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# COLOR MONITOR SERVICE MANUAL

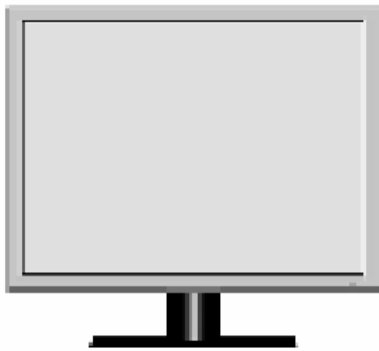
CHASSIS NO. :

MODEL: **FLATRON W1934S**  
(W1934S-SNIW1934S-BNI.Axx\*QP)

xx \* means sales region and module type  
(AxxIQP: INL 5ms, AxxQQP: CMO 5ms, AxxYQP: IVO)

## CAUTION

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



\*To apply the **MSTAR Chip**.

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## SPECIFICATIONS

### 1. LCD CHARACTERISTICS

- Type : TFT Color LCD Module
- Active Display Area : 19 inch
- Pixel Pitch : 0.285(H) x 0.285(V)
- Color Depth : 16.7M colors
  
- Size : 410.4mm (H)\*256.5mm (V)
- Electrical Interface : LVDS
- Surface Treatment : Hard-coating (3H),  
Haze=25% Anti-Glare treatment
- Operating Mode : Normally White, Transmissive mode
- Backlight Unit : Top/Bottom edge side 4-CCFL  
(Cold Cathode Fluorescent Lamp)

### 2. OPTICAL CHARACTERISTICS

- 2-1. Viewing Angle by Contrast Ratio
  - (a) For InnoLux MT190AW01 V.5  
Left 70°/Right 70°; Top 70°/Bottom 70°  
at Min CR≥10
  - (b) For CMO M190A1-L07 panel  
Left 75°/Right75°; Top 70°/Bottom 70°  
at Min CR≥10
  - (c) For IVO M190MWW1-201 panel  
H 140(min),160(typ),V 140(min) 160(typ)CR≥10
- 2-2. Luminance
  - (a) For InnoLux MT190AW01 V.5 panel: 300cd/m<sup>2</sup> (Typ.)  
220cd/m<sup>2</sup> (Min.) (6500k);170 cd/m<sup>2</sup> (Min.)(9300k)
  - (b) For CMO M190A1-L07 panel: 300cd/m<sup>2</sup> (Typ.)  
220cd/m<sup>2</sup> (Min.) (6500k);170 cd/m<sup>2</sup> (Min.)(9300k)
  - (b) For IVO M190MWW1-201 panel: 300cd/m<sup>2</sup> (Typ.)  
220cd/m<sup>2</sup> (Min.) (6500k);170 cd/m<sup>2</sup> (Min.)(9300k)
- 2-3. Contrast Ratio
  - (a) For InnoLux MT190AW01 V.5 1000:1 Typical
  - (b) For CMO M190A1-L07 panel: 1000:1 Typical
  - (c) For M190MWW1-201 panel: 800:1 Typical

### 3. SIGNAL (Refer to the Timing Chart)

- 3-1. Sync Signal Type : Separate Sync, Composite, and SOG (Sync On Green)
- 3-2. Video Input Signal
  - 1) Type : R, G, B Analog
  - 2) Voltage Level : 0~0.71 V
  - 3) Input Impedance : 75

3-3. Operating Frequency: 40~80 KHz

### 4. Max. Resolution

D-sub Analog: 1440 x 900 @ 75Hz

### 5. POWER SUPPLY

- 5-1. Power: AC 90~264V, 47.5~63Hz, <0.8A
- 5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED
POWER ON (NORMAL)	ON/ON	ACTIVE	39W MAX, 36W Typ	BLUE
STAND-BY	ON/OFF	OFF	1W MAX	AMBER
STAND-BY	OFF/ON	OFF	1W MAX	AMBER
STAND-BY	OFF/OFF	OFF	1W MAX	AMBER
POWER OFF		OFF	1W MAX	AMBER

### 6. ENVIRONMENT

- 6-1. Operating Temperature : 0°C to 40°C
- 6-2. Relative Humidity : 20% to 90%
- 6-3. MTBF : 60,000 HRS with 90% Confidence  
Lamp Life : 60,000 Hours (Min)

### 7. DIMENSIONS (with TILT/SWIVEL)


- Width: 434.8mm
- Depth: 180mm (W Base), 75.5mm (W/O Base)
- Height: 370mm (W Base), 287.8mm (W/O Base)

### 8. WEIGHT (with TILT/SWIVEL)

- Net. Weight : 3.615+/-0.5Kg(IVO);3.655+/-0.5Kg(V5);3.355+/-0.5Kg(INL)
- Gross Weight: 4.7+/-0.5Kg (IVO); 4.7+/-0.5Kg (V5); 4.4+/-0.5Kg (INL)

# 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.

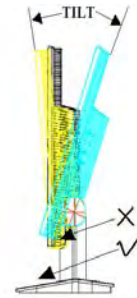
- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.

- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body is 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 soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

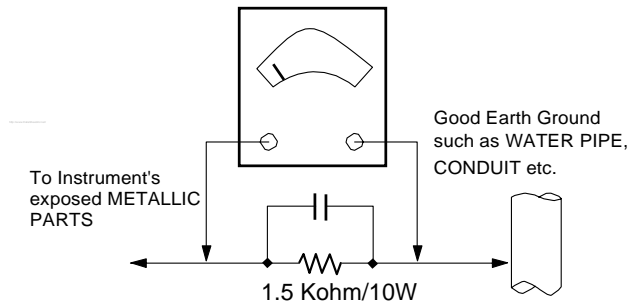
## WARNING

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.
- Be careful while tilting and rotating the monitor to avoid pinching hand(s)



## Leakage Current Hot Check Circuit



## CAUTION

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

# SERVICING PRECAUTIONS

**CAUTION:** Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the **SAFETY PRECAUTIONS** on page 3 of this publication.

**NOTE:** If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

## General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
  - a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
  - b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
  - c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.  
**CAUTION:** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
  - d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.  
Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)  
**CAUTION:** This is a flammable mixture.  
Unless specified otherwise in this service manual, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.  
Always remove the test receiver ground lead last.

9. Use with this receiver only the test fixtures specified in this service manual.

**CAUTION:** Do not connect the test fixture ground strap to any heat sink in this receiver.

## Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. —Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.  
**CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

### General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range of 500F to 600F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.

Do not use freon-propelled spray-on cleaners.

5. Use the following unsoldering technique
  - a. Allow the soldering iron tip to reach normal temperature.  
(500F to 600F)
  - b. Heat the component lead until the solder melts.
  - c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
6. Use the following soldering technique.
  - a. Allow the soldering iron tip to reach a normal temperature (500F to 600F)
  - b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.

- c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

**CAUTION:** Work quickly to avoid overheating the circuit board printed foil.

- d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

### IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

### Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

### Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

### "Small-Signal" Discrete Transistor

#### Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

### Power Output, Transistor Device

#### Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

### Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

### Fuse and Conventional Resistor

#### Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
  2. Securely crimp the leads of replacement component around notch at stake top.
  3. Solder the connections.
- CAUTION:** Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

### **Circuit Board Foil Repair**

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

#### **At IC Connections**

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

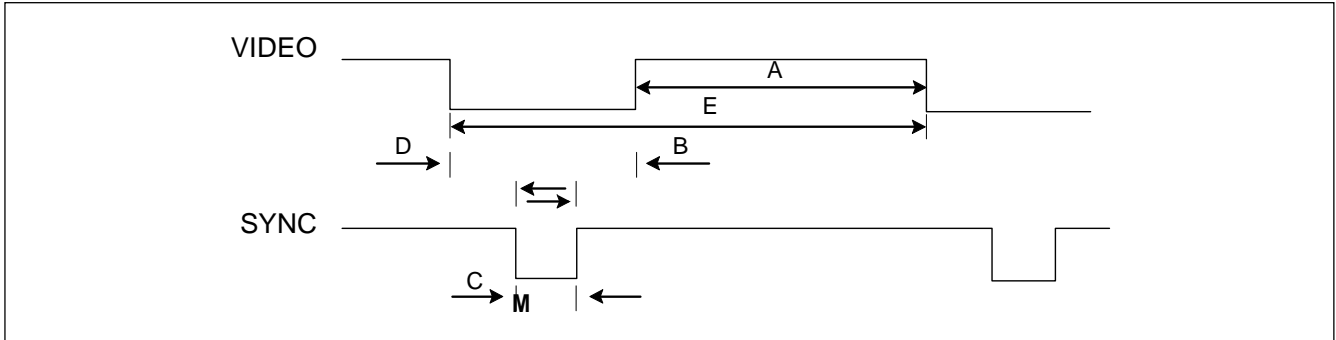
#### **At Other Connections**

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.  
Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.  
Carefully crimp and solder the connections.

**CAUTION:** Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

## TIMING CHART



	distinguishment	Polarity	DOT CLOCK [MHz]	Frequency [kHz]/ [Hz]	Total period (E)	Display (A)	Front Porch (D)	Sync. (C)	Back Porch (B)	Resolution
1	H(Pixels)	+	25.175	31.469	800	640	16	96	48	640 x 350
	V(Lines)	-		70.8						
2	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X 400
	V(Lines)	+		70.09						
3	H(Pixels)	-	25.175	31.469	800	640	16	96	48	640 x 480
	V(Lines)	-		59.94						
4	H(Pixels)	-	31.5	37.5	840	640	16	64	120	640 x 480
	V(Lines)	-		75						
5	H(Pixels)	+	40.0	37.879	1056	800	40	128	88	800 x 600
	V(Lines)	+		60.317						
6	H(Pixels)	+	49.5	46.875	1056	800	16	80	160	800 x 600
	V(Lines)	+		75.0						
7	H(Pixels)	+/-	57.283	49.725	1152	832	32	64	224	832 x 624
	V(Lines)	+/-		74.55						
8	H(Pixels)	-	65.0	48.363	1344	1024	24	136	160	1024 x 768
	V(Lines)	-		60.0						
9	H(Pixels)	-	78.75	60.123	1312	1024	16	96	176	1024 x 768
	V(Lines)	-		75.029						
10	H(Pixels)	+/-	100.0	68.681	1456	1152	32	128	144	1152 x 870
	V(Lines)	+/-		75.062						
11	H(Pixels)	+/-	92.978	61.805	1504	1152	18	134	200	1152 x 900
	V(Lines)	+/-		65.96						
12	H(Pixels)	+	108.0	63.981	1688	1280	48	112	248	1280 x 1024
	V(Lines)	+		60.02						
13	H(Pixels)	+	135.0	79.976	1688	1280	16	144	248	1280 x 1024
	V(Lines)	+		75.035						
14	H(Pixels)	+	88.750	55.5	1600	1440	48	32	80	1440 x 900

	V(Lines)	-		59.90	926	900	3	6	17	
15	H(Pixels)	-	106.500	55.935	1904	1440	80	152	232	1440x 900
	V(Lines)	+		59.887	934	900	3	6	25	
16	H(Pixels)	-	136.750	70.635	1936	1440	96	152	248	1440x 900
	V(Lines)	+		74.984	942	900	3	6	33	



## DISASSEMBLY

#1



1.Lay the front on the side of a soft cushion.  
2.Remove the base

#4



Turn the back-cover and hold it as shown in the figure.

#2



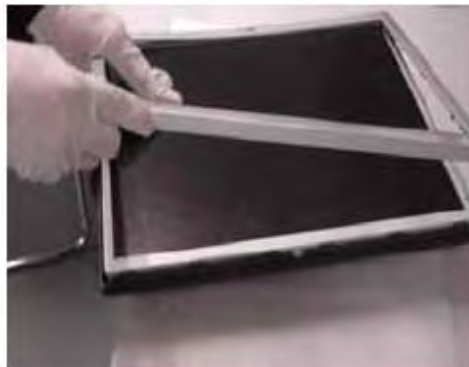
Remove the stand

#5



Unstick the foil with panel.

#3



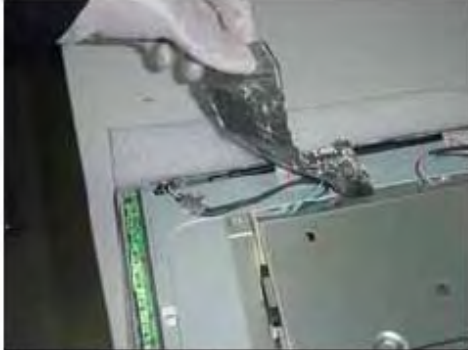
Pull up the cabinet corner and disassemble the front bezel

#6



Unstick the foil with the top lamp wire.

#7



Unstick the foil with the bottom lamp wire.

#10



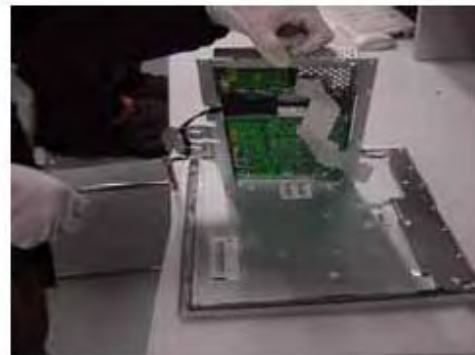
Pull out the LVDS cable.

#8



Pull out the lamp wire.

#11



Remove the chassis.

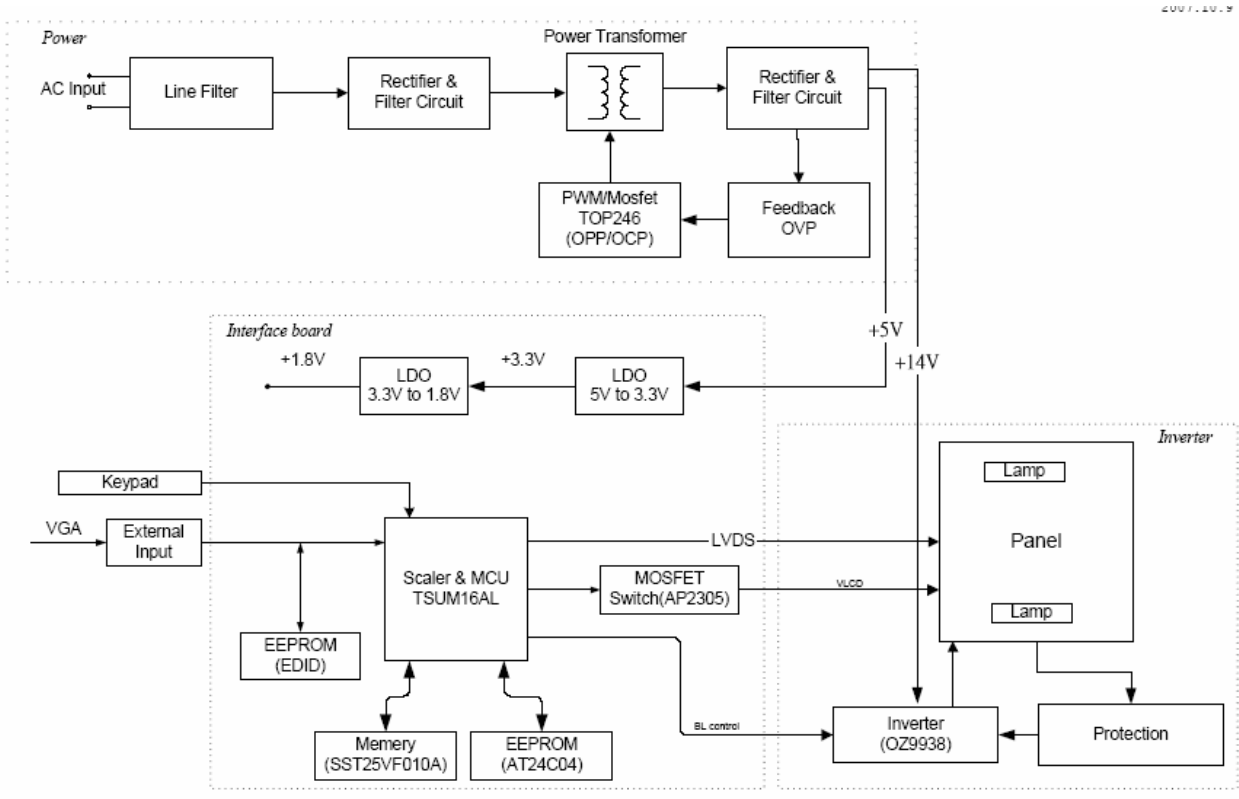
#9



1. Unscrew the screw on the keypad.  
2. Put the keypad upward and remove it.

# BLOCK DIAGRAM

2007.10.19



## DESCRIPTION OF BLOCK DIAGRAM

### 1. 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 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, ADC convertor and LVDS transmitter.

The Scaler gets the video signal converted analog to digital, interpolates input to 1440 X 900 resolution signal and outputs 8-bit R, G, B signal to transmitter.

### 2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.

14V is provided for inverter, 14V is provided for LCD panel and 5V for micom.

Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.

The inverter converts from DC14V to AC 700Vrms and operates back-light lamps of module.

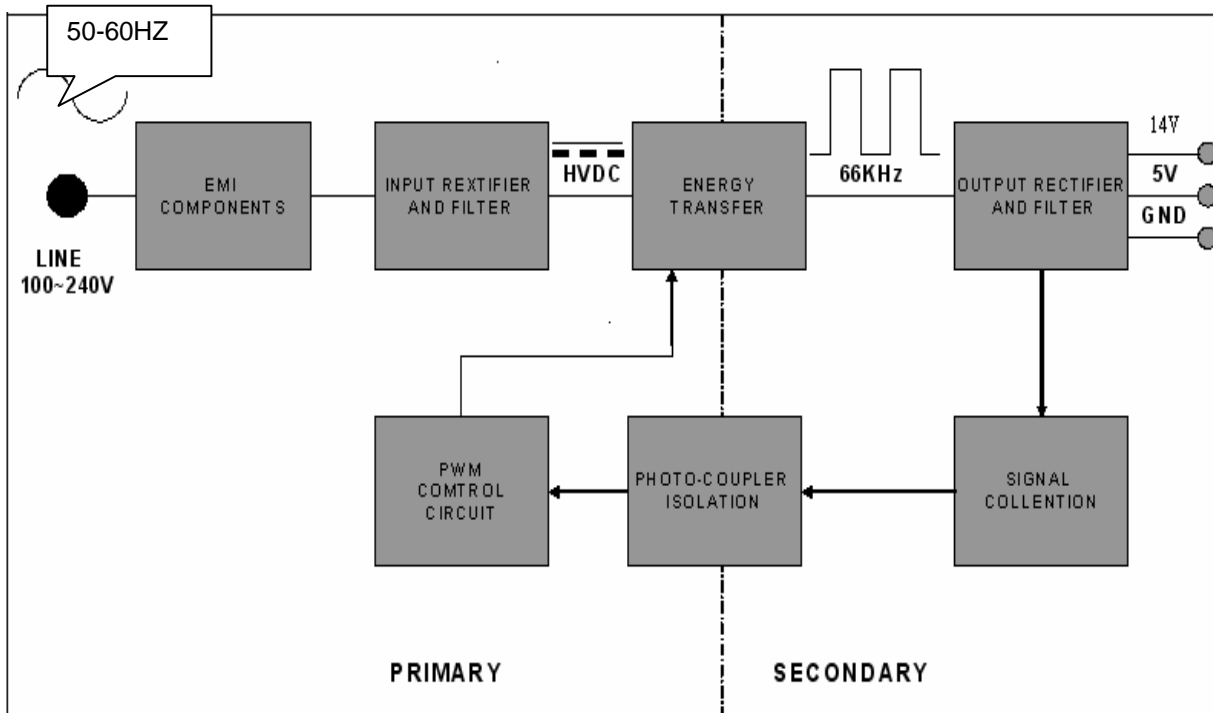
### 3. MICOM Part.

