



Model ID: T17ANHW-G1

Service Manual

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Appendix : User's Manual

Safety Notice

Any person attempting to service this chassis must familiarize with the chassis and be aware of the necessary safety precautions to be used when serving electronic equipment containing high voltage.

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10th-May-2007

Product Announcement:

This product is certificated to meet RoHS Directive and Lead-Free produced definition. Using approved critical components only is recommended when the situation to replace defective parts. Vender assumes no liability express or implied, arising out of any unauthorized modification of design or replacing non-RoHS parts. Service providers assume all liability.

- ! Using Lead-Free solder to well mounted the parts.
- ! The fusion point of Lead-Free solder requested in the degree of 220°C.

Qualified Repairability:

Proper service and repair is important to the safe, reliable operation of all series products. The service providers recommended by vender should being aware of notices listed in this service manual in order to minimize the risk of personal injury when perform service procedures. Furthermore, the possible existed improper repairing method may damage equipment or products. It is recommended that service engineers should have repairing knowledge, experience, as well as appropriate product training per new model before performing the service procedures.

NOTICE:

- ! To avoid electrical shocks, the products should be connect to an authorized power cord, and turn off the master power switch each time before removing the AC power cord.
- ! To prevent the product away from water or exposed in extremely high humidity environment.
- ! To ensure the continued reliability of this product, use only original manufacturer's specified parts.
- ! To ensure following safty repairing behavior, put the replaced part on the components side of PWBA, not solder side.
- ! To ensure using a proper screwdriver, follow the torque and force listed in assembly and disassembly procedures to screw and unscrew screws.

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1.1 Scope:

This document defines the design and performance requirements for the Liteon standard 17" wide flat panel monitor. The display element shall be a 17" inch diagonal, WXGA (1440 x 900) resolution, TFT-LCD (Thin Film Transistor Liquid Crystal Display). Video input signals are Analog D-sub with non-interlaced signaling. Power saving function complies with the DPMS (Display Power Management Standard).

1.1.1 General display parameters

Display Area	17" diagonal, 367.2(H)x229.5(V)
Resolution	1440 x 900 pixels
Display Color Number	16.2M colors
Display Type	a-Si TFT active-matrix
Contrast Ratio	500 : 1 typ.
Brightness	250cd/m ² typ.
Response Time	(Ton + Toff) 8 ms typ.
Pixel Pitch	0.255mm x 0.255mm RGB Vertical Stripes
Vertical Viewing	130 degrees typ. CR>10
Horizontal Viewing	140 degrees typ. CR>10

1.1.2 Optical Characteristics

The panel model name is HSD170MGW1-A supplied by Hannstar.

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast	CR		400	500	-		(1)(2)
Response time	Rising	T_R	-	8	-	msec	(1)(3)
	Falling	T_F	-	-	-		
White luminance (Center)	Y_L		200	250	-	cd/m ²	(1)(4)(5) ($I_L=8.0mA$)
Color chromaticity (CIE1931)	Red	R_x	0.595	0.625	0.655		(1)(4)
		R_y	0.315	0.345	0.375		
	Green	G_x	0.295	0.325	0.355		
		G_y	0.525	0.555	0.585		
	Blue	B_x	0.125	0.155	0.185		
		B_y	0.115	0.145	0.175		
	White	W_x	0.280	0.310	0.340		
		W_y	0.300	0.330	0.360		
Viewing angle	Hor.	θ_L	65	70	-		CR>10
		θ_R	65	70	-		
	Ver.	θ_U	60	65	-		
		θ_D	60	65	-		
Brightness uniformity	B_{UNI}	$\theta=0$	70	-	-	%	(6)

1.2 General Requirements:

1.2.1 Test Condition

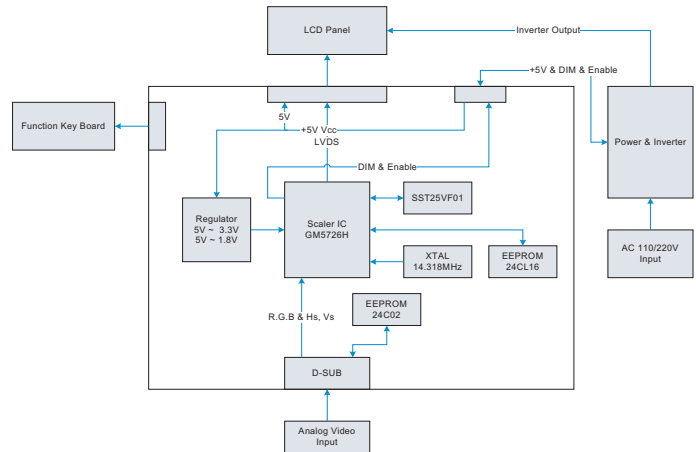
Brightness level at max & contrast level at default full white pattern test mode following spec. Warm up more than 30min, ambient light < 1 Lux, Luminance meter CA210 or BM7 or compatible equipment.

1.2.2 Test Equipment

The reference signal source is a calibrated Chroma 2326 or Quantum 801GD video generator. The use of other signal generators during qualification and production is acceptable provided the product complies with this specification.

1.2.3 Electrical

This section describes the electrical requirement of the monitor. The block diagram in Figure 1 illustrates the various electrical sub-system.



The LCD monitor will contain an interface board, a Power/Inverter board, and a function key board. The interface block will house the flat panel control logic, brightness control logic, and DC-DC conversion to supply the appropriate power to the whole board and LCD panel, and transmitting LVDS signals into LCD Module to drive the LCD display circuit. The inverter block will drive the two CCFLs (Cold Cathode fluorescent Tube). The power block will provide the DC power to interface board and LCD panel. The function key block will provides the OSD control signal, power ON/OFF and LED indicator to the interface board.

ITEM	SPEC
Analog Signal Input	Frequency Ranges
	H 31kHz ~ 83kHz
	V 56Hz ~ 76Hz
	Max Pixel clock
	205MHz
	RGB Input Level
Connectors	0.7Vp-p
	RGB Input Impedance
	75Ω
Power Consumption	Sync Input Signal
	Separate SYNC, Composite Sync
	Sync Input Impedance
User's Control	50Ω
	AC power
	AC 100V ~ AC 220V ± 10% 50/60Hz, 3 pin
Dimming control range (max-min/max) x 100%	AC power cord
	Input connectors
	D-SUB 15 pin
Pre-Defined Timing	AC IN 90~264V
	Normal Operation
	35W Max
Plug and Play	Standby, Suspend,
	< 2W
	Active Off
Power Saving	Power Off
	< 1W @ (90VAC~240VAC)
	DPMS
Input Signal Counter tolerance	Front Panel Buttons
	POWER, MENU, SELECT, +, -
VESA DDC2B	35% typical
	18
DPMS	VESA DDC2B
	DPMS
H ±1kHz, V ±1 Hz	DPMS
	H ±1kHz, V ±1 Hz

1.3 Interface Connectors:

1.3.1 The AC inlet connector shall have an IEC/CEE22 type male power receptacle for connection to mains power. The power cord exact type to be supplied in the appropriate Option Kit, shall be black have length of 1.8+/- 0.05 meters.

1.3.2 Signal connectors and cable: The analog signal cable shall be black and 1800 mini-meters; at the end of the analog cable shall be a molded-over, shielded, triple row, blue color D subminiature, 15 positions connector. The CPU connection shall have captive screw locks, which will be adequate for hand tightening. The monitor connection may use small screws.

1.3.3 Connector pin assignment:

D-SUB

Pin	Signal	Pin	Signal	Pin	Signal
1	Red-Video	6	Red-GND	11	GND
2	Green-Video	7	Green-GND	12	DDC-SDL
3	Blue-Video	8	Blue-GND	13	H-SYNC
4	GND	9	+ 5V	14	V-SYNC
5	Self Test	10	DDC-GND	15	DDC-SCL

Power Board Connector

Pin	Signal
1	GND
2	GND
3	GND
4	5.2V
5	5.2V
6	5.2V
7	5.2V
8	BKLT-EN
9	BKLT-ADJ

Flat Panel Connector

Terminal no.	Symbol	Function	Note
1	GND	Ground	
2	VDD	Power supply: +0.5V	
3	VDD	Power supply: +0.5V	
4	NC	Reserved for supplier test point	
5	NC	Reserved for supplier test point	
6	NC	Reserved for supplier test point	
7	NC	Reserved for supplier test point	
8	Odd_Rin0-	- LVDS differential data input (R0-R5, G0)	(2)
9	Odd_Rin0+	+ LVDS differential data input (R0-R5, G0)	(2)
10	GND	Ground	
11	Odd_Rin1-	- LVDS differential data input (G1-G5, B0-B1)	(2)
12	Odd_Rin1+	+ LVDS differential data input (G1-G5, B0-B1)	(2)
13	GND	Ground	
14	Odd_Rin2-	- LVDS differential data input (B2-B5, NC, NC, DE)	(2)
15	Odd_Rin2+	+ LVDS differential data input (B2-B5, NC, NC, DE)	(2)
16	GND	Ground	
17	Odd_ClkIN-	- LVDS differential clock input	(2)
18	Odd_ClkIN+	+ LVDS differential clock input	(2)
19	GND	Ground	
20	Even_Rin0-	- LVDS differential data input (R0-R5, G0)	
21	Even_Rin0+	+ LVDS differential data input (R0-R5, G0)	
22	GND	Ground	
23	Even_Rin1-	- LVDS differential data input (G1-G5, B0-B1)	
24	Even_Rin1+	+ LVDS differential data input (G1-G5, B0-B1)	
25	GND	Ground	
26	Even_Rin2-	- LVDS differential data input (B2-B5, NC, NC, DE)	
27	Even_Rin2+	+ LVDS differential data input (B2-B5, NC, NC, DE)	
28	GND	Ground	
29	Even_ClkIN-	- LVDS differential clock input	
30	Even_ClkIN+	+ LVDS differential clock input	

1.4 Input Signals (Analog RGB Signal Input):

No.	Symbol	Item	Min	Normal	Max	Unit	Remark
1	Fh	Horizontal Frequency	31		83	kHz	Minimum range
2	Fv	Vertical Frequency	56		76	Hz	Minimum range
3	Fclk	Locked Pixel Clock Frequency			135	MHz	
4	Vih	Hi Level Input	2		5	V	Note 1)
5	Vil	Low Level Input	0		0.8	V	Note 1)
6	Video	RGB Analog Video Level	0		0.735	V	75Ω to Ground

Note 1: 2.2k to Ground, Schmitt-Triggers Input, Supported 3.3V device H & V sync. output.

1.4.1 Video Signal Amplitudes

The three video inputs consist of Red, Green, and Blue signals, each with its own coaxial cable terminated at the monitor. These video signals are analog levels, where 0V corresponds to black, and 735 mV is the maximum signal amplitude for the respective color, when each signal is terminated by a nominal 75.0 ohm. For a given monitor luminance levels are measured using this defined video amplitude driving a monitor meeting the termination requirements. The signal amplitude is not to be readjusted to compensate for variations in termination impedance.

1.4.2 Video Signal Termination Impedance

This analog video signal termination shall be 75 ohm +/- 2% which shall be resistive with a negligible reactive component.

1.4.3 Synchronization (Sync) Signals

The Horizontal Sync (HS) TTL signal is used to initiate the display of a horizontal line. HS may be either active high or active low, depending upon the timing. The Vertical Sync (VS) TTL signal is used to initiate the display of a new frame. VS may be either active high or active low, depending on the timing.

1.4.4 Sync Signal Levels

The monitor must accept sync signals from both 3.3V and 5V TTL logic families. The inputs shall sense a logic 0 when the input is 0.8V or less and shall sense a logic 1 when the input is 2.0V or greater. In addition to these level requirements, there shall also be a minimum of 0.3V hysteresis provided for noise immunity (typically by using a Schmitt Trigger input). That is, the input level at which the monitor actually detects a logic 0 shall be at least 0.3V lower than the level at which it actually detects a logic 1.

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If the monitor sync processing circuits are designed around the 3.3 volt logic family, then the sync inputs must be 5 volt tolerant.

1.4.5 Sync Signal Loading

TTL input loading shall be equivalent to one TTL input load. When logic 0 is asserted by a sync input, the maximum current source from any single monitor sync input to the driver is 1.6 mA. When logic 1 is asserted, the maximum current source from the driver to any single monitor sync input is 400 mA.

1.4.6 Abnormal Signal Immunity

The monitor shall not be damaged by improper sync timing, pulse duration, or absence of sync, or abnormal input signal amplitude (video and/or sync too large or too small), or any other anomalous behavior of a graphics card video generator when changing modes or when any combination of input signals is removed or replaced. Additionally, under these conditions, the monitor shall not cause damage to the driving source.

1.5 User Controls and Indicators:

1.5.1 Power On / Off Switch: The monitor shall have a power control switch visible and accessible on the front of the monitor. The switch shall have no effect on the operation of the AC/DC converter. Instead, it shall interrupt the DC supply to the monitor.

1.5.2 Power Indicator LED: The monitor shall make use of a LED type indicator located on the front of the monitor. The LED color shall indicate the power states as given in Table 1.

Table 1

	LED Color
Power-ON Mode	Green
Power Saving Mode	Amber

1.5.3 On-Screen Display: The On Screen Display system shall be used, controlled by a select button (SELECT), a menu button (MENU), a plus (+) button and a minus (-) button. If the buttons remain untouched for OSD turn off time while displaying a menu, the firmware shall save the current adjustments and exit. Also, if the video controller changes video mode while the OSD is active, the current settings shall be saved immediately, the OSD turned off, and the new mode is displayed.

1.5.4 Key Function Overview: All functions are controllable by OSD using five buttons including Power button, Menu/Exit, Select, Left, and Right on the front bezel.

Power Button	To turn ON or OFF the Power.
Menu/Exit Button	To enter or exit OSD Menu.
Select Button	To move downward in the OSD Item. Act as DDC enable and disable switching Hot-Key when OSD is not display.
Left Button	Choose the previous OSD Menu Item. To decrease the value of the parameter in the adjust bar, which has been selected for adjustment.
Right Button	Choose the next OSD Menu Item. To increase the value of the parameter in the adjust bar, which has been selected for adjustment. Act as Auto Adjustment Hot-Key when OSD is not displayed.

