



DOCUMENT CHANGE NOTICE

DCN NUMBER:

2251

VERSION:

Change / Release Classifications☐ Critical☐ Process Impact☐ Routine☒ Initial Release**DOCUMENTS AFFECTED****REVISION**

TITLE	NUMBER	From	To
Manual, Service VA720-1	VA720-1_SM_542		1a

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Email Address: Kevin_Yang@ ViewSonic.com

Department Manager: ☐ Approver ☐ Rejected

Date: 6-17-02

REASON FOR CHANGE: (Samples: Initial release, Major Re-Write, Add, Revise, or Delete)

Initial Release.

DESCRIPTION OF CHANGE:**DOC. CONTROL CHECKLIST**

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Dept. Name: _____

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Date: _____

APPROVERS:

Author: Kevin Yang

Date: 5/28/02

Co-Spsr #1: _____

Date: 6/13/02

Co-Spsr #2: _____

Date: _____

Co-Spsr #3: _____

Date: _____

Co-Spsr #4: _____

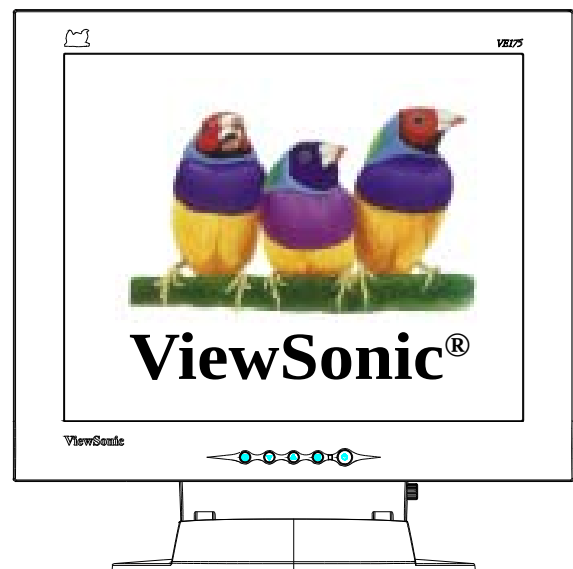
Date: _____

= Completed by Document Control

Service Manual

ViewSonic VA720-1 VE175/b-1

Model No. VLCDS23895-3W
17" Color TFT LCD Display



(VA720-1_SM_542 - Rev. 1a – May 2002)

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Revision History

Revision	Date	Description Of Changes	Approval
1.a	5/28/02	Initial Issue – DCN2251	K. Yang

TABLE OF CONTENTS

1. PRECAUTIONS & SAFETY NOTICES.....	1
2. SERVICE TOOLS & EQUIPMENT REQUIRED	2
3. SPECIFICATIONS	3~4
4. EXPLODED VIEW & PARTS LIST.....	5~6
5. BLOCK DIAGRAM	7
6. SCHEMATIC DIAGRAMS.....	8~15
7. THEORY OF OPERATION.....	16
8. WIRING DIAGRAM	17
9. PCB LAYOUT	18~23
10. TROUBLE SHOOTING FLOW CHART	24~27
11. ADJUSTMENT.....	28~30
12. ELECTRICAL PARTS LIST.....	31~38

1. PRECAUTIONS & SAFETY NOTICES

1. PRECAUTION AND NOTICES

1.1. SAFETY PRECAUTIONS

This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may cause damage to the monitor as well as to the user. Carefully go over the following WARNINGS before installing and keep this guide handy.

WARNINGS:

- ◆ This monitor should be operated only at the correct power sources indicated on the label on the rear end of the monitor. If you're unsure of the power supply in your residence, consult your local dealer or power company.
- ◆ Use only the special power adapter that comes with this monitor for power input.
- ◆ Do not try to repair the monitor your self as it contains no user-serviceable parts. This monitor should only be repaired by a qualified technician.
- ◆ Do not remove the monitor cabinet. There is high-voltage parts inside that may cause electric shock to human bodies, even when the power cord is unplugged.
- ◆ Stop using the monitor if the cabinet is damaged. Have it checked by a service technician.
- ◆ Put your monitor only in a clean, dry environment. If it gets wet, unplug the power cable immediately and consult your service technician.
- ◆ Always unplug the monitor before cleaning it. Clean the cabinet with a clean, dry cloth. Apply non-ammonia based cleaner onto the cloth, not directly onto the glass screen.
- ◆ Keep the monitor away from magnetic objects, motors, TV sets, and transformer.
- ◆ Do not place heavy objects on the monitor or power cord.

1.2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

1.3. SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1W of metal oxide film resistor) in circuit board, keep the resistor about 5mm away from circuit board.
3. Keep wires away from high voltage, high temperature components and sharp edges.
4. Keep wires in their original position so as to reduce interference.
5. Usage of this product please refer to also user's manual.

2. SERVICE TOOLS & EQUIPMENT REQUIRED

2. SERVICE TOOL & EQUIPMENT REQUIRED

1. SIGNAL GEN.
2. MULTIMETER
3. OSCILLOSCOPE
4. SCREW DRIVER
5. IRON
6. ABSORBER
7. SOLDER
8. DUMMY LOAD (5ohm/200W)

3. SPECIFICATIONS

3. SPECIFICATIONS

3.1. PRODUCT SPECIFICATIONS

LCD Panel	17.0" TFT
Power Management	Energy Star compliant VESA DPMS compatible < 2W
Displayable Resolution	SXGA 1280× 1024 (max.)
Pixel Dimension	0.264(H)× 0.264(V)mm
LCD Display Color	16.7M Color Max. (8bit)
Viewing Angle	CR ≥ 10 Horizontal: -85°+85° Vertical: -85°+85°
Tilt	+90°, -3°
Contrast Ratio	500 : 1 (typ.)
Brightness	200 cd/ m ² (min.) 250 cd/m ² (typ.)
Response Time	Tr: 15 ms Tf: 10ms
Active Display Area	337.92mm(H)× 270.34mm(V)
Temperature	Operating: 0°C ~ +40°C Storage: -20°C ~ +60°C
Compliance	UL, CSA, DHHS, TÜV, CE, FCC-B, VDE-B, Energy Star.
Power	Input Voltage: 100~240 Vac Consumption: 50 Watts (Max.)

3.2. FACTORY SUPPORTING MODES

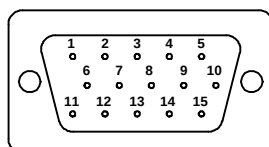
Primary Preset: VESA 1280 x 1024 @ 60Hz

Look up table timing:

1. IND 640 x 350 @ 70Hz, 31.47kHz, -/+
2. IND 720 x 400 @ 70Hz, 31.467kHz, +/-
3. VESA 640 x 480 @ 60Hz, 31.469kHz, -/-
4. VESA 640 x 480 @ 72Hz, 37.861kHz, -/-
5. VESA 640 x 480 @ 75Hz, 37.5kHz, -/-
6. MAC 640 x 480 @ 67Hz, 35kHz.
7. VESA 800 x 600 @ 56Hz, 35.156kHz, +/+
8. VESA 800 x 600 @ 60Hz, 37.879kHz, +/+
9. VESA 800 x 600 @ 72Hz, 48.077kHz, +/+
10. VESA 800 x 600 @ 75Hz, 46.875kHz, +/+
11. MAC 832 x 624 @ 75Hz, 49.725kHz.
12. VESA 1024 x 768 @ 60Hz, 48.363kHz, -/-
13. VESA 1024 x 768 @ 70Hz, 56.476kHz, -/-
14. VESA 1024 x 768 @ 72Hz, 58.036kHz, -/-
15. VESA 1024 x 768 @ 75Hz, 60.023kHz, +/+
16. MAC 1024 x 768 @ 75Hz, 60.241kHz.
17. VESA 1280 x 1024 @ 60Hz, 63.981kHz, +/+
18. VESA 1280 x 1024 @ 75Hz, 79.976kHz, +/+
19. MAC 1152 x 870 @ 75Hz, 68.6kHz.

3.3. D-SUB CONNECTOR

D-SUB 15 PIN CONNECTOR



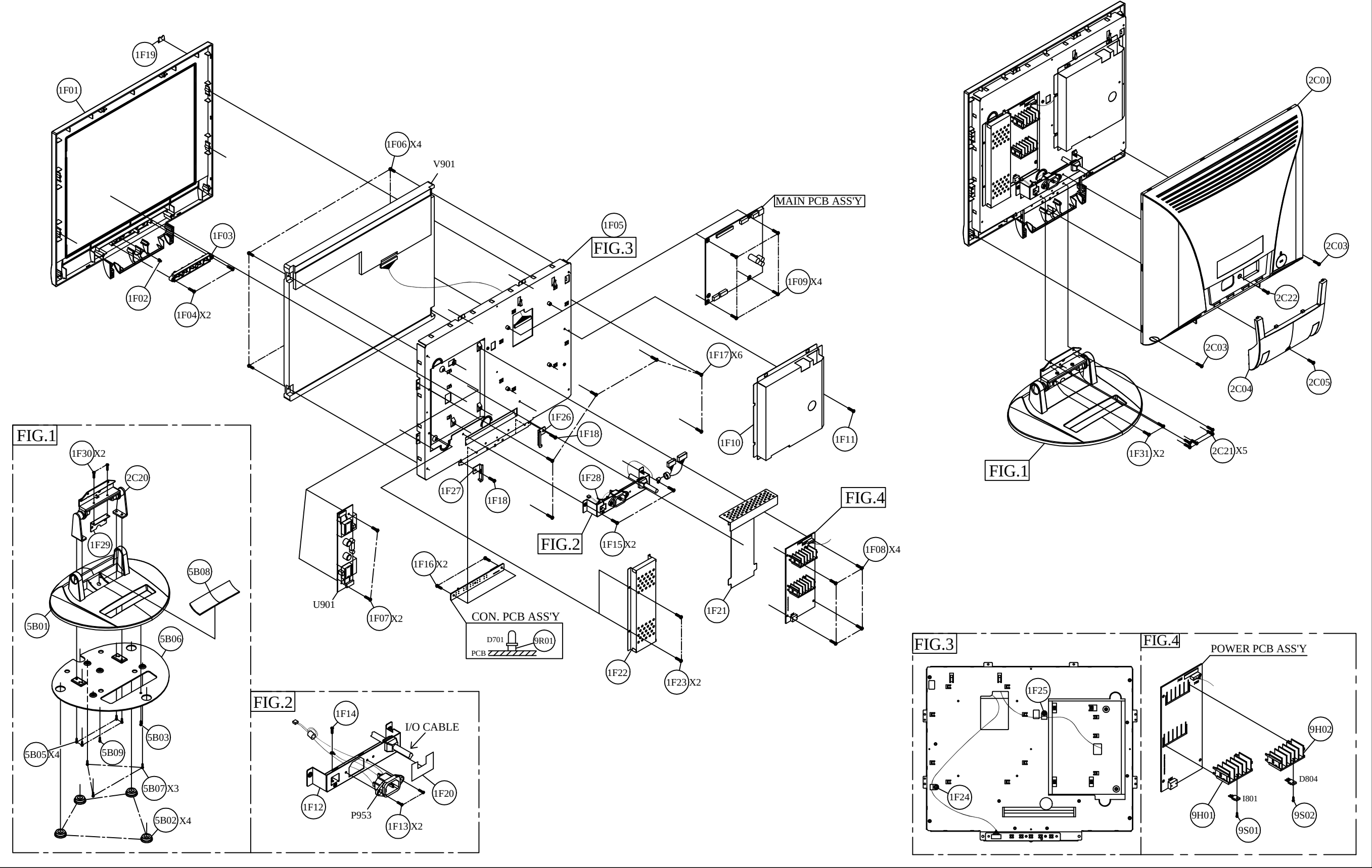
1.R	6.GND	11.NC
2.G	7.GND	12.SDA
3.B	8.GND	13.H.SYNC
4.NC	9. +5V	14.V.SYNC
5.GND	10.GND	15.SCL

SIGNAL LEVEL

CONNECTOR	SIGNAL	DESCRIPTION
R	RED	0.7vp-p(VIDEO)
G	GREEN	0.7vp-p(VIDEO)
B	BLUE	0.7vp-p(VIDEO)
H	H/SYNC	TTL positive or negative
V	V/SYNC	TTL positive or negative
SDA	DDC1/2B	TTL
SCL	DDC1/2B	TTL