This part is include video controller part. And this part consists of EEPROM IC which stores control data, and the Micom which imbedded in scaler IC.

The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.

The controlled data of each modes is stored in EEPROM.

## 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.

# ADJUSTMENT

## 1. Software

- a. port95nt.exe
- b. Edid.exe
- c. Writing data: Mars W1934

## 2. Hardware

- a. PC (winXP, win2000 or win98) 1 pc;
- b. Writing tools (Including EDID writing card、connecting cable etc.)

## 3. EDID Writing Connection



Figure 1



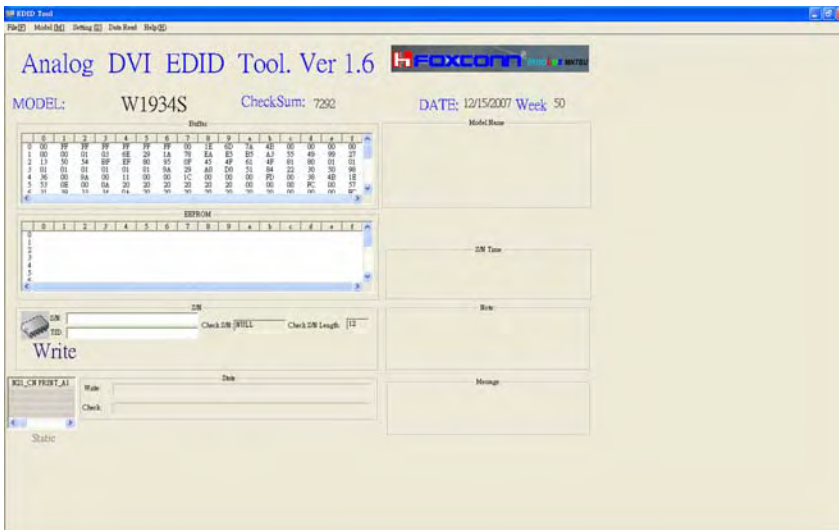
Figure 2



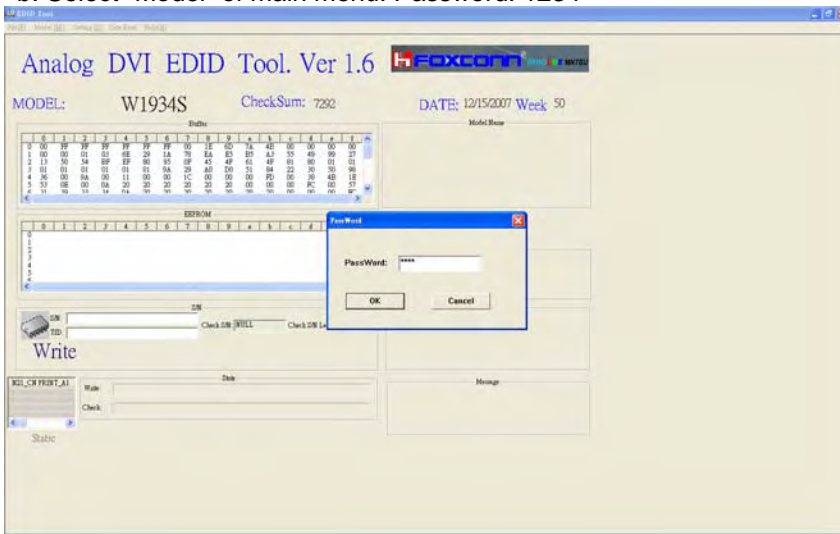
Figure 3

## 4. EDID Writing SOP:

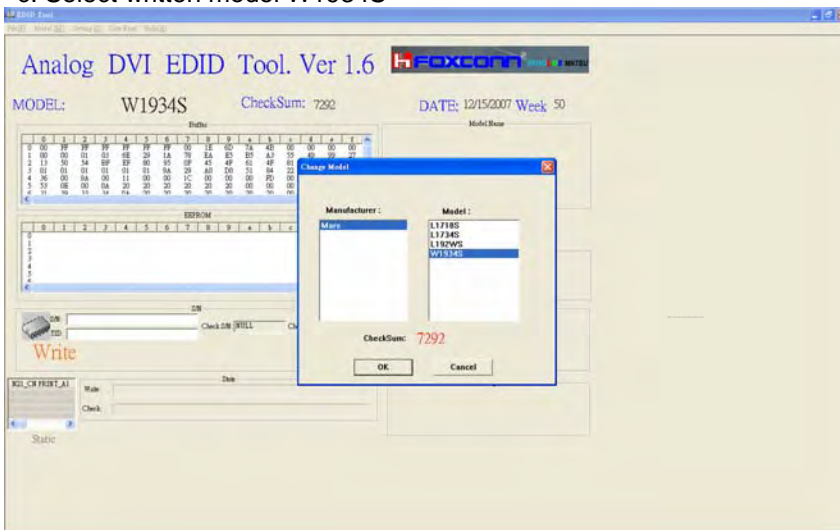
- a. Select "File" submenu, select "Auto Write".



b. Select "Model" of main menu. Password: 1234



c. Select written model W1934S



d. Input product serial number (The SN is 12 numbers) in "S/N" Column, then the program auto writing start.





## SERVICE OSD

1) Press MENU Key and Power Key, Monitor Will Enter Service OSD.

2) The SVC OSD menu contains additional menus that the User OSD menu as described below.

- a) Auto Color : W/B balance and Automatically sets the gain and offset value.
- b) NVRAM INIT : EEPROM initialize.(24C04)
- c) CLEAR ETI : To initialize using time.
- d) AGING : Select Aging mode(on/off).
- e) R/G/B-9300K : Allows you to set the R/G/B-9300K value manually.
- f) R/G/B-6500K : Allows you to set the R/G/B-6500K value manually.
- g) R/G/B-Offset : Allows you to set the R/G/B-Offset value manually.(Analog Only)
- h) R/G/B-Gain : Allows you to set the R/G/B-Gain value manually.(Analog Only)
- i) MODULE : Show Current module Type
- j) RS232: Enable/Disable Debug Mode(on/off)
- k) SRGB: Allows you to set the sRGB value manually

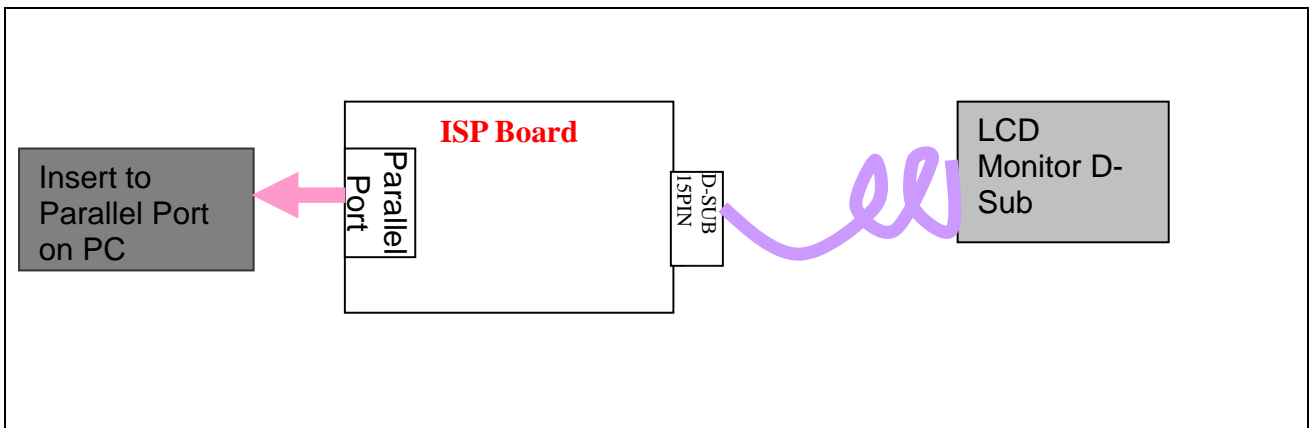
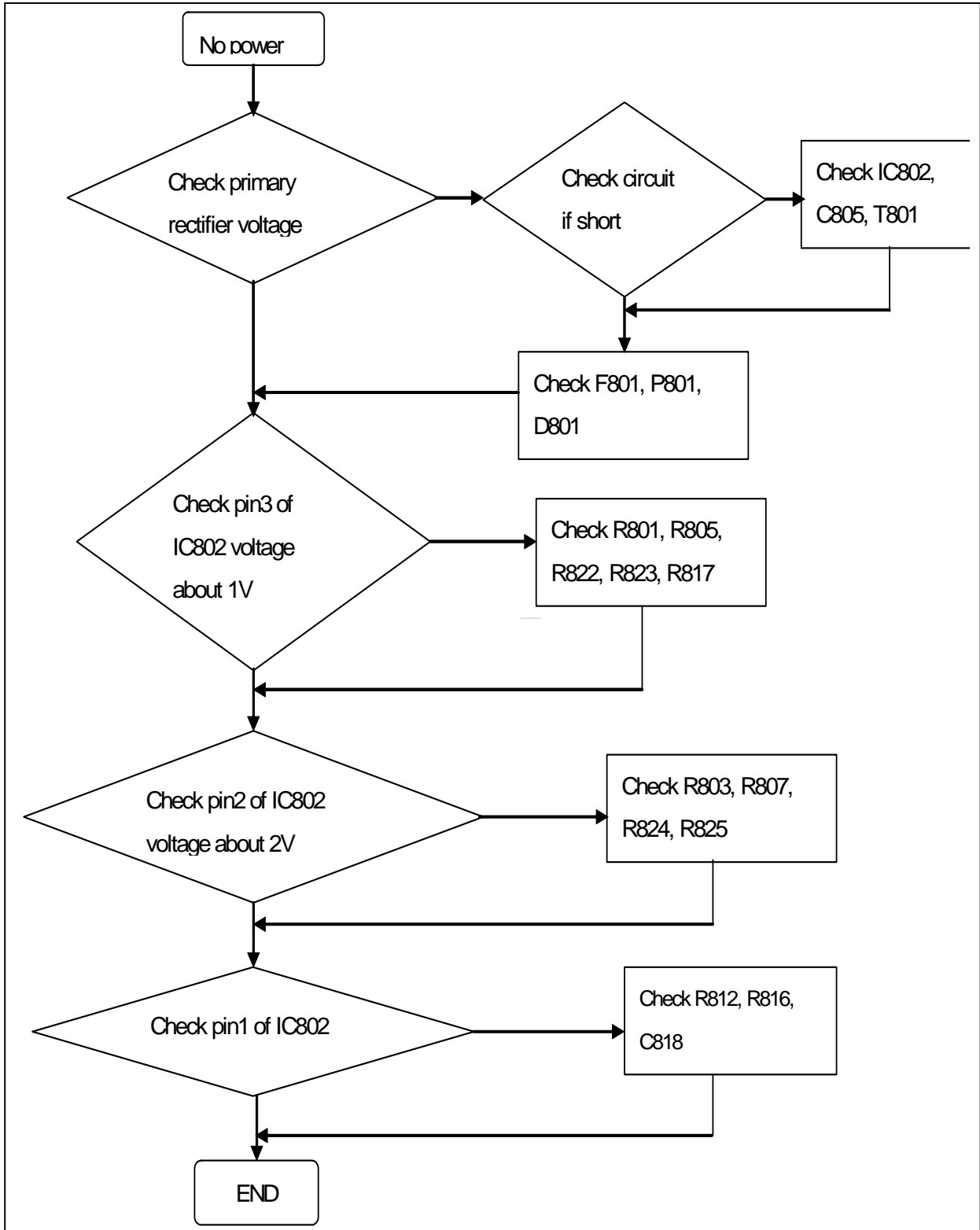