1.5.5 Menu Operation

Pressing the MENU button the first time brings up the first menu level. The (MENU) button is used to enter and exit the OSD menu.

1.5.6 OSD Function- Normal Mode

Icon	Item	Function Description
	Brightness	Adjust the background screen brightness by using backlight inverter.
	Contrast	Adjust the image contrast by controlling analog signal gain.
	Color Temperature	Press 'Right' or 'Left' to select sRGB, Reddish, Bluish and User preset. Only when selecting User, you can make adjustment to the R/G/B content, otherwise not.
	Horizontal Size	Adjust the horizontal Image Size. When the value is increased, the width of display image wider, and when the value is decreased, the width becomes narrows.
	Fine	To increase or decrease the snow noise of image. Adjust the delay of internal clock to control the display focus.
	Left/Right	Adjust the horizontal Image Position.
	Down/Up	Adjust the Vertically Image Position
	Auto Adjust	Press 'Right Key' to turn on this function. The Auto-Adjust will automatically adjust H-Position, V-Position, H-Size and Fine to the optimal value, the whole process takes about 3 seconds.
	Language	Select a language of OSD Menu. User can select language from 11 Languages; they are English, French, German, Spanish, Japanese, Simple Chinese, Traditional Chinese, Korean, Portuguese and Russian, Turkish.
	Factory Reset	Reset all users setting to factory preset value except language selection.
	OSD Timeout	Select OSD Menu turn off time. when "30 seconds" is selected, OSD shall be turned off automatically after 30 Seconds from the last key operation.
	OSD Left/Right	To move the OSD position horizontally on the screen. When the 'Right' Key is pressed, the OSD control menu to move to the right side of screen. Likewise, when the 'Left' key is pressed, the OSD control menu to move to the left side of screen.
	OSD Down/Up	To move the OSD position vertically on the screen. when the 'Right' Key is pressed, the OSD control menu to move to the up side of screen. Likewise, when the 'Left' key is pressed, the OSD control menu to move to the down side of screen.
	Information	Indicates the current resolution.

1.5.7 OSD Function (Abnormal Mode)

No VGA Signal Menu	The function gives a warning when selected input signal is not active. When the Monitor determines that the VGA is not input H/V sync signal as the OFF, Suspend or standby model, or the V-sync frequency is under 36.5Hz, the Monitor shall display a message, "No VGA Signal" for 3 seconds and the LED shall be green, to alert the user that input signal is not active. After the message is displayed about 3 seconds, the monitor shall go into sleep mode and the LED shall be Amber. If the monitor is in Sleep mode, pressing any OSD button shall cause the OSD message to be displayed for another 3 seconds.
Out of range Menu	This function gives warning about input resolution or refresh rate that the monitor cannot display. An input signal which is outside the normal range of operation defined in Section 3.2 and the input sync signal frequency for the below condition shall cause the monitor to display for 3 seconds the "Out of Range" message, and the LED shall be green: <ol style="list-style-type: none"> 1. V-sync frequency : $36.5\text{Hz} \leq F_v < 55$ 2. V-sync frequency : $F_v \geq 76\text{Hz}$ 3. H-sync frequency : $F_H \geq 83\text{KHz}$
Check VGA cable Menu	This function gives warning about the VGA cable not connection. When the Monitor determines that the VGA is not connected, the Monitor shall display a message, "Check VGA Cable" for 3 seconds and the LED shall be green, to alert the user that the video cable is not be plugged into the CPU or a Monitor signal connector. The monitor shall use a method of a pull-up resistor on a ground pin to determine if the video cable is connected to the PC. If the monitor is in Sleep mode, pressing any OSD button shall cause the OSD message to be displayed for another 3 seconds.

1.5.8 OSD Control Factory Default Values: The OSD

controls shall have the following factory default values:

- A. Brightness=100(range 0 – 100)
- B. Contrast=50(range 0 – 100)
- C. Volume=90(range 0 – 100)
- D. Color Temperature=Normal(sRGB)
- E. Language= English
- F. Horizontal OSD position=50(range 0 – 100)
- G. Vertical OSD position=50(range 0 – 100)
- H. OSD Timeout=30(range 5– 60)
- I. Horizontal size: no default value
- J. Fine: no default value
- K. Left/Right: no default value
- L. Down/up: no default value

1.6 Monitor Modes and Timing Capability:

1.6.1 Format and Timing

The monitor shall synchronize with any vertical frequency from 56 to 76 Hz, and with any horizontal frequency from 31 to 83 KHz. If the input frequency is beyond the specified range, the monitor shall display a warning screen indicating that the input frequency is out of range. Under no circumstances shall any combination of input signals cause any damage to the monitor.

1.6.2 Factory Assigned Display Modes: There are 18

factory pre-set frequency video modes. These modes have a factory pre-set for all characteristics affecting front-of-screen performance. When the system is powered-on, previously stored screen parameters for a pre-defined mode will be recalled if the operating mode is one of those stored in memory. If the operating mode is not one of those stored in memory, the monitor CPU will select the PRESET timing for a mode that is the next lowest in horizontal scanning frequency to the mode being currently used. The screen parameters may be adjusted by the use of the front bezel controls and then may be saved as a user defined mode. The monitor shall include all the preset video timings shown in the following page.

Preset Timing Chart

No	Chroma Timing	Timing Modes, FV(Hz)		FH	Pixel Rate	Sync Polarity	
				(KHz)	(MHz)	H	V
1	102	VGA	720 x 400 70Hz	31.47	28.322	-	+
2	103	VGA	640 x 480 60Hz	31.47	25.175	-	-
3	182	MAC	640 x 480 67Hz	35	30.24	-	-
4	173	VGA	640 x 480 72Hz	37.86	31.5	-	-
5	109	VESA	640 x 480 75Hz	37.5	31.5	-	-
6	104	VESA	800 x 600 56Hz	35.16	36	-	-
7	116	VESA	800 x 600 60Hz	37.88	40	+	+
8	117	VESA	800 x 600 72Hz	48.08	50	-	-
9	110	VESA	800 x 600 75Hz	46.88	49.5	+	+
10	108	MAC	832 x 624 75Hz	49.73	57.28	-	-
11	118	VESA	1024 x 768 60Hz	48.36	65	-	-
12	157	VESA	1024 x 768 70Hz	56.48	75	-	-
13	141	VESA	1024 x 768 75Hz	60.02	78.75	+	+
14	203	MAC	1152 x 870 75Hz	68.68	100	-	-
15	339		1280 x 720 60Hz	44.772	74.5	-	+
16	394		1280 x 800 75Hz	62.63	106.22	-	-
17	290	WXGA	1440 x 900 75Hz	70.635	136.75	-	+
18	289	WXGA	1440 x 900 60Hz	55.935	106.5	-	+

NOTE: (1) $76\text{Hz} \leq F_v$: Monitor can display but does not guarantee.

(2) $F_H \geq 85\text{KHz}$, or $F_v \geq 80\text{Hz}$: Power Save (OSD warning invalid mode).

1.6.3 Mode Recognition Pull-in:

The monitor shall recognize preset modes within a range of +/- 1 KHz whichever is less for horizontal; and within +/- 1Hz for vertical.

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1.7 Controller Requirements:

- 1.7.1 General Requirements: The monitor shall include a controller capable of converting the analog RGB signal from a standard WXGA resolution video controller in the CPU to a signal which can be displayed on the panel. The controller will include a PLL, A/D converters, and other circuitry necessary to perform its function. The PLL shall be stable enough to ensure that a static image from the CPU is placed in the same physical location on the flat panel in each frame.
- 1.7.2 Video Stretching: The monitor shall contain provisions to “stretch” the video signal, so that an input signal from the computer in any resolution smaller than 1440 x 900 is automatically expanded to fill the entire screen.
- 1.7.3 Panel Timing and Interface: The controller supplied with the monitor shall control all panel timing. This controller shall adequately insulate the monitor from the computer, so that no possible combination of input signals from the computer shall cause damage to the flat panel or any other component of the monitor. The LCD panel interface shall support the TFT standard.

1.8 DC - AC Inverter Requirements:

The frequencies used by the DC-AC inverter used to power the backlight shall be chosen so as to prevent any noticeable effects on the flat panel (such as a rolling effect).

1.9 Power Supply Requirements:

The AC to DC converter power supply for the monitor shall be an integrated power supply. This power supply shall have an IEC receptacle for mains power input and provide sufficient power for the monitor, the backlight assembly and the “Dell Sound bar”, and shall meet all requirements specified in Table 2.

Table 2. AC TO DC Converter Requirements

Input Voltage Range	The operating range shall be from 90 to 240 VAC sinusoidal for all models specified.
Input Frequency Range	Input power frequency range shall be from 47.5 to 63Hz over the specified input voltage range.
Power Consumption	Power consumption for the monitor shall be less than 75W over the specified voltage and frequency ranges. In power off mode the power consumption will be less than 1W (at 90VAC~240VAC).
Line Fuse	The AC input shall be fused and become electrically open as a result on an unsafe current level. The fuse may not be user replaceable.
Initial Cold Start	The power supply shall start and function properly when under full load, with worst case conditions of input voltage, input frequency, operating temperature, and cold backlight lamps.
Inrush Current	The inrush current must be limited to 42A when operated at 120VAC, and 80A when operated at 220VAC. In - rush current is measured at an ambient temperature of 25° C, with the unit temperature stabilized in the power - off
Hot Start Cycle	The power supply shall not be damaged when switched ON for one second and OFF for one second for seven consecutive times after operating for one hour at full load, 25°C, and nominal input line voltage.
Under Voltage	The power supply shall contain protection circuitry such that the application of an input voltage below the minimum specified in this table shall not cause damage to the power supply unit nor cause failure of the input
Line Transient	The power supply shall operate within IEC 801-4 (±1KV) and IEC 801 -5 (±2KV) for the domestic U.S. Version. The UPS power supply shall operate and comply with CE mark.

1.10 Display Communications Channel:

The monitor assembly shall provide a display communications channel that conforms to VESA DDC2B hardware requirements. This configuration shall contain the 256-byte EDID file as specified by VESA E-EDID Standard. The monitor contains a separate EEPROM for each video input to store EDID information. Once the EDID is programmed there is a write protection that is enabled so that the EEPROM cannot be overwritten.

2.1 General Information

HannStar, HSD170MGW1-A00 which display model is a color active matrix thin film transistor (TFT) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching device. This model is composed of a TFT LCD panel, a driving circuit and a back light system. This TFT LCD has a 17.0 inch diagonally measured active display area with XGA resolution (900 vertical by 1440 horizontal pixel array) and can display up to 262,144 colors..

2.2 Panel Timings:

The controller included with the monitor shall translate all video timings from the CPU that meet the timing requirements listed in panel specification into timings appropriate for the panel. Under no circumstances may the controller supply the panel with timings that may result in damage. The controller shall insulate the panel from the CPU, so that the panel shall always be driven per it's own specification regardless of the timings being sent from the CPU.

2.3 Polarizer Hardness:

The outer face of the front polarizer panel shall be covered with a coating with a 3H hardness value.

2.4 Backlight Requirements:

2.4.1 General Requirements: The backlight assembly shall be designed to support field replacement at the customer site or authorized service center. The lamps shall have a continuous operating life of at least 30,000hrs at 25 degree C. The operating life is defined as having ended when the illumination of light has reached 50% of the initial value. The lamps shall extend a sufficient amount from the edge of the light guide that sputtering over the life of the lamps shall not cause degradation of the luminance uniformity (such as non-illuminated bands along the edges of the display).

2.4.2 Lamps Startup Time: The backlight lamps shall start within 3sec. of the time the monitor power switch is pressed or the monitor is restarted from a power - down mode .The starting time shall stay below 3 sec. for the minimum expected life of the lamps. Test conditions are as follows:

Ambient Light -----< 1.0 lux.

Temperature-----10degreeC

Inactive Time -----> 24 hours

2.5 Defects:

2.5.1 Visual Inspection: The LCD panel shall be inspected with all pixels set to white, black, red, green, and blue. The color variation, brightness variation, and overall appearance must not be perceived as poor quality by Lite - On. Areas and /or parameters considered questionable shall be subjected to detailed measurements.

2.5.2 Display Degradation: Over the life of the product, variation of the parameters specified in panel specification shall be maintained within reasonable limits. The panel must not exhibit any significant defects while in operation (excluding the CCFL operation). This does not in any way change the warranty given by the panel vender.

2.5.3 Light Leakage: Except for the active display area, there shall be no light emission visible from any angle from any other part of the display. For this test, the ambient illumination will follow the panel specification 300 to 700 lux.

2.5.4 Allowable Defects: No cosmetic defects are allowed except those specified below. The conditions of visual inspections are as follows:

- Viewing distance is to be approximately 35~50 cm.
- Ambient illumination is to be 300 to 700 lux.
- Viewing angle range shall be 160 degrees Horizontal and 160 degrees vertical typically.
- Defects not apparent within one minute shall be ignored.

2.5.5 Defect Terminology: Table 3 gives the descriptive terms used in classifying defects.

Dark Spots/Lines	Spots or lines that appear dark in the display patterns and are usually the result of contamination. Defects do not vary in size or intensity (contrast) when contrast voltage is varied. Contrast variation can be achieved through the use of varying gray shade patterns.
Bright Spots/Lines	Spots or lines that appear light in the display patterns. Defects do not vary in size or intensity (contrast) when contrast voltage is varied. Contrast variation can be achieved through the use of varying gray shade patterns.
Polarizer Scratch	When the unit lights, lines appear light (white) with display patterns dark and do not vary in size. Physical damage to the polarizer does not damage the glass.
Polarizer Dent	When the unit lights, spots appear light (white) with display patterns dark and do not vary in size. Physical damage to the polarizer that does not damage the glass.
Rubbing Line	Horizontal or diagonal lines that appear gray with the display patterns dark and may have resulted from an "out of control" rubbing process on the polyimide or "waves" on the BEFs or prism sheets .
Newton Ring	The "rainbow" effect caused by non-uniform cell thickness.
Mottling	When the unit lights, variation / non - uniformity (splotchiness) appears light (white) with the display and might vary in size.
Dim Line	When the unit lights, line(s) in the minor (vertical) or major (horizontal) axis appear dim, but not completely on or off.
Cross Lines Off	When the unit lights , lines in both the minor and major axis do not appear.
Bright/Dark Dot	A sub - pixel (R, G, B dot) stuck off / on (electrical).

