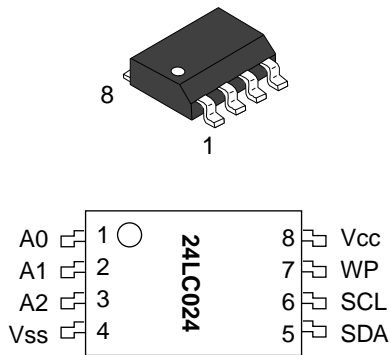
SI4925DY Dual P-Channel 30-V (D-S) Rated MOSFET



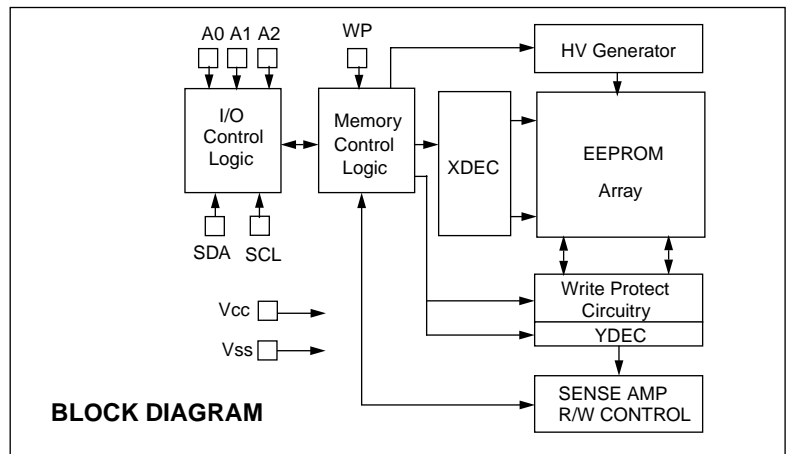
Pin Configuration

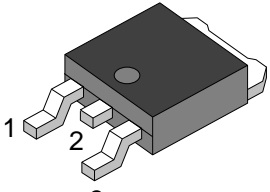
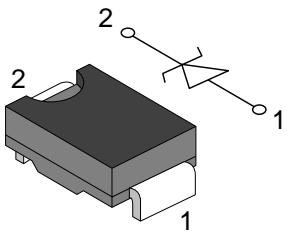
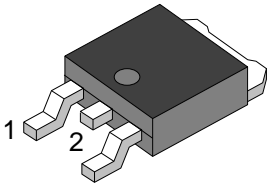
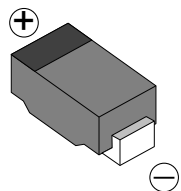
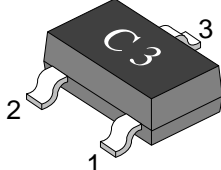
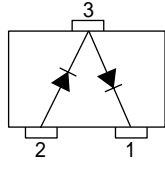
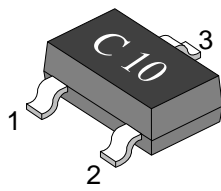