Figure 1.Cable Connection For ISP

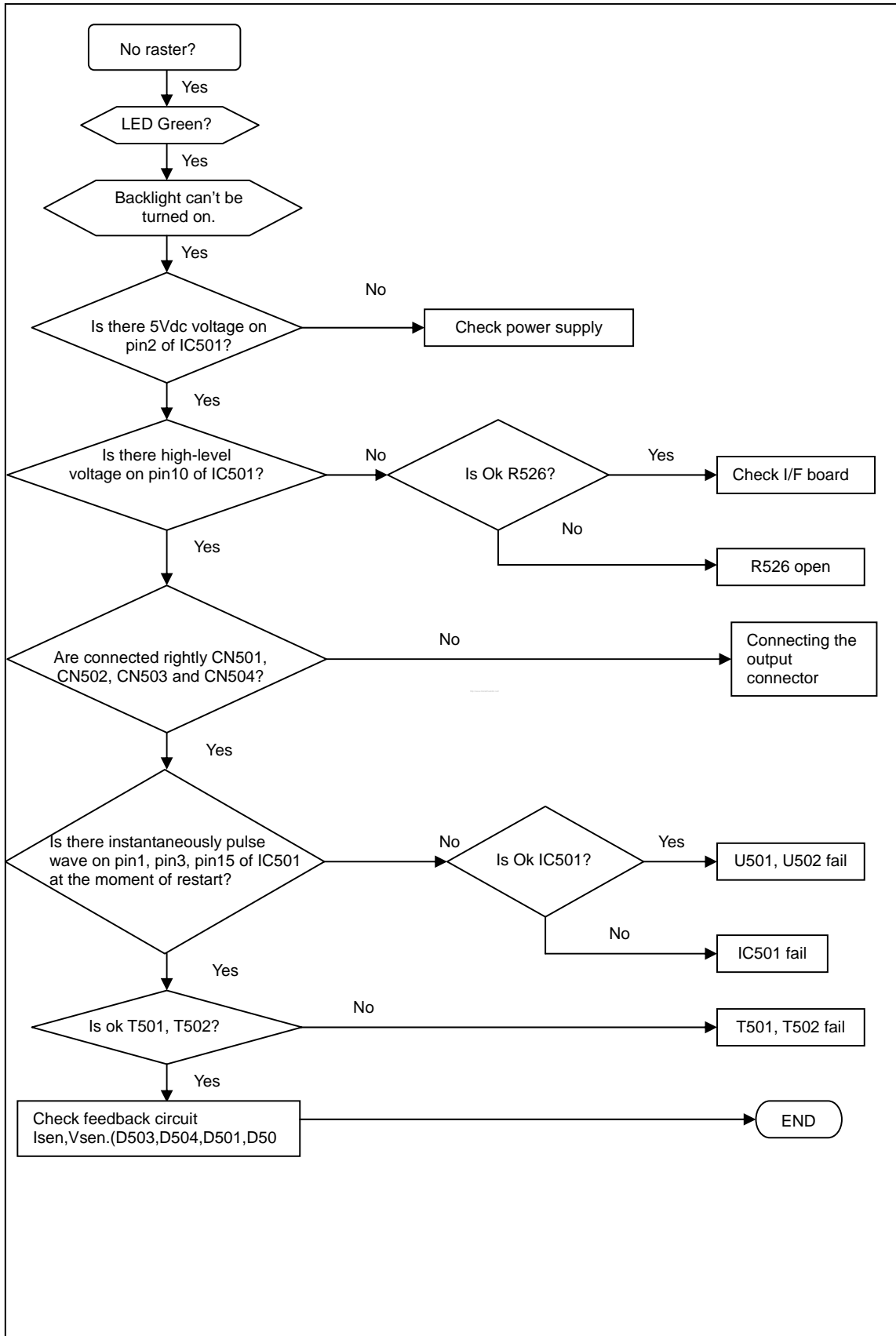


# TROUBLESHOOTING GUIDE

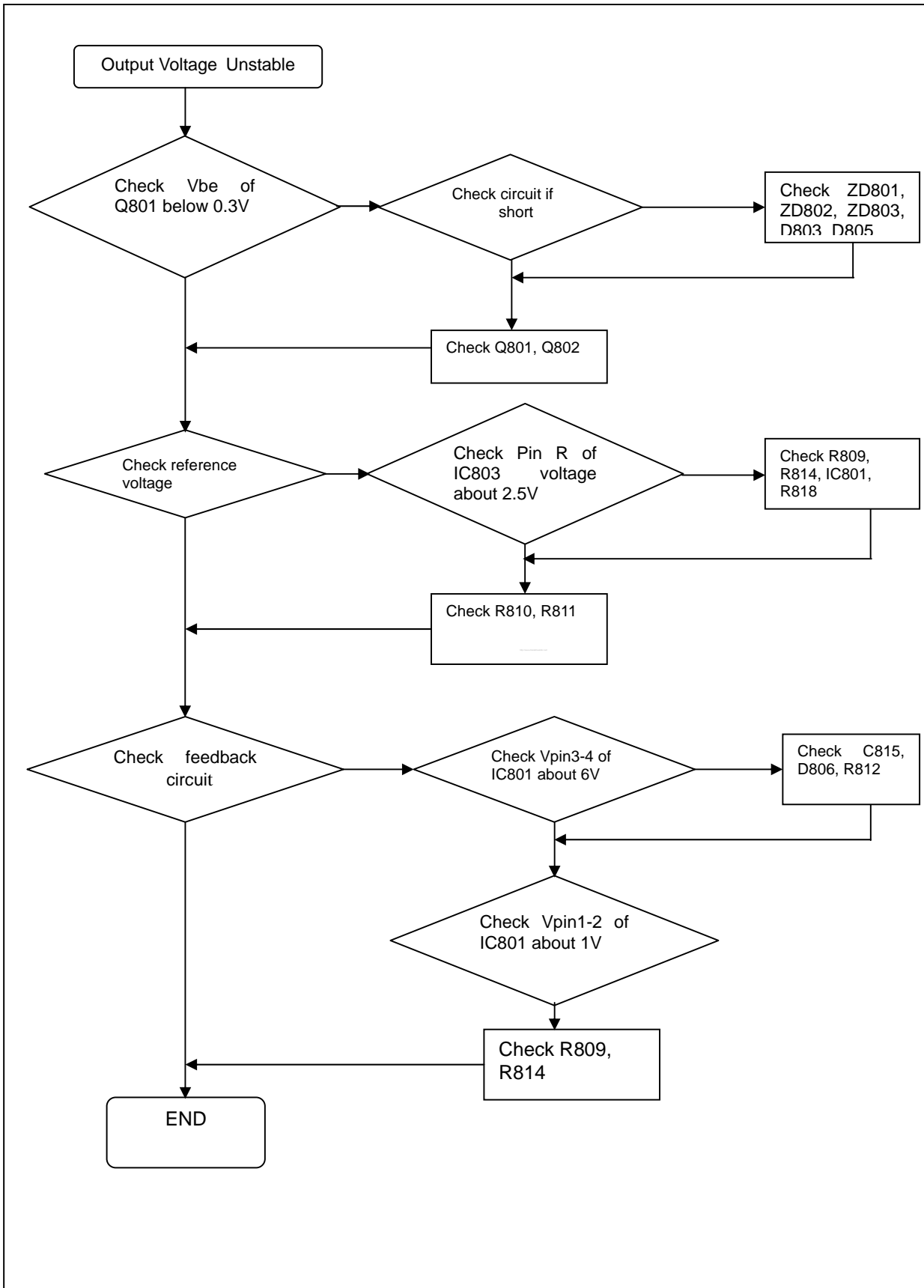
## 1. No Power & Power LED Off



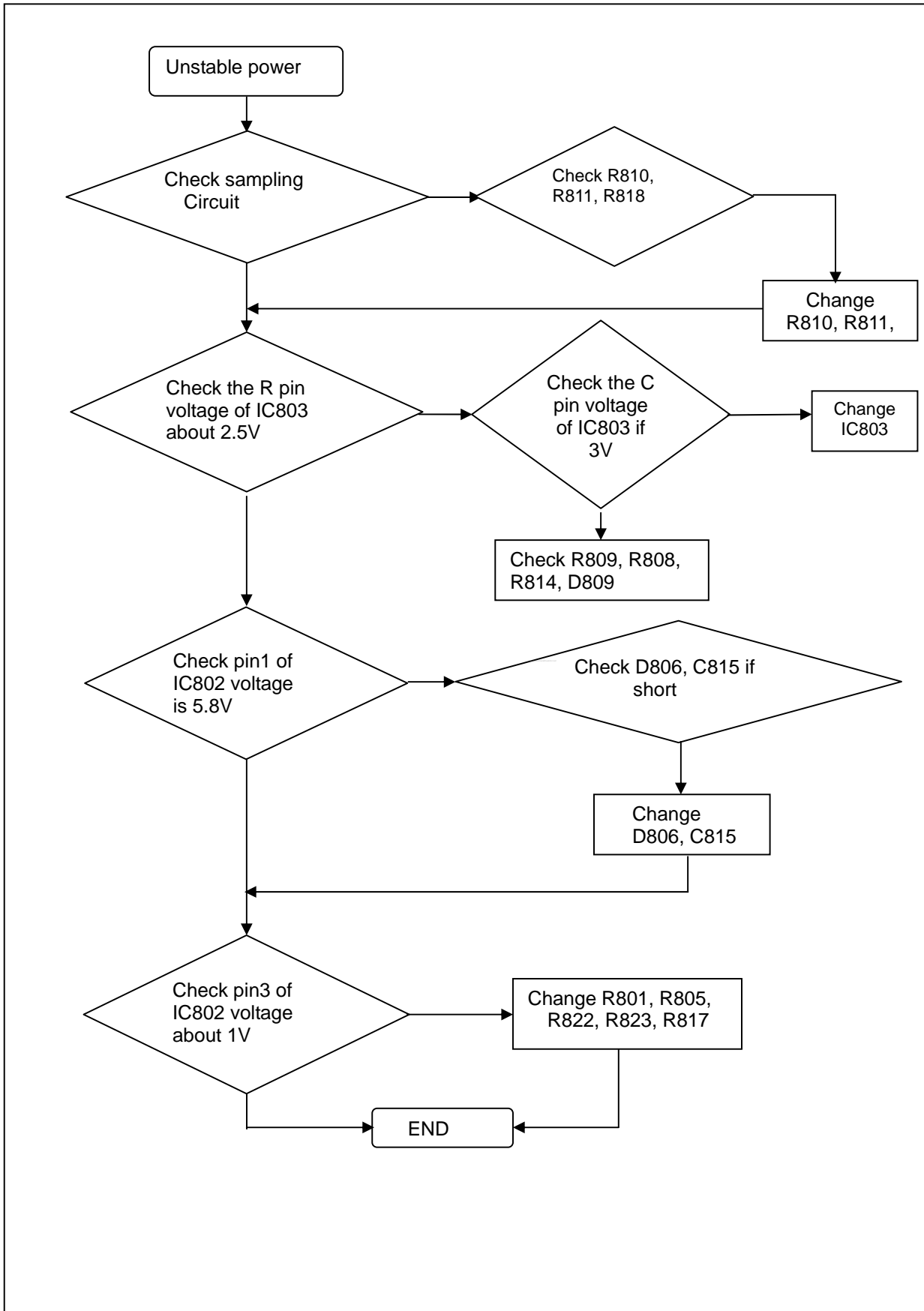
## 2. Backlight can't be turned on



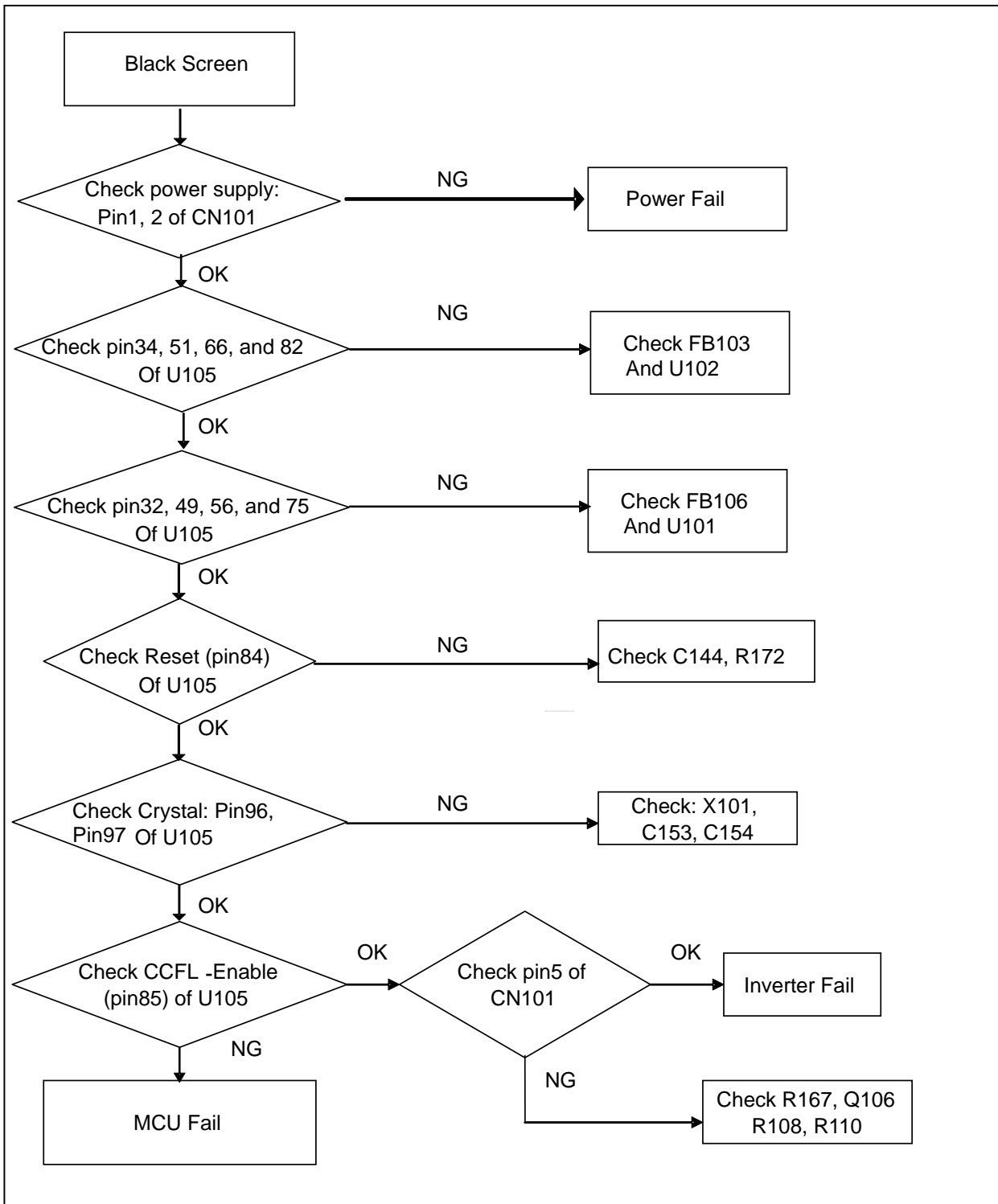
### 3. DC output voltage is unstable



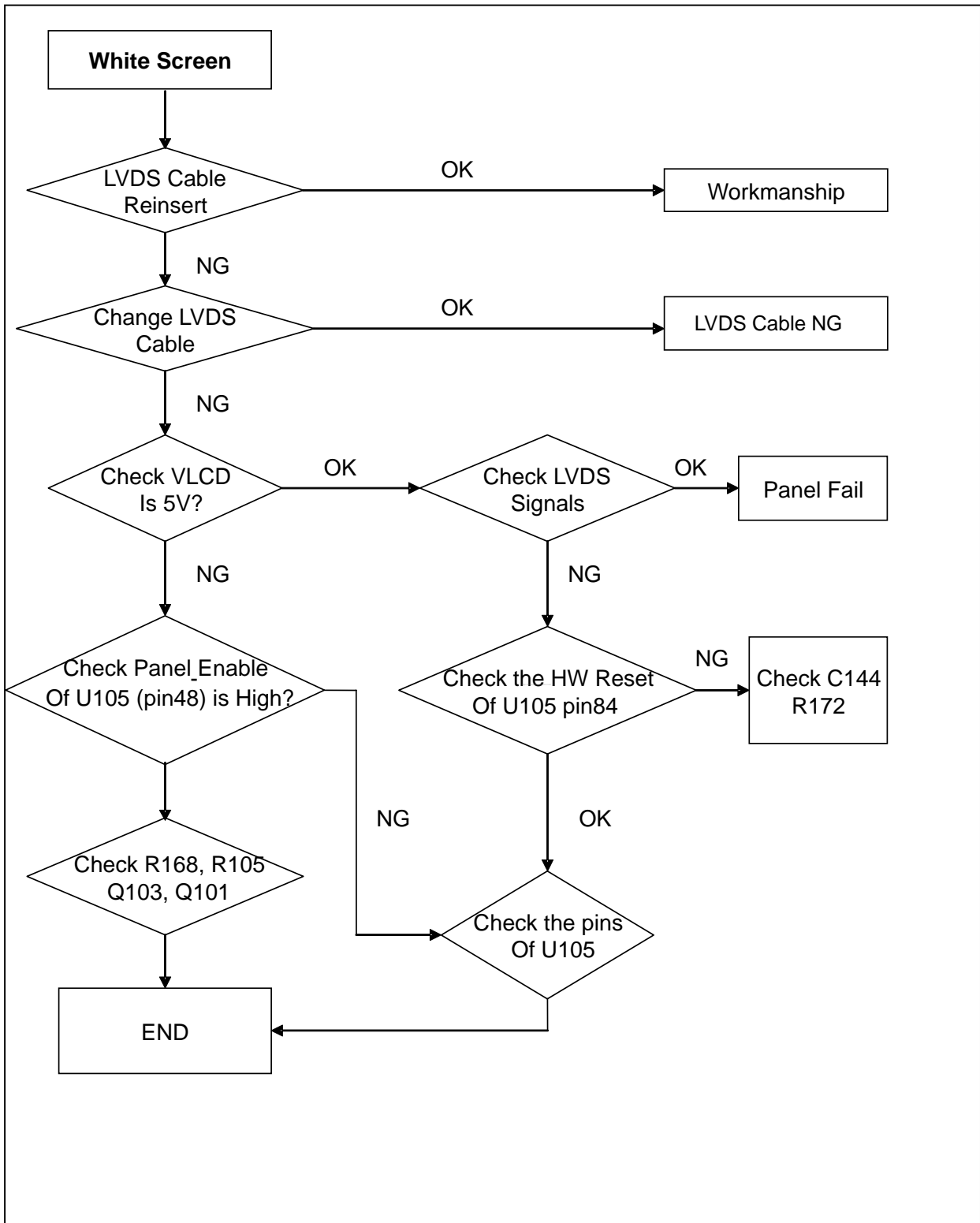
#### 4. Output power is unstable



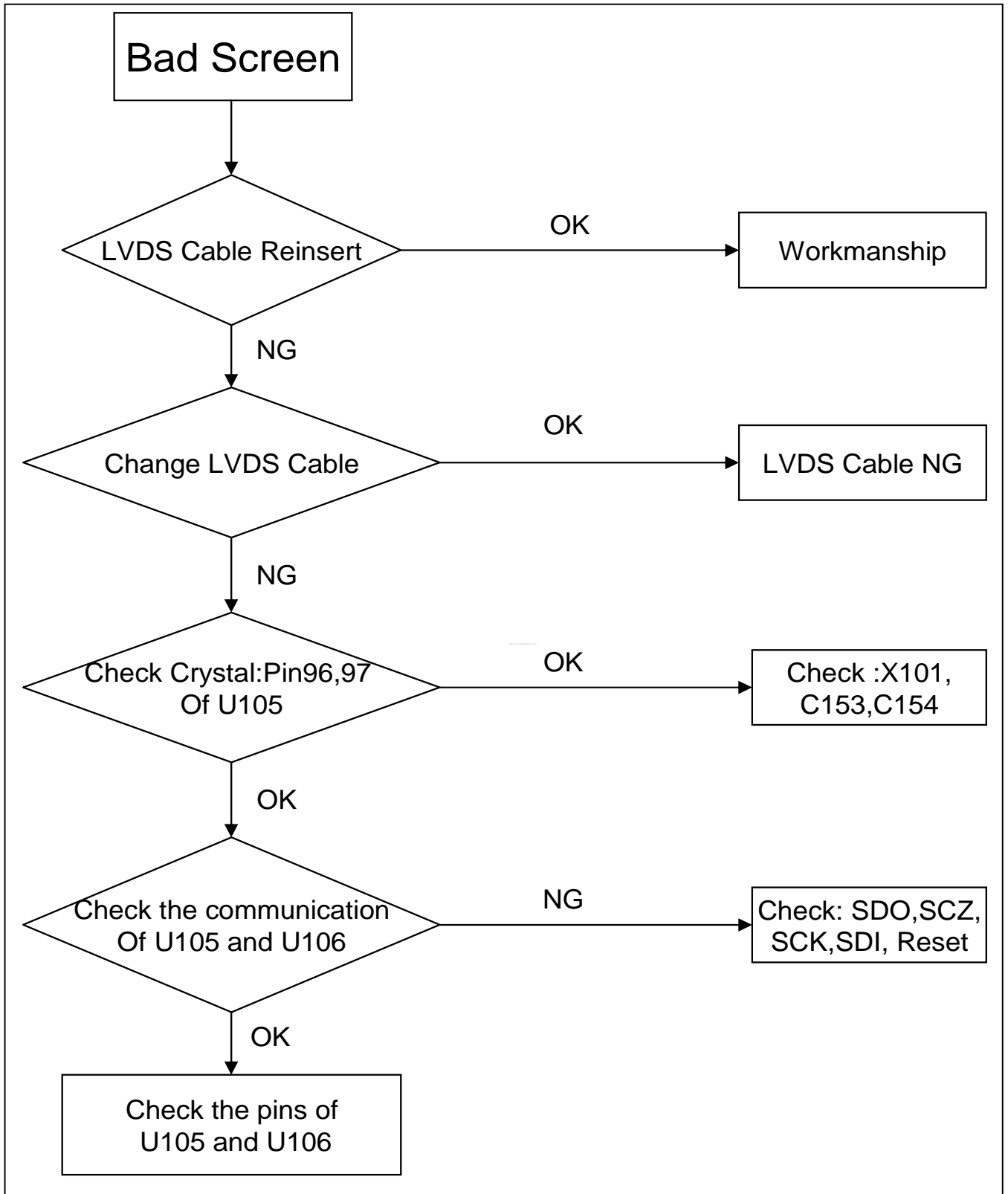
### 5. Black Screen and backlight turn on