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2.5.6 Smudges, Streaks and Smears: When viewing the panel oriented so as to max. reflected light, there shall be no visible smudging, streaking, smearing or other non-uniformity from contaminants, fingerprints, or defects in any of the visible surfaces. This is independent of whether the unit is operating or off.

2.5.7 LCD Inspection: Put LCD panel on inspection table and illuminate the panel with a daylight fluorescent lamp located above the panel surface such that the luminance at the LCD panel is between 1000 lux. and 1500 lux. Defect limits are given in Table 4.

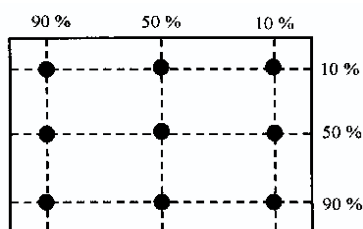
Table 4. Descriptive Terms

Average Diameter Smaller of (L+W)/2 or L/20 + 2W	Acceptable Number	Minimum Separation
<0.1mm	Non countable	N/A
0.1mm-0.3mm	10	15mm
0.31mm-0.5mm	10	15mm
0.51mm-1.25mm	5	15mm
1.26mm-2.5mm	3	25.4mm
2.51mm-0.3mm	3	25.4mm
Greater than 3.75mm	None	Not applicable

Allowable distance between spots of two sizes is the minimum separation number for the smaller spot. Therefore, if there are two spots including 1.30mm and 0.4mm in diameter, they must be at least 15mm apart.

2.6 Optical Characteristics:

2.6.1 Brightness uniformity: The uniformity is determined by using a photometer (CA-210) to measure the 9 points luminance in front of monitor after at least 30 minutes warm up. It shall be test at 1440x900/60Hz mode and full white square pattern with contrast / brightness in default value. The values specified are at an approximate distance 20 cm from the LCD surface and at 0 viewing angle. The 9 test points are defined as below.



The brightness uniformity is calculated as below:

$$\text{Luminance uniformity} = \frac{(\text{Min Luminance of 9 points})}{(\text{Max Luminance of 9 points})} \times 100\%$$

Brightness uniformity $\geq 70\%$

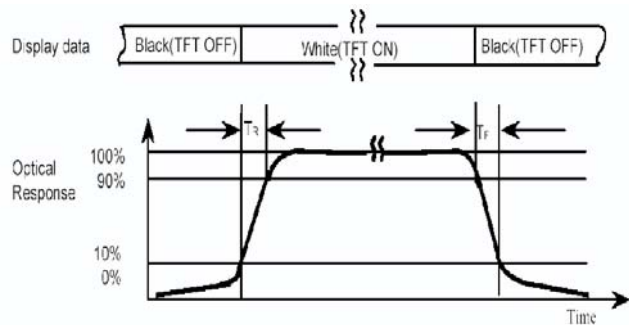
Remark: The black luminance non-uniformity are not defined by panel spec, therefore, we don't define the specification for black luminance non-uniformity.

2.6.2 Contrast ratio (CR): The contrast ratio is determined by using a photometer (CA-210) to measure the maximum and minimum luminance in front of monitor after at least 30 minutes warm up. It shall be test at 1440x900, 60Hz mode and full white and full black square pattern with contrast and brightness in default value which specified are at an approximate distance 20cm from the LCD surface and at 0 viewing angle. The contrast ratio is calculated as below.

$$\text{CR} = (\text{Max. full white luminance}) / (\text{Max. full black luminance})$$

$$\text{CR} = 500:1 (\text{typ})$$

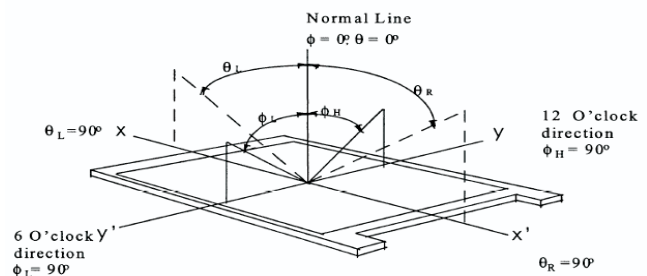
2.6.3 Response time: The response time is defined as below.



$$Tr + Tf : 8 \text{ msec typ.}$$

Remark: optical response time vs gray scale, test condition for brightness set to max. and contrast set to default.

2.6.4 Viewing angles: The viewing angles are measured at CR>10 as below.



Horizontal Left: 70 degrees typ. (HSD170MGW1-A);

Right: 70 degrees typ. (HSD170MGW1-A);

Vertical Up: 65 degrees typ. (HSD170MGW1-A);

Down: 65 degrees typ. (HSD170MGW1-A);

2.6.5 Chromaticity: The color chromaticity is measured by a photometer (CA-210) at 1440x900/60Hz mode and full white square pattern with contrast/brightness in default value. The x and y co-ordinates for sRGB, Reddish, Bluish and User preset mode shall be as below:

Normal Preset (sRGB)	$0.283 \leq x \leq 0.343$; $0.299 \leq y \leq 0.359$
Reddish Preset (5700K)	$0.298 \leq x \leq 0.358$; $0.314 \leq y \leq 0.374$
Bluish Preset (9300K)	$0.253 \leq x \leq 0.313$; $0.268 \leq y \leq 0.328$

2.6.6 Brightness: The uniformity is determined by using a photometer (CA-210) to measure luminance on the center of screen after at least 30 minutes warm up. It shall be test at 1440x900/60Hz mode and the brightness and contrast OSD setting for 100%. The values specified are at an approximate distance 20cm from the LCD surface and at 0 viewing angle. The full screen white center luminance at user mode color temperature shall be 250 cd/m typ. and 200cd/m2 minimum (HSD170MGW1-A), and full screen black luminance center max. luminance <1 cd/m2.

2.6.7 Environmental Requirements:

A. Temperature Ranges:

- Operating Temperature (guaranteed functional performance): 0~50 degreeC
- Operating Temperature (guaranteed optical performance): 5~ 35 degreeC
- Shipping Temperature: -20oC to 60oC
- Storage Temperature: -20oC to 60oC

B. Humidity:

- Operating (non-condensing): 10% to 80%
- Shipping (non-condensing): 10% to 90%
- Storage (non-condensing): 10% to 90%

2.6.8 Shipping and Packing: Packaging and wrapping shall be sufficient to protect the product against damage or loss during shipment from the supplier to the destination specified in the purchase order. All packaging materials are subject to test and evaluation. The container loading is 2160sets/40'. The outside dimension of carton box is 482(L)x 127(W) x 423(H) mm.

2.7 Panel General Information

Item	Specification	Unit
Outline Dimension	389.2x254.5x11.5 (Typ)	mm
Display Area	367.2 (H) x 229.5 (V)	mm
Number of Pixel	1440 (H) x 900 (V)	pixels
Pixel Pitch	0.255 (H) x 0.255 (V)	mm
Pixel Arrangement	RGB Vertical Stripe	
Display Color	6 bits/262,144	colors
Display Mode	Normally white	
Surface Treatment	Antiglare (3H)	
Weight	1370	g
Backlight	2-CCFLs, Top&Bottom edge side	
Input Signal	2-ch LVDS	
Power Consumption	Logic System	2.4 W
	B/L System	9.8 W

2.7.1 Mechanical Information

Item	Min.	Typ.	Max.	Unit
Module Size	Horizontal (H)	388.7	389.2	389.7 mm
	Vertical (V)	254.0	254.5	255.0 mm
	Depth (D)	11.2	11.5	11.8 mm
Weight (Without inverter)	-	1370	1500	g
Torque of customer screw hole	-	-	3.0	Kgf•Cm

2.7.2 Electrical Absolute Rating

TFT LCD Module

Item	Symbol	Min.	Max.	Unit	Note
Power supply voltage	VDD	-0.3	6.0	V	(1) (2)
Logic input voltage	VIN	-0.3	VDD+0.3	V	(1) (2)

Backlight Unit

Item	Symbol	Min.	Max.	Unit	Note
Lamp current	IL	3	9.0	mA	(1) (2)
Lamp frequency	fL	30	80	KHz	(1) (2)

Note (1) Permanent damage may occur to the LCD module if beyond this specification.

Functional operation should be restricted to the conditions described under normal operating conditions.

(2) Ta =25 degree C

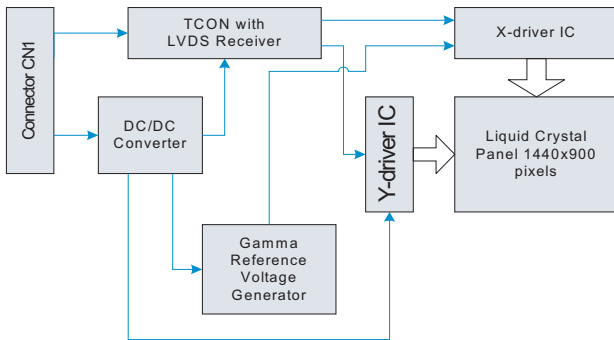
2.7.3 Optical Specification

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast	CR		400	500	-		(1)(2)
Response time	Rising	TR	-	3	5	ms	(1)(3)
	Falling	TF	-	5	7		
White luminance (Center)	YL		200	250	-	cd/m ²	(1)(4)(5) (IL=8.0mA)
	YL		(180)	(230)	-	cd/m ²	(IL=7.5mA)
Color chromaticity (CIE1931)	Rx	$\Theta=0$ view angle	0.596	0.625	0.656		(1)(4)
	Ry		0.315	0.345	0.375		
	Gx		0.296	0.325	0.355		
	Gy		0.525	0.555	0.585		
	Bx		0.125	0.155	0.185		
	By		0.115	0.145	0.175		
	Wx		0.280	0.310	0.340		
	Wy		0.300	0.330	0.360		
	EL	CR>10	65	70	-		
	ER		65	70	-		
Viewing angle	EU		60	65	-		
	ED		60	65	-		
Viewing angle	EL	CR<5	75	80	-		(1)(4)
	ER		75	80	-		
	EU		75	80	-		
	ED		75	80	-		
Brightness uniformity	BUN	$\Theta=0$	70	75	-	%	(6)

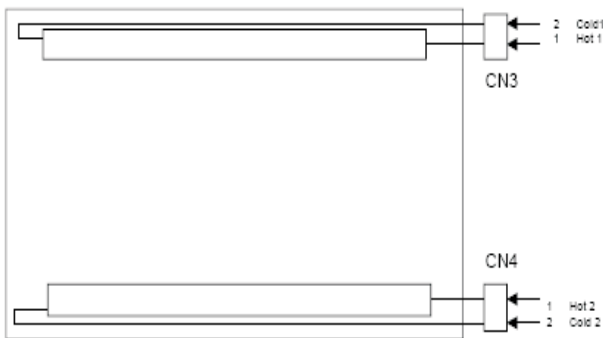
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2.7.4 Block Diagram

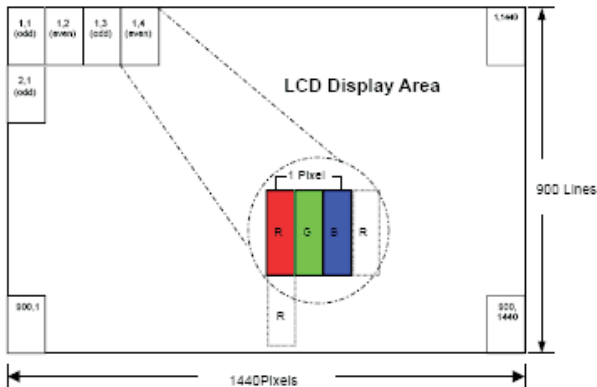
TFT LCD Module



Backlight Unit



2.7.5 Pixel Format



2.7.6 Interface Pin Connection

Backlight Unit

Terminal No.	Symbol	Function
1	VL	CCFL power supply (high voltage)
2	NC	No connection
3	GL	CCFL power supply (low voltage)

TFT LCD Module

Terminal no.	Symbol	Function	Note
1	GND	Ground	
2	VDD	Power Supply : +5.0V	
3	VDD	Power Supply : +5.0V	
4	NC	Reserved for supplier test point	
5	NC	Reserved for supplier test point	
6	NC	Reserved for supplier test point	
7	NC	Reserved for supplier test point	
8	Odd_Rin0-	- LVDS differential data input (R0-R5, G0)	(2)
9	Odd_Rin0+	+ LVDS differential data input (R0-R5, G0)	(2)
10	GND	Ground	
11	Odd_Rin1-	- LVDS differential data input (G1-G5, B0-B1)	(2)
12	Odd_Rin1+	+ LVDS differential data input (G1-G5, B0-B1)	(2)
13	GND	Ground	
14	Odd_Rin2-	- LVDS differential data input (B2-B5, NC, NC, DE)	(2)
15	Odd_Rin2+	+ LVDS differential data input (B2-B5, NC, NC, DE)	(2)
16	GND	Ground	
17	Odd_ClkIn-	- LVDS differential clock input	(2)
18	Odd_ClkIn+	+ LVDS differential clock input	(2)
19	GND	Ground	
20	Even_Rin0-	- LVDS differential data input (R0-R5, G0)	
21	Even_Rin0+	+ LVDS differential data input (R0-R5, G0)	
22	GND	Ground	
23	Even_Rin1-	- LVDS differential data input (G1-G5, B0-B1)	
24	Even_Rin1+	+ LVDS differential data input (G1-G5, B0-B1)	
25	GND	Ground	
26	Even_Rin2-	- LVDS differential data input (B2-B5, NC, NC, DE)	
27	Even_Rin2+	+ LVDS differential data input (B2-B5, NC, NC, DE)	
28	GND	Ground	
29	Even_ClkIn-	- LVDS differential clock input	
30	Even_ClkIn+	+ LVDS differential clock input	

Note (1) Please connects NC pin to nothing. Don't connect it to ground nor to other signal input. (NC pin should be open.)