24LC02 2K 2.5V I²C™ Serial EEPROM



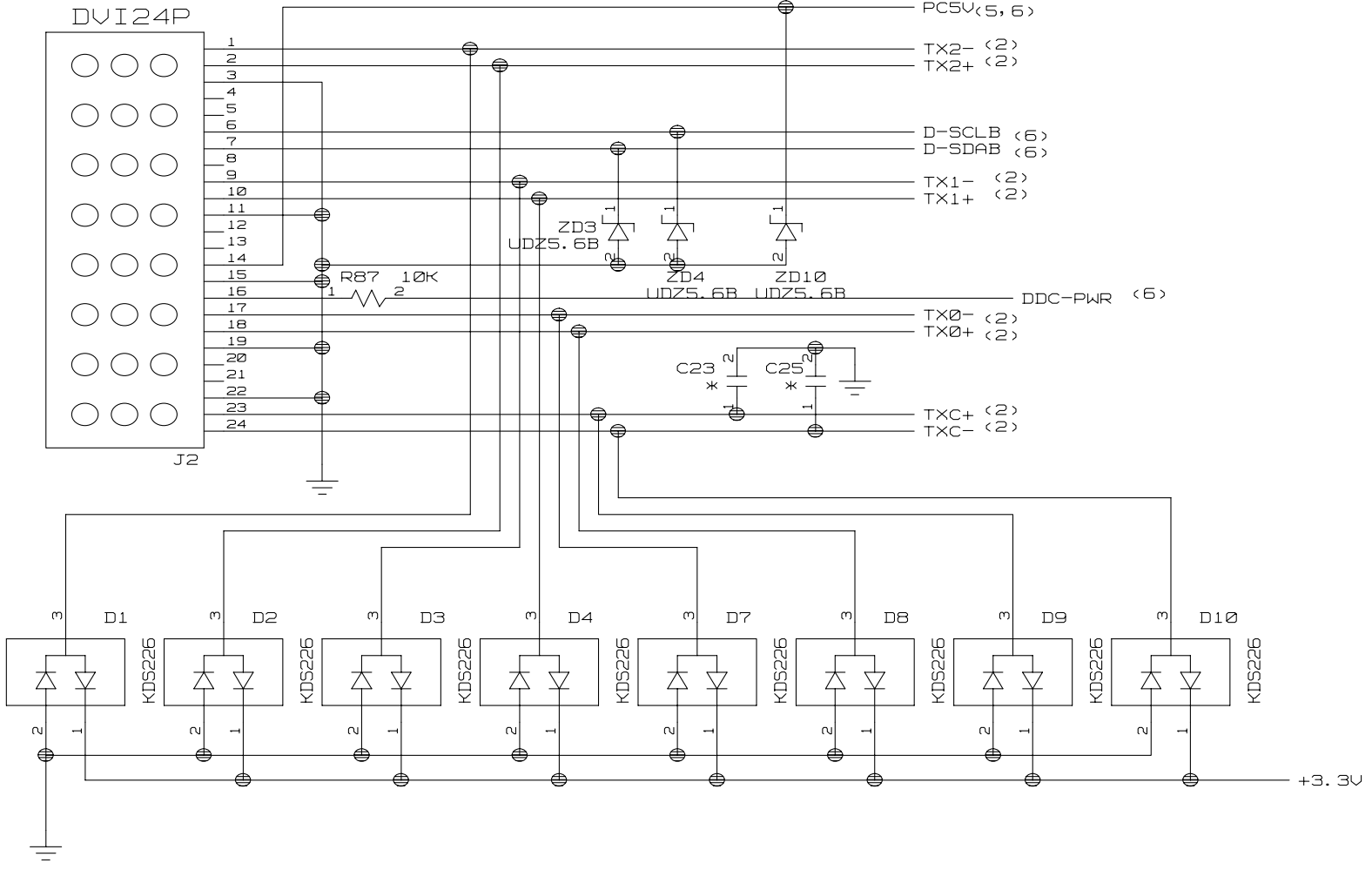
PIN CONFIGURATION



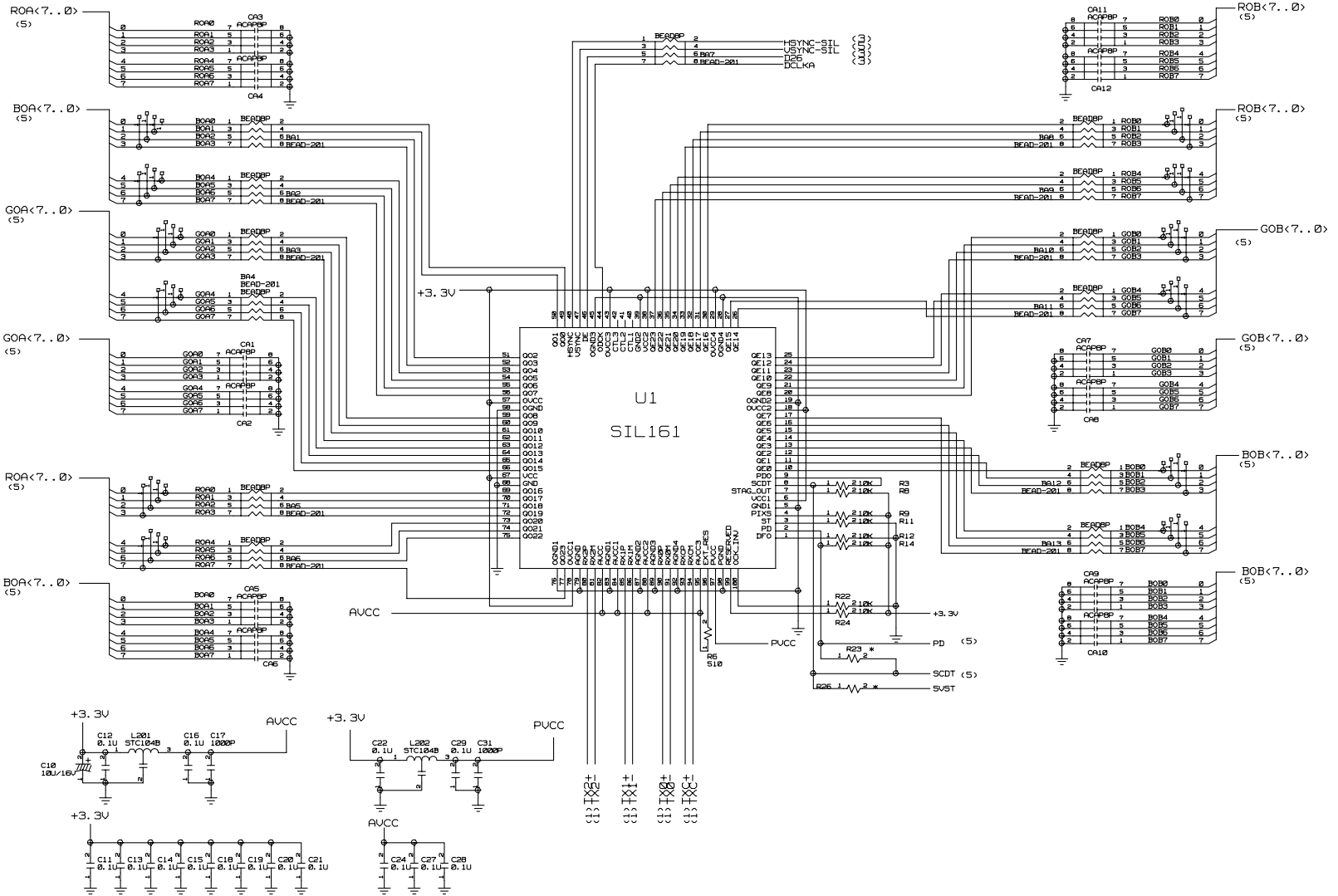
TYPE	PARTS	TYPE	PARTS
 <p>1. INPUT 2. GND 3. OUTPUT</p>	<p>Regulator</p> <p>KA78M05R</p>		<p>Schottky Diode</p> <p>MBRS190T3</p>
	 <p>1. Vcc 2. GND 3. OUT</p>		<p>BA033FP</p>
	<p>Tantalum Capacitor</p> <p>0CH7106F621 10uF/16V</p> <p>0CH7227F661 220uF/6.3V</p> <p>0CH7476F661 47uF/10V</p>	 <p>1. CATHODE 1 2. ANODE 2 3. ANODE 1 / CATHODE 2</p>	<p>Diode</p> <p>KDS226</p> 
		 <p>1. BASE 2. EMITTER 3. COLLECTOR</p>	<p>Transistor</p> <p>KSC1623</p>