4. EXPLODED VIEW & PARTS LIST

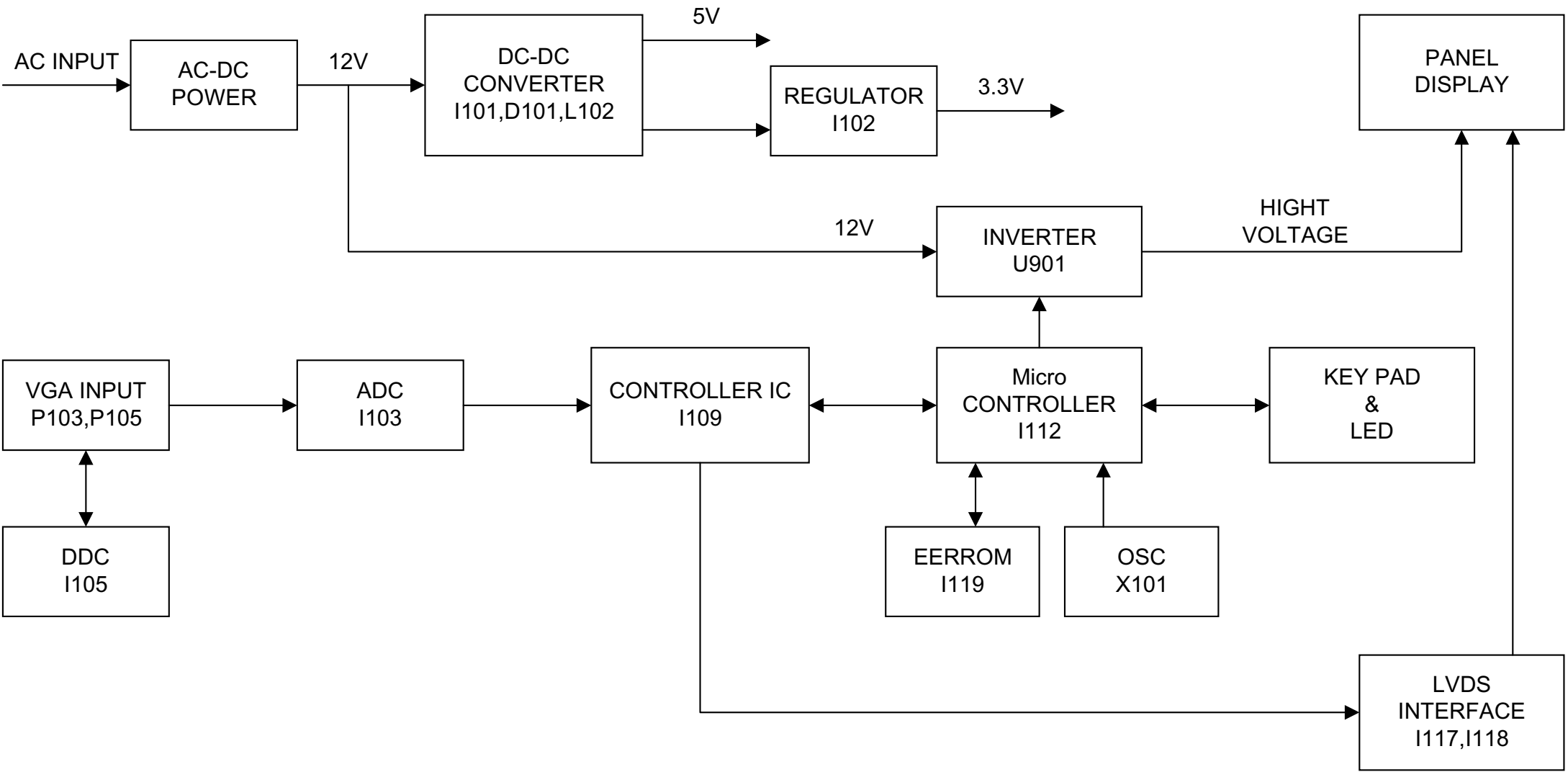
4.1. EXPLODED VIEW



4.2. EXPLODED VIEW PARTS LIST

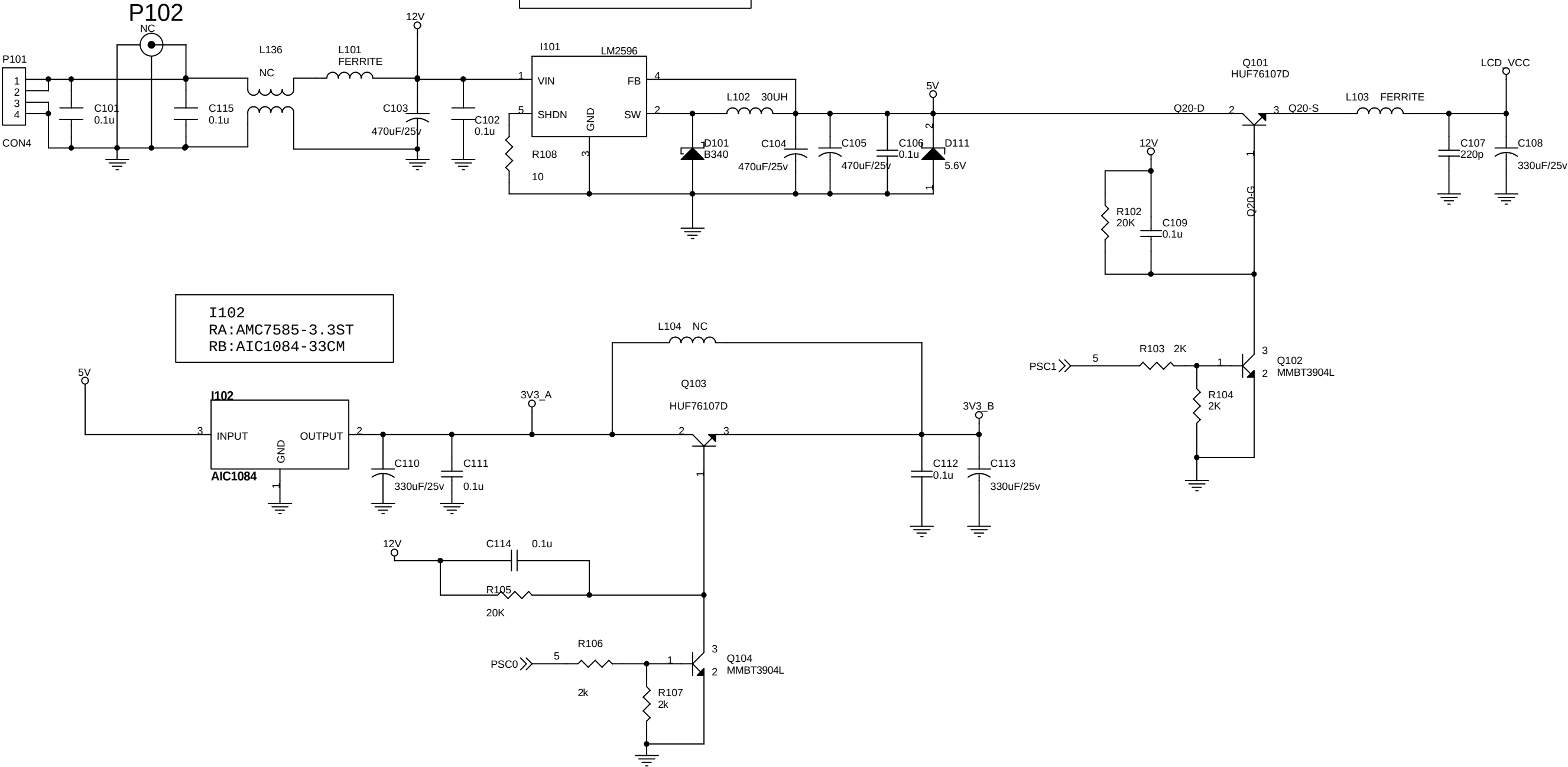
Ref. No.	Source	Part No.	DESCRIPTION	SPECIFICATION	Q'TY	REMARK
1F01		2024263002	FRONT BEZEL	PC+ABS 94 V0 GY7521	1	VE175
1F01		2024263003	FRONT BEZEL	PC+ABS 94-V0 877C VA720-1	1	VA720
1F01		2024263004	FRONT BEZEL	PC+ABS 94V0 MIDNIGHT GRAY	1	VE175b
1F02		2053751901	LED INDIC.-PWR	VE150-2/PMMA 94HB	1	
1F03		2044260901	FUNCTION KEY	VE150-2/ABS 94V0 GY7521	1	VE175
1F03		2044260903	FUNCTION KEY	VE800 ABS 94V-0/877C	1	VA720
1F03		2044260904	FUNCTION KEY	ABS 94V0 MIDNIGHT GRAY	1	VE175b
1F04		2084730102	SCREW,BND T+	M3X10(BND T+)	2	
1F05		2071961400	METAL FITTG	SECC t=1.0	1	
1F06		2085730122	SCREW,B OTW+	3X12(+) SWRM-3 ZMC2-C	4	
1F07		2082730062	SCREW,BND+	M3X6(BND+)	2	
1F08		2082730062	SCREW,BND+	M3X6(BND+)	4	
1F09		2082730062	SCREW,BND+	M3X6(BND+)	4	
1F10		2071663200	SHIELD PLATE	VE175 SPTE 0.3t(MAIN BOARD)	1	
1F11		2082730062	SCREW,BND+	M3X6(BND+)	1	
1F12		2071958700	METAL FITTG	SECC t=0.8mm JT166S1	1	
1F13		2084730082	SCREW,BND T+	M3X8(BND T+)	2	
1F14		2085740082	SCREW,B OTW+	SCREW B OTW+ M4X8	1	
1F15		2082730062	SCREW,BND+	M3X6(BND+)	2	
1F16		2082730062	SCREW,BND+	M3X6(BND+)	2	
1F17		2084730102	SCREW,BND T+	M3X10(BND T+)	6	
1F18		2084740102	SCREW,BND T+	M4X10(BND T+)	2	
1F19		2051350200	NAME PLATE	JD144V3 VIEWSONIC 3BIRDS AL	1	
1F20		2063451101	ADHESI SHEET	27.2x42.4 PVC COLOR:GREY	1	VE175
1F20		2063451102	ADHESI SHEET	27.2x42.4 PVC COLOR:BLACK	1	VA720/VE175b
1F21		2072452601	INSULATOR	VE800 PC FR-700 0.2t FOR POWER	1	
1F22		2071662800	SHIELD PLATE	SPTE t=0.3mm VE175	1	
1F23		2082730062	SCREW,BND+	M3X6(BND+)	2	
1F24		2082730062	SCREW,BND+	M3X6(BND+)	1	
1F25		2082730062	SCREW,BND+	M3X6(BND+)	1	
1F26		2071859600	BRACKET, FIX	SECC t=1.0mm VE175	1	
1F27		2071859700	BRACKET, FIX	SECC t=1.0mm VE175	1	
1F28		2074191000	HOLDER	JK1461 JEAN	1	
1F29		2071859200	BRACKET, FIX	SECC t=1.0	1	
1F30		2082730062	SCREW,BND+	M3X6(BND+)	2	
1F31		2084740102	SCREW,BND T+	M4X10(BND T+)	2	
2C01		2022259202	CABI BACK	PC+ABS 94 V0 GY7521	1	VE175
2C01		2022259203	CABI BACK	PC+ABS 94-V0 BLACK(4001)	1	VA720
2C01		2022259204	CABI BACK	PC+ABS 94V0 MIDNIGHT GRAY	1	VE175b
2C03		2084740102	SCREW,BND T+	M4X10(BND T+)	2	VE175
2C03		2084740104	SCREW,BND T+	M4X10(BND T+) (BLK)	2	VA720/VE175b
2C04		2026252601	CASE	ABS 94 HB GY7521	1	VE175
2C04		2026252602	CASE	ABS 94HB BLACK(4001)VA720-1	1	VA720
2C04		2026252603	CASE	ABS 94HB MIDNIGHT GRAY	1	VE175b
2C05		2084740102	SCREW,BND T+	M4X10(BND T+)	1	VE175
2C05		2084740104	SCREW,BND T+	M4X10(BND T+) (BLK)	1	VA720/VE175b
2C20		2106653500	HINGE	TORQUE 20~60 KGF -5'~90'	1	
2C21		2082730062	SCREW,BND+	M3X6(BND+)	5	VE175/VE175b

5. BLOCK DIAGRAM



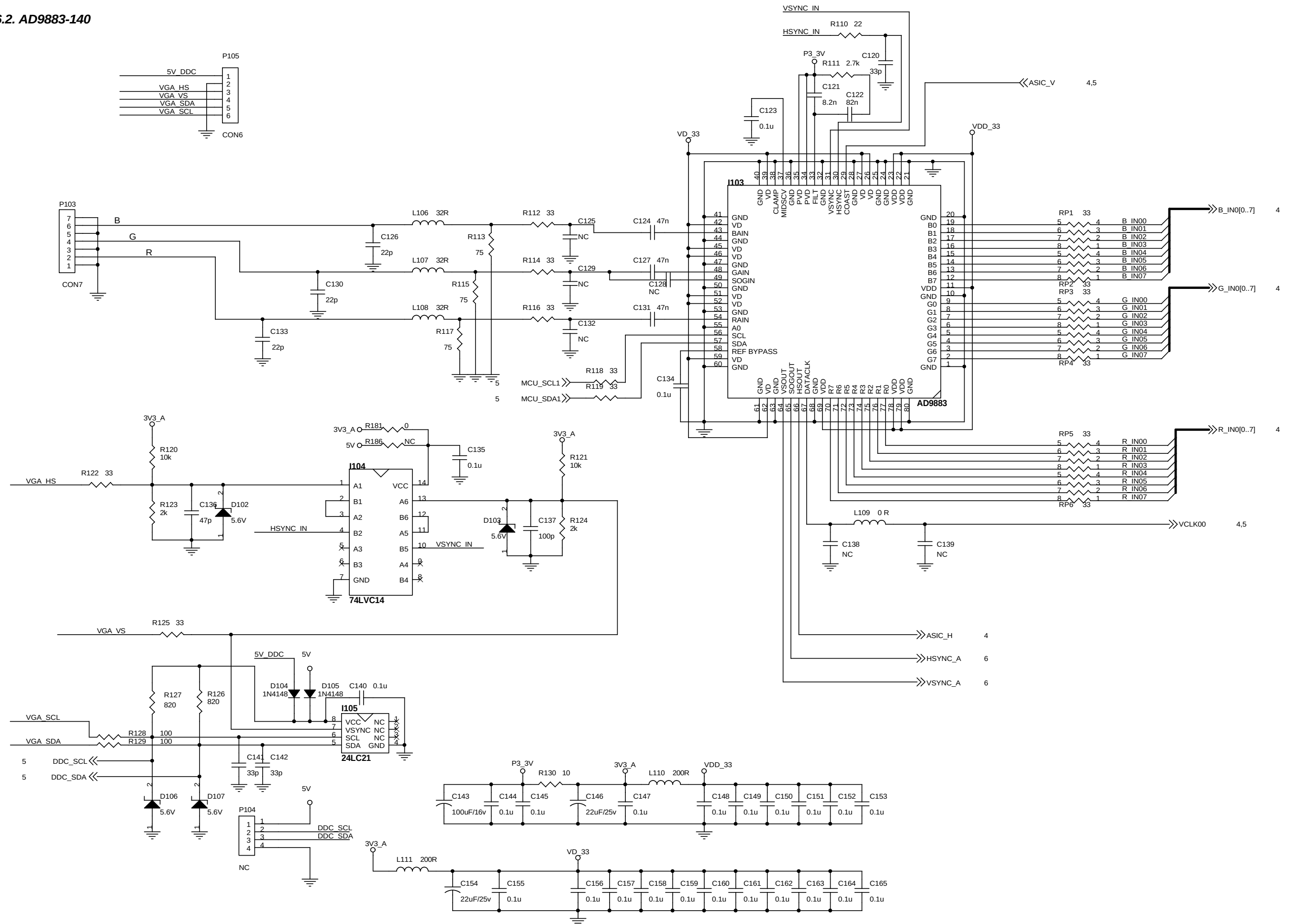
6. SCHEMATIC DIAGRAM
6.1. POWER REGULATOR