Note (2) The module used a 100ohm resistor between positive and negative data lines of each receiver input.

2.7.7 Electrical Characteristics

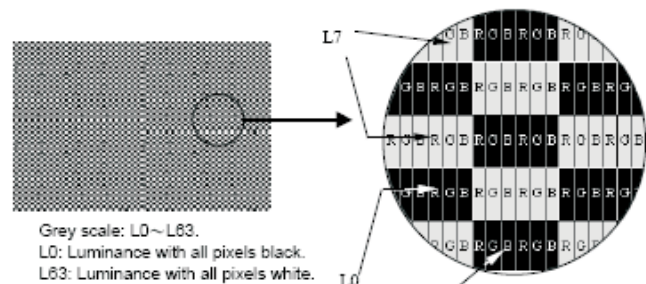
TFT LCD Module

Item	Symbol	Min.	Typ.	Max.	Unit	Note
Voltage of power supply	VDD	4.5	5.0	5.5	V	
Current of power supply	White	IDD0	260	360	mA	(1)
	V-Color	IDD1	370	470	mA	(1)
	Mosaic	IDD2	515	615	mA	(1)
Vsync frequency	fV	56	60	75	Hz	ref 6.5 t1
Hsync frequency	fH	55.469	55.935	70.635	Hz	ref 6.5 t4
Frequency	fCLK	44.375	53.25	68.375	MHz	ref 6.5 t7
Input rush current	IRush	-	-	1.5	A	(2)

Note (1) White and V-color

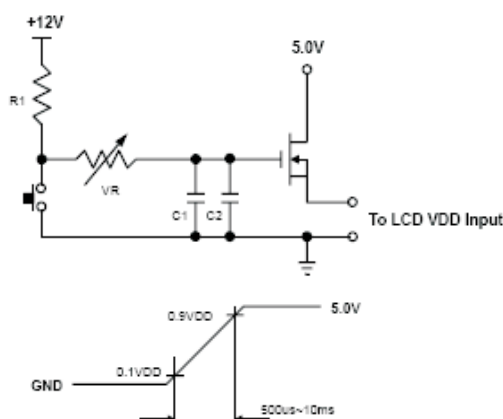


Mosaic: Dot checker image



Grey scale: L0~L63.
L0: Luminance with all pixels black.
L63: Luminance with all pixels white.

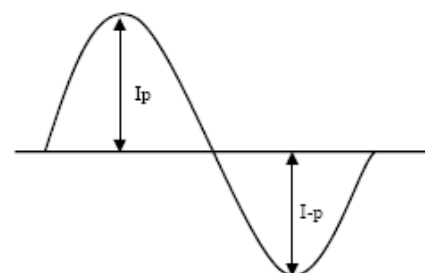
Note (2) Input Rush Current measurement condition



Note (5) The voltage over specified value (Vs) should be applied to the lamp more than 1 second after startup. Otherwise, the lamp may not be turned on. The used lamp current is the lamp typical current.

Note (6) The output voltage waveform and current waveform of the inverter must be symmetrical (Unsymmetrical ratio is less than 10%). Please do not use the inverter which has unsymmetrical voltage and current waveform, and spike waveform. The inverter design which can provide the best optical performance, power efficiency, and lamp life should under the following conditions.

- The asymmetry rate of the inverter waveform should be less than 10%.
- The distortion rate of the waveform should be within $\sqrt{2} \pm 10\%$.
- The inverter output waveform should be better similar to the ideal sine wave.



$$\text{Asymmetry rate} = |I_p - I_{rms}| / I_{rms} \times 100\%$$

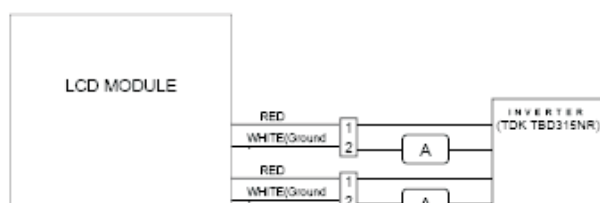
$$\text{Distortion rate} = I_p \text{ (or } I_{-p}) / I_{rms}$$

2.8 Back-Light Unit

The back- light system is an edge-lighting type with 2 CCFL. The characteristic of the lamp is shown in the following tables.

Item	Symbol	Min.	Typ.	Max.	Unit	Note
Lamp current	IL	3.0	8.0	9.0	mA(rms)	(1)(6)
Lamp voltage	VL	-	610	-	V(rms)	(6) IL=8.0mA
Frequency	fL	30	-	80	KHz	(2)
Operating lamp life time	Hr	30,000	-	-	Hour	(3) IL=8.0mA
	Hr	40,000	-	-	Hour	(3) IL=7.5mA
Startup voltage	Vs	1200	-	-	V(rms)	(4)(5) at 25°C
		1400	-	-		(4)(5) at 0°C

Note (1) Lamp current is measured with current meter for high frequency as shown below. Specified valued are for single lamp.



Note (2) Lamp frequency may produce interference with horizontal synchronous frequency and this may cause ripple noise on the display. Therefore lamp frequency shall be kept away from the horizontal synchronous frequency and its harmonics as far as possible in order to avoid interference. *Suggest the inverter frequency avoid $f_L = 51 \sim 59\text{KHz}$

Note (3) Lamp life time (Hr) can be defined as the time in which it continues to operate under the condition: $T_a = 25 \pm 3^\circ\text{C}$, typical I_L value indicated in the above table and $f_L = 52\text{kHz}$ until the brightness becomes less than 50%.

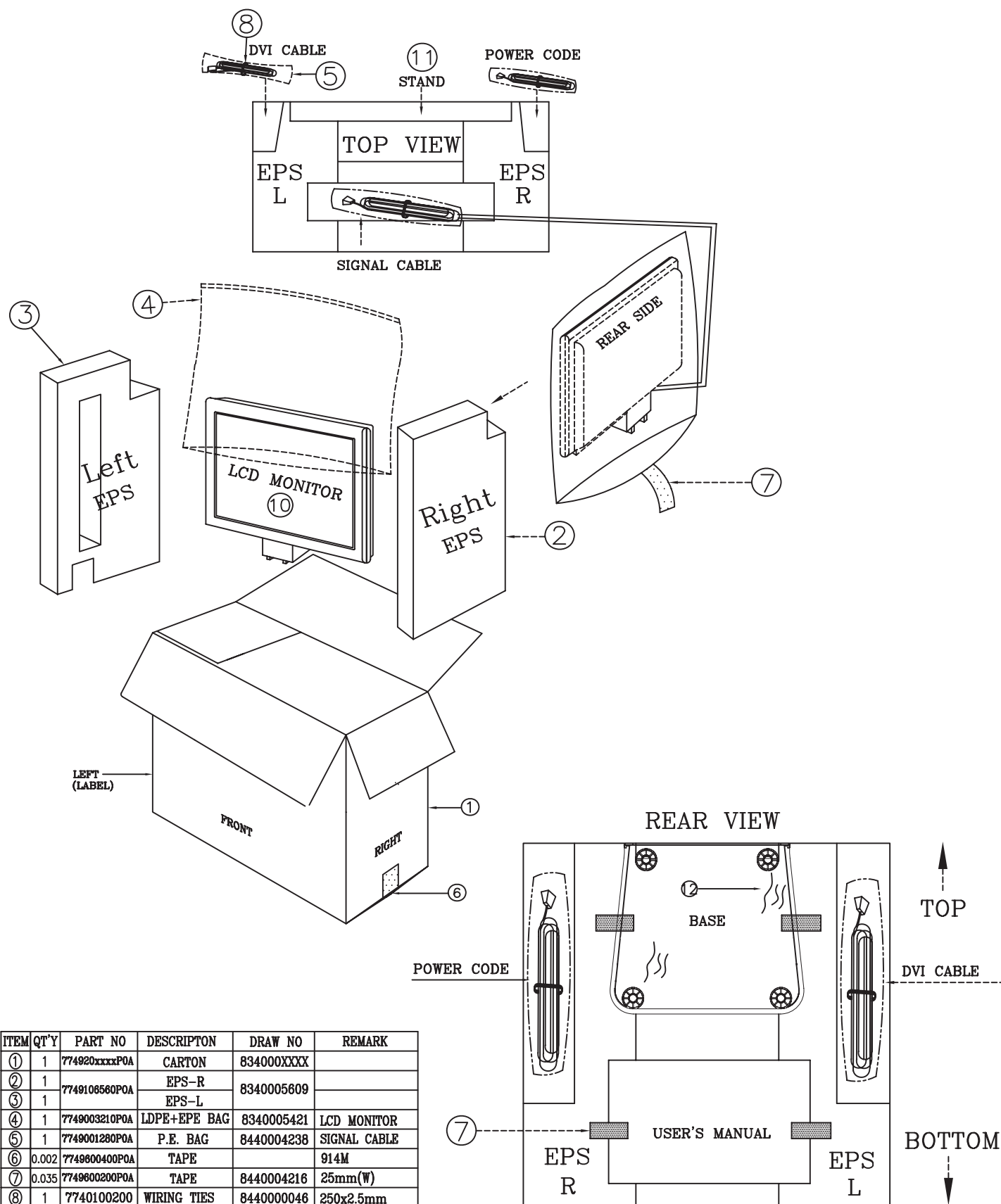
Note (4) CCFL inverter should be able to provide a voltage over specified value (Vs) in the above table. Lamp units need at least Vs value shown above to ignition.

2.9 Switching Characteristics for LVDS Receiver

Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Differential Input High Threshold	Vth	100	—	—	mV	VCM=1.2V
Differential Input Low Threshold	Vtl	—	—	-100	mV	
Input Current	Iin	—	—	±10	uA	VIN=1.75V, VD=3.6V
		—	—	±10	uA	VIN=0.8V, VDD=3.6V
Input Voltage Range (Signal ended)	Vin	1.1-(VID)/2	—	1.375+(VID)/2	V	
Differential input Voltage	VD	250	—	450	mV	
Common Mode Voltage Offset	Vcm	1.1	—	1.375	V	
Clock Frequency	fc	44.375	53.25	68.375	MHz	
LVDS Skew Margin	tssm	—	—	400	pS	At fc=44.375MHz
LVDS Input Clock Jitter Tolerance	—	—	—	±2.5	%	center spread

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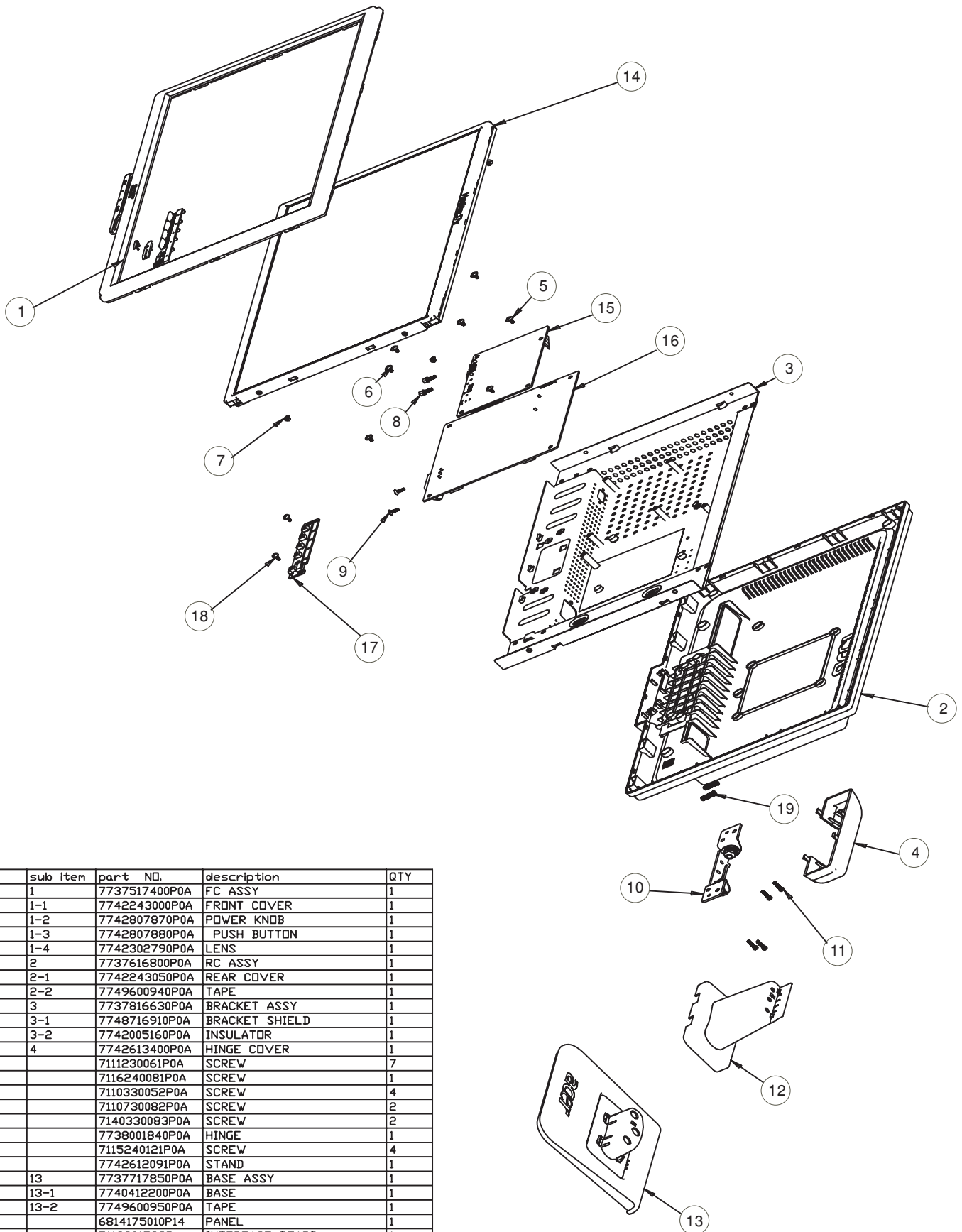
3.1 Packing Exploded Diagram