1

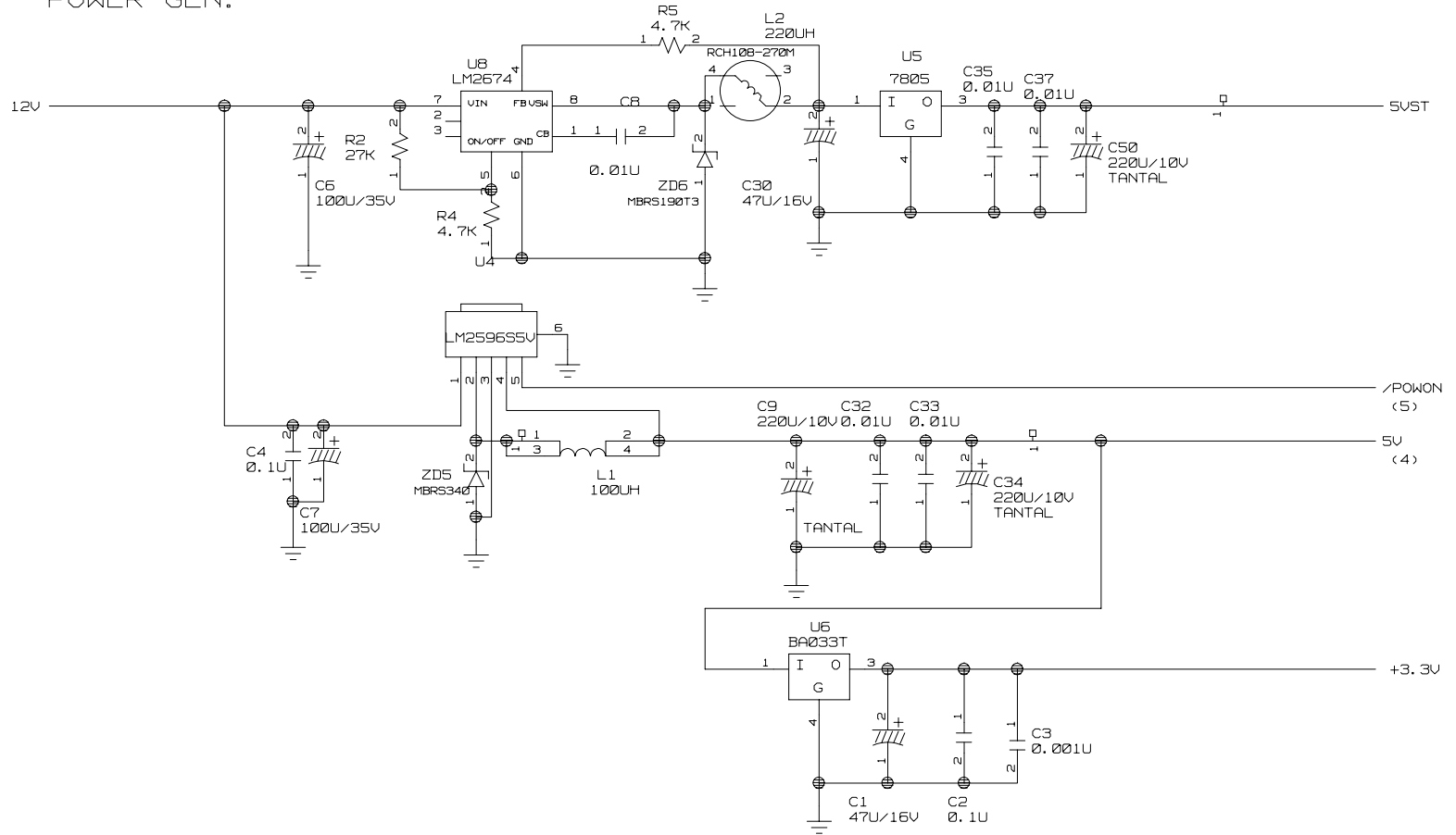
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DIGITAL INPUT



#2 2000.02.15<SIL161>
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TMDS RECEIVER