RA SI8050:---R108 NC
RB LM2596:---R108 10 R

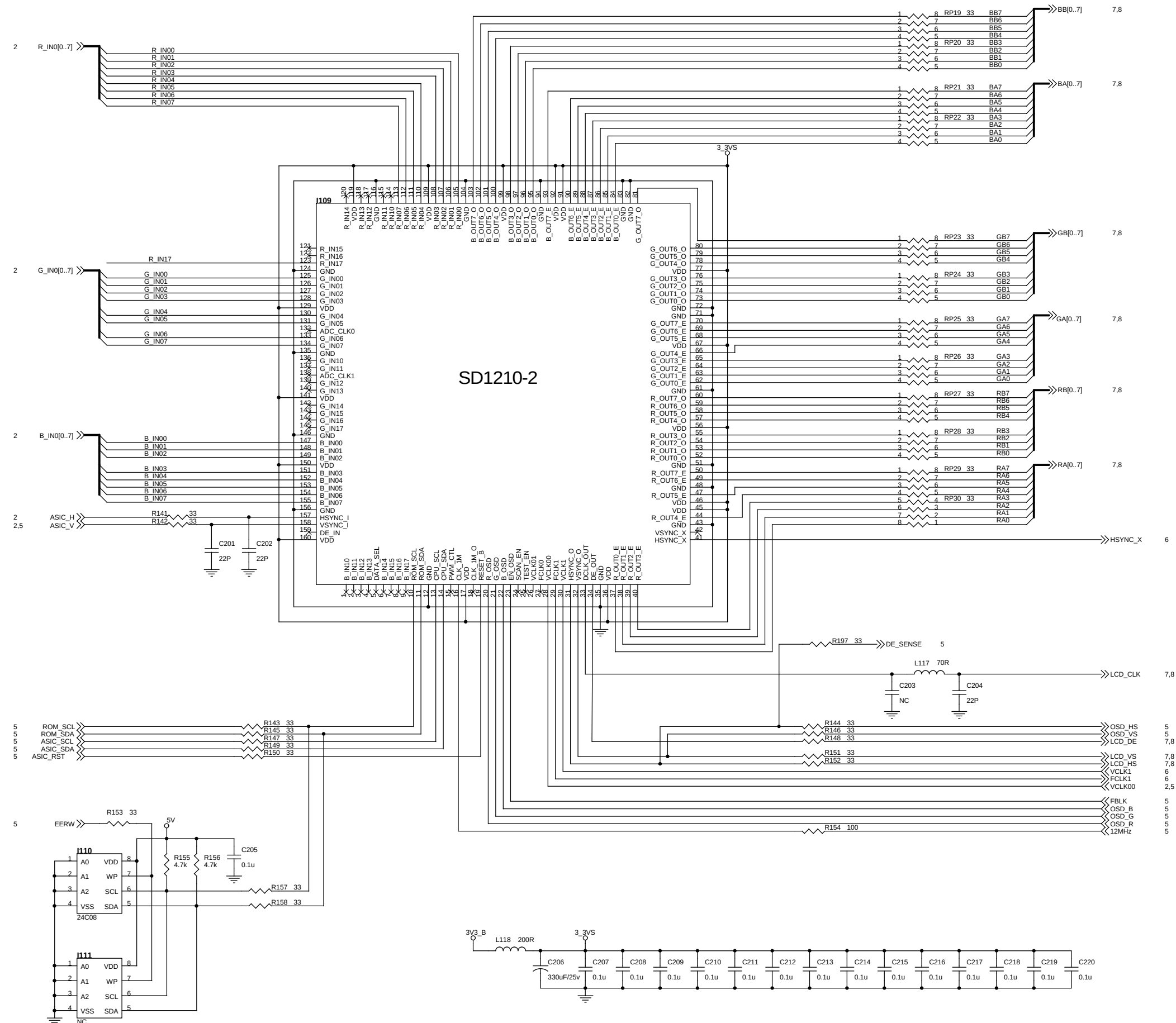


I102
RA:AMC7585-3.3ST
RB:AIC1084-33CM

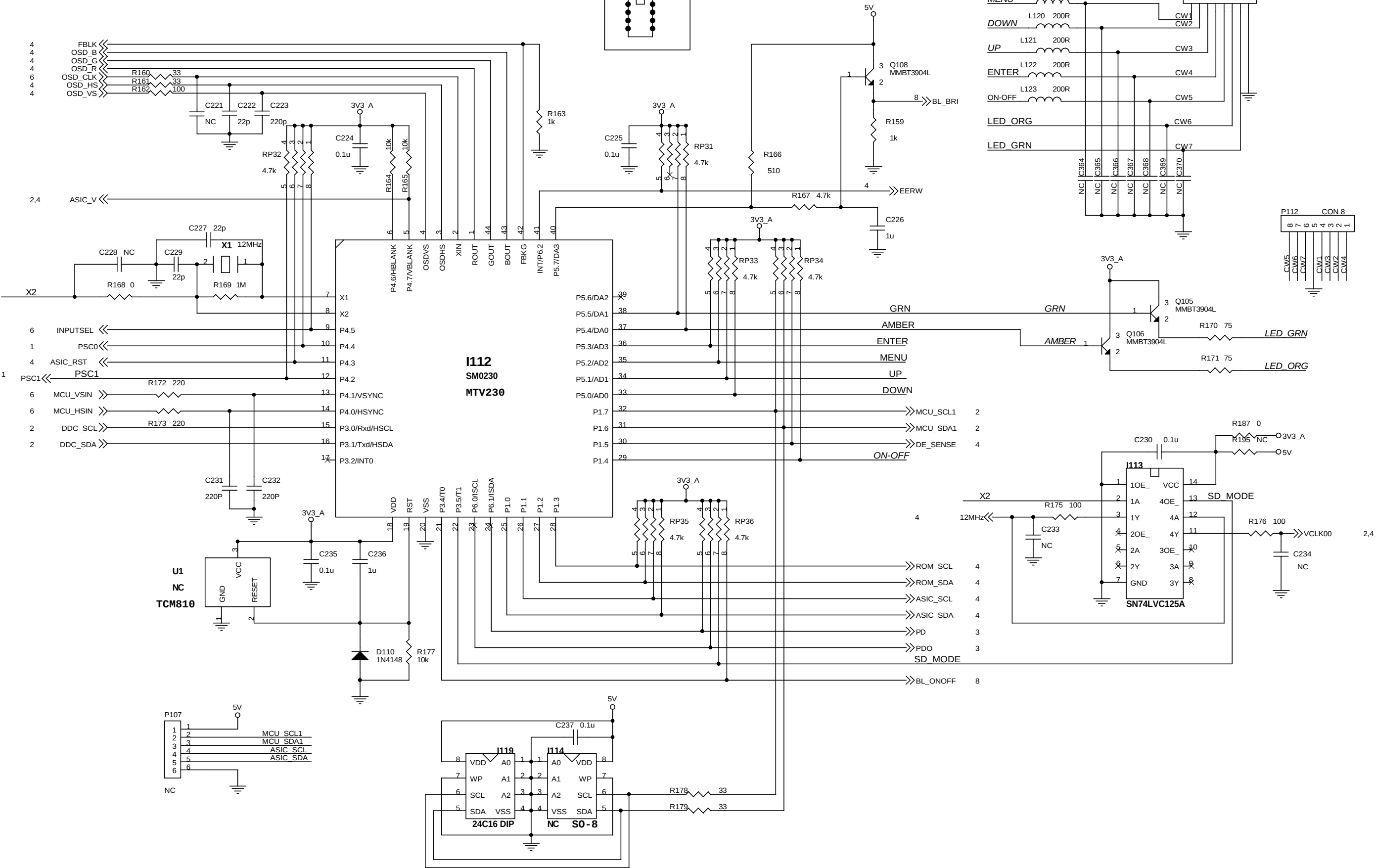
6.2. AD9883-140



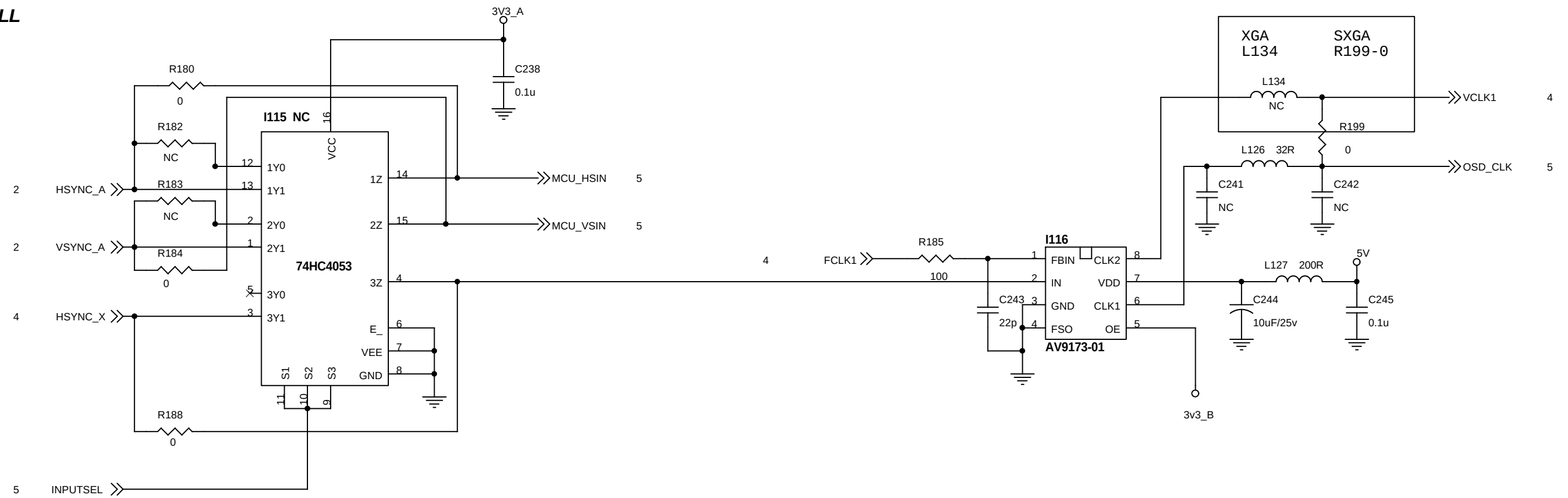
6.3. SCALER-SD1210



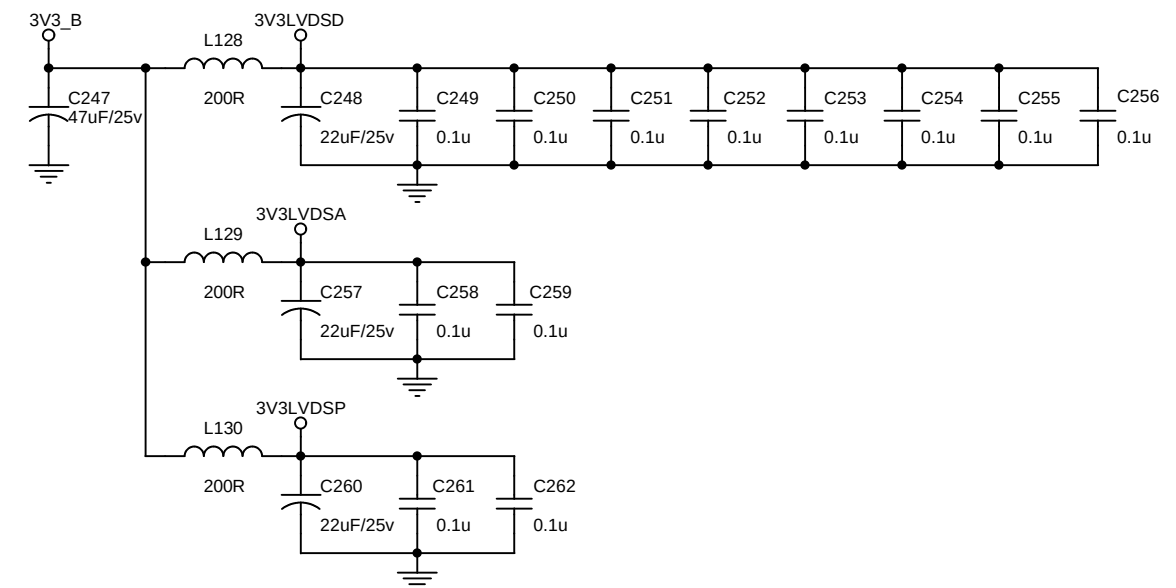
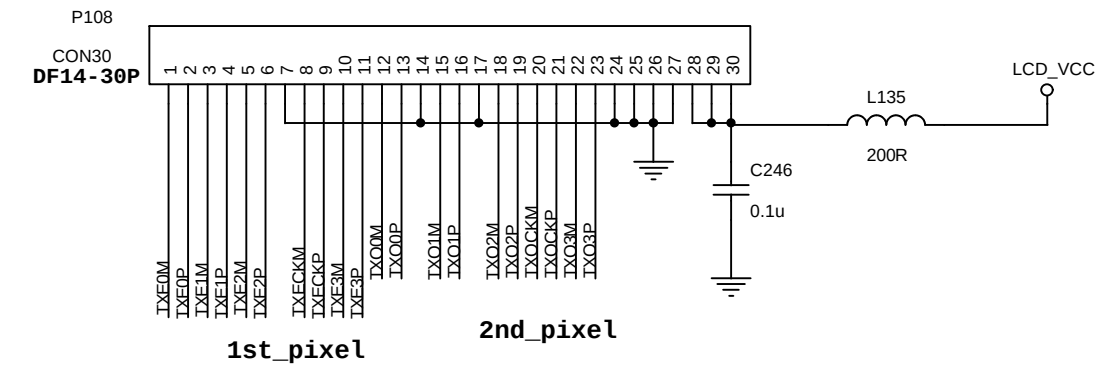
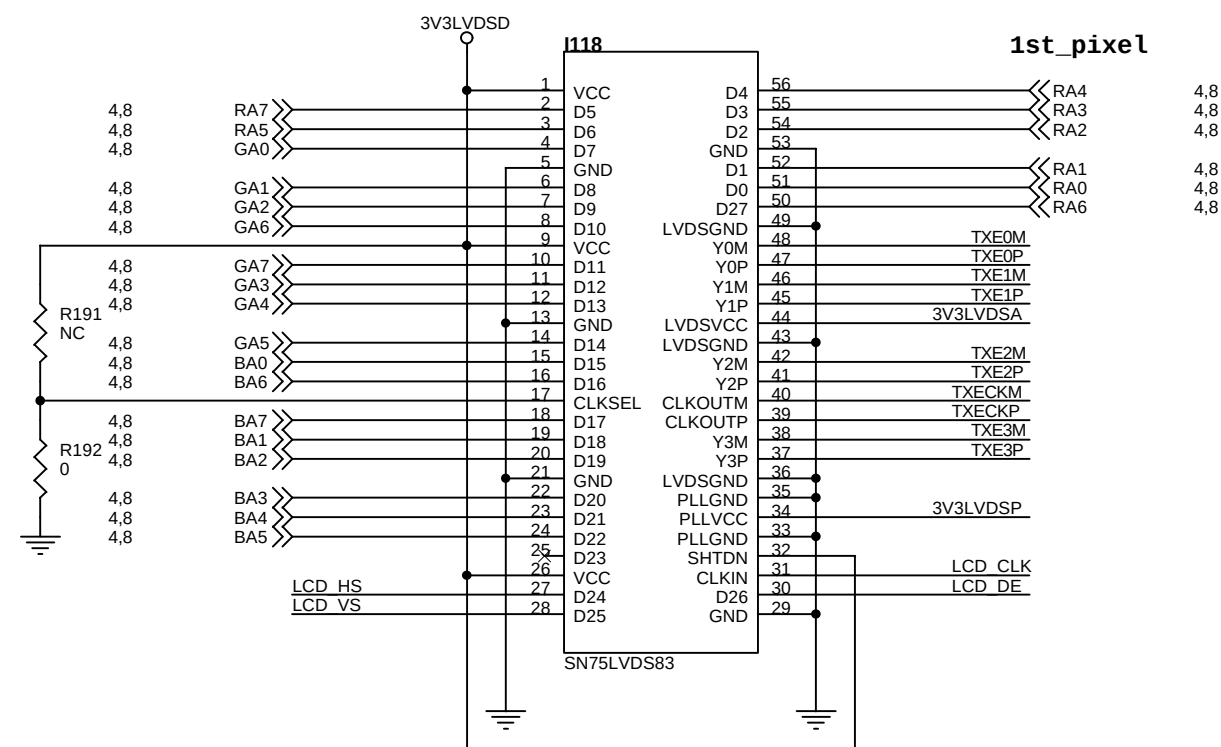
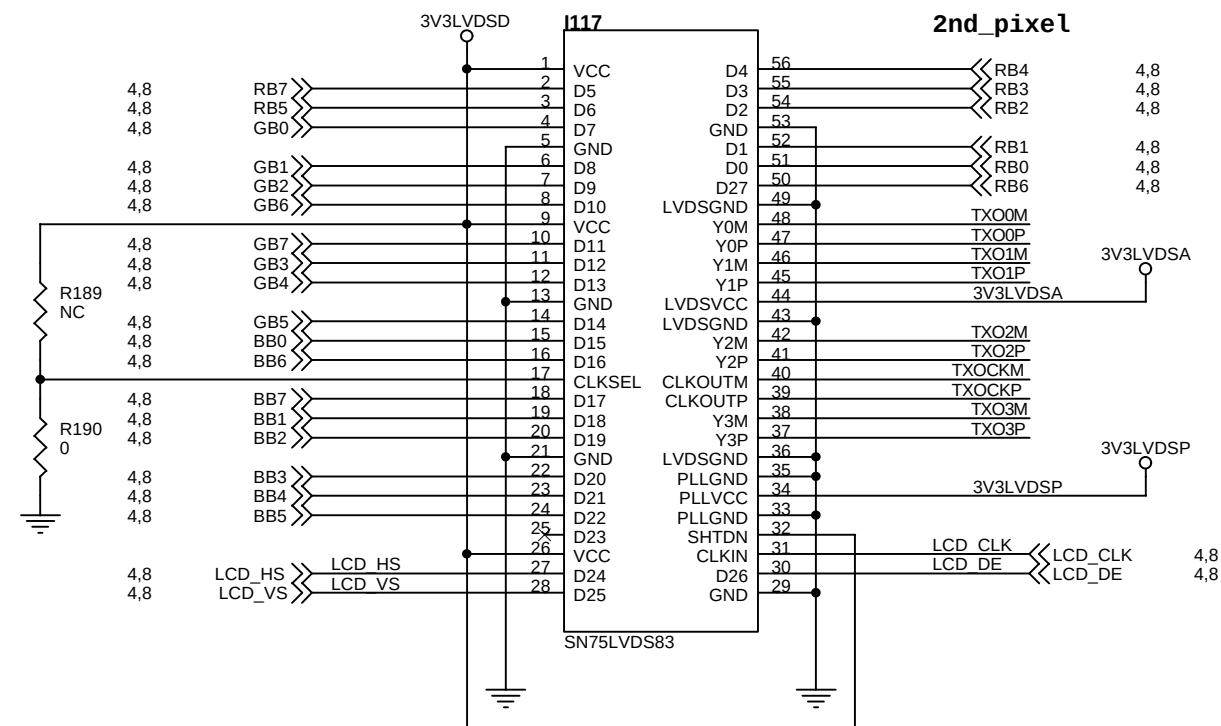
6.4. MCU-SM0230