ITEM	QTY	PART NO	DESCRIPTION	DRAW NO	REMARK
①	1	774920xxxxPOA	CARTON	834000XXXX	
②	1	7749106560POA	EPS-R	8340005809	
③	1	7749003210POA	EPS-L		
④	1	7749001280POA	LDPE+EPE BAG	8340005421	LCD MONITOR
⑤	1	7749001280POA	P.E. BAG	8440004238	SIGNAL CABLE
⑥	0.002	7749600400POA	TAPE		914M
⑦	0.035	7749600200POA	TAPE	8440004216	25mm(W)
⑧	1	7740100200	WIRING TIES	8440000046	250x2.5mm
⑨	1		USER'S MANUAL		
⑩	1		LCD MONITOR		
⑪	1		STAND		
⑫	1.012	7749003190POA	BAG	8440006561	

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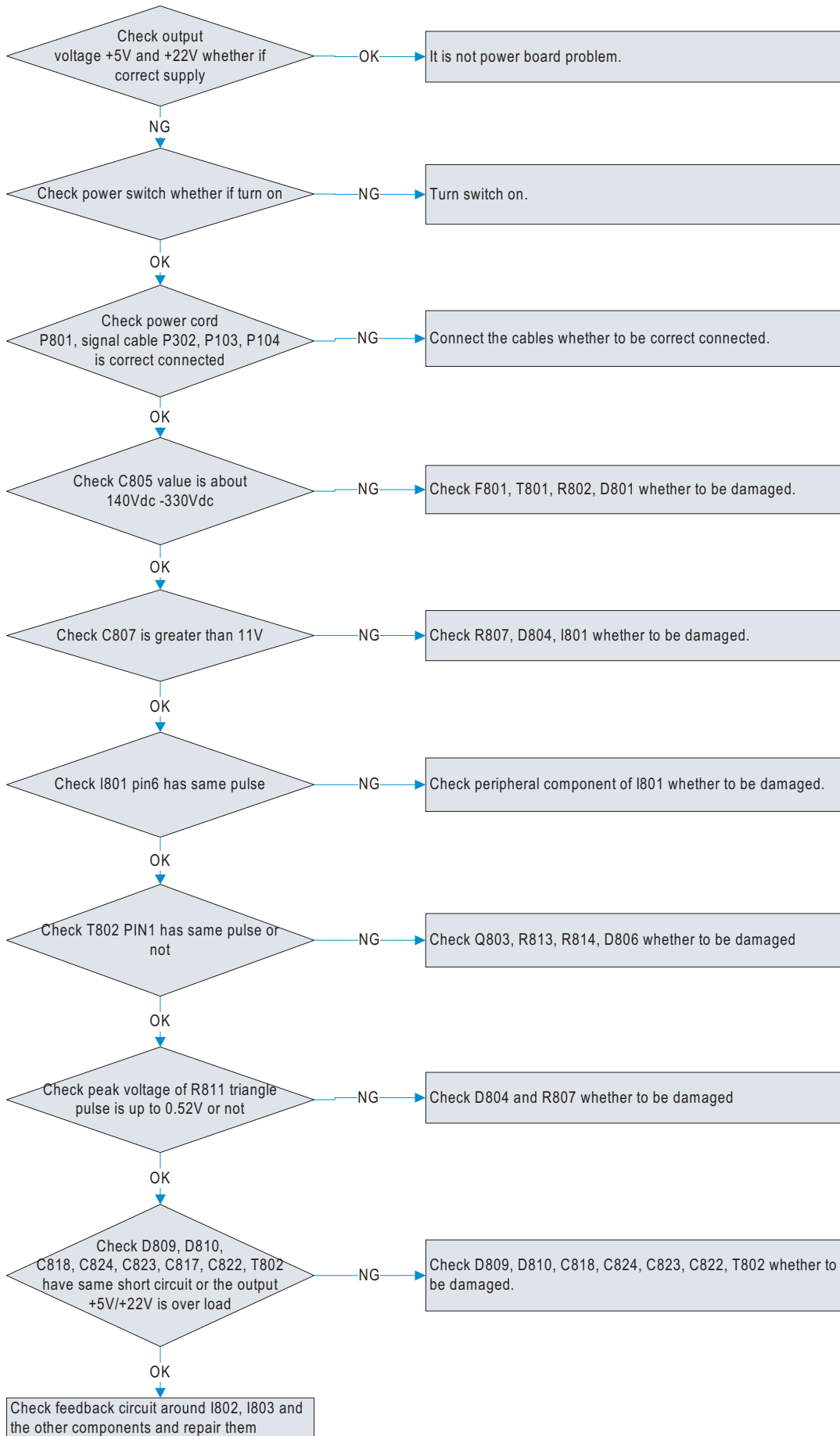
3.2 Product Exploded Diagram



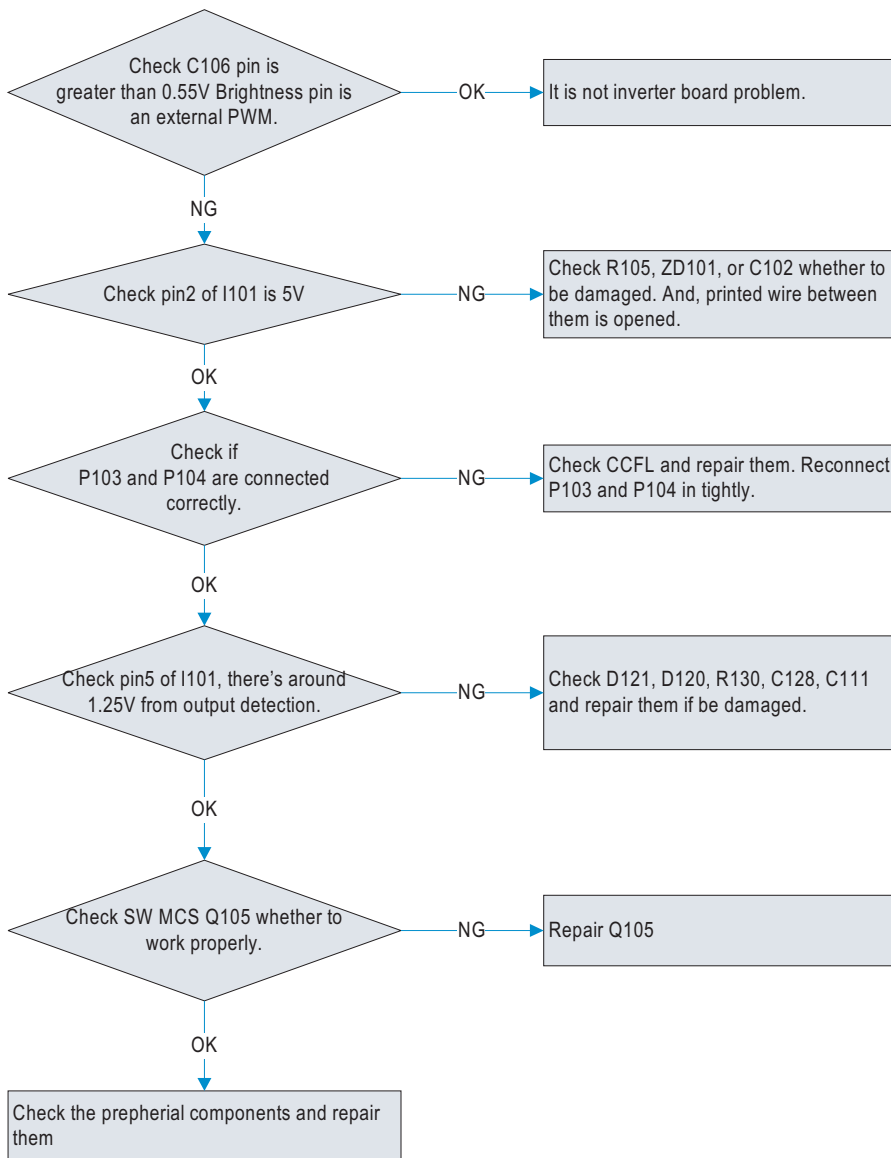
	sub item	part NO.	description	QTY
1	1	7737517400P0A	FC ASSY	1
	1-1	7742243000P0A	FRONT COVER	1
	1-2	7742807870P0A	POWER KNOB	1
	1-3	7742807880P0A	PUSH BUTTON	1
	1-4	7742302790P0A	LENS	1
2	2	7737616800P0A	RC ASSY	1
	2-1	7742243050P0A	REAR COVER	1
	2-2	7749600940P0A	TAPE	1
3	3	7737816630P0A	BRACKET ASSY	1
	3-1	7748716910P0A	BRACKET SHIELD	1
	3-2	7742005160P0A	INSULATOR	1
4	4	7742613400P0A	HINGE COVER	1
5		7111230061P0A	SCREW	7
6		7116240081P0A	SCREW	1
7		7110330052P0A	SCREW	4
8		7110730082P0A	SCREW	2
9		7140330083P0A	SCREW	2
10		7738001840P0A	HINGE	1
11		7115240121P0A	SCREW	4
12		7742612091P0A	STAND	1
13	13	7737717850P0A	BASE ASSY	1
	13-1	7740412200P0A	BASE	1
	13-2	7749600950P0A	TAPE	1
14		6814175010P14	PANEL	1
15		5113301738P	INTERFACE BOARD	1
16		5114300839P	POWER BOARD	1
17		5113800899P	FUNCTION KEY BOARD	1
18		7140130061P0A	SCREW	2
19		7140340162P0A	SCREW	3

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4.1 Power board



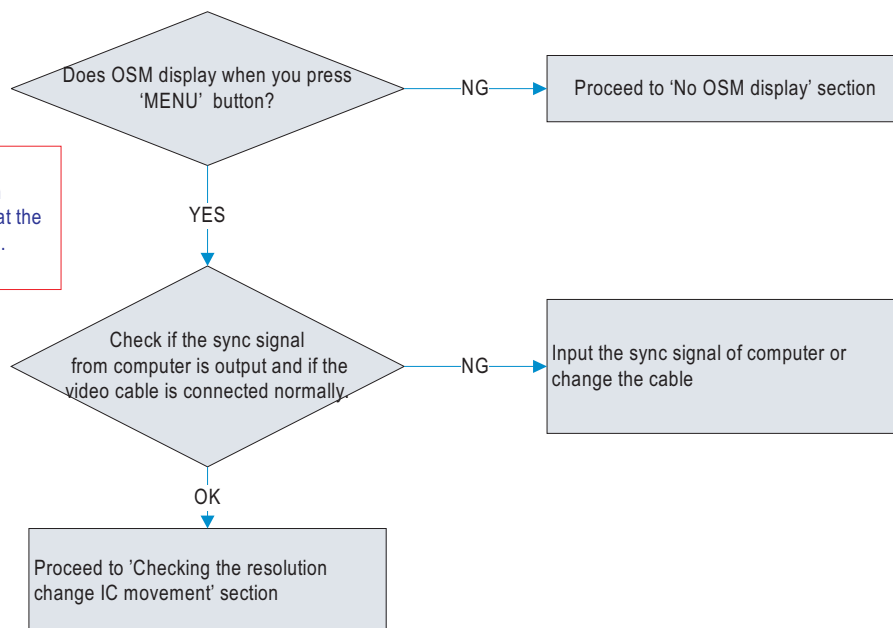
4.2 Inverter circuit on power board



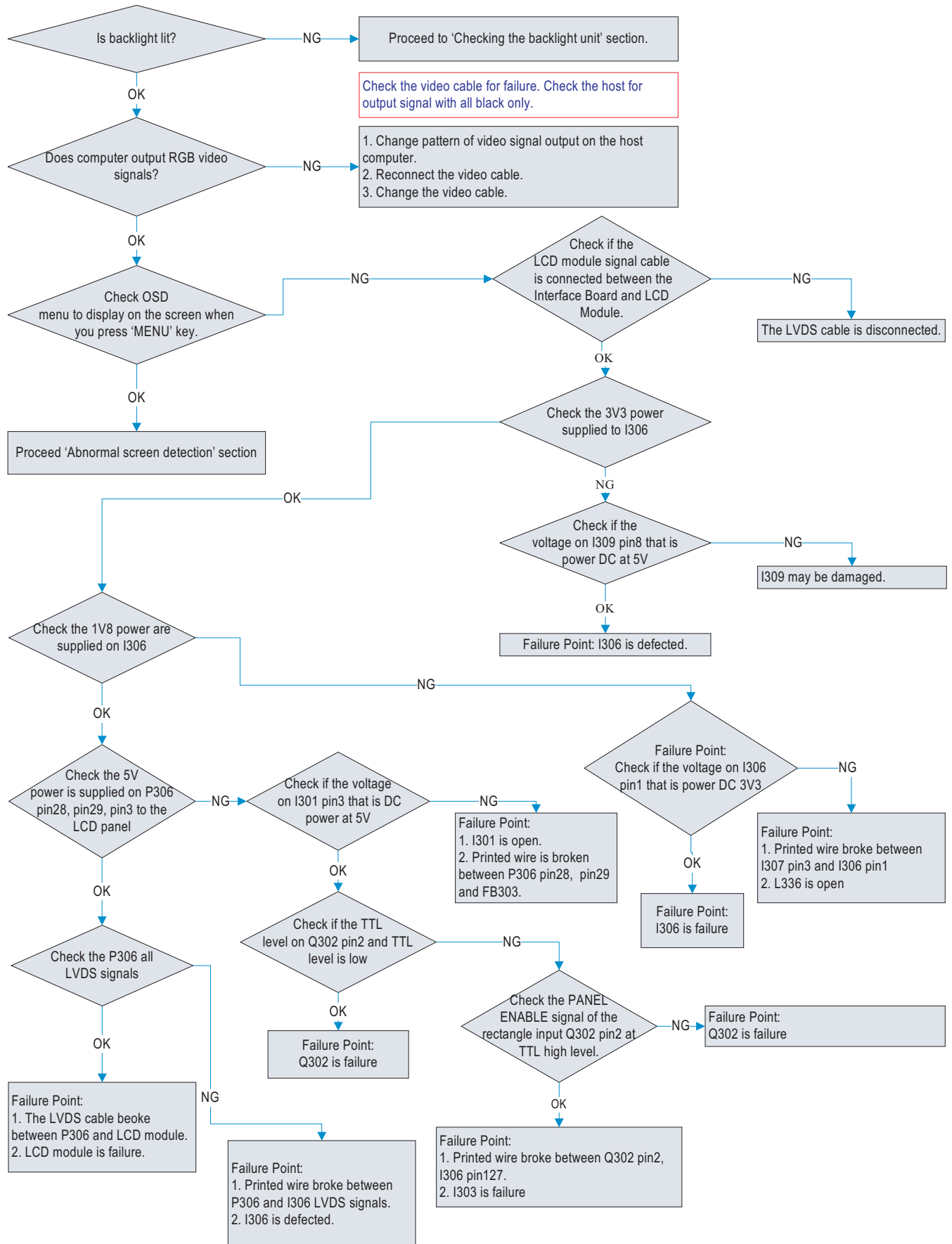
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4.3 No display of screen (Screen is black, color of LED is amber)

When a signal is not being input, it indicates with 'VIDEO INPUT'. It indicates with 'Out of Range' at the time of the frequency that it cannot distinguished.