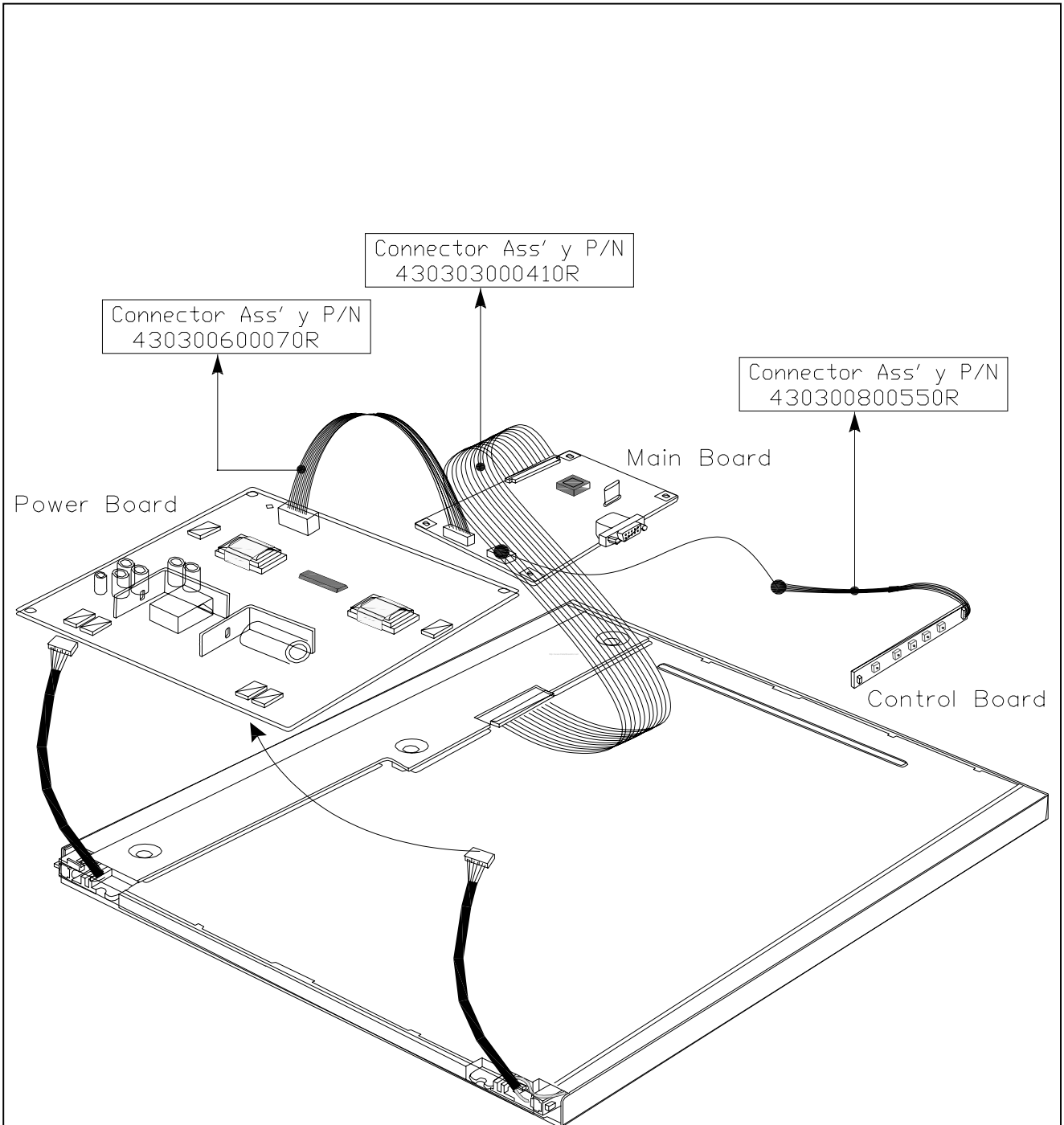
## 6. White Screen



## 7. BAD SCREEN

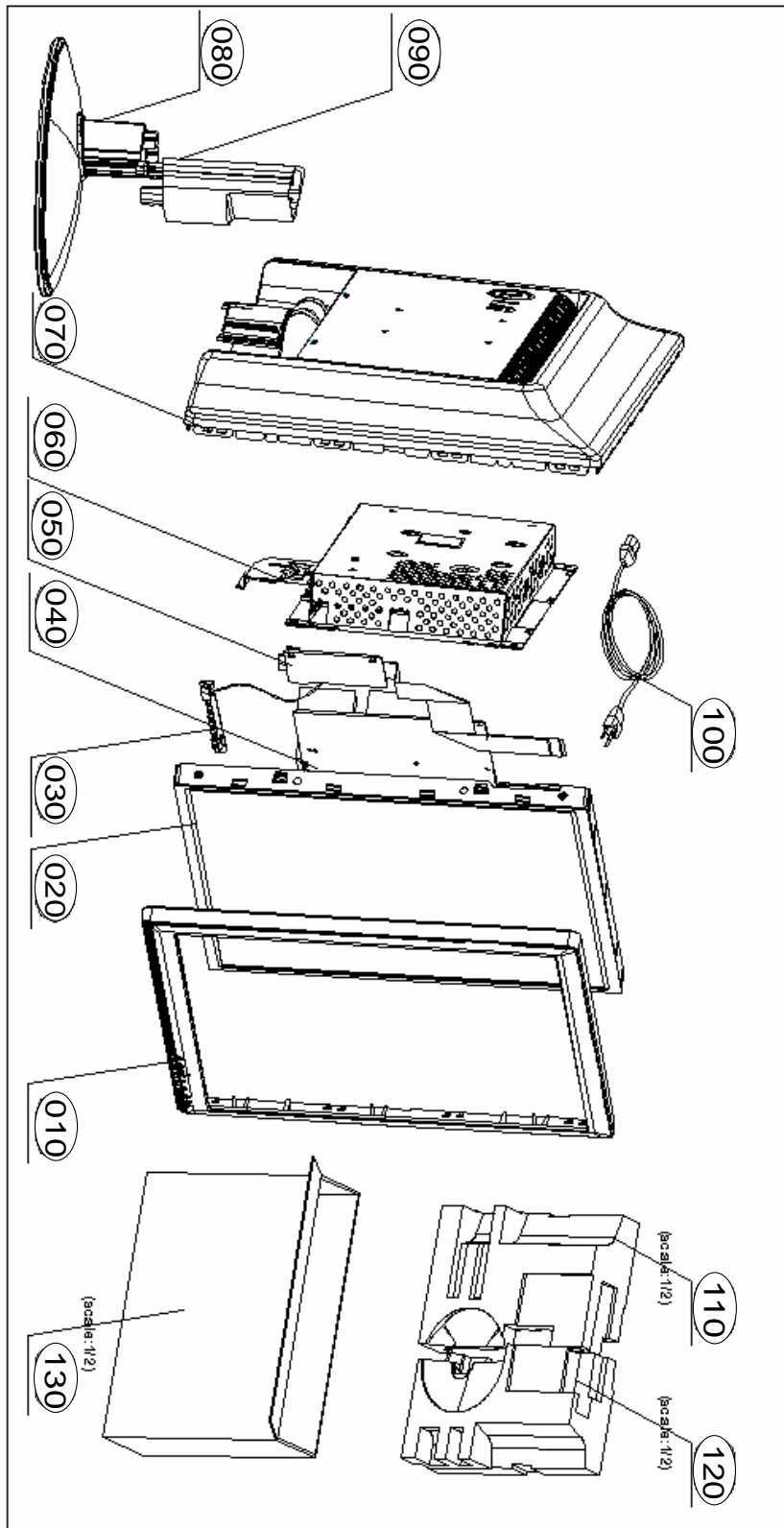


# WIRING DIAGRAM





# Exploded View and Parts List



Ref.No.	LGE Part No.	INL Part No.	Description
10	ABJ53968501	714030014200R	ASSY,BEZEL,SILVER,LE19B5
	ABJ53968502	714030014201R	ASSY,BEZEL,BLACK,LE19B5
20	COV30007401	631102091440R	LCP 19" M190A1-L07-908(A)(CMO)ROHS
	COV30007601	631102091370R	LCP 19" M190MWW1-201(A)(MTDIS)ROHS (IVO)
	COV30007501	631102091401R	LCP 19" MT190AW01-V5- G1,AM1900004511(INL)
30	EBU49007701	791271500000R	PCBA,KEYPAD BOARD,LE19B5-6E0 ROHS
40	EBU49009001	791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS
50	EBU49008101	791271300500R	PCBA,I/F BOARD,L07,W/O SPK,LE19B5-5E0 ROHS
	EBU49008501	791271300600R	PCBA,I/F BOARD,V5,W/O SPK,LE19B5-6E0 ROHS
	EBU49008901	791271300E00R	PCBA,I/F BOARD,W/O SPK,LE19B5-EE0 ROHS
60	MDQ47252401	502090309100R	CHASSIS,LE17B4
70	ACQ53969101	714050013200R	ASSY,BACK COVER,LE19B5-6E0
	ACQ53969102	714050013210R	ASSY,BACK COVER,LE19B5-EE0 (FOR IVO)
80	ACQ52748101	714020012000R	ASSY,BASE ,LE19B5
90	MCK47213101	502020800110R	STAND ,LE19B5
100	6410TUW008A	453070800150R	PWR CORD 10A/125V BLK 6FT UL/CSA SVT 3Cx --US/Mexico/Panama/Canada
	6410TBW004A	453070800720R	PWRCORD 10A/250V BLK 6FT UK,H05VV-F 3Cx0 --UK/Malaysia/Singapore
	6410TEW003A	453070800730R	PWRCORD 16A/250V BLK 6FT VDE,H05VV-F 3Cx ---Europe/Thailand/Vietnam/Russia/U.A.E
	6410TSW003A	453070800740R	PWRCORD 10A/250V BLK 1850mm SAA,H05W-F 3 ---Australia
	6410TTW001A	453070800750R	PWRCORD 7A/125V BLK 1850mm CNS,VCTF 3Gx0 ---Taiwan
110	MFZ47237101	506060008100R	CUSHION,EPS-L,LE19B5
120	MFZ47237102	506060008110R	CUSHION,EPS-R,LE19B5
130	MAY42295502	506020019900R	CARTON LG W1934S(LE19B5)

Related to Models: W1934-SNI/BNI.AxxIQP for 5ms InnoLux module and  
W1934-SNI/BNI.AxxQQP for 5ms CMO Module and  
W1934-SNI/BNI.AxxYQP for 5ms IVO Module

**For INL**

Item	LGE PN	INL PN	Descriptions	Usage	MOQ
1	COV30007501	631102091401R	LCP 19" MT190AW01-V5- G1,AM1900004511(INL)	1	20
2	EBU49008501	791271300600R	PCBA,I/F BOARD,V5,W/O SPK,LE19B5-6E0 ROHS	1	20
3	EBU49009001	791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS	1	20
4	EBU49007701	791271500000R	PCBA,KEYPAD BOARD,LE19B5-6E0 ROHS	1	20
5	ACQ52748101	714020012000R	ASSY,BASE ,LE19B5	1	20
6	ABJ53968501	714030014200R	ASSY,BEZEL,SILVER,LE19B5	1	20
7	ABJ53968502	714030014201R	ASSY,BEZEL,BLACK,LE19B5	1	20
8	ACQ53969101	714050013200R	ASSY,BACK COVER,LE19B5-6E0	1	20
9	MDQ47252401	502090309100R	CHASSIS,LE17B4	1	20
10	MCK47213101	502020800110R	STAND ,LE19B5	1	20
11	COV30007701	430300801620R	HRN ASS'Y 8P 260mm UL1571#28, ROHS	1	20
12	COV30007702	430303001410R	HRN LVDS FFC 30P 171mm RoHs	1	20
13	COV30007703	453010100340R	CABLE D-SUB 15P MALE 1850mm BLACK/BLUE R	1	20
14	6410TUW008A	453070800150R	PWR CORD 10A/125V BLK 6FT UL/CSA,SVT 3Cx --US/Mexico/Panama/Canada	1	20
15	6410TBW004A	453070800720R	PWRCORD 10A/250V BLK 6FT UK,H05VV-F 3Cx0 --UK/Malaysia/Singapore	1	20
	6410TEW003A	453070800730R	PWRCORD 16A/250V BLK 6FT VDE,H05VV-F 3Cx ---Europe/Thailand/Vietnam/Russia/U.A.E	1	20
	6410TSW003A	453070800740R	PWRCORD 10A/250V BLK 1850mm SAA,H05W-F 3 ---Australia	1	20
	6410TTW001A	453070800750R	PWRCORD 7A/125V BLK 1850mm CNS,VCTF 3Gx0 ---Taiwan	1	20
	MAY42295502	506020019900R	CARTON LG W1934S(LE19B5)	1	20
16	MFZ47237101	506060008100R	CUSHION,EPS-L,LE19B5	1	20
17	MFZ47237102	506060008110R	CUSHION,EPS-R,LE19B5	1	20

**For CMO**

Item	LGE PN	INL PN	Descriptions	Usage	MOQ
1	COV30007401	631102091440R	LCP 19" M190A1-L07-908(A)(CMO)ROHS	1	20
2	EBU49008101	791271300500R	PCBA,I/F BOARD,L07,W/O SPK,LE19B5-5E0 ROHS	1	20
3	EBU49009001	791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS	1	20
4	EBU49007701	791271500000R	PCBA,KEYPAD BOARD,LE19B5-6E0 ROHS	1	20
5	ACQ52748101	714020012000R	ASSY,BASE ,LE19B5	1	20
6	ABJ53968501	714030014200R	ASSY,BEZEL,SILVER,LE19B5	1	20
7	ABJ53968502	714030014201R	ASSY,BEZEL,BLACK,LE19B5	1	20
8	ACQ53969101	714050013200R	ASSY,BACK COVER,LE19B5-6E0	1	20
9	MDQ47252401	502090309100R	CHASSIS,LE17B4	1	20
10	MCK47213101	502020800110R	STAND ,LE19B5	1	20
11	COV30007701	430300801620R	HRN ASS'Y 8P 260mm UL1571#28, ROHS	1	20

12	COV30007702	430303001410R	HRN LVDS FFC 30P 171mm RoHs	1	20
13	COV30007703	453010100340R	CABLE D-SUB 15P MALE 1850mm BLACK/BLUE R	1	20
14	6410T UW008A	453070800150R	PWR CORD 10A/125V BLK 6FT UL/CSA,SVT 3Cx --US/Mexico/Panama/Canada	1	20
15	6410TBW004A	453070800720R	PWRCORD 10A/250V BLK 6FT UK,H05VV-F 3Cx0 --UK/Malaysia/Singapore	1	20
	6410TEW003A	453070800730R	PWRCORD 16A/250V BLK 6FT VDE,H05VV-F 3Cx ---Europe/Thailand/Vietnam/Russia/U.A.E	1	20
	6410TSW003A	453070800740R	PWRCORD 10A/250V BLK 1850mm SAA,H05W-F 3 ---Australia	1	20
	6410TTW001A	453070800750R	PWRCORD 7A/125V BLK 1850mm CNS,VCTF 3Gx0 ---Taiwan	1	20
	MAY42295502	506020019900R	CARTON LG W1934S(LE19B5)	1	20
16	MFZ47237101	506060008100R	CUSHION, EPS-L, LE19B5	1	20
17	MFZ47237102	506060008110R	CUSHION, EPS-R, LE19B5	1	20

#### For IVO

Item	LGE PN	INL PN	Descriptions	Usage	MOQ
1	COV30007601	631102091370R	LCP 19" M190MWW1-201(A)(MTDIS)ROHS (IVO)	1	20
2	EBU49008901	791271300E00R	PCBA,I/F BOARD,W/O SPK,LE19B5-EE0 ROHS	1	20
3	EBU49009001	791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS	1	20
4	EBU49007701	791271500000R	PCBA,KEYPAD BOARD,LE19B5-6E0 ROHS	1	20
5	ACQ52748101	714020012000R	ASSY,BASE ,LE19B5	1	20
6	ABJ53968501	714030014200R	ASSY,BEZEL,SILVER,LE19B5	1	20
7	ABJ53968502	714030014201R	ASSY,BEZEL,BLACK,LE19B5	1	20
8	ACQ53969102	714050013210R	ASSY,BACK COVER,LE19B5-EE0 (FOR IVO)	1	20
10	MDQ47252401	502090309100R	CHASSIS,LE17B4	1	20
11	MCK47213101	502020800110R	STAND ,LE19B5	1	20
12	COV30007701	430300801620R	HRN ASS'Y 8P 260mm UL1571#28, ROHS	1	20
13	COV30007702	430303001410R	HRN LVDS FFC 30P 171mm RoHs	1	20
14	COV30007703	453010100340R	CABLE D-SUB 15P MALE 1850mm BLACK/BLUE R	1	20
15	6410T UW008A	453070800150R	PWR CORD 10A/125V BLK 6FT UL/CSA,SVT 3Cx --US/Mexico/Panama/Canada	1	20
16	6410TBW004A	453070800720R	PWRCORD 10A/250V BLK 6FT UK,H05VV-F 3Cx0 --UK/Malaysia/Singapore	1	20
	6410TEW003A	453070800730R	PWRCORD 16A/250V BLK 6FT VDE,H05VV-F 3Cx ---Europe/Thailand/Vietnam/Russia/U.A.E	1	20
	6410TSW003A	453070800740R	PWRCORD 10A/250V BLK 1850mm SAA,H05W-F 3 ---Australia	1	20
	6410TTW001A	453070800750R	PWRCORD 7A/125V BLK 1850mm CNS,VCTF 3Gx0 ---Taiwan	1	20
	MAY42295502	506020019900R	CARTON LG W1934S(LE19B5)	1	20
17	MFZ47237101	506060008100R	CUSHION, EPS-L, LE19B5	1	20
18	MFZ47237102	506060008110R	CUSHION, EPS-R, LE19B5	1	20