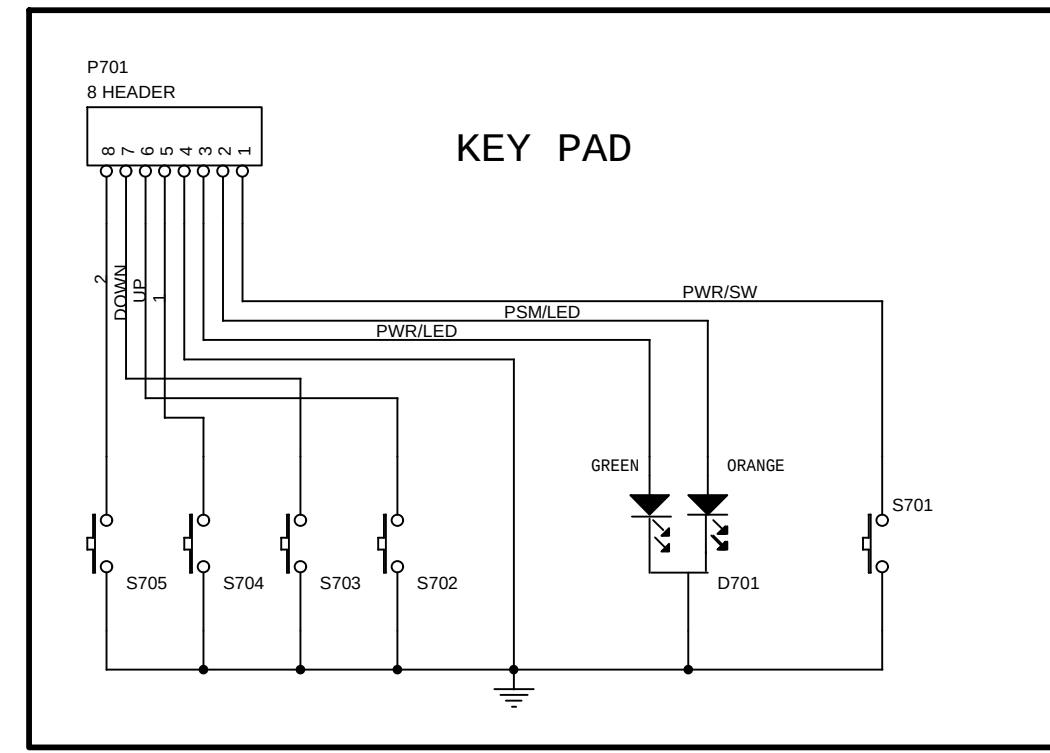
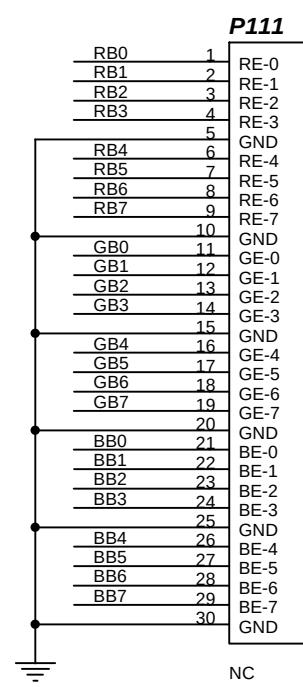
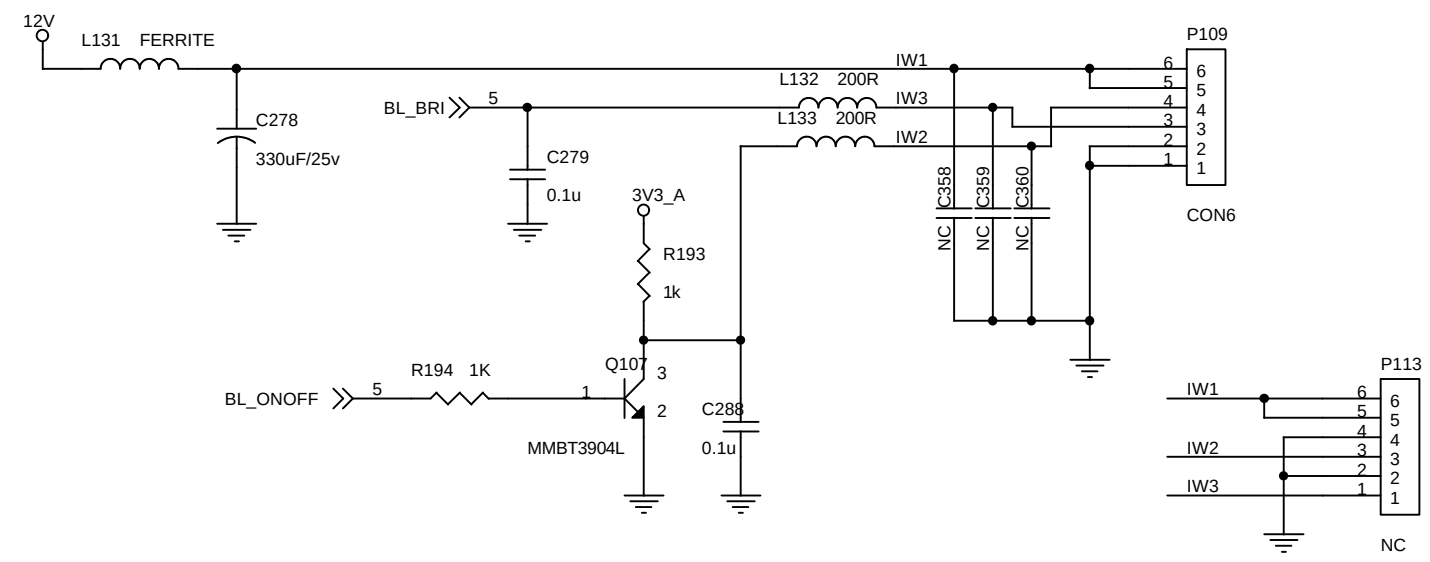
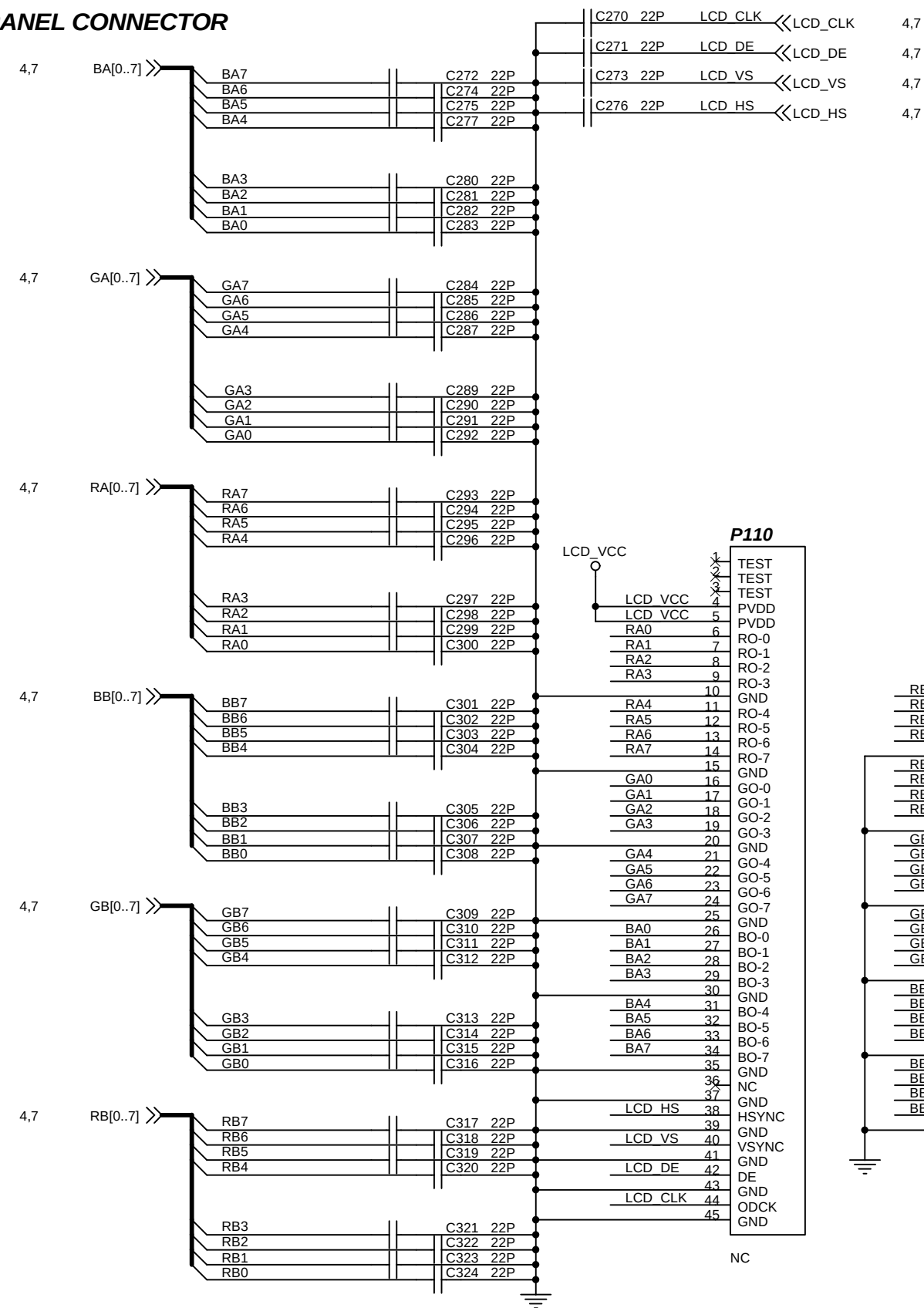
6.5. PLL



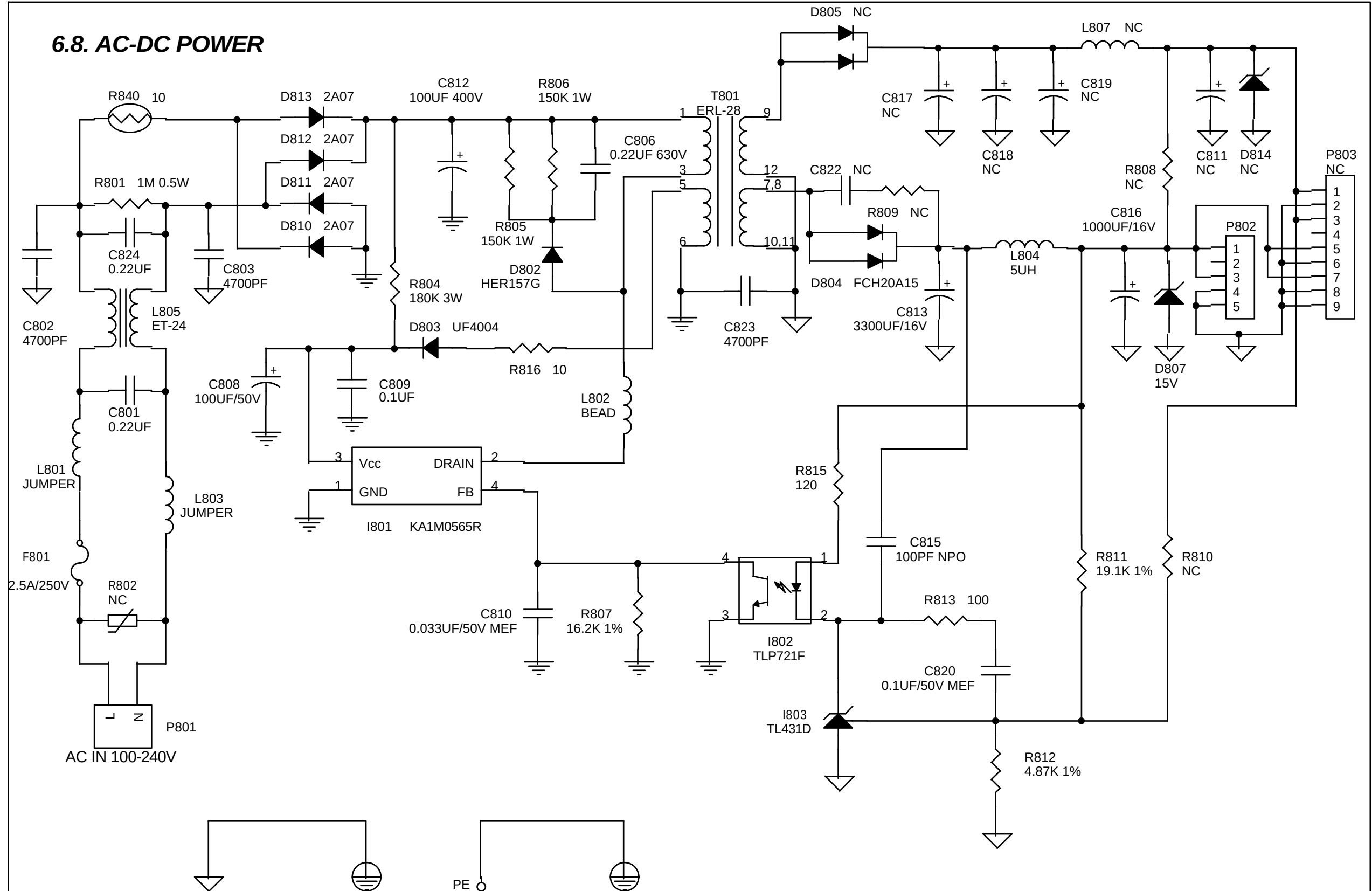
6.6. LVDS



6.7. PANEL CONNECTOR



6.8. AC-DC POWER



7. THEORY OF OPERATION

7. WORKING THEOREM

A. DC-DC CONVERTER

This brick converts the 12V input voltage to 5V for panel use and 3.3V for controller use. It consists of a PWM IC (LM2596), flywheel Diode (B340), buck choke (L102), and capacitor C110.

I101 (LM2596) is a PWM generator working at 150Khz.

Self protection features include a two stage frequency reducing current limit for the output switch and an over temperature shutdown for complete protection under fault condition.

B. A/D converter

The ADC is to convert RGB analog signal to digital signal that scaling chip can acknowledge.

The AD9883A is a complete 8-bit 140Mps monolithic analog interface optimized for capturing RGB graphic signal, a +3.3V power supply is necessary. Its 140Mps encode rate capability and full-power analog Bandwidth 300Mhz supports display resolutions of up to 1280x1024 at 75Hz.

A clamp signal is generated internally or may be provided through the CLAMP input pin. This device is fully programmable via a two-wire serial port.

The HSYNC input receives a logic signal and provides the frequency reference for pixel clock generation.

The clock generator COAST input may be used to stop synchronizing with HSYNC and continue producing a clock at its present frequency and phase.

The CLAMP logic input may be used to define the time during which the input signal is clamped to GND, establishing a black reference.

When the Power Down control input is bringing to low, AD9883A is put into a very low power dissipation mode, all the output buffers are placed in a high-impedance state.

C. Scaling controller

The scaling IC is to convert the input signal ranging from VGA to SXGA into SXGA resolution that panel can acknowledge.