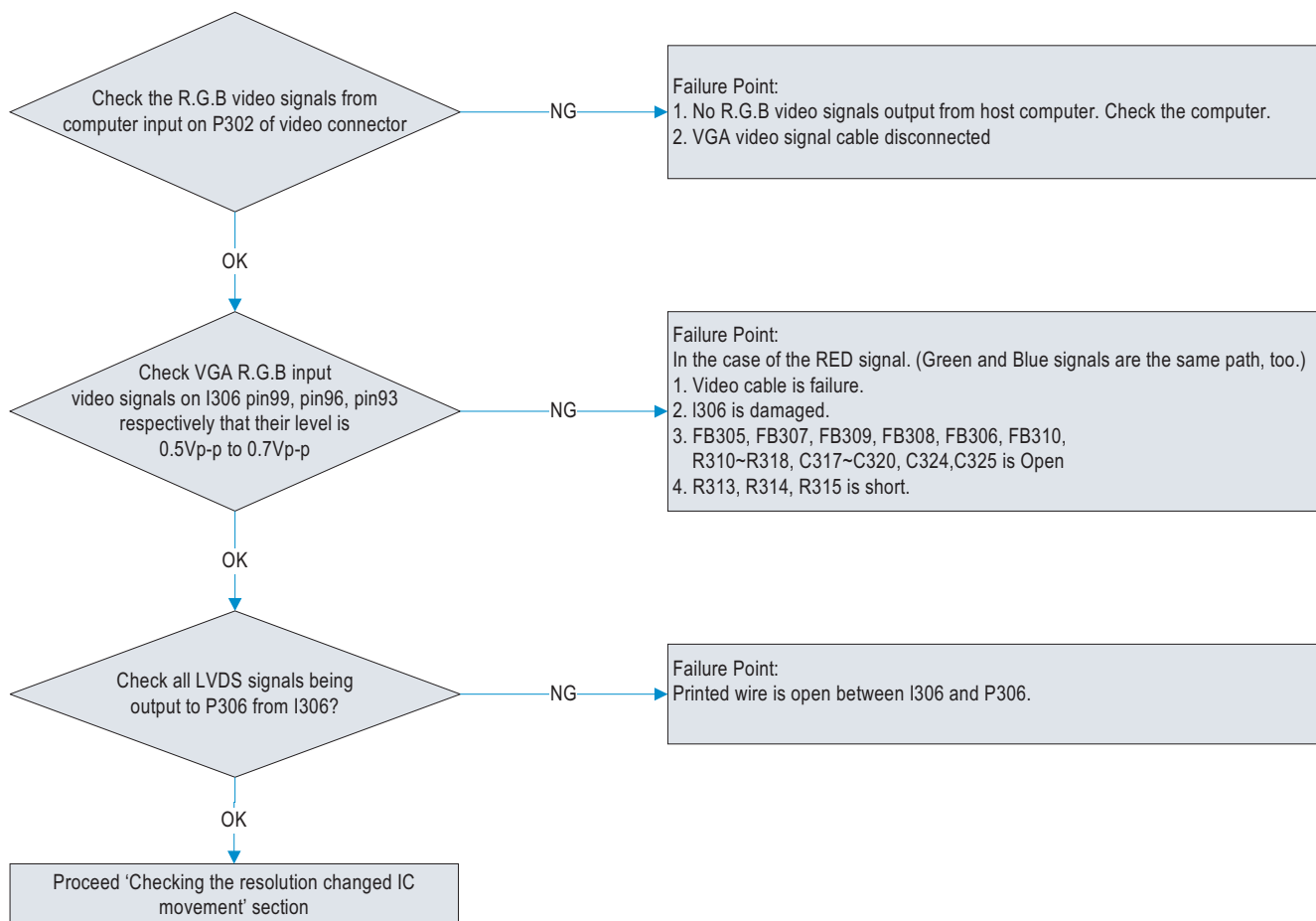


4.4 Nothing display on screen (screen is black, color of LED is blue)

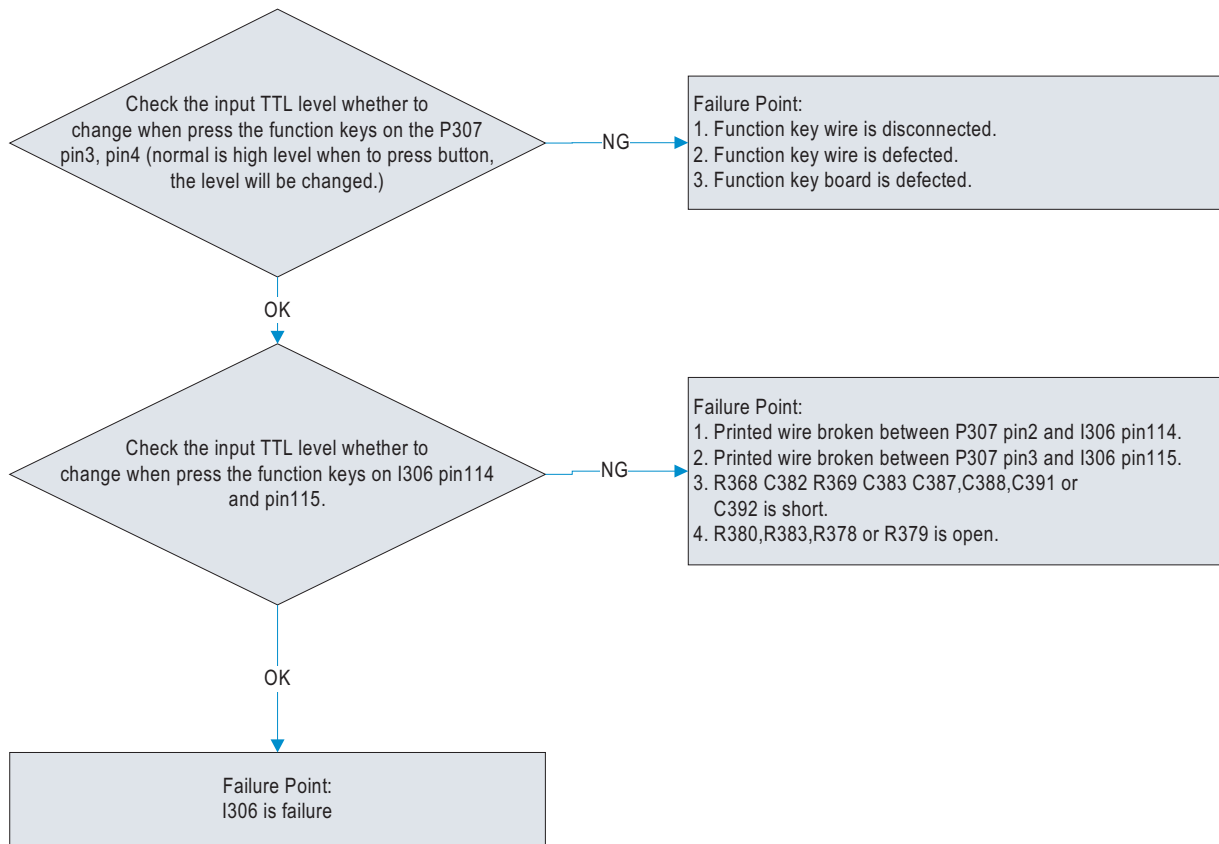


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4.5 Abnormal screen for VGA source

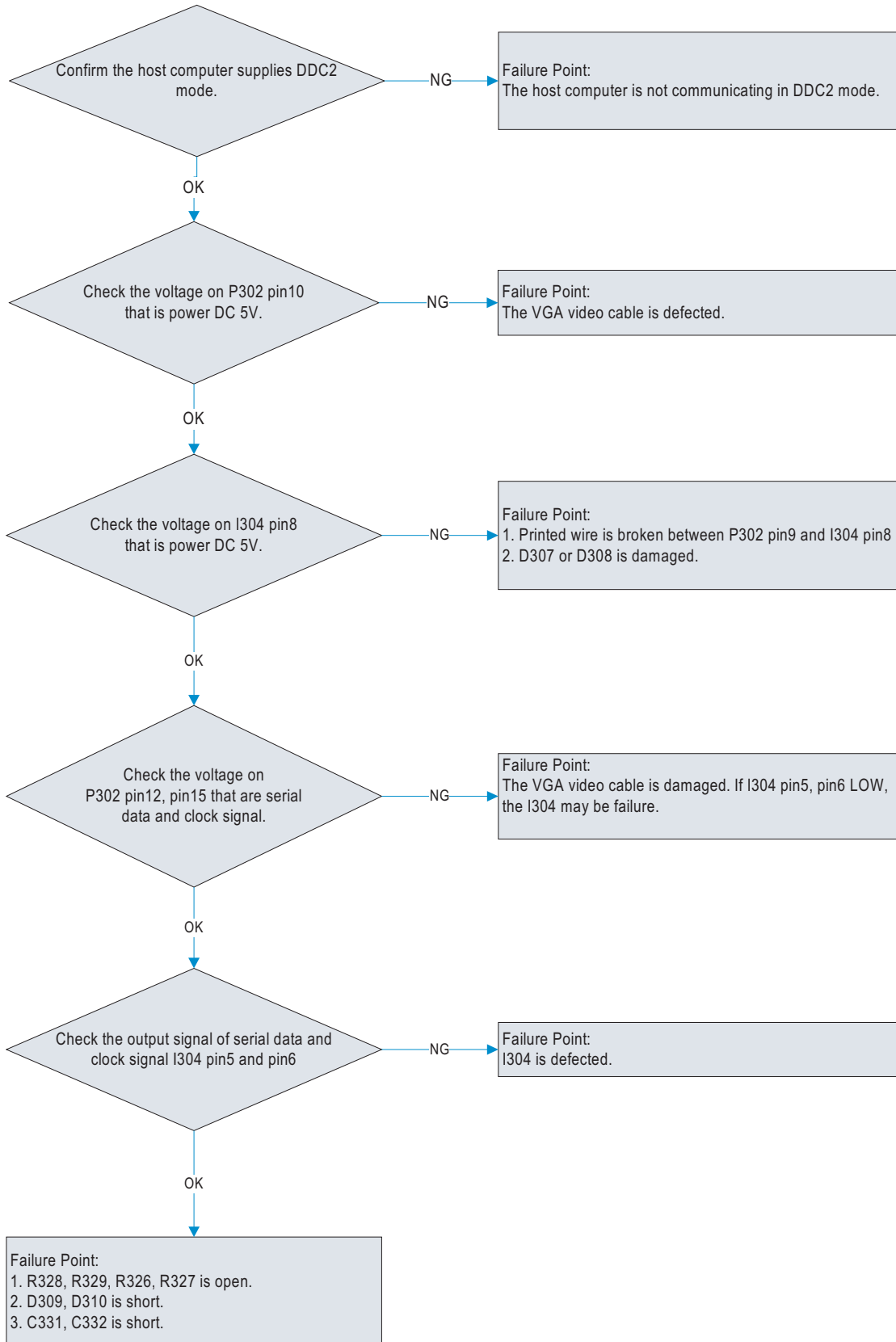


4.6 Abnormal OSM display adjust problem

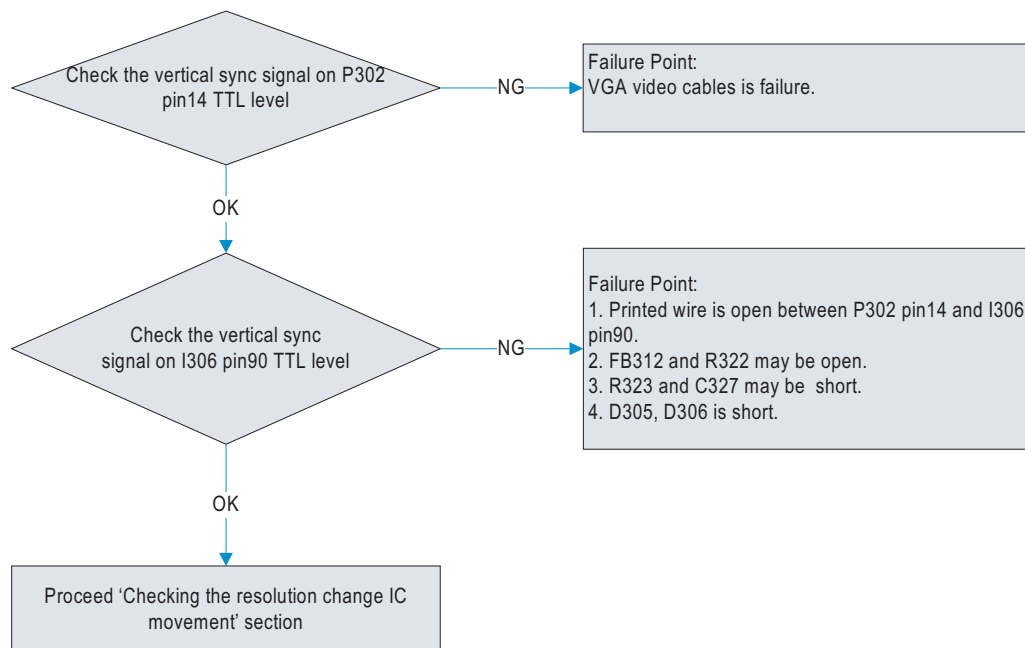


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4.7 Abnormal plug and play for VGA