## IF BOARD

### 1. FOR INL

ITEM	Location	P/N	Description	Usage	Un
		791271300600R	PCBA,I/F BOARD,V5,W/O SPK,LE19B5-6E0 ROH		
10		629030014000R	PROGRAM,V5,W/O SPK,LE19B5-6E0 ROHS	1	PC
20		791271320600R	PCBA,I/F BOARD,MI,LE19B5-6E0 ROHS	1	PC
30		791271340600R	PCBA,I/F BOARD,SMT,LE19B5-6E0 ROHS	1	PC
40		511130001201R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5(SAC305 VAC	2	G
50	C111,C144,	420431000260R	CAP EC 10uF 25V M,105°C ST 5x11 RoHS	2	PC
60	C101,C102,	420431010461R	CAP EC 100uF 16V M,105°C ST 5x11(SK) RoH	2	PC
70	C105,C130,C133,C142,C145,	420432200460R	CAP EC 22uF 16V M,105°C ST, 5x11,RoHS	5	PC
80	C108,	420432210460R	CAP EC 220uF 16V M,105°C ST 6.3x11 RoHS	1	PC
90	CN101,	430631060020R	WAFER 2.0mm 6P 180°,RoHS	1	PC
100	CN105,	430631080130R	WAFER 2x4P 2.0mm,200PHD-2*4ST RoHS	1	PC
110	X101,	432008010370R	XTAL 14.31818MHz 16pF HC-49US 30PPM,DIP,	1	PC
120	CN103,	440819015030R	CON D-SUB FEM.15P RA W/O SCREW DZ11AA1-H	1	PC
130	Q103,Q106,	410500045210R	XSTR PMBT3904 NPN 200MA,40V SOT23(PHILIP	2	PC
140	Q102,Q105,	410500046210R	XSTR PMBT3906 PNP 200MA,40V SOT23(PHILIP	2	PC
150	Q101,	410500068290R	XSTR AP2305GN P-CH SOT23(APEC) RoHS	1	PC
160	Q107,	410500050210R	XSTR 2N7002,N-CH FET SOT-23 (PHILIPS)RoH	1	PC
170	TVS101,TVS102, TVS103,TVS104,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	4	PC
180	D103,	411020047210R	DIO BAV70 85V SOT23 (PHILIPS) RoHS	1	PC
190	ZD101,ZD105, ZD106, ZD107,ZD108,	411100956920R	ZENER 5.6V MMSZ5232A SOD123(PE C)RoHS	5	PC
200	U108,	412000279480R	IC AT24C04N-10SU-2.7 SOP8 4K(A TMEL)RoHS	1	PC
210	U102,	412000330830R	IC AS1117L-1.8/TR-LF,SOT223(A1 SEMI)RoHS	1	PC
220	U101,	412000372830R	IC AS1117L-3.3TR-LF,SOT223(A1S EMI)RoHS	1	PC
230	U103,	412000435480R	IC AT24C02BN-10SU-1.8 SOIC8 2K (ATMEL)Ro	1	PC
240	U105,	412000508190R	IC TSUM16AL-LF-1 PQFP100(MSTAR)RoHS	1	PC
250	U106,	412000373190R	IC SST25VF010A-33-4C-SAE,SOIC- 8(SST)RoH	1	PC
260	R103,R190,	414916000050R	RES SMD (0603) 0Ω J,RT RoHS	2	PC
270	R186,R187,	414916010050R	RES SMD (0603) 10Ω J,RT RoHS	2	PC
280	R114,R117,R120, R124,R125,R127, R129,R130,R131, R132,R167,R168, R178,R179,R161,	414916010150R	RES SMD (0603) 100Ω J,RT RoHS REV:A	15	PC
290	R157,R158,R159, R160,R162,R163,	414916010250R	RES SMD (0603) 1KΩ J,RT RoHS REV:A	6	PC

300	R106,R172,R180, R181,R191,R184, R185,R175,	414916010350R	RES SMD (0603) 10KΩ J,RT RoHS	8	PC
310	R102,	414916010450R	RES SMD (0603) 100KΩ J,RT REV:A RoHS	1	PC
320	R105,	414916020350R	RES SMD (0603) 20KΩ J,RT RoHS REV:A	1	PC
330	R136,R137,	414916022250R	RES SMD (0603) 2.2KΩ J,RT RoHS	2	PC
340	R121,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	1	PC
350	R108,R109,R110, R122,R149,R150, R154,R155,R166, R173,R174,R182, R183,R176,	414916047250R	RES SMD (0603) 4.7KΩ J,RT RoHS	14	PC
360	R169,	414916390010R	RES SMD (0603) 390Ω F,RT RoHS	1	PC
370	R133,R134,R135,	414916750910R	RES SMD (0603) 75Ω F,RT RoHS REV:A	3	PC
380	RP102,	415751035080R	RP(0612)10KΩx4 1/16W J 8P4R RoHS	1	PC
390	C158,C159,C160, C161,C162,C163, C164,C138,C155,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	9	PC
400	C153,C154,	419302200560R	C SMD(0603) NPO 22PF/50V J RoHS	2	PC
410	C126,	419302210560R	C SMD(0603) NPO 220PF/50V J RoHS	1	PC
420	C125,	419303300560R	C SMD(0603) NPO 33PF/50V J RoHS	1	PC
430	C103,C104,C106, C107,C109,C129, C131,C132,C134, C135,C136,C137, C139,C141,C143, C147,C148,C149, C150,C151,C152, C156,C166,C146,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	24	PC
440	C140,	419311054070R	C SMD(0805) X7R 1uF/16V K RoHS REV:A	1	PC
450	C112,C113,C114, C115,C116,C117, C118,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	7	PC
460	FB101,	432002312111R	BEAD CORE SMD(0805)120Ω 300mA RoHS	1	PC
470	FB102,FB103, FB105,FB106,	432002360012R	BEAD CORE SMD(0805)60Ω 800mA GBK201209T	4	PC
480	CN104,	444099030030R	CON, SMD 1.0mm 30PIN RoHS AL2309-A0G1Z	1	PC
490		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
500		491291300100R	PCB,I/F BOARD,LE19B5-XE0 ROHS	1	PC
510	R107,	414916068150R	RES SMD (0603) 680Ω J,RT RoHS REV:A	1	PC
520	R113,R116,R119,	414916560910R	RES SMD (0603) 56Ω F,RT RoHS REV:A	3	PC
530	FB107,FB108, FB109,	432002360140R	BEAD CORE SMD(0603)60Ω 600mA, GBK160808	3	PC
540		511130002203R	SOLDER PASTE,Sn96.5/Ag3.0/Cu0.5(SAC305 O	0.21	G
550	R101,	414916033150R	RES SMD (0603) 330Ω J,RT RoHS	1	PC

## 2. FOR CMO

ITEM	Location	P/N	Description	Usage	Un
		791271300500R	PCBA,I/F BOARD,L07,W/O SPK,LE19B5-5E0 RO		
10		629030014020R	PROGRAM,L07,W/O SPK,LE19B5-5E0 ROHS	1	PC
20		791271320600R	PCBA,I/F BOARD,MI,LE19B5-6E0 ROHS	1	PC
30		791271340600R	PCBA,I/F BOARD,SMT,LE19B5-6E0 ROHS	1	PC
40		511130001201R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5(SAC305 VAC	2	G
50	C111,C144,	420431000260R	CAP EC 10uF 25V M,105°C ST 5x11 RoHS	2	PC
60	C101,C102,	420431010461R	CAP EC 100uF 16V M,105°C ST 5x11(SK) RoH	2	PC
70	C105,C130, C133,C142, C145,	420432200460R	CAP EC 22uF 16V M,105°C ST, 5x11,RoHS	5	PC
80	C108,	420432210460R	CAP EC 220uF 16V M,105°C ST 6.3x11 RoHS	1	PC
90	CN101,	430631060020R	WAFER 2.0mm 6P 180°,RoHS	1	PC
100	CN105,	430631080130R	WAFER 2x4P 2.0mm,200PHD-2*4ST RoHS	1	PC
110	X101,	432008010370R	XTAL 14.31818MHz 16pF HC-49US 30PPM,DIP,	1	PC
120	CN103,	440819015030R	CON D-SUB FEM.15P RA W/O SCREW DZ11AA1-H	1	PC
130	Q103,Q106,	410500045210R	XSTR PMBT3904 NPN 200MA,40V SOT23(PHILIP	2	PC
140	Q102,Q105,	410500046210R	XSTR PMBT3906 PNP 200MA,40V SOT23(PHILIP	2	PC
150	Q101,	410500068290R	XSTR AP2305GN P-CH SOT23(APEC) RoHS	1	PC
160	Q107,	410500050210R	XSTR 2N7002,N-CH FET SOT-23 (PHILIPS)RoH	1	PC
170	TVS101,TVS102, TVS103,TVS104,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	4	PC
180	D103,	411020047210R	DIO BAV70 85V SOT23 (PHILIPS) RoHS	1	PC
190	ZD101,ZD105, ZD106,ZD107, ZD108,	411100956920R	ZENER 5.6V MMSZ5232A SOD123(PE C)RoHS	5	PC
200	U108,	412000279480R	IC AT24C04N-10SU-2.7 SOP8 4K(A TMEL)RoHS	1	PC
210	U102,	412000330830R	IC AS1117L-1.8/TR-LF,SOT223(A1 SEMI)RoHS	1	PC
220	U101,	412000372830R	IC AS1117L-3.3TR-LF,SOT223(A1S EMI)RoHS	1	PC
230	U103,	412000435480R	IC AT24C02BN-10SU-1.8 SOIC8 2K (ATMEL)Ro	1	PC
240	U105,	412000508190R	IC TSUM16AL-LF-1 PQFP100(MSTAR)RoHS	1	PC
250	U106,	412000373190R	IC SST25VF010A-33-4C-SAE,SOIC- 8(SST)RoH	1	PC
260	R103,R190,	414916000050R	RES SMD (0603) 0Ω J,RT RoHS	2	PC
270	R186,R187,	414916010050R	RES SMD (0603) 10Ω J,RT RoHS	2	PC
280	R114,R117,R120, R124,R125,R127, R129,R130,R131, R132,R167,R168, R178,R179,R161,	414916010150R	RES SMD (0603) 100Ω J,RT RoHS REV:A	15	PC
290	R157,R158,R159, R160,R162,R163,	414916010250R	RES SMD (0603) 1KΩ J,RT RoHS REV:A	6	PC
300	R106,R172,R180, R181,R191,R184, R185,R175,	414916010350R	RES SMD (0603) 10KΩ J,RT RoHS	8	PC
310	R102,	414916010450R	RES SMD (0603) 100KΩ J,RT REV:A RoHS	1	PC
320	R105,	414916020350R	RES SMD (0603) 20KΩ J,RT RoHS REV:A	1	PC
330	R136,R137,	414916022250R	RES SMD (0603) 2.2KΩ J,RT RoHS	2	PC

340	R121,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	1	PC
350	R108,R109,R110, R122,R149,R150, R154,R155,R166, R173,R174,R182, R183,R176,	414916047250R	RES SMD (0603) 4.7KΩ J,RT RoHS	14	PC
360	R169,	414916390010R	RES SMD (0603) 390Ω F,RT RoHS	1	PC
370	R133,R134,R135,	414916750910R	RES SMD (0603) 75Ω F,RT RoHS REV:A	3	PC
380	RP102,	415751035080R	RP(0612)10KΩx4 1/16W J 8P4R RoHS	1	PC
390	C158,C159,C160, C161,C162,C163, C164,C138,C155,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	9	PC
400	C153,C154,	419302200560R	C SMD(0603) NPO 22PF/50V J RoHS	2	PC
410	C126,	419302210560R	C SMD(0603) NPO 220PF/50V J RoHS	1	PC
420	C125,	419303300560R	C SMD(0603) NPO 33PF/50V J RoHS	1	PC
430	C103,C104,C106, C107,C109,C129, C131,C132,C134, C135,C136,C137, C139,C141,C143, C147,C148,C149, C150,C151,C152, C156,C166,C146,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	24	PC
440	C140,	419311054070R	C SMD(0805) X7R 1uF/16V K RoHS REV:A	1	PC
450	C112,C113,C114, C115,C116,C117, C118,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	7	PC
460	FB101,	432002312111R	BEAD CORE SMD(0805)120Ω 300mA RoHS	1	PC
470	FB102,FB103, FB105,FB106,	432002360012R	BEAD CORE SMD(0805)60Ω 800mA GBK201209T	4	PC
480	CN104,	444099030030R	CON, SMD 1.0mm 30PIN RoHS AL2309-A0G1Z	1	PC
490		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
500		491291300100R	PCB,I/F BOARD,LE19B5-XE0 ROHS	1	PC
510	R107,	414916068150R	RES SMD (0603) 680Ω J,RT RoHS REV:A	1	PC
520	R113,R116,R119,	414916560910R	RES SMD (0603) 56Ω F,RT RoHS REV:A	3	PC
530	FB107,FB108, FB109,	432002360140R	BEAD CORE SMD(0603)60Ω 600mA, GBK160808	3	PC
540		511130002203R	SOLDER PASTE,Sn96.5/Ag3.0/Cu0.5(SAC305 O	0.21	G
550	R101,	414916033150R	RES SMD (0603) 330Ω J,RT RoHS	1	PC

### 3. FOR IVO

ITEM	Location	P/N	Description	Usage	Un
		791271300E00R	PCBA,I/F BOARD,W/O SPK,LE19B5-EE0 ROHS		
10		629030014010R	PROGRAM,W/O SPK,LE19B5-EE0 ROHS	1	PC
20		791271320600R	PCBA,I/F BOARD,MI,LE19B5-6E0 ROHS	1	PC
30		791271340600R	PCBA,I/F BOARD,SMT,LE19B5-6E0 ROHS	1	PC
40		511130001201R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5(SAC305 VAC	2	G
50	C111,C144,	420431000260R	CAP EC 10uF 25V M,105°C ST 5x11 RoHS	2	PC



60	C101,C102,	420431010461R	CAP EC 100uF 16V M,105°C ST 5x11(SK) RoH	2	PC
70	C105,C130,C133, C142,C145,	420432200460R	CAP EC 22uF 16V M,105°C ST, 5x11,RoHS	5	PC
80	C108,	420432210460R	CAP EC 220uF 16V M,105°C ST 6.3x11 RoHS	1	PC
90	CN101,	430631060020R	WAFER 2.0mm 6P 180°,RoHS	1	PC
100	CN105,	430631080130R	WAFER 2x4P 2.0mm,200PHD-2*4ST RoHS	1	PC
110	X101,	432008010370R	XTAL 14.31818MHz 16pF HC-49US 30PPM,DIP,	1	PC
120	CN103,	440819015030R	CON D-SUB FEM.15P RA W/O SCREW DZ11AA1-H	1	PC
130	Q103,Q106,	410500045210R	XSTR PMBT3904 NPN 200MA,40V SOT23(PHILIP	2	PC
140	Q102,Q105,	410500046210R	XSTR PMBT3906 PNP 200MA,40V SOT23(PHILIP	2	PC
150	Q101,	410500068290R	XSTR AP2305GN P-CH SOT23(APEC) RoHS	1	PC
160	Q107,	410500050210R	XSTR 2N7002,N-CH FET SOT-23 (PHILIPS)RoH	1	PC
170	TVS101,TVS102, TVS103,TVS104,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	4	PC
180	D103,	411020047210R	DIO BAV70 85V SOT23 (PHILIPS) RoHS	1	PC
190	ZD101,ZD105,ZD106 , ZD107,ZD108,	411100956920R	ZENER 5.6V MMSZ5232A SOD123(PE C)RoHS	5	PC
200	U108,	412000279480R	IC AT24C04N-10SU-2.7 SOP8 4K(A TMEL)RoHS	1	PC
210	U102,	412000330830R	IC AS1117L-1.8/TR-LF,SOT223(A1 SEMI)RoHS	1	PC
220	U101,	412000372830R	IC AS1117L-3.3TR-LF,SOT223(A1S EMI)RoHS	1	PC
230	U103,	412000435480R	IC AT24C02BN-10SU-1.8 SOIC8 2K (ATMEL)Ro	1	PC
240	U105,	412000508190R	IC TSUM16AL-LF-1 PQFP100(MSTAR)RoHS	1	PC
250	U106,	412000373190R	IC SST25VF010A-33-4C-SAE,SOIC- 8(SST)RoH	1	PC
260	R103,R190,	414916000050R	RES SMD (0603) 0Ω J,RT RoHS	2	PC
270	R186,R187,	414916010050R	RES SMD (0603) 10Ω J,RT RoHS	2	PC
280	R114,R117,R120, R124,R125,R127, R129,R130,R131, R132,R167,R168, R178,R179,R161,	414916010150R	RES SMD (0603) 100Ω J,RT RoHS REV:A	15	PC
290	R157,R158,R159, R160,R162,R163,	414916010250R	RES SMD (0603) 1KΩ J,RT RoHS REV:A	6	PC
300	R106,R172,R180, R181,R191,R184, R185,R175,	414916010350R	RES SMD (0603) 10KΩ J,RT RoHS	8	PC
310	R102,	414916010450R	RES SMD (0603) 100KΩ J,RT REV:A RoHS	1	PC
320	R105,	414916020350R	RES SMD (0603) 20KΩ J,RT RoHS REV:A	1	PC
330	R136,R137,	414916022250R	RES SMD (0603) 2.2KΩ J,RT RoHS	2	PC
340	R121,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	1	PC
350	R108,R109,R110, R122,R149,R150, R154,R155,R166, R173,R174,R182, R183,R176,	414916047250R	RES SMD (0603) 4.7KΩ J,RT RoHS	14	PC
360	R169,	414916390010R	RES SMD (0603) 390Ω F,RT RoHS	1	PC
370	R133,R134,R135,	414916750910R	RES SMD (0603) 75Ω F,RT RoHS REV:A	3	PC
380	RP102,	415751035080R	RP(0612)10KΩx4 1/16W J 8P4R RoHS	1	PC

390	C158,C159,C160, C161,C162,C163, C164,C138,C155,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	9	PC
400	C153,C154,	419302200560R	C SMD(0603) NPO 22PF/50V J RoHS	2	PC
410	C126,	419302210560R	C SMD(0603) NPO 220PF/50V J RoHS	1	PC
420	C125,	419303300560R	C SMD(0603) NPO 33PF/50V J RoHS	1	PC
430	C103,C104,C106, C107,C109,C129, C131,C132,C134, C135,C136,C137, C139,C141,C143, C147,C148,C149, C150,C151,C152, C156,C166,C146,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	24	PC
440	C140,	419311054070R	C SMD(0805) X7R 1uF/16V K RoHS REV:A	1	PC
450	C112,C113,C114, C115,C116,C117, C118,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	7	PC
460	FB101,	432002312111R	BEAD CORE SMD(0805)120Ω 300mA RoHS	1	PC
470	FB102,FB103, FB105,FB106,	432002360012R	BEAD CORE SMD(0805)60Ω 800mA GBK201209T	4	PC
480	CN104,	444099030030R	CON, SMD 1.0mm 30PIN RoHS AL2309-A0G1Z	1	PC
490		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
500		491291300100R	PCB,I/F BOARD,LE19B5-XE0 ROHS	1	PC
510	R107,	414916068150R	RES SMD (0603) 680Ω J,RT RoHS REV:A	1	PC
520	R113,R116,R119,	414916560910R	RES SMD (0603) 56Ω F,RT RoHS REV:A	3	PC
530	FB107,FB108, FB109,	432002360140R	BEAD CORE SMD(0603)60Ω 600mA, GBK160808	3	PC
540		511130002203R	SOLDER PASTE,Sn96.5/Ag3.0/Cu0.5(SAC305 O	0.21	G
550	R101,	414916033150R	RES SMD (0603) 330Ω J,RT RoHS	1	PC