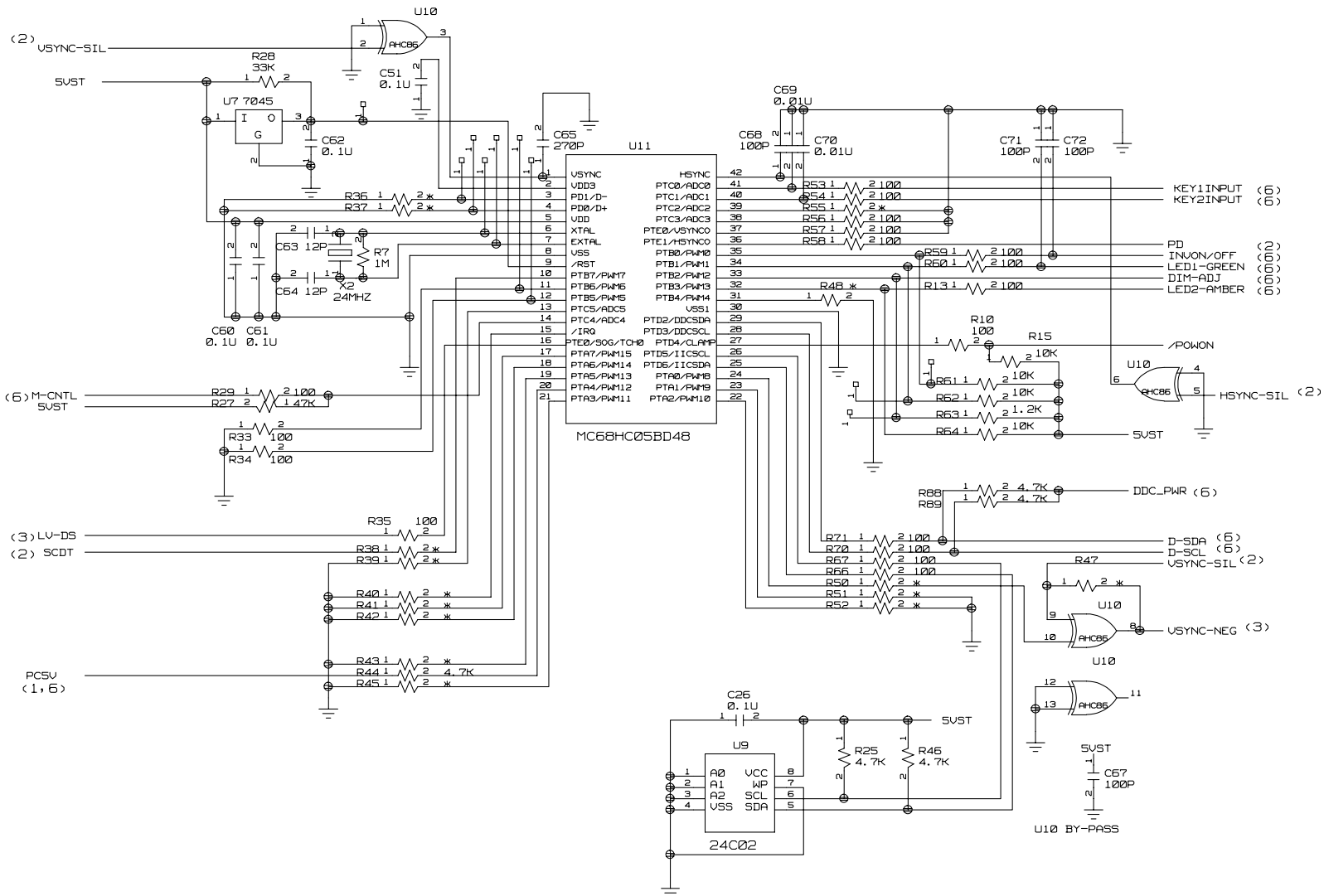
4 2000.01.21 (SIL161)
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 POWER GEN.



#5 2000.02.15 (SIL161)