SD1210_2 is an only 3.3v tolerance on all I/O pins and a highly integrated system on a chip. Including an embedded DRAM frame- buffer, a x86 microprocessor and on-screen display memory.

The on-chip 16-bit microprocessor is an optimized x86 compatible processor core with on-chip peripherals (timers, interrupt controller, UART, I/O ports, etc.). Special Infrared (IR) pulse decoders are also included.

The PW164 supports acquisition on one of two input ports, Graphics and Video. The two input ports share a common sync decoder, and automatic image optimization circuitry.

The Graphic Port can support very high input bandwidth up to 158M Pixels/sec. The Video Port is generally used to support video inputs, and can support input data rates up to 95M Pixels/sec.

The panel interface consists of 48-bit panel data bus, H-sync, V-sync, DE, and GCLK signals.

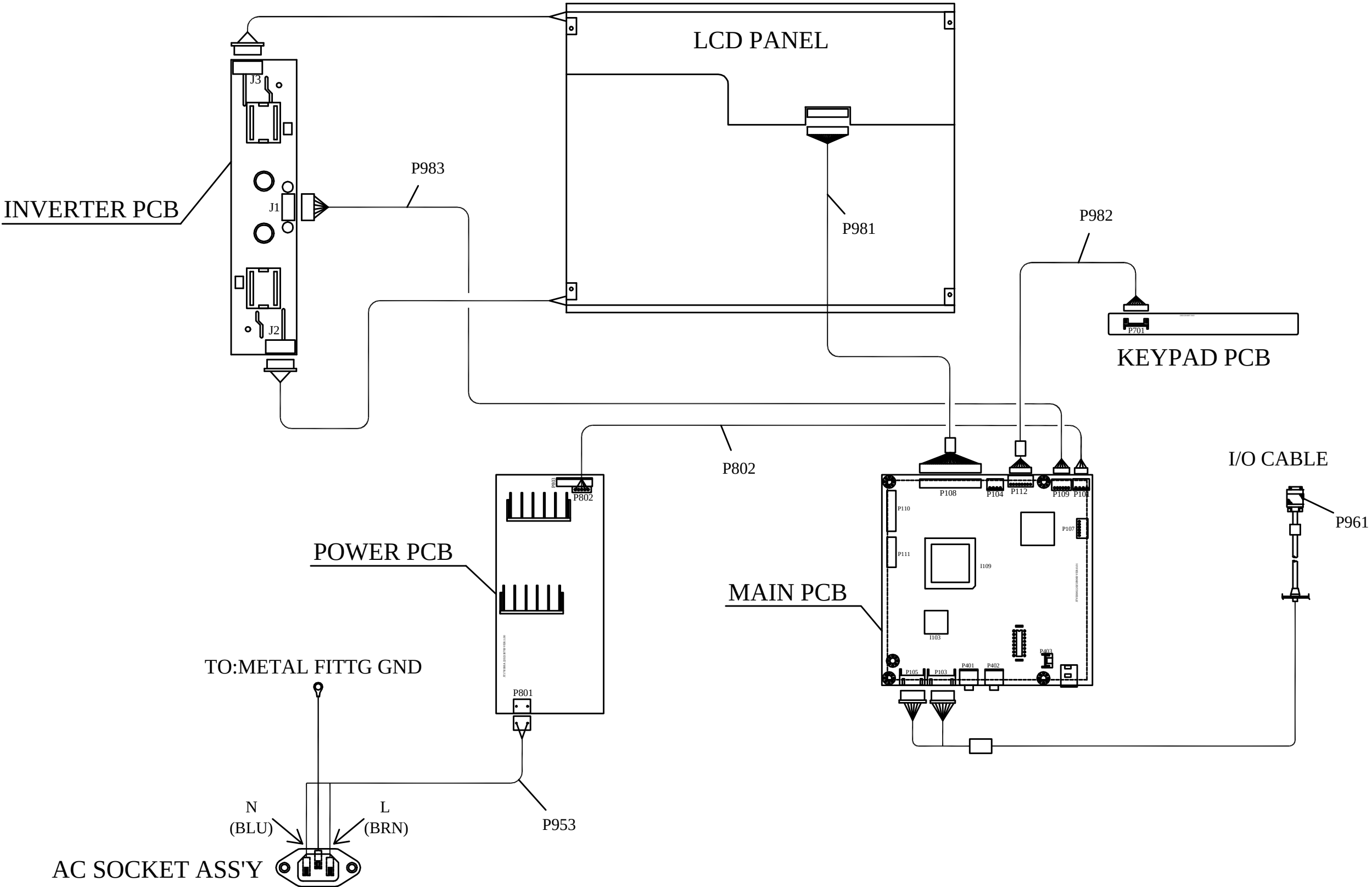
The AUXPWON signal is to control the supply to panel, LCDPWON signal is to enable chip SiI150 for TMDS signal encoding.

The panel interface also controls the back light inverter, signal BKLPWON is to enable/disable inverter and chip M62334 is for inverter output current control through IIC interface.

The SD1210 is enhanced version of the SD1000 chip. It is an IC designed for dual-interface SXGA TFT LCD monitors. A dual-interface LCD monitor takes analog or digital RGB signals from a graphic card of a personal computer, the exact same input interface as a conventional CRT monitor. This feature makes a dual-interface LCD monitor a true replacement for a conventional CRT monitor.

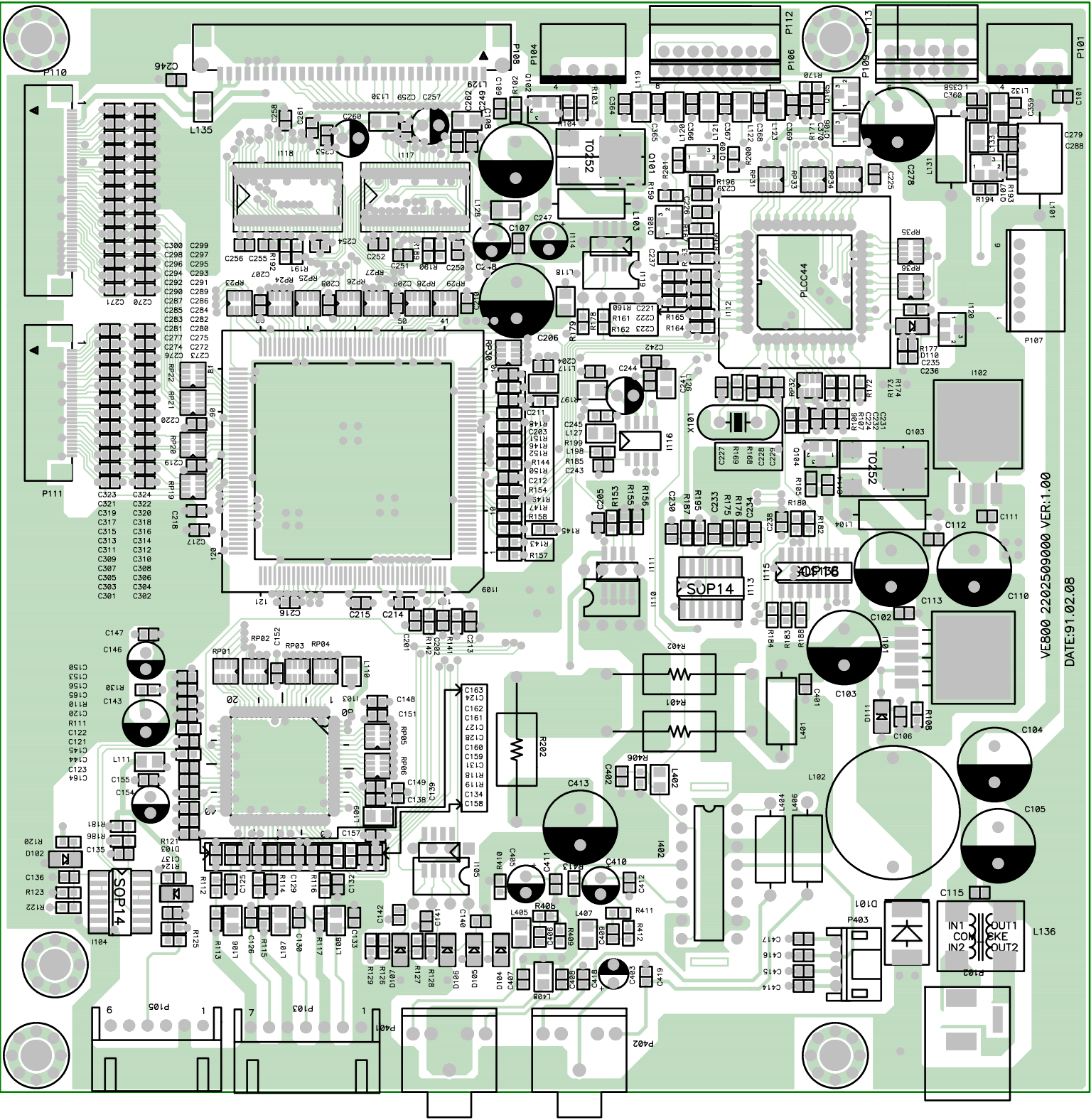
The analog input RGB signals are first sampled by six channels of 8-bit A/D converters, and the 48-bit RGB data are then fed into the SD1210. For digital interface, the input data are first