## Power and Inverter Board

### 1. FOR INL

ITEM	Location	P/N	Description	Usage	Un
		791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS		
10	IC801,	412140002380R	IC LTV817M-PR VDE (LITE-ON) P=10mm RoHS	1	PC
20	D801,	411050005090R	DIO BRDG FL406 600V/4A(PEC)RoH S	1	PC
30	C804,	416194743011R	CAP MEX 0.47uF 275V K X2,F15 RoHS	1	PC
40	C820,C801,C806,	416202224610R	CAP MEY 2200pF 400V M Y,F10mm RoHS	3	PC
50	C808,	420421020211R	CAP SD 1000uF 25V M,105°C F 13x20 RoHS	1	PC
60	C805,	420431214581R	CAP SEK 120uF/450V M 105°C CF 18X40 ROHS	1	PC
70	C824,	416204724610R	CAP MEY 4700pF 400V M Y,F10mm RoHS	1	PC
80	L802,L803,	425000010530R	COIL CHK 5uH 7.8X10 CHK-053 0 181085ROL	2	PC
90	L801,	426000050070R	CHOKE L-FILTER 12mH LIN-007 ET-20,RoHS	1	PC
100	T801,	426000090510R	XFMR 750u@1K,+8%,3m,113m,SPW- 051,DIP-1	1	PC
110	RT801,	432009401300R	NTC 8Ω 4A 13Φ P=7.5mm F ROHS	1	PC
120	F801,	430613430290R	FUSE SLOW 3.15,250,Axial Lead,3.6 x10mm	1	PC
130	P801,	440149000220R	SKT AC 10A/250V U/C/V,G/Y=45mm TU-301-SP	1	PC
140	CN801,	430300600340R	HRN ASS'Y 6P 130mm UL1007#24 ROHS	1	PC

150	C803,	418247233020R	CAP CD X7R 4700pF 1KV K,W/O FO RMING,RoH	1	PC
160	CN501,CN502, CN503,CN504,	430637020030R	WFR. 2P P=3.5mm 90°W/LOCK,RoHS	4	PC
170	T501,T502,	426000090680R	XFMR SW,121.5uH EEL19M DIP SPW-068,RoHS	2	PC
180	C506,C523,	418110058560R	CAP CD SL 10pF 3KV J,ST,RoHS CC45SL3FD10	2	PC
190	C528,C509,	418105058960R	CAP CD SL 5pF 3KV D,ST, RoHS CC45SL3FD05	2	PC
200	H802,	735100007120R	ASSY,H/S,SBR10U100CT/U40CT, LE1710	1	PC
210	H801,	735100005900R	ASSY,H/S TOP246Y, LE1X09 ROHS	1	PC
220	H501,	502040604500R	SHIELD EMI LE1915 ROHS	1	PC
230		791271440600R	PCBA,P/I BOARD,SMT,W/O SPK,LE19B5-6E0 RO	1	PC
240		511130001200R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5/Ni0.06/Ge0	4.6	G
250		511110000101R	HOT-MELT ADHESIVES (#526)	1.338	G
260		511110000501R	SILICONE RTV RUBBER,UB-511(EURO)	0.45	G
270	IC802,	412000379270R	IC TOP246YN,TO-220-7C(POWER IN TEGRATION	1	PC
280		507200003700R	HEATSINK,46x20xt10mm LE1704/05	1	PC
290		509112306100R	SCREW,P,CROSS,T.T-3*6,ZnROHS	1	PC
300	D803,	411090009480R	SCHTKY SP10100C 100V/10A ITO220(WILLAS)R	1	PC
310	D805,	411090011090R	SCHTKY SB1060FCT 60V/10A ITO 220AB(PANJI	1	PC
320		507200003800R	HEATSINK,56x20xt10mm LE1904/05	1	PC
330		509112308101R	SCREW,PAN,TT"B",M3x1.049x8,PHP LP1702	2	PC
340	Q801,	410500045211R	XSTR PMBS3904 NPN 100MA,60V SOT23(PHILIP	1	PC
350	ZD803,	411131456920R	ZENER 5.6V MMSZ5232A SOD-123(WILLAS)ROHS	1	PC
360	ZD801,	411131491920R	ZENER 9.1V MMSZ5239A SOD-123(WILLAS)ROHS	1	PC
370	ZD804,ZD805,	411100916020R	ZENER 16V MMSZ5246A SOD123(PEC RoHS	2	PC
380	R809,	414904100010R	RES SMD (1206) 100Ω F,RT RoHS	1	PC
390	R808,R819,R827,	414908010350R	RES SMD (0805) 10KΩ J,RT RoHS REV:A	3	PC
400	R801,R805, R822,R823,	414908033550R	RES SMD(0805) 3.3MΩ J,RT,RoHS	4	PC
410	R813,R814,R815,	414908010250R	RES SMD (0805) 1KΩ J,RT RoHS REV:A	3	PC
420	R825,	414908047450R	RES SMD (0805) 470KΩ J,RT RoHS	1	PC
430	R803,R807,R824,	414908051450R	RES SMD (0805) 510KΩ J,RT RoHS	3	PC
440	R818,	414908330110R	RES SMD (0805) 3.3KΩ F,RT RoHS REV:A	1	PC
450	R816,	414908068950R	RES SMD (0805) 6.8Ω J RT RoHS	1	PC
460	R811,	414908510210R	RES SMD (0805) 51KΩ F,RT RoHS	1	PC
470	R508,	414916430210R	RES SMD (0603) 43KΩ F,RT,RoHS	1	PC
480	R817,	414908120210R	RES SMD (0805) 12K F RT RoHS REV:A	1	PC
490	R802,R806,	414904010050R	RES SMD (1206) 10Ω J,RT RoHS	2	PC
500	R829,	414908020150R	RES SMD (0805) 200Ω J,RT RoHS	1	PC
510	R810,	414908510110R	RES SMD (0805) 5.1KΩ F,RT RoHS	1	PC
520	R535,	414916075150R	RES SMD (0603) 750Ω J,RT RoHS	1	PC
530	C502,	419342253670R	C SMD(0805) Y5V 2.2uF/25V Z RoHS	1	PC
540	C821,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	1	PC
550	C504,C505, C522,C529,	419311020070R	C SMD(0805) X7R 1000PF/50V K RoHS	4	PC
560	C510,C516,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	2	PC
570	C511,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	1	PC
580	C512,	419302710560R	C SMD(0603) NPO 270PF/50V J RoHS REV:A	1	PC
590	C513,C525,	419316820070R	C SMD(0805) X7R 6800PF/50V K RoHS	2	PC
600	C518,	419311030060R	C SMD(0603) X7R 0.01uF/50V K RoHS	1	PC
610	C521,	419301810560R	C SMD(0603) NPO 180PF/50V J RoHS REV:A	1	PC

620	C524,C532,	419316830060R	C SMD (0603) X7R 0.068uF 50V,K RoHS	2	PC
630	D501,D505, D506,D510,	411023004021R	DIO SN4148-LF 75V/0.15A SMD 1206 (FEC)Ro	4	PC
640	D502,D503,D504, D507,D508,D509,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	6	PC
650	F802,	430613740400R	FUSE SLW 4A/32V SMD U/C/ 0603 ROHS	1	PC
660	R502,	414916033050R	RES SMD (0603) 33Ω J,RT RoHS REV:A	1	PC
670	R507,	414916330410R	RES SMD (0603) 3.3M F RT RoHS	1	PC
680	R512,R522,	414916330210R	RES SMD (0603) 33KΩ F,RT RoHS	2	PC
690	R513,R501,	414916100210R	RES SMD (0603) 10KΩ F,RT RoHS	2	PC
700	R514,	414916220210R	RES SMD (0603) 22KΩ F,RT RoHS	1	PC
710	R516,	414916604310R	RES SMD (0603) 604KΩ F,RT RoHS	1	PC
720	R521,R519,R518,	414916010550R	RES SMD (0603) 1MΩ J,RT RoHS REV:A	3	PC
730	R523,R524,R527, R529,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	4	PC
740	R528,	414916470010R	RES SMD (0603) 470Ω F,RT RoHS	1	PC
750	R533,	414916200110R	RES SMD (0603) 2KΩ F,RT,RoHS	1	PC
760	IC501,	412000455630R	IC OZ9938GN SOIC16(O2 MICRO)RoHS	1	PC
770	U501,U502,	410500070290R	XSTR AP9971GM,N-CH,SO8(APEC) RoHS	2	PC
780	R504,R505, R530,R532,	414908033050R	RES SMD (0805) 33Ω J,RT RoHS	4	PC
790		791271410600R	PCBA,P/I BOARD,AI,W/O SPK,LE19B5-6E0 ROH	1	PC
800	C507,C515,	419342254670R	C SMD(0805) Y5V 2.2uF/16V Z RoHS	2	PC
810	C519,C520,	419313330060R	C SMD(0603) X7R 0.033uF/50V K ROHS	2	PC
820		511110001101R	SEAL-GLUE,3629,(LOCTITE)	0.09	G
830	R510,R531,	414908340110R	RES SMD (0805) 3.4KΩ F,RT RoHS REV:A	2	PC
840	C514,C527,	419313910070R	C SMD(0805) X7R 390PF/50V K,RoHS	2	PC
850	R804,	415130680540R	RES CF 1/2W 68Ω J,AT RoHS REV:A	1	PC
860	R828,	415340101540R	RES MOF 1W 100Ω J,AT MINI RoHS	1	PC
870	D806,	411030003040R	DIO FR103 200V/1A DO-41(MOSPEC RoHS	1	PC
880	D809,	411022003210R	DIO 1N4148 75V/0.2A AT (PHIL) RoHS	1	PC
890	D804,	411020053090R	DIO PS1010R 1000V/1A DO-41(PAN JIT)RoHS	1	PC
900	ZD802,	411022020090R	DIO P6KE200A 600W/100A,DO-15(P ANJIT)RoH	1	PC
910		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
920	R820,R821,	415030105540R	RES CF 1/2W 1MΩ J,AT MINI RoHS	2	PC
930	J504,J513,J516, J803,J514,J517,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 7.5MM	105.96	MM
940	J501,J510,J801, J805,J806,J807,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 10MM	120.96	MM
950	J505,J506,J511, J804,J808,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 12.5MM	113.3	MM
960	J503,J502,J512, J809,J507,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 15MM	125.8	MM
970	J509,J508,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 20MM	60.32	MM
980		700000000700R	ASSY,PCB&RIVENT,LE19B5-6E0	1	PC
990	R506,R525,	414870305540R	RES MG HV 1/2Ws 3MΩ 3KV J,AT RoHS	2	PC
1000	R812,	414020689540R	RES FSM 1/4W 6.8Ω J AT MINI,RoHS	1	PC
1010	FB501,	432002200240R	Bead Cores 25Ω 100M 3A 2.5X3X0.65,RoHS	1	PC
1020	C813,	418210133030R	CAP CD X7R 100pF 1KV K VT RoHS	1	PC

1030	C802,C811,	418210227030R	CAP CD X7R 1000pF 500V K VT RoHS	2	PC
1040	C817,C822,	419111040030R	CAP MTL X7R 0.1uF 50V K,VT, RoHS	2	PC
1050	C814,C815, C818,C819,	420264700230R	CAP SH 47uF 25V M,125°C,VT, 6.3x11,RoHS	4	PC
1060	Q802,	410072013210R	XSTR 2PC1815GR*I VT (PHILIPS) RoHS REV:	1	PC
1070	IC803,	412022002840R	IC TL431ACLPG TO-92 1%,VT(ON)RoHS	1	PC
1080	C816,	416231041530R	CAP MEB 0.1uF 100V J,(RSB),VT RSBEC3100D	1	PC
1090	C501,C810,	420424710260R	CAP SD 470uF/25V M 105°C ST 10x16,RoHS	2	PC
1100	C812,	420421020102R	CAP EC 1000uF/10V M,105°C N-F 10x16(L-ES	1	PC
1110		491291400100R	PCB,P/I BOARD,LE19B5-XE0 ROHS	1	PC
1120	M3,M4,M5,M6,M7, M8,M9,M10,M11, M12,M13,M14,	512006000500R	RIVET,Φ3.0xΦ1.6x3.0mm	12	PC
1130	M1,M2,	512006000600R	RIVET,Φ4.1xΦ2.2x3.0mm	2	PC

## 2. FOR CMO

ITEM	Location	P/N	Description	Usage	Un
		791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS		
10	IC801,	412140002380R	IC LTV817M-PR VDE (LITE-ON) P=10mm RoHS	1	PC
20	D801,	411050005090R	DIO BRDG FL406 600V/4A(PEC)RoH S	1	PC
30	C804,	416194743011R	CAP MEX 0.47uF 275V K X2,F15 RoHS	1	PC
40	C820,C801,C806,	416202224610R	CAP MEY 2200pF 400V M Y,F10mm RoHS	3	PC
50	C808,	420421020211R	CAP SD 1000uF 25V M,105°C F 13x20 RoHS	1	PC
60	C805,	420431214581R	CAP SEK 120uF/450V M 105°C CF 18X40 ROHS	1	PC
70	C824,	416204724610R	CAP MEY 4700pF 400V M Y,F10mm RoHS	1	PC
80	L802,L803,	425000010530R	COIL CHK 5uH 7.8X10 CHK-053 0 181085R0L	2	PC
90	L801,	426000050070R	CHOKE L-FILTER 12mH LIN-007 ET-20,RoHS	1	PC
100	T801,	426000090510R	XFMR 750u@1K,+8%,3m,113m,SPW- 051,DIP-1	1	PC
110	RT801,	432009401300R	NTC 8Ω 4A 13Φ P=7.5mm F ROHS	1	PC
120	F801,	430613430290R	FUSE SLOW 3.15,250,Axial Lead,3.6 x10mm	1	PC
130	P801,	440149000220R	SKT AC 10A/250V U/C/V,G/Y=45mm TU-301-SP	1	PC
140	CN801,	430300600340R	HRN ASS'Y 6P 130mm UL1007#24 ROHS	1	PC
150	C803,	418247233020R	CAP CD X7R 4700pF 1KV K,W/O FO RMING,RoH	1	PC
160	CN501,CN502, CN503,CN504,	430637020030R	WFR. 2P P=3.5mm 90°W/LOCK,RoHS	4	PC
170	T501,T502,	426000090680R	XFMR SW,121.5uH EEL19M DIP SPW-068,RoHS	2	PC
180	C506,C523,	418110058560R	CAP CD SL 10pF 3KV J,ST,RoHS CC45SL3FD10	2	PC
190	C528,C509,	418105058960R	CAP CD SL 5pF 3KV D,ST, RoHS CC45SL3FD05	2	PC
200	H802,	735100007120R	ASSY,H/S,SBR10U100CT/U40CT, LE1710	1	PC
210	H801,	735100005900R	ASSY,H/S TOP246Y, LE1X09 ROHS	1	PC
220	H501,	502040604500R	SHIELD EMI LE1915 ROHS	1	PC
230		791271440600R	PCBA,P/I BOARD,SMT,W/O SPK,LE19B5-6E0 RO	1	PC
240		511130001200R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5/Ni0.06/Ge0	4.6	G
250		511110000101R	HOT-MELT ADHESIVES (#526)	1.338	G
260		511110000501R	SILICONE RTV RUBBER,UB-511(EURO)	0.45	G
270	IC802,	412000379270R	IC TOP246YN,TO-220-7C(POWER IN TEGRATION	1	PC
280		507200003700R	HEATSINK,46x20xt10mm LE1704/05	1	PC
290		509112306100R	SCREW,P,CROSS,T.T-3*6,ZnROHS	1	PC

300	D803,	411090009480R	SCHTKY SP10100C 100V/10A ITO220(WILLAS)R	1	PC
310	D805,	411090011090R	SCHTKY SB1060FCT 60V/10A ITO 220AB(PANJI	1	PC
320		507200003800R	HEATSINK,56x20xt10mm LE1904/05	1	PC
330		509112308101R	SCREW,PAN,TT"B",M3x1.049x8,PHP LP1702	2	PC
340	Q801,	410500045211R	XSTR PMBS3904 NPN 100MA,60V SOT23(PHILIP	1	PC
350	ZD803,	411131456920R	ZENER 5.6V MMSZ5232A SOD-123(WILLAS)ROHS	1	PC
360	ZD801,	411131491920R	ZENER 9.1V MMSZ5239A SOD-123(WILLAS)ROHS	1	PC
370	ZD804,ZD805,	411100916020R	ZENER 16V MMSZ5246A SOD123(PEC RoHS	2	PC
380	R809,	414904100010R	RES SMD (1206) 100Ω F,RT RoHS	1	PC
390	R808,R819,R827,	414908010350R	RES SMD (0805) 10KΩ J,RT RoHS REV:A	3	PC
400	R801,R805,R822, R823,	414908033550R	RES SMD(0805) 3.3MΩ J,RT,RoHS	4	PC
410	R813,R814,R815,	414908010250R	RES SMD (0805) 1KΩ J,RT RoHS REV:A	3	PC
420	R825,	414908047450R	RES SMD (0805) 470KΩ J,RT RoHS	1	PC
430	R803,R807,R824,	414908051450R	RES SMD (0805) 510KΩ J,RT RoHS	3	PC
440	R818,	414908330110R	RES SMD (0805) 3.3KΩ F,RT RoHS REV:A	1	PC
450	R816,	414908068950R	RES SMD (0805) 6.8Ω J RT RoHS	1	PC
460	R811,	414908510210R	RES SMD (0805) 51KΩ F,RT RoHS	1	PC
470	R508,	414916430210R	RES SMD (0603) 43KΩ F,RT,RoHS	1	PC
480	R817,	414908120210R	RES SMD (0805) 12K F RT RoHS REV:A	1	PC
490	R802,R806,	414904010050R	RES SMD (1206) 10Ω J,RT RoHS	2	PC
500	R829,	414908020150R	RES SMD (0805) 200Ω J,RT RoHS	1	PC
510	R810,	414908510110R	RES SMD (0805) 5.1KΩ F,RT RoHS	1	PC
520	R535,	414916075150R	RES SMD (0603) 750Ω J,RT RoHS	1	PC
530	C502,	419342253670R	C SMD(0805) Y5V 2.2uF/25V Z RoHS	1	PC
540	C821,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	1	PC
550	C504,C505,C522, C529,	419311020070R	C SMD(0805) X7R 1000PF/50V K RoHS	4	PC
560	C510,C516,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	2	PC
570	C511,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	1	PC
580	C512,	419302710560R	C SMD(0603) NPO 270PF/50V J RoHS REV:A	1	PC
590	C513,C525,	419316820070R	C SMD(0805) X7R 6800PF/50V K RoHS	2	PC
600	C518,	419311030060R	C SMD(0603) X7R 0.01uF/50V K RoHS	1	PC
610	C521,	419301810560R	C SMD(0603) NPO 180PF/50V J RoHS REV:A	1	PC
620	C524,C532,	419316830060R	C SMD (0603) X7R 0.068uF 50V,K RoHS	2	PC
630	D501,D505, D506,D510,	411023004021R	DIO SN4148-LF 75V/0.15A SMD 1206 (FEC)Ro	4	PC
640	D502,D503,D504, D507,D508,D509,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	6	PC
650	F802,	430613740400R	FUSE SLW 4A/32V SMD U/C/ 0603 ROHS	1	PC
660	R502,	414916033050R	RES SMD (0603) 33Ω J,RT RoHS REV:A	1	PC
670	R507,	414916330410R	RES SMD (0603) 3.3M F RT RoHS	1	PC
680	R512,R522,	414916330210R	RES SMD (0603) 33KΩ F,RT RoHS	2	PC
690	R513,R501,	414916100210R	RES SMD (0603) 10KΩ F,RT RoHS	2	PC
700	R514,	414916220210R	RES SMD (0603) 22KΩ F,RT RoHS	1	PC
710	R516,	414916604310R	RES SMD (0603) 604KΩ F,RT RoHS	1	PC
720	R521,R519,R518,	414916010550R	RES SMD (0603) 1MΩ J,RT RoHS REV:A	3	PC
730	R523,R524,R527, R529,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	4	PC
740	R528,	414916470010R	RES SMD (0603) 470Ω F,RT RoHS	1	PC