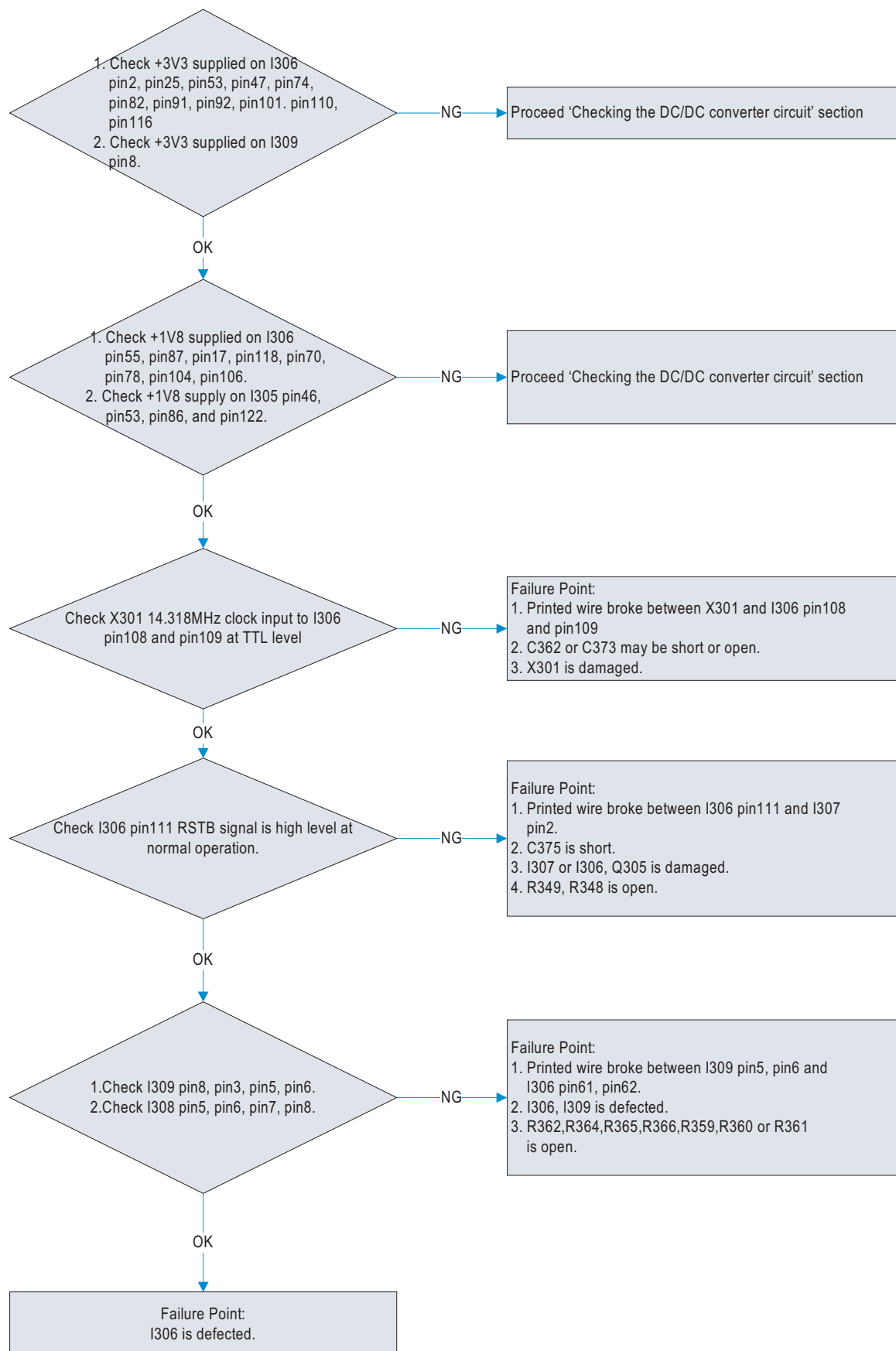


4.8 Checking the control circuit of vertical sync pulse for VGA



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4.9 Checking the resolution change IC movement



Model Name: ACER_AL1716W

Model Number: 4793102913P

Description: T17ANHW-G1(99)-E91(C)_ACER_AL1716W

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BOARD ASSYS

CKT_ID	Component	Description	Pri
0	5113102243P	T17ANHW-G1(99)_ACER_LCD ASSY	
0	5113301738P	T17ANHW-G1(99)_ACER_INTERFACE BD	
0	5113800899P	T17BNHW-G1(99)_ACER_FUNCTION KEY BD	
0	5114300839P	T17BNHW-G1(99)_ACER_POWER BD	
0	5112403872P	T17ANHW-G1(99)_ACER_PACKING ASSY	

CAPACITORS

CKT_ID	Component	Description	Pri
C102	6311522045P20	CAP.ALU_uF_22_50V_T_105C_5x11_SK/SUSCON	
C104	6338110215P	CAP_CD_pF_1000_50V_K_T_X7R	
C106	6355147355P	CAP.PER_uF_0.047_50V_J_T_EUR	50
C106	6357147355P	CAP.PEM_uF_0.047_50V_J_T	51
C107	6338110215P	CAP_CD_pF_1000_50V_K_T_X7R	
C111	6355110255P	CAP.PER_pF_1000_50V_J_T_EUR	50
C111	6357110255P	CAP.PEM_uF_0.001_50V_J_T	51
C116	6334110052P30	CAP_CD_pF_10_3000V_J_L3.0P7.5_NPO_SUCCES S	50
C116	6334910082P20	CAP_CD_pF_10_3000V_K_F_P=7.5_SL_TDK	51
C118	6334950912P20	CAP_CD_pF_5_3000V_K_L4P7.5_SL_TDK	51
C118	6334950912P30	CAP_CD_pF_5_3000V_K_L4P7.5_SL_SUCCES S	50
C119	6355133255P	CAP.PER_pF_3300_50V_J_T_EUROPTRONIC	50
C119	6357133255P	CAP.PEM_uF_0.0033_50V_J_T	51
C125	6311447185P20	CAP.ALU_uF_470_35V_T_105C_10x20_MF/SUSCO	
C128	6355147355P	CAP.PER_uF_0.047_50V_J_T_EUR	50
C128	6357147355P	CAP.PEM_uF_0.047_50V_J_T	51
C134	6311447185P20	CAP.ALU_uF_470_35V_T_105C_10x20_MF/SUSCO	
C135	6311447185P20	CAP.ALU_uF_470_35V_T_105C_10x20_MF/SUSCO	
C142	6355110255P	CAP.PER_pF_1000_50V_J_T_EUR	50
C142	6357110255P	CAP.PEM_uF_0.001_50V_J_T	51
C144	6355110255P	CAP.PER_pF_1000_50V_J_T_EUR	50
C144	6357110255P	CAP.PEM_uF_0.001_50V_J_T	51
C152	6335122115P	CAP_CD_PPF_220_50V_K_T_Y5P	
C301	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C302	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C305	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C306	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C307	6311310142P20	CAP.ALU_uF_100_25V_L3.5P2.5_105C_6.3x11_SK/SUSCON	
C308	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C309	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C309	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C310	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK_CAPXON	51
C310	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C311	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C312	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C312	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C313	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK_CAPXON	51
C313	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C314	6311310142P20	CAP.ALU_uF_100_25V_L3.5P2.5_105C_6.3x11_SK/SUSCON	
C315	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK_CAPXON	51
C315	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C316	6311310142P20	CAP.ALU_uF_100_25V_L3.5P2.5_105C_6.3x11_SK/SUSCON	
C317	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C318	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C319	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C320	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C321	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C322	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C323	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C324	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C325	6371210306P01	CAP.MC_uF_0.01_50V_M_X7R	
C326	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C327	6371110156P	CAP.MC_pF_100_50V_J_NPO_SMD_0603	
C328	6371147056P	CAP.MC_pF_47_50V_J_NPO_SMD_060	50
C328	6371147056P01	CAP.MC_pF_47_50V_J_NPO_SMD_603_SMD	51

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CAPACITORS

CKT_ID	Component	Description	Pri
C328	6371147056P40	CAP.MC_pF_47_50V_J_NPO_0603_SAMSUNG	52
C329	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C330	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C331	6371147056P	CAP.MC_pF_47_50V_J_NPO_SMD_060	
C332	6371147056P	CAP.MC_pF_47_50V_J_NPO_SMD_060	
C348	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK CAPXON	51
C348	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C349	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C349	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C350	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C350	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C351	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C351	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C352	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C352	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C353	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C354	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C354	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C355	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK CAPXON	51
C355	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C356	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C356	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C357	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK CAPXON	51
C357	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C358	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C359	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C360	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C361	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C362	6371110056P01	CAP.MC_pF_10_50V_J_NPO_SMD_603_SMD	
C363	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK CAPXON	51
C363	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C364	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C364	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C365	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C365	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C366	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C367	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C367	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C368	6311210069P10	CAP.ALU_uF_10_16V_F/P=2/L=4_105C_4X7_SK CAPXON	51
C368	6311210069P20	CAP.ALU_uF_10_16V_L3.5P2_105C_4x7_SM/SUS SUSCON	50
C369	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C370	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C371	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C372	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C373	6371110056P01	CAP.MC_pF_10_50V_J_NPO_SMD_603_SMD	
C374	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C375	6371110156P	CAP.MC_pF_100_50V_J_NPO_SMD_0603	
C376	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C376	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C377	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C379	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C379	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C380	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C380	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C382	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C383	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C385	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C386	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C387	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C387	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C388	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C388	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C391	6373410486P01	CAP.MC_uF_0.1_25V_Z_Y5V_SMD_603_SMD	
C392	6373210416P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0603_PB	50
C392	6373210416P40	CAP.MC_uF_0.1_25V_K_X7R_0603_SAMSUNG	51
C601	6373210412P	CAP.MC_uF_0.1_25V_K_X7R_SMD_0805	

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CAPACITORS

CKT_ID	Component	Description	Pri
C602	6373210412P	CAP. MC_uF_0.1_25V_K_X7R_SMD 0805	
C801	6328833419P	CAP. X2_MPP_uF_0.33_275V_K_P=15_HJC	
C802	6302433262P	CAP. CD_pF_3300_250V_M_F_10_SY1_P/O	50
C802	6302433262P01	CAP. CD_pF_3300_250V_M_F_P=10_SY1_SEC	51
C805	6312710141P60	CAP. ALU_uF_100_450V_LF15P7.5_105C_18*35.5_PAG NIPPON CHEMI-CON	51
C805	6312710149P22	CAP. ALU_uF_100_450V_90DP7.5R_105C_18x35_SE_SUSCON	50
C806	6336510305P	CAP. CD_uF_0.01_1000V_M_T_Z5U	
C807	6311510045P20	CAP. ALU_uF_10_50V_T_105C_5x11_SK/SUSCON	
C809	6338547215P30	CAP. CD_pF_4700_1000V_K_T_X7R_SEC	
C810	6338522115P	CAP. CD_pF_220_1000V_K_T_X7R	
C811	6335122115P	CAP. CD_PF_220_50V_K_T_Y5P	
C812	6335110215P	CAP. CD_PF_1000_50V_K_T_Y5P	
C815	6336510305P	CAP. CD_uF_0.01_1000V_M_T_Z5U	
C816	6338410215P	CAP. CD_pF_1000_500V_K_T_X7R	
C818	6311447185P20	CAP. ALU_uF_470_35V_T_105C_10x20_MF/SUSCO	
C819	6328833419P	CAP. X2_MPP_uF_0.33_275V_K_P=15_HJC	
C820	6302422212P01	CAP. CD_PF_2200_250V_M_F_10_SY1	
C821	6338210215P	CAP. CD_pF_1000_100V_K_T_X7R	
C822	6311210245P22	CAP. ALU_uF_1000_16V_T_105C_10x20_HG_/SUSCON	
C823	6311210245P22	CAP. ALU_uF_1000_16V_T_105C_10x20_HG_/SUSCON	
C824	6311210245P22	CAP. ALU_uF_1000_16V_T_105C_10x20_HG_/SUSCON	
C825	6302422212P01	CAP. CD_PF_2200_250V_M_F_10_SY1	
C827	6355110355P	CAP. PER_uF_0.01_50V_J_T EUROPTRONIC	50
C827	6357110355P	CAP. PEM_uF_0.01_50V_J_T	51
C828	6311547945P20	CAP. ALU_uF_4.7_50V_T_105C_5x11_SK/SUSCON	
C829	6338547215P30	CAP. CD_pF_4700_1000V_K_T_X7R_SEC	