8. WIRING DIAGRAM

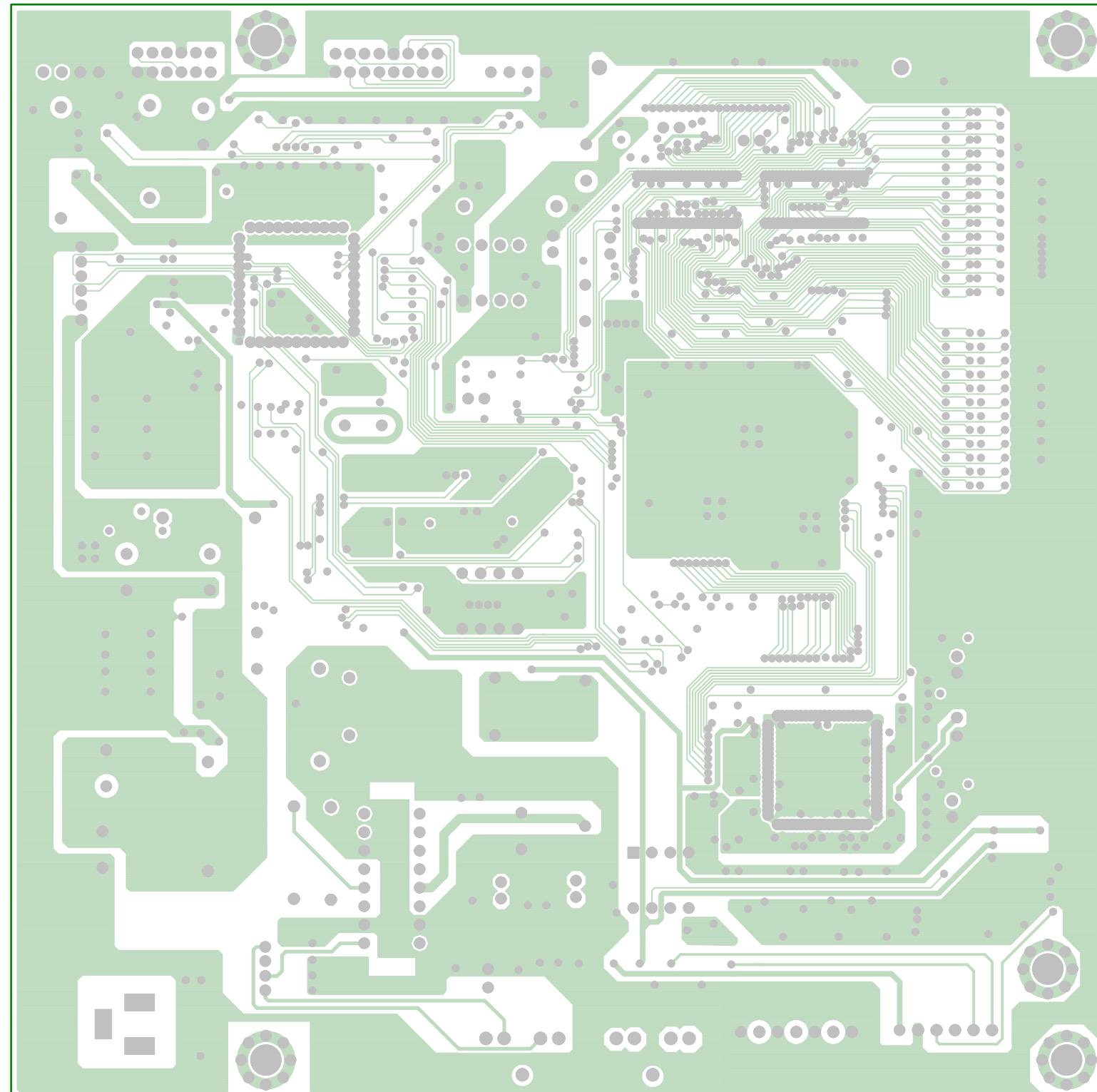


9. PCB LAYOUT

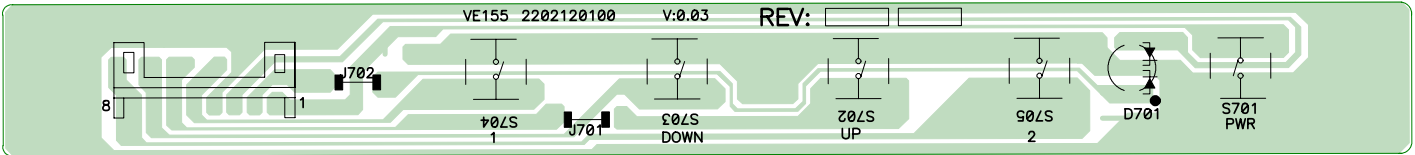
9.1. MAIN PCB TOP VIEW



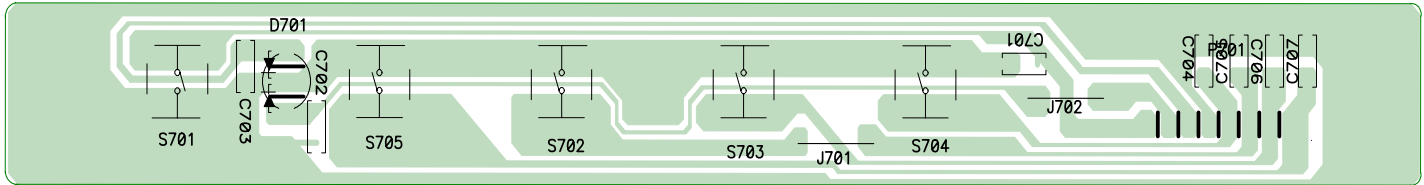
9.2. MAIN PCB BOTTOM VIEW



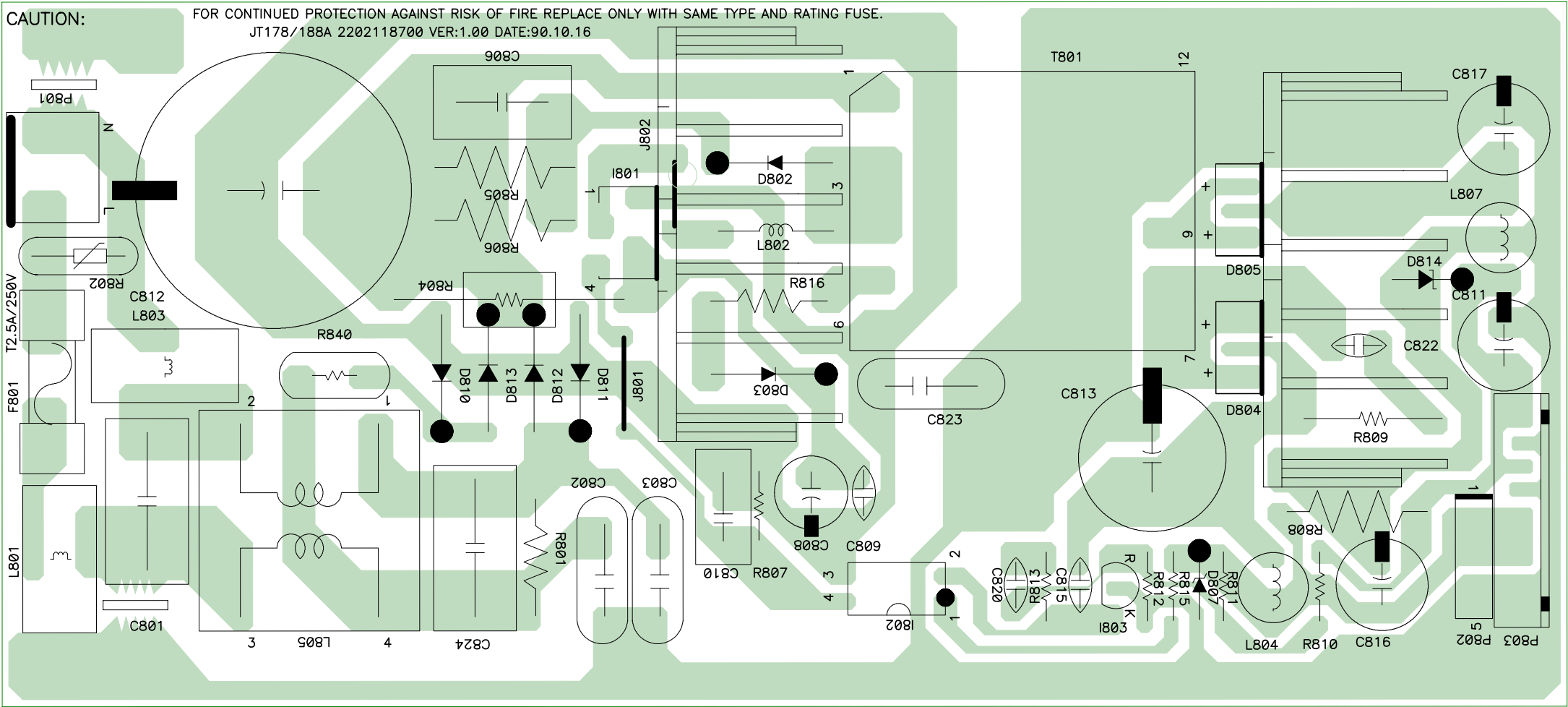
9.3. CON PCB TOP VIEW



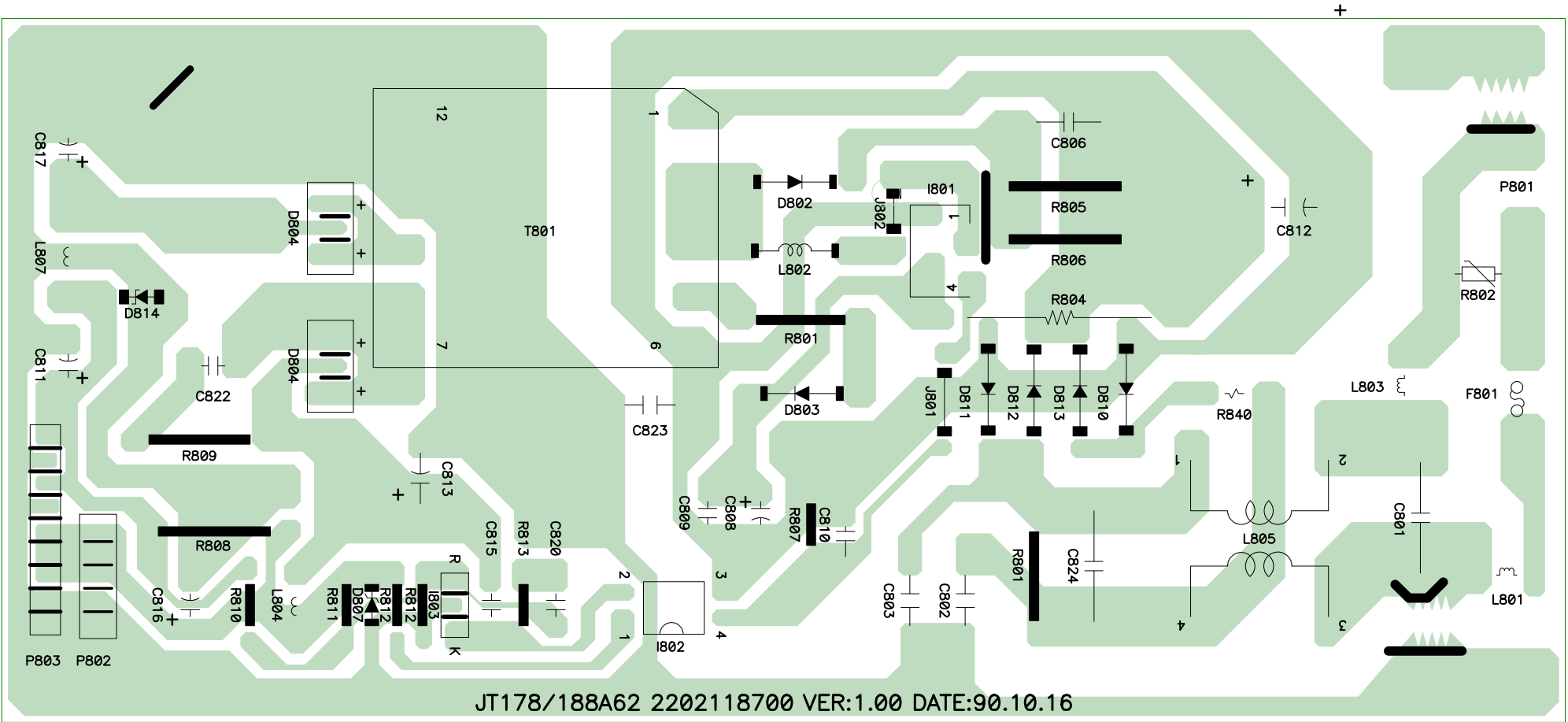
9.4. CON PCB BOTTOM VIEW



9.5. POWER PCB TOP VIEW



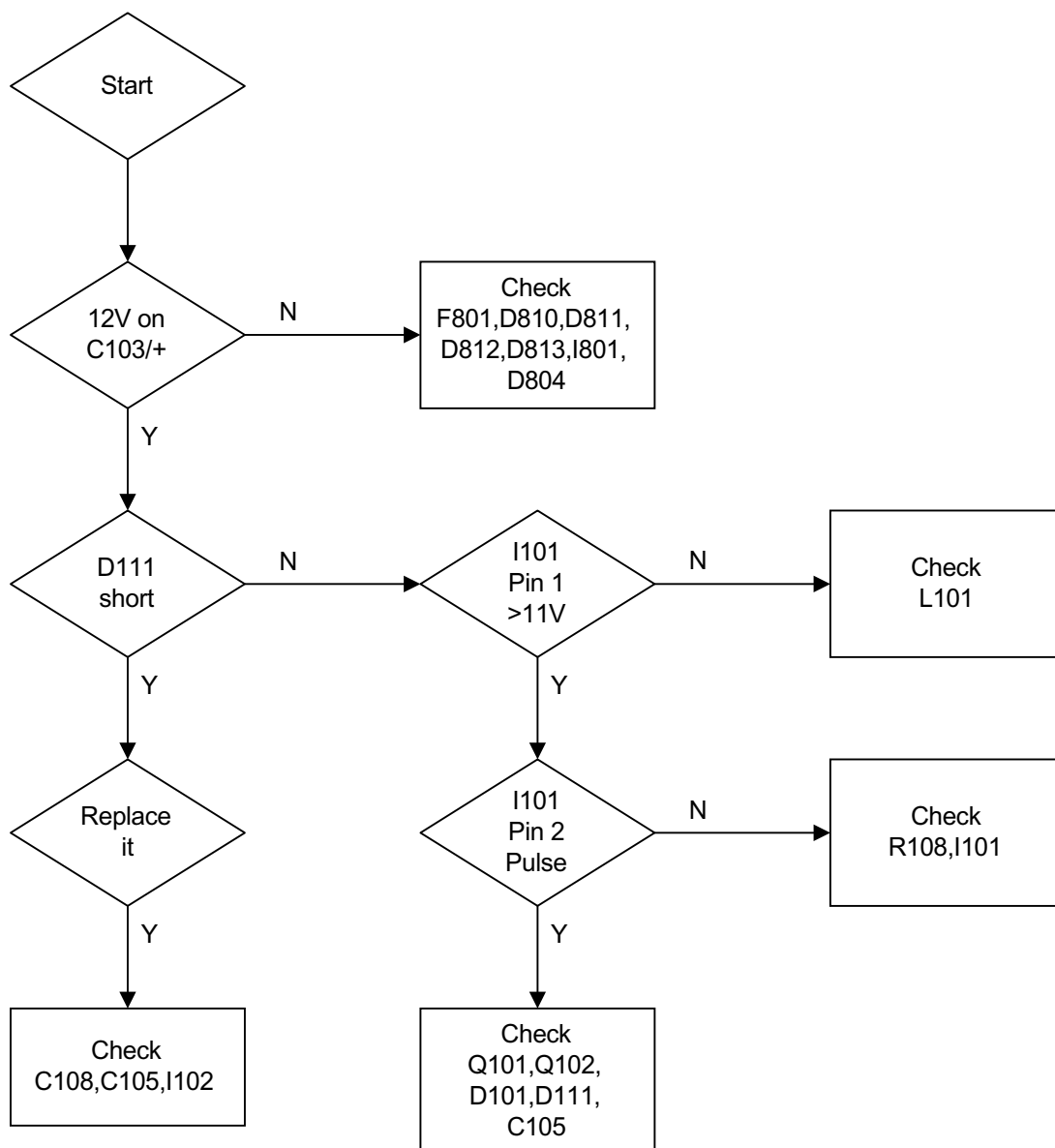
9.6. POWER PCB BOTTOM VIEW



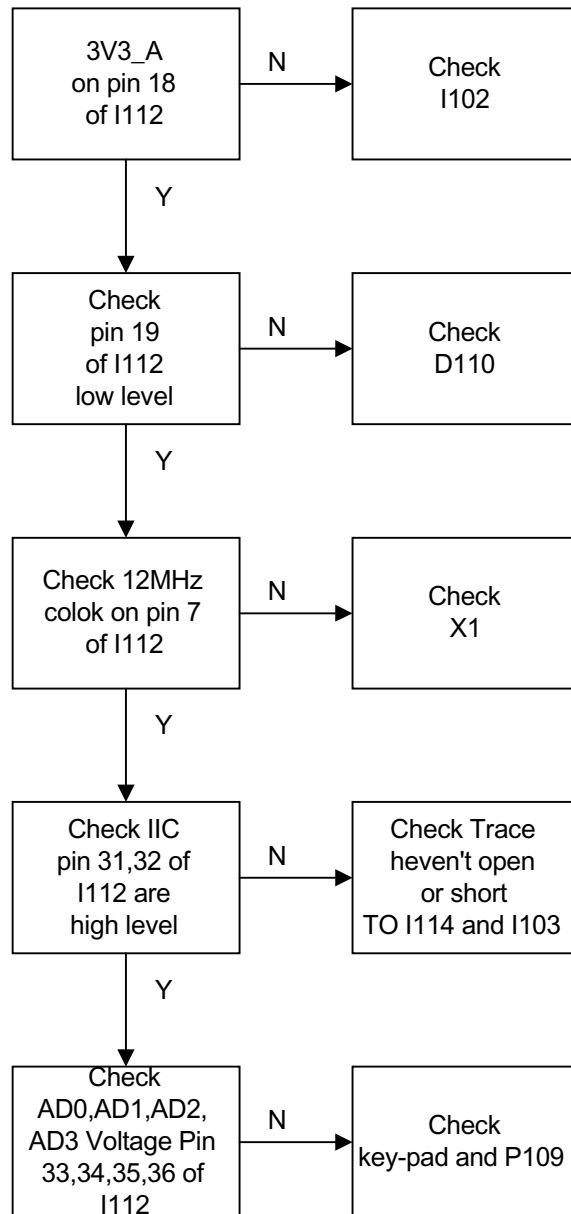
10. TROUBLE SHOOTING FLOW CHART

10. TROUBLE SHOOTING FLOW CHART

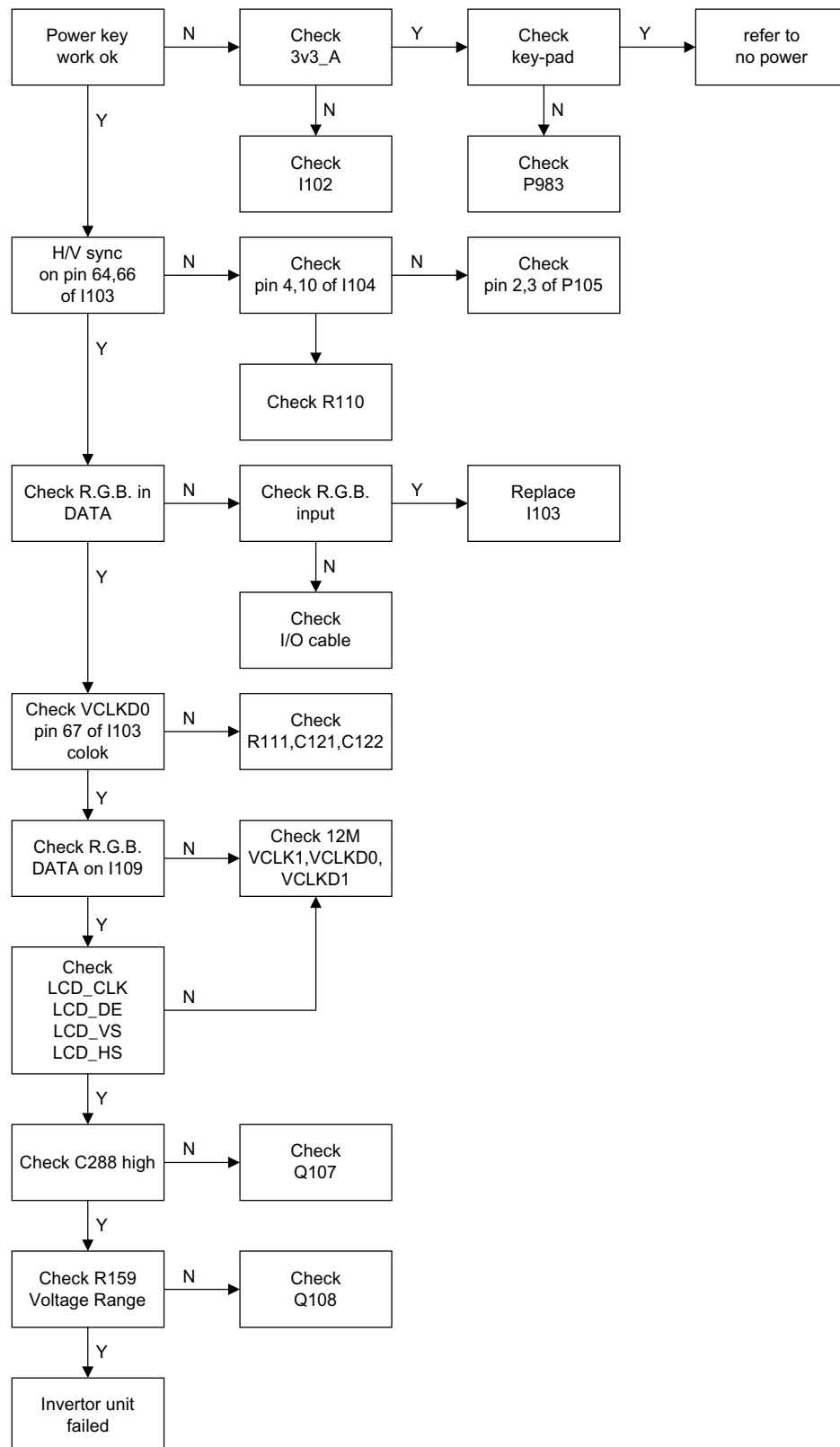
10.1. NO POWER



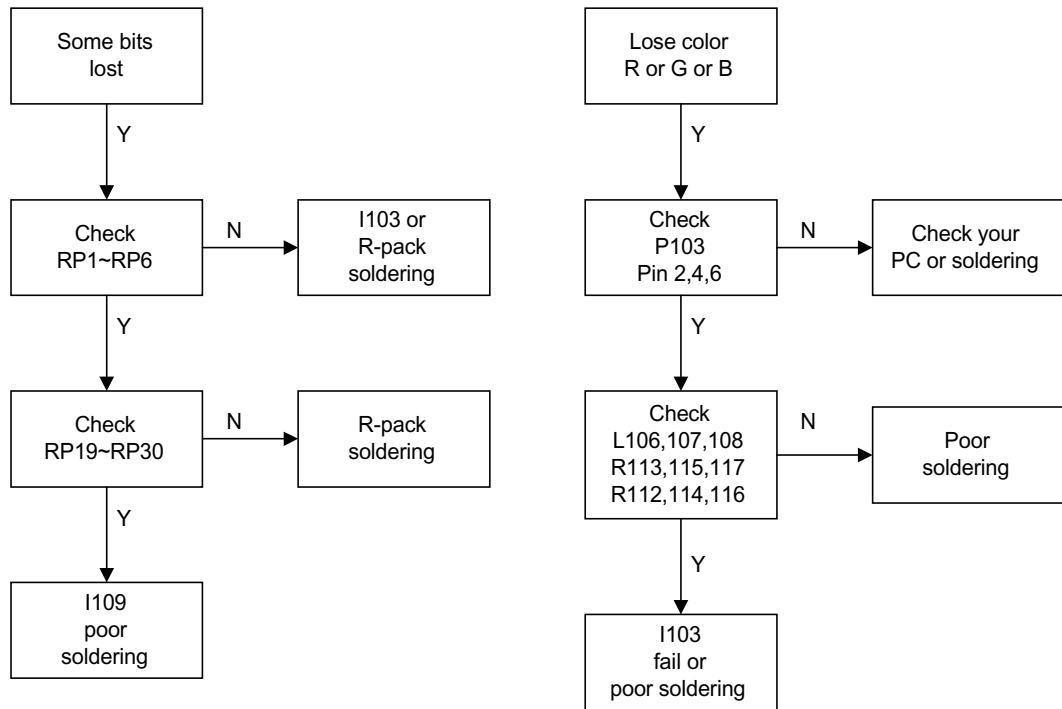
10.2. MCU NO FUNCTION



10.3. NO DISPLAY



10.4. LOSE COLOR



11. ADJUSTMENT

11. ADJUSTMENT

11.1. ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.
3. ESD protection is needed before adjustment.

11.2. MAIN ADJUSTMENTS

NO.	FUNCTION	DESIGNATION
1.	WHITE BALANCE	FUNCTION KEY
2.	GEOMETRY	FUNCTION KEY

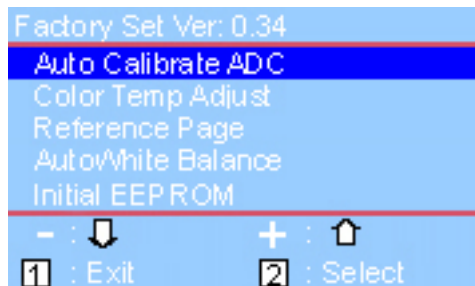
11.3. ALIGNMENT PROCEDURES

Adjustment Conditions and Precautions:

- (A). Power supply voltage:
AC 110/120V $\pm$ 10% 60 Hz $\pm$ 5%, AC 220/240V $\pm$ 10% 50 Hz $\pm$ 5%.
- (B). Warm up time:
The display must be power ON for at least 30 minutes at full white pattern before starting alignments.
This is especially critical in color temperature and white balance adjustments.
- (C). Signals: reference the front detail specifications and timing table.
Video : reference the front detail specifications.

1. Adjustment of White Balance:

- A. TIMING: 1280x1024 80KHz/75Hz.
- B. PATTERN: Full white grays.
- C. LCD MONITOR set to 1280x1024 80K/75Hz BURN IN and warm up over 30 minutes.
- D. CA110 color analyzer at the center of screen and along a perpendicular to the screen at 20cm from the display.
- E. Power turn off, Press “▼” and “▲” and turn on power at the same time after power LED is on, release “▼” and “▲” key, Then press “2” key go to factory mode.
(Fig.1)



(Fig.1)

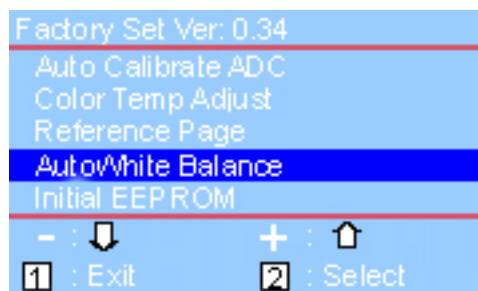
F. Adjust Color Temperature:

(1) Auto calibrate ADC(16 Grays):

While cursor points to auto calibrate ADC, Press **[2]** key then monitor will auto calibrate ADC value, Finally change to full white pattern.

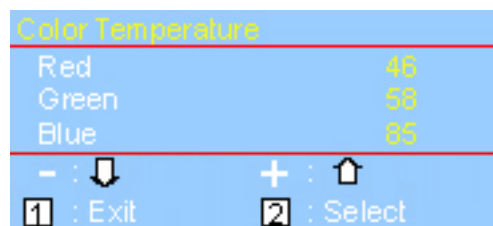
(2) Press “▼” key move cursor to “White Balance”, Press **[2]** key do white balance adjustment.

(3) Press “▼” key move cursor to “Color Temperature Adjust”, Press **[2]** key, Then OSD will display Fig.2



(Fig.2)

(4) 9300K verify: move cursor to 9300K Press **[2]** key, The OSD will display Fig.3



(Fig.3)

Press “▼”, “▲” key adjust R.G.B value

$x=0.283 \pm 0.03$

$y=0.298 \pm 0.03$

Press **[1]** key return to Fig.2

(5) 6500K verify: Repeat (4) press “▼”, “▲” move cursor to 6500K press **[2]** key

$x=0.301 \pm 0.03$

$y=0.312 \pm 0.03$

$Y \geq 200 \text{ cd/m}^2$

(6) 5400K verify: Repeat (4) press “▼”, “▲” move cursor to 5400K press **[2]** key

$x=0.332 \pm 0.03$

$y=0.348 \pm 0.03$

(7) Press **[1]** key go back to Fig.2, Then press **[1]** key return to Fig.1, Power key OFF/ON quit factory mode.

G. Color Temperature & Luminance Verify:

BRIGHTNESS MAX, CONTRAST MAX

9300K: $x=0.283 \pm 0.03$ $y=0.298 \pm 0.03$

6500K: $x=0.310 \pm 0.03$ $y=0.310 \pm 0.03$ $Y \geq 200 \text{ cd/m}^2$

5400K: $x=0.332 \pm 0.03$ $y=0.348 \pm 0.03$

2. Geometry:

- (a). Set cross-hatch pattern and preset timing as timing table listed.
- (b). Change to each mode in turn and wait for the monitor finish auto-alignment and save process before change to next mode.
- (c). Until all of modes are agjusted, exit OSD menu and press PWR OFF to exit factory mode.

12. ELECTRICAL PARTS LIST

12. ELECTRICAL PARTS LIST

When you place a parts order, be sure to indicate the following data on the order:

- Location No.
- Parts No.
- Description

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
MAIN P.C.BOARD					
C101		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C102		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C103		2330100601	CAP,MINI ELE	CE 470U/25V 10*12.5 P=5.0 105C	
C104		2330100601	CAP,MINI ELE	CE 470U/25V 10*12.5 P=5.0 105C	
C105		2330100601	CAP,MINI ELE	CE 470U/25V 10*12.5 P=5.0 105C	
C106		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C107		2341122196	CAP,CHIP 125°C	1608COG 220.000PF 50V	J
C108		2333433701	CAP,MINI ELE 105°C	CE04W 330.000UF 25V	M
C109		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C110		2333433701	CAP,MINI ELE 105°C	CE04W 330.000UF 25V	M
C111		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C112		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C113		2333433701	CAP,MINI ELE 105°C	CE04W 330.000UF 25V	M
C114		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C115		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C120		2341133096	CAP,CHIP 125°C	1608COG 33.000PF 50V	J
C121		2346139296	CAP,CHIP 125°C	1608X7R 3900.000PF 50V	K
C122		2346439396	CAP,CHIP 85°C	1608Y5V 0.039UF 50V	Z
C123		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C124		2346447396	CAP,CHIP 85°C	1608Y5V 0.047UF 50V	Z
C126		2341122096	CAP,CHIP 125°C	1608COG 22.000PF 50V	J
C127		2346447396	CAP,CHIP 85°C	1608Y5V 0.047UF 50V	Z
C130		2341122096	CAP,CHIP 125°C	1608COG 22.000PF 50V	J
C131		2346447396	CAP,CHIP 85°C	1608Y5V 0.047UF 50V	Z
C133		2341122096	CAP,CHIP 125°C	1608COG 22.000PF 50V	J
C134		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C135		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C136		2341147096	CAP,CHIP 125°C	1608COG 47.000PF 50V	J
C137		2341110196	CAP,CHIP 125°C	1608COG 100.000PF 50V	J
C140		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C141		2341133096	CAP,CHIP 125°C	1608COG 33.000PF 50V	J
C142		2341133096	CAP,CHIP 125°C	1608COG 33.000PF 50V	J
C143		2336310701	CAP,MINI ELE105°C	CE04W 100.000UF 16V	M
C144		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C145		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C146		2333422601	CAP,MINI ELE 105°C	CE04W 22.000UF 25V	M
C147		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C148		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C149		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C150		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C151		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C152		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C153		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C154		2333422601	CAP,MINI ELE 105°C	CE04W 22.000UF 25V	M
C155		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C156		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C157		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C158		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C159		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C160		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C161		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C162		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C163		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z
C164		2346410496	CAP,CHIP 85°C	1608Y5V 0.100UF 50V	Z

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION			REMARK
C165		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C201		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C202		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C204		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C205		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C206		2333433701	CAP,MINI ELE 105°C	CE04W	330.000UF	25V	M