750	R533,	414916200110R	RES SMD (0603) 2KΩ F,RT,RoHS	1	PC
760	IC501,	412000455630R	IC OZ9938GN SOIC16(O2 MICRO)RoHS	1	PC
770	U501,U502,	410500070290R	XSTR AP9971GM,N-CH,SO8(APEC) RoHS	2	PC
780	R504,R505, R530,R532,	414908033050R	RES SMD (0805) 33Ω J,RT RoHS	4	PC
790		791271410600R	PCBA,P/I BOARD,AI,W/O SPK,LE19B5-6E0 ROH	1	PC
800	C507,C515,	419342254670R	C SMD(0805) Y5V 2.2uF/16V Z RoHS	2	PC
810	C519,C520,	419313330060R	C SMD(0603) X7R 0.033uF/50V K ROHS	2	PC
820		511110001101R	SEAL-GLUE,3629,(LOCTITE)	0.09	G
830	R510,R531,	414908340110R	RES SMD (0805) 3.4KΩ F,RT RoHS REV:A	2	PC
840	C514,C527,	419313910070R	C SMD(0805) X7R 390PF/50V K,RoHS	2	PC
850	R804,	415130680540R	RES CF 1/2W 68Ω J,AT RoHS REV:A	1	PC
860	R828,	415340101540R	RES MOF 1W 100Ω J,AT MINI RoHS	1	PC
870	D806,	411030003040R	DIO FR103 200V/1A DO-41(MOSPEC RoHS	1	PC
880	D809,	411022003210R	DIO 1N4148 75V/0.2A AT (PHIL) RoHS	1	PC
890	D804,	411020053090R	DIO PS1010R 1000V/1A DO-41(PAN JIT)RoHS	1	PC
900	ZD802,	411022020090R	DIO P6KE200A 600W/100A,DO-15(P ANJIT)RoH	1	PC
910		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
920	R820,R821,	415030105540R	RES CF 1/2W 1MΩ J,AT MINI RoHS	2	PC
930	J504,J513,J516, J803,J514,J517,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 7.5MM	105.96	MM
940	J501,J510,J801, J805,J806,J807,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 10MM	120.96	MM
950	J505,J506,J511, J804,J808,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 12.5MM	113.3	MM
960	J503,J502,J512, J809,J507,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 15MM	125.8	MM
970	J509,J508,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 20MM	60.32	MM
980		700000000700R	ASSY,PCB&RIVENT,LE19B5-6E0	1	PC
990	R506,R525,	414870305540R	RES MG HV 1/2Ws 3MΩ 3KV J,AT RoHS	2	PC
1000	R812,	414020689540R	RES FSM 1/4W 6.8Ω J AT MINI,RoHS	1	PC
1010	FB501,	432002200240R	Bead Cores 25Ω 100M 3A 2.5X3X0.65,RoHS	1	PC
1020	C813,	418210133030R	CAP CD X7R 100pF 1KV K VT RoHS	1	PC
1030	C802,C811,	418210227030R	CAP CD X7R 1000pF 500V K VT RoHS	2	PC
1040	C817,C822,	419111040030R	CAP MTL X7R 0.1uF 50V K,VT, RoHS	2	PC
1050	C814,C815,C818, C819,	420264700230R	CAP SH 47uF 25V M,125°C,VT, 6.3x11,RoHS	4	PC
1060	Q802,	410072013210R	XSTR 2PC1815GR*I VT (PHILIPS) RoHS REV:	1	PC
1070	IC803,	412022002840R	IC TL431ACLPG TO-92 1%,VT(ON)RoHS	1	PC
1080	C816,	416231041530R	CAP MEB 0.1uF 100V J,(RSB),VT RSBEC3100D	1	PC
1090	C501,C810,	420424710260R	CAP SD 470uF/25V M 105°C ST 10x16,RoHS	2	PC
1100	C812,	420421020102R	CAP EC 1000uF/10V M,105°C N-F 10x16(L-ES	1	PC
1110		491291400100R	PCB,P/I BOARD,LE19B5-XE0 ROHS	1	PC
1120	M3,M4,M5,M6,M7, M8,M9,M10,M11, M12,M13,M14,	512006000500R	RIVET,Φ3.0xΦ1.6x3.0mm	12	PC
1130	M1,M2,	512006000600R	RIVET,Φ4.1xΦ2.2x3.0mm	2	PC

### 3. FOR IVO

ITEM	Location	P/N	Description	Usage	Un
		791271400600R	PCBA,P/I BOARD,W/O SPK,LE19B5-6E0 ROHS		
10	IC801,	412140002380R	IC LTV817M-PR VDE (LITE-ON) P=10mm RoHS	1	PC
20	D801,	411050005090R	DIO BRDG FL406 600V/4A(PEC)RoH S	1	PC
30	C804,	416194743011R	CAP MEX 0.47uF 275V K X2,F15 RoHS	1	PC
40	C820,C801,C806,	416202224610R	CAP MEY 2200pF 400V M Y,F10mm RoHS	3	PC
50	C808,	420421020211R	CAP SD 1000uF 25V M,105°C F 13x20 RoHS	1	PC
60	C805,	420431214581R	CAP SEK 120uF/450V M 105°C CF 18X40 ROHS	1	PC
70	C824,	416204724610R	CAP MEY 4700pF 400V M Y,F10mm RoHS	1	PC
80	L802,L803,	425000010530R	COIL CHK 5uH 7.8X10 CHK-053 0 181085R0L	2	PC
90	L801,	426000050070R	CHOKO L-FILTER 12mH LIN-007 ET-20,RoHS	1	PC
100	T801,	426000090510R	XFMR 750u@1K,+8%,3m,113m,SPW- 051,DIP-1	1	PC
110	RT801,	432009401300R	NTC 8Ω 4A 13Φ P=7.5mm F ROHS	1	PC
120	F801,	430613430290R	FUSE SLOW 3.15,250,Axial Lead,3.6 x10mm	1	PC
130	P801,	440149000220R	SKT AC 10A/250V U/C/V,G/Y=45mm TU-301-SP	1	PC
140	CN801,	430300600340R	HRN ASS'Y 6P 130mm UL1007#24 ROHS	1	PC
150	C803,	418247233020R	CAP CD X7R 4700pF 1KV K,W/O FO RMING,RoH	1	PC
160	CN501,CN502, CN503,CN504,	430637020030R	WFR. 2P P=3.5mm 90°W/LOCK,RoHS	4	PC
170	T501,T502,	426000090680R	XFMR SW,121.5uH EEL19M DIP SPW-068,RoHS	2	PC
180	C506,C523,	418110058560R	CAP CD SL 10pF 3KV J,ST,RoHS CC45SL3FD10	2	PC
190	C528,C509,	418105058960R	CAP CD SL 5pF 3KV D,ST, RoHS CC45SL3FD05	2	PC
200	H802,	735100007120R	ASSY,H/S,SBR10U100CT/U40CT, LE1710	1	PC
210	H801,	735100005900R	ASSY,H/S TOP246Y, LE1X09 ROHS	1	PC
220	H501,	502040604500R	SHIELD EMI LE1915 ROHS	1	PC
230		791271440600R	PCBA,P/I BOARD,SMT,W/O SPK,LE19B5-6E0 RO	1	PC
240		511130001200R	SOLDER BAR,Sn96.5/Ag3.0/Cu0.5/Ni0.06/Ge0	4.6	G
250		511110000101R	HOT-MELT ADHESIVES (#526)	1.338	G
260		511110000501R	SILICONE RTV RUBBER,UB-511(EURO)	0.45	G
270	IC802,	412000379270R	IC TOP246YN,TO-220-7C(POWER IN TEGRATION	1	PC
280		507200003700R	HEATSINK,46x20xt10mm LE1704/05	1	PC
290		509112306100R	SCREW,P,CROSS,T.T-3*6,ZnROHS	1	PC
300	D803,	411090009480R	SCHTKY SP10100C 100V/10A ITO220(WILLAS)R	1	PC
310	D805,	411090011090R	SCHTKY SB1060FCT 60V/10A ITO 220AB(PANJI	1	PC
320		507200003800R	HEATSINK,56x20xt10mm LE1904/05	1	PC
330		509112308101R	SCREW,PAN,TT"B",M3x1.049x8,PHP LP1702	2	PC
340	Q801,	410500045211R	XSTR PMBS3904 NPN 100MA,60V SOT23(PHILIP	1	PC
350	ZD803,	411131456920R	ZENER 5.6V MMSZ5232A SOD-123(WILLAS)ROHS	1	PC
360	ZD801,	411131491920R	ZENER 9.1V MMSZ5239A SOD-123(WILLAS)ROHS	1	PC
370	ZD804,ZD805,	411100916020R	ZENER 16V MMSZ5246A SOD123(PEC RoHS	2	PC
380	R809,	414904100010R	RES SMD (1206) 100Ω F,RT RoHS	1	PC
390	R808,R819,R827,	414908010350R	RES SMD (0805) 10KΩ J,RT RoHS REV:A	3	PC
400	R801,R805, R822,R823,	414908033550R	RES SMD(0805) 3.3MΩ J,RT,RoHS	4	PC
410	R813,R814,R815,	414908010250R	RES SMD (0805) 1KΩ J,RT RoHS REV:A	3	PC
420	R825,	414908047450R	RES SMD (0805) 470KΩ J,RT RoHS	1	PC
430	R803,R807,R824,	414908051450R	RES SMD (0805) 510KΩ J,RT RoHS	3	PC
440	R818,	414908330110R	RES SMD (0805) 3.3KΩ F,RT RoHS REV:A	1	PC

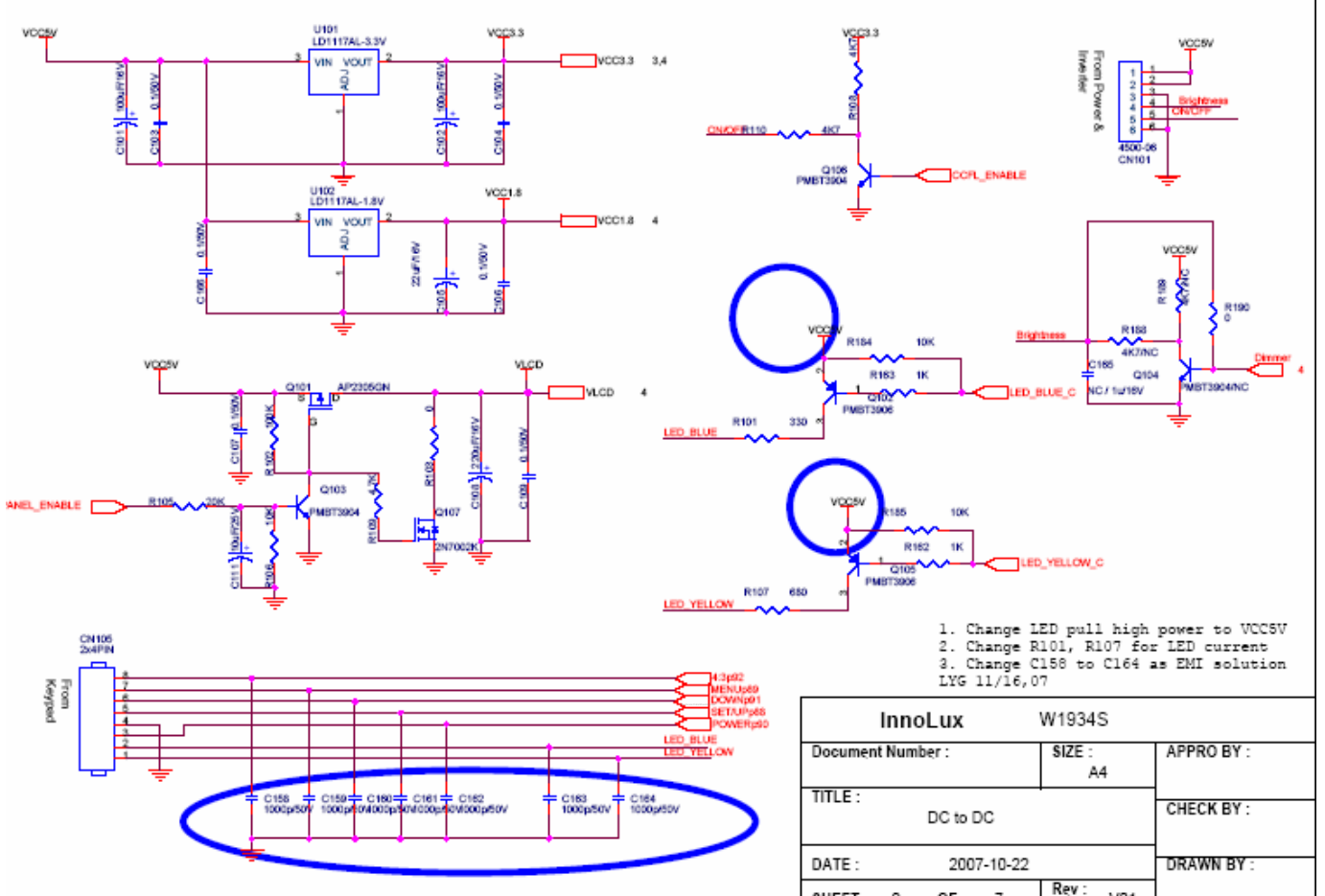


450	R816,	414908068950R	RES SMD (0805) 6.8Ω J RT RoHS	1	PC
460	R811,	414908510210R	RES SMD (0805) 51KΩ F,RT RoHS	1	PC
470	R508,	414916430210R	RES SMD (0603) 43KΩ F,RT,RoHS	1	PC
480	R817,	414908120210R	RES SMD (0805) 12K F RT RoHS REV:A	1	PC
490	R802,R806,	414904010050R	RES SMD (1206) 10Ω J,RT RoHS	2	PC
500	R829,	414908020150R	RES SMD (0805) 200Ω J,RT RoHS	1	PC
510	R810,	414908510110R	RES SMD (0805) 5.1KΩ F,RT RoHS	1	PC
520	R535,	414916075150R	RES SMD (0603) 750Ω J,RT RoHS	1	PC
530	C502,	419342253670R	C SMD(0805) Y5V 2.2uF/25V Z RoHS	1	PC
540	C821,	419311040060R	C SMD(0603) X7R 0.1uF/50V K RoHS	1	PC
550	C504,C505, C522,C529,	419311020070R	C SMD(0805) X7R 1000PF/50V K RoHS	4	PC
560	C510,C516,	419311020060R	C SMD(0603) X7R 1000PF/50V K RoHS	2	PC
570	C511,	419314730060R	C SMD (0603) X7R 0.047uF 50V,K RoHS	1	PC
580	C512,	419302710560R	C SMD(0603) NPO 270PF/50V J RoHS REV:A	1	PC
590	C513,C525,	419316820070R	C SMD(0805) X7R 6800PF/50V K RoHS	2	PC
600	C518,	419311030060R	C SMD(0603) X7R 0.01uF/50V K RoHS	1	PC
610	C521,	419301810560R	C SMD(0603) NPO 180PF/50V J RoHS REV:A	1	PC
620	C524,C532,	419316830060R	C SMD (0603) X7R 0.068uF 50V,K RoHS	2	PC
630	D501,D505, D506,D510,	411023004021R	DIO SN4148-LF 75V/0.15A SMD 1206 (FEC)Ro	4	PC
640	D502,D503,D504, D507,D508,D509,	411020026210R	DIO BAV99 350mW 70V SOT-23(PHI RoHS	6	PC
650	F802,	430613740400R	FUSE SLW 4A/32V SMD U/C/ 0603 ROHS	1	PC
660	R502,	414916033050R	RES SMD (0603) 33Ω J,RT RoHS REV:A	1	PC
670	R507,	414916330410R	RES SMD (0603) 3.3M F RT RoHS	1	PC
680	R512,R522,	414916330210R	RES SMD (0603) 33KΩ F,RT RoHS	2	PC
690	R513,R501,	414916100210R	RES SMD (0603) 10KΩ F,RT RoHS	2	PC
700	R514,	414916220210R	RES SMD (0603) 22KΩ F,RT RoHS	1	PC
710	R516,	414916604310R	RES SMD (0603) 604KΩ F,RT RoHS	1	PC
720	R521,R519,R518,	414916010550R	RES SMD (0603) 1MΩ J,RT RoHS REV:A	3	PC
730	R523,R524,R527, R529,	414916047150R	RES SMD (0603) 470Ω J,RT RoHS REV:A	4	PC
740	R528,	414916470010R	RES SMD (0603) 470Ω F,RT RoHS	1	PC
750	R533,	414916200110R	RES SMD (0603) 2KΩ F,RT,RoHS	1	PC
760	IC501,	412000455630R	IC OZ9938GN SOIC16(O2 MICRO)RoHS	1	PC
770	U501,U502,	410500070290R	XSTR AP9971GM,N-CH,SO8(APEC) RoHS	2	PC
780	R504,R505,R530, R532,	414908033050R	RES SMD (0805) 33Ω J,RT RoHS	4	PC
790		791271410600R	PCBA,P/I BOARD,AI,W/O SPK,LE19B5-6E0 ROH	1	PC
800	C507,C515,	419342254670R	C SMD(0805) Y5V 2.2uF/16V Z RoHS	2	PC
810	C519,C520,	419313330060R	C SMD(0603) X7R 0.033uF/50V K ROHS	2	PC
820		511110001101R	SEAL-GLUE,3629,(LOCTITE)	0.09	G
830	R510,R531,	414908340110R	RES SMD (0805) 3.4KΩ F,RT RoHS REV:A	2	PC
840	C514,C527,	419313910070R	C SMD(0805) X7R 390PF/50V K,RoHS	2	PC
850	R804,	415130680540R	RES CF 1/2W 68Ω J,AT RoHS REV:A	1	PC
860	R828,	415340101540R	RES MOF 1W 100Ω J,AT MINI RoHS	1	PC
870	D806,	411030003040R	DIO FR103 200V/1A DO-41(MOSPEC RoHS	1	PC
880	D809,	411022003210R	DIO 1N4148 75V/0.2A AT (PHIL) RoHS	1	PC
890	D804,	411020053090R	DIO PS1010R 1000V/1A DO-41(PAN JIT)RoHS	1	PC