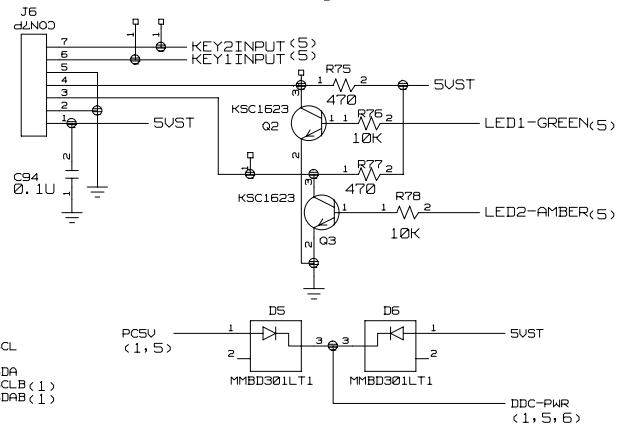
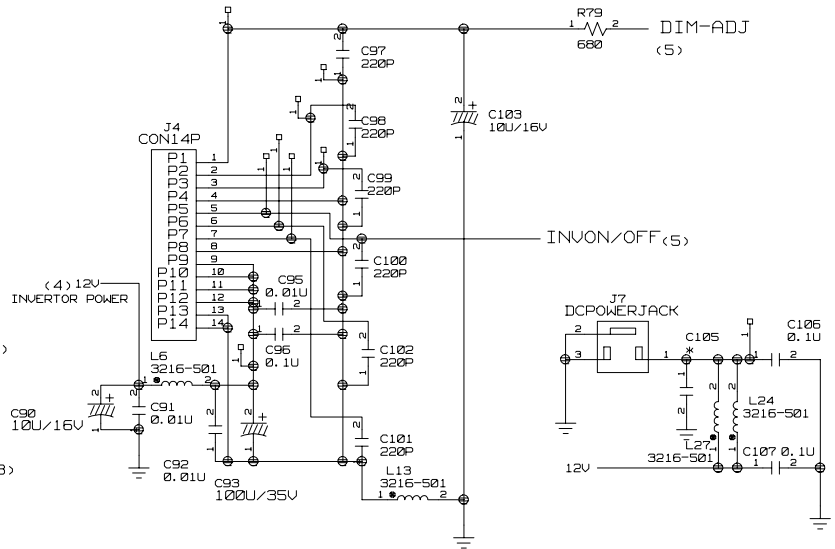
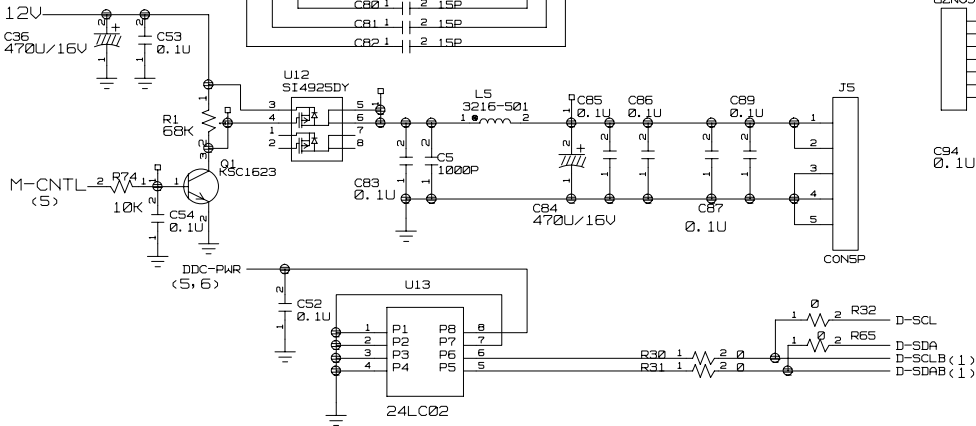
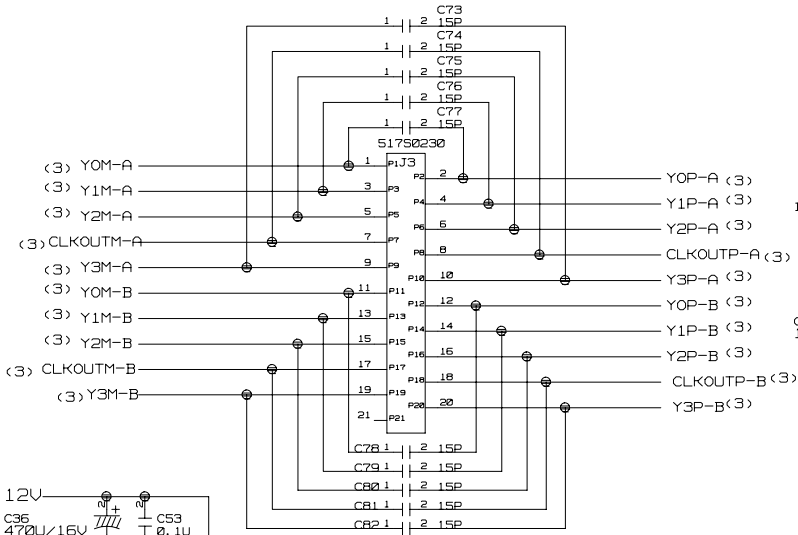
GATEWAY (LG881Y)

U-COM



#6

2000.02.12<SIL161>
GATEWAY(LG881Y)
CONNECTOR & JACK



PACKING AND ACCESSORIES