C207		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C208		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C209		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C210		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C211		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C212		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C213		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C214		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C215		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C216		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C217		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C218		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C219		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C220		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C222		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C223		2341122196	CAP,CHIP 125°C	1608COG	220.000PF	50V	J
C224		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C225		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C226		2346610596	CAP,CHIP 85°C	0603Y5V	1.000UF	10V	Z
C227		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C229		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C230		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C231		2341122196	CAP,CHIP 125°C	1608COG	220.000PF	50V	J
C232		2341122196	CAP,CHIP 125°C	1608COG	220.000PF	50V	J
C235		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C236		2346610596	CAP,CHIP 85°C	0603Y5V	1.000UF	10V	Z
C237		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C238		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C239		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C243		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C244		2333410601	CAP,MINI ELE 105°C	CE04W	10.000UF	25V	M
C245		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C246		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C247		2336347601	CAP,MINI ELE105°C	CE04W	47.000UF	16V	M
C248		2333422601	CAP,MINI ELE 105°C	CE04W	22.000UF	25V	M
C249		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C250		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C251		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C252		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C253		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C254		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C255		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C256		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C257		2333422601	CAP,MINI ELE 105°C	CE04W	22.000UF	25V	M
C258		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C259		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C260		2333422601	CAP,MINI ELE 105°C	CE04W	22.000UF	25V	M
C261		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C262		2346410496	CAP,CHIP 85°C	1608Y5V	0.100UF	50V	Z
C270		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C271		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C272		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C273		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C274		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C275		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C276		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C277		2341122096	CAP,CHIP 125°C	1608COG	22.000PF	50V	J
C278		2333433701	CAP,MINI ELE 105°C	CE04W	330.000UF	25V	M

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION			REMARK
C279		2346410496	CAP,CHIP 85'C	1608Y5V	0.100UF	50V	Z
C280		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C281		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C282		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C283		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C284		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C285		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C286		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C287		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C288		2346410496	CAP,CHIP 85'C	1608Y5V	0.100UF	50V	Z
C289		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C290		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C291		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C292		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C293		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C294		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C295		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C296		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C297		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C298		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C299		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C300		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C301		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C302		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C303		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C304		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C305		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C306		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C307		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C308		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C309		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C310		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C311		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C312		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C313		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C314		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C315		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C316		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C317		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C318		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C319		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C320		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C321		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C322		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C323		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C324		2341122096	CAP,CHIP 125'C	1608COG	22.000PF	50V	J
C369		2341110196	CAP,CHIP 125'C	1608COG	100.000PF	50V	J
C370		2341110196	CAP,CHIP 125'C	1608COG	100.000PF	50V	J
D101	RA	2364301096	DIODE,Schottky(SMD)	B340			DIODES
D101	RB	2364300596	DIODE,Schottky(SMD)	MBRS340			FAIRCHILD SMC
D102		2364503996	DIODE,ZENER SMD	BZV55-C5V6			PHILIPS
D103		2364503996	DIODE,ZENER SMD	BZV55-C5V6			PHILIPS
D104	RA	2364600196	DIODE,SWITCH SMD	LL4148 3.5X1.5 ϕ			TEMIC GS08
D104	RB	2364600396	DIODE,SWITCH SMD	LL4148			DIODES MINIMELF
D105	RA	2364600196	DIODE,SWITCH SMD	LL4148 3.5X1.5 ϕ			TEMIC GS08
D105	RB	2364600396	DIODE,SWITCH SMD	LL4148			DIODES MINIMELF
D106		2364503996	DIODE,ZENER SMD	BZV55-C5V6			PHILIPS
D107		2364503996	DIODE,ZENER SMD	BZV55-C5V6			PHILIPS
D110	RA	2364600196	DIODE,SWITCH SMD	LL4148 3.5X1.5 ϕ			TEMIC GS08
D110	RB	2364600396	DIODE,SWITCH SMD	LL4148			DIODES MINIMELF
D111		2364503996	DIODE,ZENER SMD	BZV55-C5V6			PHILIPS
I101		2365919596	IC,DIGITAL SMD	LM2596			NS TO-263
I102	RA	2365804896	IC,LINEAR(SMD)	AMC7585-3.3ST			ADD TO263
I102	RB	2365807496	IC,LINEAR(SMD)	AIC1084-33CM			AIC TO-263