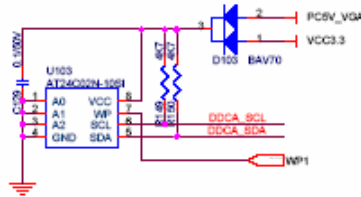
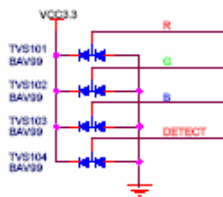
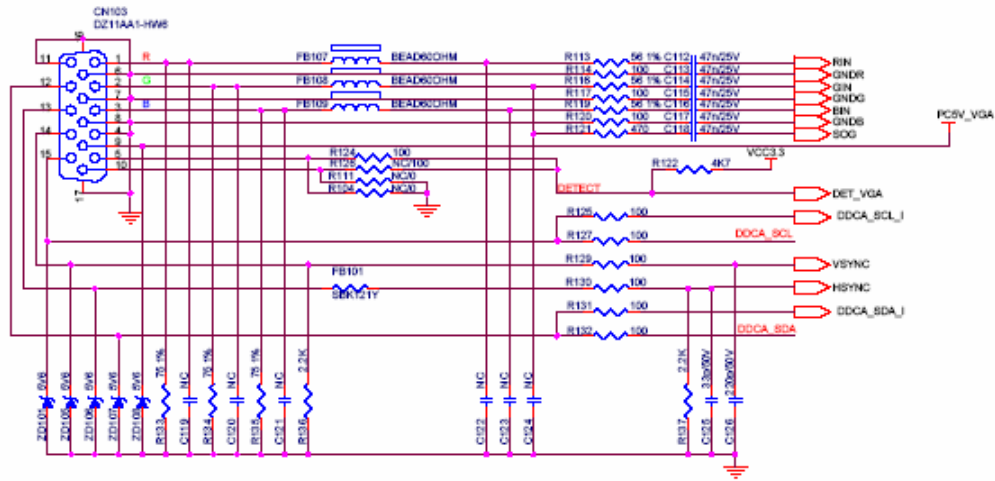
900	ZD802,	411022020090R	DIO P6KE200A 600W/100A,DO-15(P ANJIT)RoH	1	PC
910		506140005700R	LABEL,BARCODE,BLANK,33x7mm, ROHS,FOR PCB	1	PC
920	R820,R821,	415030105540R	RES CF 1/2W 1MΩ J,AT MINI RoHS	2	PC
930	J504,J513,J516, J803,J514,J517,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 7.5MM	106	MM
940	J501,J510,J801, J805,J806,J807,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 10MM	121	MM
950	J505,J506,J511, J804,J808,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 12.5MM	113.3	MM
960	J503,J502,J512, J809,J507,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 15MM	125.8	MM
970	J509,J508,	430405000000R	JMPR ROLL/KG D=0.6mm,AT,RoHS 20MM	60.32	MM
980		700000000700R	ASSY,PCB&RIVENT,LE19B5-6E0	1	PC
990	R506,R525,	414870305540R	RES MG HV 1/2Ws 3MΩ 3KV J,AT RoHS	2	PC
1000	R812,	414020689540R	RES FSM 1/4W 6.8Ω J AT MINI,RoHS	1	PC
1010	FB501,	432002200240R	Bead Cores 25Ω 100M 3A 2.5X3X0.65,RoHS	1	PC
1020	C813,	418210133030R	CAP CD X7R 100pF 1KV K VT RoHS	1	PC
1030	C802,C811,	418210227030R	CAP CD X7R 1000pF 500V K VT RoHS	2	PC
1040	C817,C822,	419111040030R	CAP MTL X7R 0.1uF 50V K,VT, RoHS	2	PC
1050	C814,C815,C818, C819,	420264700230R	CAP SH 47uF 25V M,125°C,VT, 6.3x11,RoHS	4	PC
1060	Q802,	410072013210R	XSTR 2PC1815GR*I VT (PHILIPS) RoHS REV:	1	PC
1070	IC803,	412022002840R	IC TL431ACLPG TO-92 1%,VT(ON)RoHS	1	PC
1080	C816,	416231041530R	CAP MEB 0.1uF 100V J,(RSB),VT RSBEC3100D	1	PC
1090	C501,C810,	420424710260R	CAP SD 470uF/25V M 105°C ST 10x16,RoHS	2	PC
1100	C812,	420421020102R	CAP EC 1000uF/10V M,105°C N-F 10x16(L-ES	1	PC
1110		491291400100R	PCB,P/I BOARD,LE19B5-XE0 ROHS	1	PC
1120	M3,M4,M5,M6,M7, M8,M9,M10, M11, M12,M13,M14,	512006000500R	RIVET,Φ3.0xΦ1.6x3.0mm	12	PC
1130	M1,M2,	512006000600R	RIVET,Φ4.1xΦ2.2x3.0mm	2	PC

# SCHEMATIC DIAGRAM

## 1. DC to DC



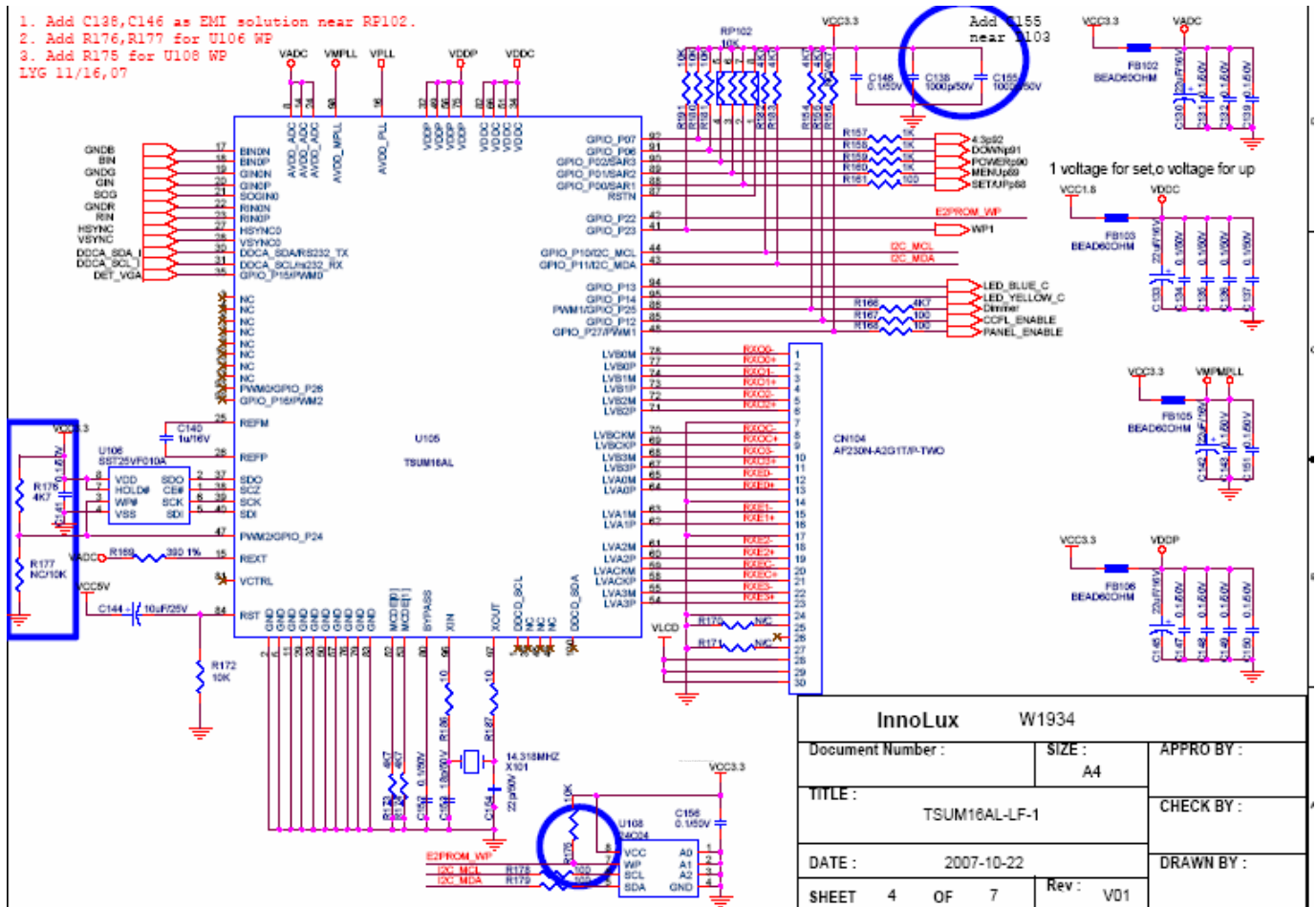
## 2. Input



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SHEET 3	OF 7	Rev : V03	

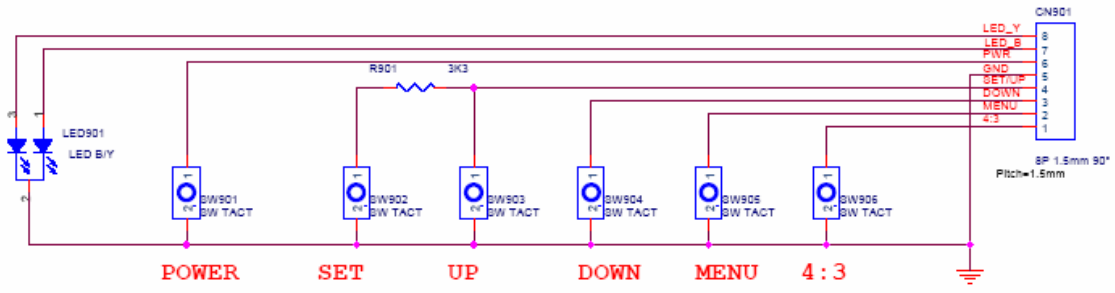
### 3. Scaler\_TSUM16AL

1. Add C138,C146 as EMI solution near RP102.
  2. Add R176,R177 for U106 WP
  3. Add R178 for U108 WP
- LYG 11/16,07



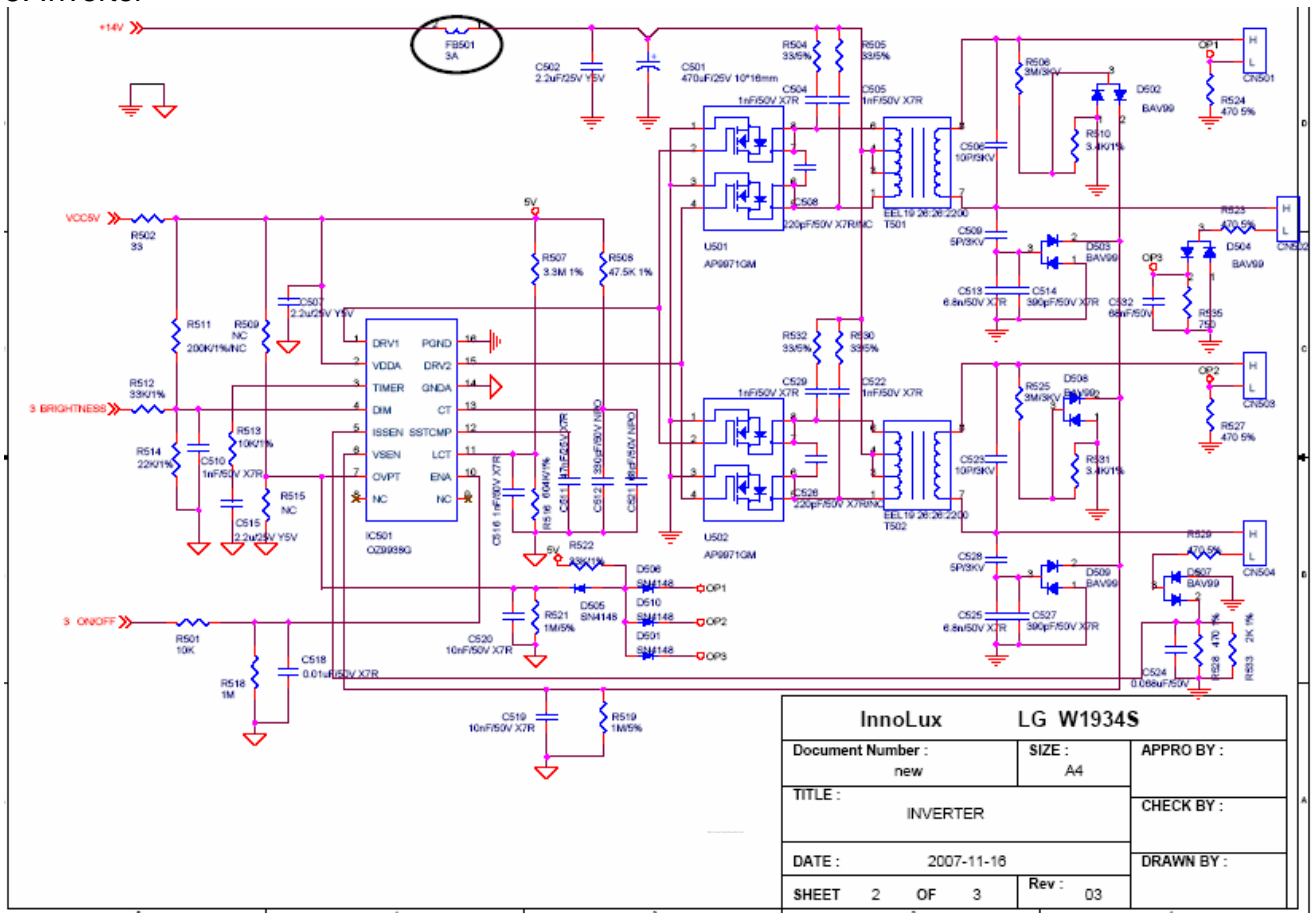
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SHEET 4 OF 7	Rev : V01	

## 4. Keypad

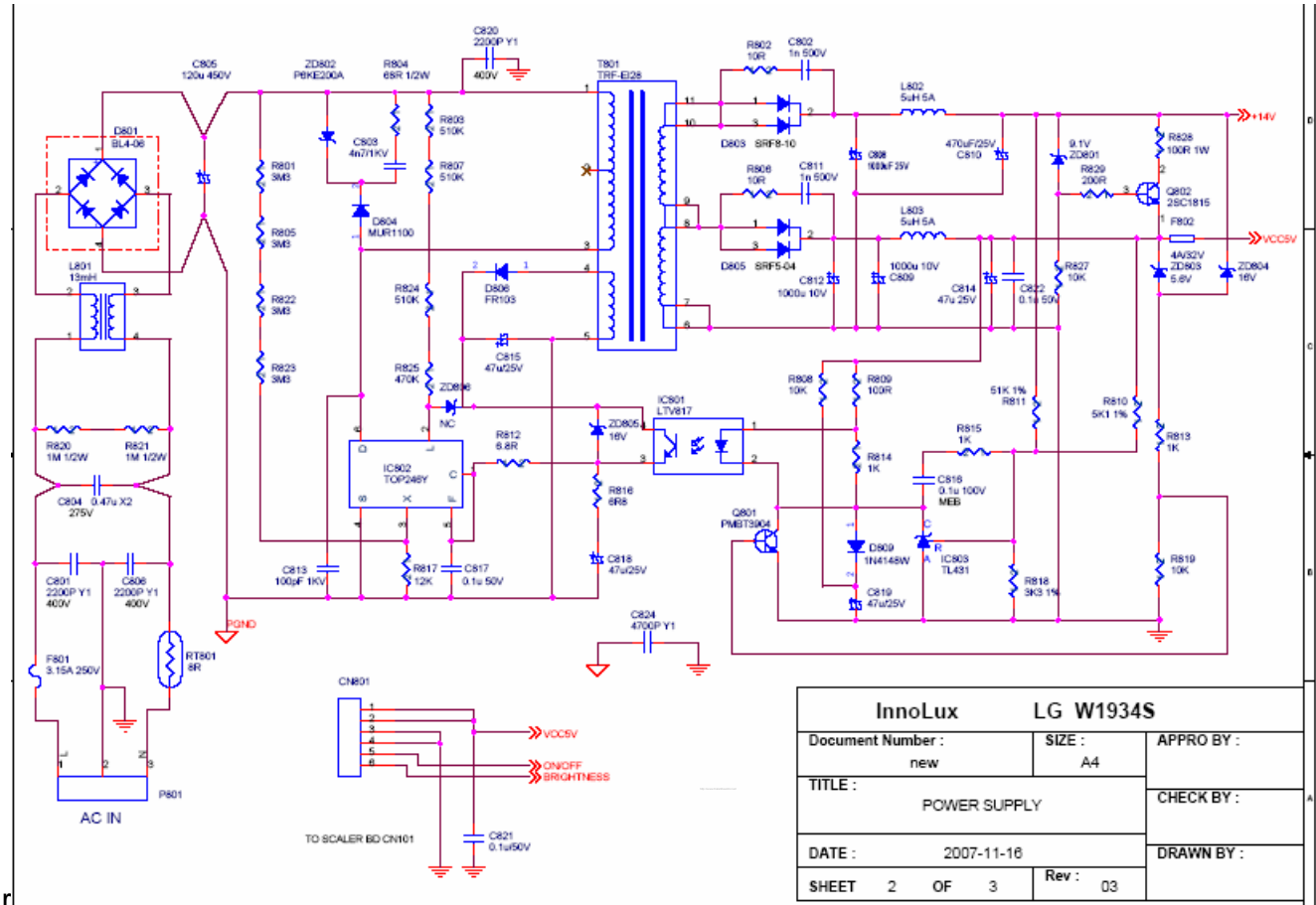


3

## 5. Inverter



## 6. Power







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