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
I103		2365921796	IC,DIGITAL SMD	AD9883AKST-140	ANALOG DEVICES
I104	RA	2365921996	IC,DIGITAL SMD	SN74LVC14AD	TI
I104	RB	2365922496	IC,DIGITAL SMD	74LVC14A	PHILIPS SO14
I105	RA	2365412600	IC,DIGITAL	24LC21A/P	MICROCHIP
I105	RB	2365407610	IC,DIGITAL	AT24C21-10PC	ATMEL
I109		2365921396	IC,DIGITAL SMD	SD1210-2	SMARTASIC
I110	RA	2365411200	IC,DIGITAL	24LC08B/P	MICROCHIP
I110	RB	2365411100	IC,DIGITAL	AT24C08	ATMEL
I112		2365921496	IC,DIGITAL SMD	SM0230	SMARTASIC PLCC44
I113	RA	2365921896	IC,DIGITAL SMD	SN74LVC125	TI
I113	RB	2365922596	IC,DIGITAL SMD	74LVC125AD	PHILIPS SO14
I116	RA	2365922096	IC,DIGITAL SMD	AV9173-01CS01	ICS SOIC8P
I116	RB	2365922896	IC,DIGITAL SMD	MK9173-01	ICS SOIC8P
I117	RA	2365917996	IC,DIGITAL SMD	SN75LVDS83DGG	TI
I117	RB	2365920096	IC,DIGITAL SMD	THC63LVDM83A	THINE
I117	RC	2365924196	IC,DIGITAL SMD	CS5824 LVDS 8bit 56PIN	CENTURY
I117	RD	2365924396	IC,DIGITAL SMD	NT7181	NOVATEK 56L TSSOP
I118	RA	2365917996	IC,DIGITAL SMD	SN75LVDS83DGG	TI
I118	RB	2365920096	IC,DIGITAL SMD	THC63LVDM83A	THINE
I118	RC	2365924196	IC,DIGITAL SMD	CS5824 LVDS 8bit 56PIN	CENTURY
I118	RD	2365924396	IC,DIGITAL SMD	NT7181	NOVATEK 56L TSSOP
I119		2365316200	IC,LINEAR	24LC16B	MICROCHI
L101		2379101600	FERRITE CORE	0.6 φ X2.5T 680 OHM MIN	
L102		2371111600	COIL,CHOKE	M50BMG-070130YFB+UL(30uH)	MAGIC
L103		2379101495	FERRITE CORE	3.5X9X0.8	
L106		2379832096	BEAD,HI-IMPEDANCE	2012MZ 32.00OHM	I<300mA
L107		2379832096	BEAD,HI-IMPEDANCE	2012MZ 32.00OHM	I<300mA
L108		2379832096	BEAD,HI-IMPEDANCE	2012MZ 32.00OHM	I<300mA
L109		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00	J T1608
L110		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L111		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L117		2379870096	BEAD,HI-IMPEDANCE	2012MZ 70.00OHM	I< HF
L118		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L119		2379860166	BEAD,HI-IMPEDANCE	2012MZ 600.00OHM	I< LF
L120		2379860166	BEAD,HI-IMPEDANCE	2012MZ 600.00OHM	I< LF
L121		2379860166	BEAD,HI-IMPEDANCE	2012MZ 600.00OHM	I< LF
L122		2379860166	BEAD,HI-IMPEDANCE	2012MZ 600.00OHM	I< LF
L123		2379860166	BEAD,HI-IMPEDANCE	2012MZ 600.00OHM	I< LF
L126		2379832096	BEAD,HI-IMPEDANCE	2012MZ 32.00OHM	I<300mA
L127		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L128		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L129		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L130		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L131		2379101495	FERRITE CORE	3.5X9X0.8	
L132		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L133		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
L135		2379820196	BEAD,HI-IMPEDANCE	2012MZ 200.00OHM	I<200MA
P101	RA	2404301003	CONNECTOR	S4B-XH-A 4PIN	
P101	RB	2404390303	CONNECTOR	JWT A2501WR2-4P 4PIN P=2.5mm	
P103	RA	2404301006	CONNECTOR	S7B-XH-A 7PIN	
P103	RB	2404390306	CONNECTOR	JWT A2501WR2-7P 7PIN P=2.5mm	
P105	RA	2404301005	CONNECTOR	S6B-XH-A 6PIN	
P105	RB	2404390305	CONNECTOR	JWT A2501WR2-6P 6PIN P=2.5mm	
P108		2407610130	SOCKET,SMD	DF14-30P-1.25H	HIROSE
P109		2404301105	CONNECTOR	S6B-PH-K 6PIN	JST
P112		2404301107	CONNECTOR	S8B-PH-K 8PIN	JST
P114		2407390144	SOCKET,IC	1.27mmX44PIN SMD PLCC	
Q101		2360606296	FET,N-CH(SMD)	HUF76107D3S	INTERSIL
Q102	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q102	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q103		2360606296	FET,N-CH(SMD)	HUF76107D3S	INTERSIL
Q104	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q104	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q105	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
Q105	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q106	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q106	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q107	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q107	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q108	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q108	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
Q109	RA	2360300596	XISTOR,NPN R SMD	MMBT3904-7	VISHAY SOT-23
Q109	RB	2360301296	XISTOR,NPN R SMD	MMBT3904	DIODES SOT-23
RP1		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP19		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP2		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP20		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP21		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP22		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP23		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP24		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP25		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP26		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP27		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP28		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP29		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP3		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP30		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP31		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP32		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP33		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP34		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP35		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP36		2259247208	RES,CHIP NETWORKS	8P*04R 1/16W 4.70K	J P=0.8
RP4		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP5		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
RP6		2259233008	RES,CHIP NETWORKS	08P*04R 1/16W 33.00	J P=0.8
R102		2253220396	RES,CHIP 1/10W	RC 1/10W 20.00K	J T1608
R103		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R104		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R105		2253220396	RES,CHIP 1/10W	RC 1/10W 20.00K	J T1608
R106		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R107		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R108		2253210096	RES,CHIP 1/10W	RC 1/10W 10.00	J T1608
R110		2253222096	RES,CHIP 1/10W	RC 1/10W 22.00	J T1608
R111		2253233296	RES,CHIP 1/10W	RC 1/10W 3.30K	J T1608
R112		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R113		2253275096	RES,CHIP 1/10W	RC 1/10W 75.00	J T1608
R114		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R115		2253275096	RES,CHIP 1/10W	RC 1/10W 75.00	J T1608
R116		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R117		2253275096	RES,CHIP 1/10W	RC 1/10W 75.00	J T1608
R118		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R119		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R120		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K	J T1608
R121		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K	J T1608
R122		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R123		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R124		2253220296	RES,CHIP 1/10W	RC 1/10W 2.00K	J T1608
R125		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R126		2253282196	RES,CHIP 1/10	RC 1/10W 820.00	J T1608
R127		2253282196	RES,CHIP 1/10	RC 1/10W 820.00	J T1608
R128		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00	J T1608
R129		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00	J T1608
R130		2253210096	RES,CHIP 1/10W	RC 1/10W 10.00	J T1608
R141		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R142		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608
R143		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00	J T1608

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
R144		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R145		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R146		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R147		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R148		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R149		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R150		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R151		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R152		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R153		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R154		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00 J	T1608
R155		2253247296	RES,CHIP 1/10W	RC 1/10W 4.70K J	T1608
R156		2253247296	RES,CHIP 1/10W	RC 1/10W 4.70K J	T1608
R157		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R158		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R159		2253210296	RES,CHIP 1/10W	RC 1/10W 1.00K J	T1608
R160		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R161		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R162		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00 J	T1608
R163		2253210296	RES,CHIP 1/10W	RC 1/10W 1.00K J	T1608
R164		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K J	T1608
R165		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K J	T1608
R166		2253251196	RES,CHIP 1/10W	RC 1/10W 510.00 J	T1608
R167		2253247296	RES,CHIP 1/10W	RC 1/10W 4.70K J	T1608
R168		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R169		2253210596	RES,CHIP 1/10W	RC 1/10W 1.00M J	T1608
R170		2253275096	RES,CHIP 1/10W	RC 1/10W 75.00 J	T1608
R171		2253275096	RES,CHIP 1/10W	RC 1/10W 75.00 J	T1608
R172		2253222196	RES,CHIP 1/10W	RC 1/10W 220.00 J	T1608
R173		2253222196	RES,CHIP 1/10W	RC 1/10W 220.00 J	T1608
R174		2253247296	RES,CHIP 1/10W	RC 1/10W 4.70K J	T1608
R175		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00 J	T1608
R176		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00 J	T1608
R177		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K J	T1608
R178		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R179		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R180		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R181		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R184		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R185		2253210196	RES,CHIP 1/10W	RC 1/10W 100.00 J	T1608
R187		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R188		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R190		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R192		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R193		2253210296	RES,CHIP 1/10W	RC 1/10W 1.00K J	T1608
R194		2253210296	RES,CHIP 1/10W	RC 1/10W 1.00K J	T1608
R196		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K J	T1608
R197		2253233096	RES,CHIP 1/10W	RC 1/10W 33.00 J	T1608
R199		2253200096	RES,CHIP 1/10W	RC 1/10W 0.00 J	T1608
R200		2253247296	RES,CHIP 1/10W	RC 1/10W 4.70K J	T1608
R201		2253210396	RES,CHIP 1/10W	RC 1/10W 10.00K J	T1608
U001		2202509000	PCB MULTILAYER	VE800 MAIN FR4*4 150*150	
X1		2369103601	XTAL,OSC	XTAL 12MHZ CL30P H/S	

CON P.C.BOARD

D701	2363703800	LED	EL 209YGW	EVERLIGHT
P701	2404301107	CONNECTOR	S8B-PH-K 8PIN	JST
S701	2403702200	SWITCH,PU-TC	TSAA-2	HUAJIE
S702	2403702200	SWITCH,PU-TC	TSAA-2	HUAJIE
S703	2403702200	SWITCH,PU-TC	TSAA-2	HUAJIE
S704	2403702200	SWITCH,PU-TC	TSAA-2	HUAJIE
S705	2403702200	SWITCH,PU-TC	TSAA-2	HUAJIE
U701	2202120100	PC BOARD	VE150-2 KEYPAD 94V0 135*15	

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
POWER P.C.BOARD					
C801		2300922401	CAP,MTL MINI	0.220UF 275V	M
C802		2287247212	CAP,CER	CK45F 4700.000PF 250VAC	M
C803		2287247212	CAP,CER	CK45F 4700.000PF 250VAC	M
C806		2307522312	CAP,MTL	CF93T 0.022UF 630V	J
C808		2333610791	CAP,MINI ELE 105°C	CE04W 100.000UF 50V	M
C809		2281110491	CAP,CER	CK45B 0.100UF 50V	K
C810		2301533391	CAP,MTL	CF93M 0.033UF 100V	J
C812	RA	2350100114	CAP,ELE SPE	CE69W 100uF/400V 25*25 M TS	
C812	RB	2350100214	CAP,ELE SPE	CE69W 100uF/400V 25*25 M LELON	
C812	RC	2350100514	CAP,ELE SPE	CE69W 100uF/400V 25*25 M	HEC
C813		2330005112	CAP,MINI ELE	ES1C332MB41625DE 3300/16 ELITE	
C815		2272122191	CAP,CER	CC45CH 220.000PF 50V	J
C816		2333310812	CAP,MINI ELE 105°C	CE04W 1000.000UF 16V	M
C820		2301510491	CAP,MTL	CF93M 0.100UF 100V	J
C822		2285133191	CAP,CER	CK45B 330.000PF 1KV	K
C823		2287247212	CAP,CER	CK45F 4700.000PF 250VAC	M
C824		2300922401	CAP,MTL MINI	0.220UF 275V	M
D802		2363228995	DIODE,RECT	HER157G 1.5A 800V	TSC
D803	RA	2363219895	DIODE,RECT	FUF4004	FAGOR
D803	RB	2363220395	DIODE,RECT	UF4004G T/B	PEC
D804		2363300300	DIODE,SCHOTTKY	FCH20A15 20A/150V	NI
D807	RA	2363506395	DIODE,ZENER	HZ15-2 14.5-15.1V 0.5W	HITACHI
D807	RB	2363502295	DIODE,ZENER	RD15EB3 14.35V-15.09V 0.5W	NEC
D810	RA	2363227295	DIODE,RECT	2A07	TSC
D810	RB	2363224295	DIODE,RECT	20E6	NI(IR)
D810	RC	2363217595	DIODE,RECT	20D8	IR
D811	RA	2363227295	DIODE,RECT	2A07	TSC
D811	RB	2363224295	DIODE,RECT	20E6	NI(IR)
D811	RC	2363217595	DIODE,RECT	20D8	IR
D812	RA	2363227295	DIODE,RECT	2A07	TSC
D812	RB	2363224295	DIODE,RECT	20E6	NI(IR)
D812	RC	2363217595	DIODE,RECT	20D8	IR
D813	RA	2363227295	DIODE,RECT	2A07	TSC
D813	RB	2363224295	DIODE,RECT	20E6	NI(IR)
D813	RC	2363217595	DIODE,RECT	20D8	IR
F801	RA	2213125207	FUSE	LITTEL 21502.5 2.5A 250V	SB
F801	RB	2213125211	FUSE	SG5013 5*20 2.5A 250V	
F802		2407200791	HOLDER,FUSE	FC-05C	
I801		2365326600	IC,LINEAR	KA1M0565R	FAIRCHILD
I802	RA	2362401800	PHOTO COUPLR	TLP621(D4-GR-LF2)	TOSHIBA
I802	RB	2362401600	PHOTO COUPLR	TLP721F(D4-GR)	TOSHIBA
I803		2365307391	IC,LINEAR	TL431CLP	MOTOROLA
L802		2379101495	FERRITE CORE	3.5X9X0.8	
L804		2371154600	COIL,CHOKE	JD176 5.2UH 15.5T(REF)	
L805		2371157800	COIL,CHOKE	JT178A62 ET-24 4P	
P801		2404339301	CONNECTOR	LEOCO 3951-01(V) 2PIN P=3.96	
P802		2427412618	WIRE HARNESS	2520S/2512S(4-5P) 1007#20 250L	
R801		2232615595	RES,CBN 1/2	RD 1/2W 1.50M	J
R802		2436101012	VARISTOR	SIOV-S14K320 14 φ 510V	
R804		2235620403	RES,MTL 3	RS 3W 200.00K	J
R805		2235415403	RES,MTL 1	RS 1W 150.00K	J
R806		2235415403	RES,MTL 1	RS 1W 150.00K	J
R807		2239216225	RES,PRE 1/4 S	RN 1/4WS 16.20K	F
R809		2232610195	RES,CBN 1/2	RD 1/2W 100.00	J
R811		2239219125	RES,PRE 1/4 S	RN 1/4WS 19.10K	F
R812		2239248715	RES,PRE 1/4 S	RN 1/4WS 4.87K	F
R813		2233410195	RES,CBN 1/4 S	RD 1/4WS 100.00	J
R815		2233412195	RES,CBN 1/4 S	RD 1/4WS 120.00	J
R816		2232610095	RES,CBN 1/2	RD 1/2W 10.00	J
R840		2229201212	THERMISTOR,PTH	SCK-103 10+-20% 3A THINKING	
T801		2374208800	XFORMER,POWR	JT178A62 ERL-28 12PIN	

LOC NO.	SOURCE	PART NO.	DESCRIPTION	SPECIFICATION	REMARK
U801		2202118700	PC BOARD	178A62 PWR CAM1 76.5*170	
OTHERS					
P951		2427130035	POWER CORD	SVT 18/3 1.8M USA WALL KDS	
P951		2427130047	POWER CORD	E WALL 1.8M BLACK	(EUROPE black)
P952		2427130055	POWER CORD	E WALL 1.83M(71922)	
P952		2427130046	POWER CORD	USA WALL 1.8M BLACK	(USA black)
P953		2407000100	SOCKET,ASSY	JT166Q14 POWER 0707-1CQ LEOCO	
P961		2427501131	I/O CABLE	VE155 D15M/C6&7 1.83M RAL7035	
P961		2427501132	I/O CABLE	VE155 D15M/C6&7 1.83M BLACK	(BLACK)
P981		2427412658	WIRE HARNESS	DF14-30S/FI-X30H 2725#28 130L	
P982		2427412657	WIRE HARNESS	PHR-8P*2 1061#28+CORE 430L	
P983		2427412656	WIRE HARNESS	PHR-6P*2 1007#24+CORE 370L	
U901	RA	2414500400	INVERTER	PLCD07174	LINK COM
U901	RB	2414501000	INVERTER	DIVTL0058-D42	SAMPO
V901		2212002000	LCD PANEL	M170E4-L01	CHI MEI