COILS, TRANSFORMER, AND FILTERS

CKT_ID	Component	Description	Pri
FB301	6881603578P	CORE_BEAD_PBY160808T_600Y_S_SMD_CHILISIN	
FB302	6881603578P	CORE_BEAD_PBY160808T_600Y_S_SMD_CHILISIN	
FB303	6881603578P	CORE_BEAD_PBY160808T_600Y_S_SMD_CHILISIN	
FB304	6881603578P	CORE_BEAD_PBY160808T_600Y_S_SMD_CHILISIN	
FB305	6881604078P	CORE_BEAD_SBK160808T_110YS_SMD 0603_CHILISIN	
FB306	6881601578P	CORE_BEAD_SBK160808T_300Y_S	
FB307	6881604078P	CORE_BEAD_SBK160808T_110YS_SMD 0603_CHILISIN	
FB308	6881601578P	CORE_BEAD_SBK160808T_300Y_S	
FB309	6881604078P	CORE_BEAD_SBK160808T_110YS_SMD 0603_CHILISIN	
FB310	6881601578P	CORE_BEAD_SBK160808T_300Y_S	
FB311	6881604238P10	CORE_BEAD_SBK160808T_451Y_N_SMD_CHILISIN	
FB312	6881604238P10	CORE_BEAD_SBK160808T_451Y_N_SMD_CHILISIN	
FB313	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
FB314	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
FB315	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
FB316	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
FB317	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
FB323	6881603878P	CORE_BEAD_PBY160808T_301Y_S_SMD0604_CHILISIN	
L802	6881008005P	CORE_BEAD_C8B RH3.5xL6x1(W)X2+TP	
L803	6881001507P	CORE_BEAD_W5 RH3.5x6x1.0T	
T102	6131022300P	XFRMER_POWER_TPW_1137_EEL_19B_LSE	50
T102	6131022310P	XFRMER_POWER_TPW_1137_EEL19_DARFON TK202 4M101	51
T801	6138003000P	LINE_FILTER_TLF_1030_mH_10.5_ET	
T802	6131053702P	XFRMER_POWER_TPW-1128_ER28(ADD1Ts)_LSE_PLI6008AL	

CABLES AND CONNECTORS AND PLUGS

CKT_ID	Component	Description	Pri
GND1	6714010601P25	HARNESS-1P-120mm-CG601-21 LENGTH-1.8/TIN 10	
P103	6613050030P	PLUG_5P/2P_2.0mm_62047_TAIWAN KING PIN	51
P103	6613050030P80	PLUG_5P/2P_2.0mm_M24211P5R-D_STM	50
P104	6613050030P	PLUG_5P/2P_2.0mm_62047_TAIWAN KING PIN	51
P104	6613050030P80	PLUG_5P/2P_2.0mm_M24211P5R-D_STM	50
P301	6613090020P	PLUG_9P_2.0mm_JWT_A2001WR2_09	
P302	6642150411P	CONNECTOR_D_SUB_15P_P03_A004_199_NTK_401MAKER	
P302A	6715011603P00	CABLE_VIDEO_DSUBx2_1800mm_BLK_20276#30_(3+6)OD=6_JCE	
P306	6640030005P20	CONN_FFC_30P_1.0_CF25302D0R0-10_CVILUX	51
P306	6640030007PD0	CONN_FFC_30P_1.0_AFN300-N2G11_P-TWO	50

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CABLES AND CONNECTORS AND PLUGS

CKT_ID	Component	Description	Pri
P306A	6712300067PC0	HARNESS_FFC_30P(1.0)_200mm_20696_P-TWO	
P307	6613005003P20	PLUG_5P_2.0mm_CI0105P1VK0_CVILUX	51
P307	66130050020P	PLUG_5P_2.0mm_A2001WV2_05_JWT	50
P307A	6711050010P00	HARNESS_5P_220mm_1571#28_JCE	
P601	6610005002P00	PLUG_5P_1.25mm_A1251WR0-5P_JWT	
P801	6621030150PS0	AC INLET_3P_INALWAYS_0707-1-C7C	50
P801	6621030151P91	AC INLET_3P_DLK_CDJ_3H	51
P802	6711100003P90	HARNESS_10P/9P_100mm_1007#24_ETC	
S601	6853001100P	SWITCH_TACT_SKHHAK2510_BLK 5mm	51
S601	6853001120P	SWITCH_TACT_100gf_BLK_DANG NAN	50
S602	6853001100P	SWITCH_TACT_SKHHAK2510_BLK 5mm	51
S602	6853001120P	SWITCH_TACT_100gf_BLK_DANG NAN	50
S603	6853001100P	SWITCH_TACT_SKHHAK2510_BLK 5mm	51
S603	6853001120P	SWITCH_TACT_100gf_BLK_DANG NAN	50
S604	6853001100P	SWITCH_TACT_SKHHAK2510_BLK 5mm	51
S604	6853001120P	SWITCH_TACT_100gf_BLK_DANG NAN	50
S605	6853001100P	SWITCH_TACT_SKHHAK2510_BLK 5mm	51
S605	6853001120P	SWITCH_TACT_100gf_BLK_DANG NAN	50

DIODES

CKT_ID	Component	Description	Pri
D103	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D103	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D109	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D109	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D118	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D118	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D119	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D119	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D120	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D120	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D121	6412001704P	DIODE_SWITCHING_1N4148 T_77_T2	51
D121	6412025504P	DIODE_SWITCHING_1N4148E_T26_Grande	50
D301	6412019518P	DIODE_SWITCHING_MMBD7000_7_75V_SOT23_4nS_DII	51
D301	6412027818P10	DIODE_BAV99-7-F_SOT23_DIODES	50
D302	6412019518P	DIODE_SWITCHING_MMBD7000_7_75V_SOT23_4nS_DII	51
D302	6412027818P10	DIODE_BAV99-7-F_SOT23_DIODES	50
D303	6412019518P	DIODE_SWITCHING_MMBD7000_7_75V_SOT23_4nS_DII	51
D303	6412027818P10	DIODE_BAV99-7-F_SOT23_DIODES	50
D304	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D304	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D305	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D305	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D306	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D306	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D307	6413030038P	DIODE_SCHOTTKY_BAT54C_7_0.2A/30V_SOT23_5nS_DII	
D308	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D308	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D309	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D309	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D310	6414056038P	DIODE_ZNR_RLZ TE_11 5.6B LL_34	50
D310	6414056108P	DIODE_ZENER_MMSZ5232B_7_5.6V_SOD123_DII	51
D601	6418004600P	LED_LTL_1_BEDJP1_1(Y)3(G)_BULK_LITEON	50
D601	6418004610P	LED_GP32032M/R003_ZY_01_YELLOW/GREEN 1(G 3(Y)_DIP_G&P	51
D801	6417001010P	DIODE_BRIDGE_U4KB80R_4A/800V_SHINDENGEN	50
D801	6417002100PF0	DIODE_BRIDGE_SINGLE_GBU4K_4A/800V_GBU_VI SHAY	51
D801	6417002300PH0	DIODE_BRIDGE_SINGLE_GBU406_4A/800V_GBU_TSC	52
D802	6413150007PA0	DIODE_SCHOTTKY_P6KE150AT/B_T52_MCC	50
D802	6413150027P	DIODE_SCHOTTKY_P6KE150AT/B_T52_PANJIT	51
D803	6412026604P	DIODE_FAST RECOVERY_PG108R_1A/800V_DO_41 500nS_PANJIT	
D804	6412012337P	DIODE_SWITCHING_UF4005G_1A/600V_T52_75nS_PANJIT	
D806	6412001707P	DIODE_SWITCHING_1N4148 T_T2_T5	51
D806	6412025507P	DIODE_SWITCHING_1N4148 T_T52_Grande	50
D809	6412000020P00	DIODE_SWITCHING_STPF1020CT_10A/200V_TO-220AB_30nS_LITEON	50
D809	6412027820PG0	DIODE_SWITCHING_URF1020_10A/200V_35NS_ITO-220AB_MOSPEC	51
D810	6413060000P	DIODE_SCHOTTKY_SB1060F_10A/60V_PANJIT	50

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DIODES

CKT_ID	Component	Description	Pri
D810	6413060010P00	DIODE_SCHOTTKY_SBF1060CT_10A/60V_TO-220_AB_LITEON	51
D811	6414240014P	DIODE_ZNR_MTZJ T_77 24B_T26	51
D811	6414240014PB0	DIODE_ZENER_GDZJ24C_T26_Grande	50
ZD101	6414068004PB0	DIODE_ZNR_GDZJ6.8B_T26_Grande	
ZD801	6414220024P	DIODE_ZNR_MTZJ T_77 22D DO_34_T26	

ICS

CKT_ID	Component	Description	Pri
I101	6442044900P	IC_LINEAR_OZ9936DN_8P_DIP_O2	
I301	6444014708P	IC_CMOS_AO3401_3P_SOT23_ALPHA&OMEGA	51
I302	6442023326P	IC_LINEAR_AIC1084_33PM_3P_TO263_AIC	51
I302	6442023348P	IC_LINEAR_AP1084K33LA_3P_TO263_ATC	50
I303	6442043308P	IC-Linear-AIC1117-18PETR-3P-TO252-AIC IC	51
I303	6442043318P	IC_LINEAR_AP1117D18L_3P_TO252_ATC	50
I304	6448018208P	IC_CPU_24LC02BT/SN_8PIN_SOIC_MICROCHIP	51

ICS

CKT_ID	Component	Description	Pri
I304	6448018218P	IC_CPU_M24C02_WMN6T_8PIN_SO8_ST	50
I306	6447009006P21	IC_ASIC_GM5726H-LF-AB_128P_PQFP_GENESIS DIGITAL	
I307	6442045108P	IC_LINEAR_STL8110GNL463_3P_SO_23_SENTELI C	
I308	6448016508P	IC_CPU_24LC16BT/SN_8PIN_SOIC	51
I308	6448016518P	IC_CPU_M24C16_WMN6T_8PIN_SO8_ST	50
I309	6448029528P19	IC_CPU_PM25LV020_100SCE_8PIN_SOIC_PMC DIGITAL	51
I309	6448029596P20	IC_CPU_SST25LF020A-33-4C-SAE_8P_SOIC_SST DIGITAL	50
I801	6442048350P05	IC_LINEAR_SG5841JDZ_8_DIP_SG_DIGITAL	
I802	6442014000P	IC_Linear_LTV_817D_4P_PDIP	
I803	6442041005P	IC_LINEAR_AP431VLA_3P_TO 92_ANACHIP	
Q105	6444023100P	IC-CMOS-AOP607-8P-DIP-AOS	51

RESISTORS

CKT_ID	Component	Description	Pri
R101	6212110454P	RES.CF_KOHM_100_1/4W_J_T26_MIN	
R102	6212110454P	RES.CF_KOHM_100_1/4W_J_T26_MIN	
R103	6212110354P	RES.CF_KOHM_10_1/4W_J_T26_MINI	
R104	6224610234P	RES.MF_KOHM_102_1/4W_F_T26	
R105	6212122054P	RES.CF_OHM_22_1/4W_J_T26_MINI	
R112	6212110254P	RES.CF_KOHM_1_1/4W_J_T26_MINI	
R113	6212175454P	RES.CF_KOHM_750_1/4W_J_T26_MINI	
R118	6212110457P	RES.CF_KOHM_100_1/4W_J_T52_MINI	
R125	6213230557P	RES.CMF_MOHM_3_1/4W_J_T52_KAMAYA:RNV600 V	
R126	6224636514P	RES.MF_KOHM_3.65_1/4W_F_T26	
R130	6224634004P	RES.MF_OHM_340_1/4W_F_T26	
R131	6212110054P	RES.CF_OHM_10_1/4W_J_T26_MINI	
R132	6212120254P	RES.CF_KOHM_2_1/4W_J_T26_MINI	
R133	6212110054P	RES.CF_OHM_10_1/4W_J_T26_MINI	
R134	6212115254P	RES.CF_KOHM_1.5_1/4W_J_T26_MIN	
R164	6212110254P	RES.CF_KOHM_1_1/4W_J_T26_MINI	
R301	6252100156P	RES.CHIP_R_KOHM_1_1/10W_J_603	
R302	6252100256P	RES.CHIP_R_KOHM_10_1/10W_J_603	
R304	6252470156P	RES.CHIP_R_KOHM_4.7_1/10W_J_603	
R305	6252100056P	RES.CHIP_R_OHM_100_1/10W_J_603	
R307	6252100256P	RES.CHIP_R_KOHM_10_1/10W_J_603	
R308	6252470256P	RES.CHIP_R_KOHM_47_1/10W_J_603	
R309	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R310	6252680956P	RES.CHIP_R_OHM_68_1/10W_J_603	
R311	6252100056P	RES.CHIP_R_OHM_100_1/10W_J_603	
R312	6252680956P	RES.CHIP_R_OHM_68_1/10W_J_603	
R313	6252750946P	RES.CHIP_R_OHM_75_1/10W_F_603	
R314	6252750946P	RES.CHIP_R_OHM_75_1/10W_F_603	
R315	6252750946P	RES.CHIP_R_OHM_75_1/10W_F_603	
R316	6252100056P	RES.CHIP_R_OHM_100_1/10W_J_603	
R317	6252680956P	RES.CHIP_R_OHM_68_1/10W_J_603	
R318	6252100056P	RES.CHIP_R_OHM_100_1/10W_J_603	
R319	6252100256P	RES.CHIP_R_KOHM_10_1/10W_J_603	
R320	6252100156P	RES.CHIP_R_KOHM_1_1/10W_J_603	
R321	6252100056P	RES.CHIP_R_OHM_100_1/10W_J_603	

5. Spare Parts List (continued)

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RESISTORS

CKT_ID	Component	Description	Pri
R322	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R323	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R324	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R325	6252100256P	RES. CHIP_R_KOHM_10_1/10W_J_603	
R326	6252120256P	RES. CHIP_R_KOHM_12_1/10W_J_603	
R327	6252120256P	RES. CHIP_R_KOHM_12_1/10W_J_603	
R328	6252470956P	RES. CHIP_R_OHM_47_1/10W_J_603	
R329	6252470956P	RES. CHIP_R_OHM_47_1/10W_J_603	
R330	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R348	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R349	6252100946P	RES. CHIP_R_OHM_10_1/10W_F_603	
R350	6252250046P	RES. CHIP_R_OHM_250_1/10W_F_603	
R351	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R356	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R357	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R358	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R359	6252470156P	RES. CHIP_R_KOHM_4.7_1/10W_J_603	
R360	6252470156P	RES. CHIP_R_KOHM_4.7_1/10W_J_603	
R362	6252100256P	RES. CHIP_R_KOHM_10_1/10W_J_603	
R363	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R364	6252100256P	RES. CHIP_R_KOHM_10_1/10W_J_603	

RESISTORS

CKT_ID	Component	Description	Pri
R365	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R366	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R368	6252820356P	RES. CHIP_R_KOHM_820_0.1W_J_TAPING	
R369	6252820356P	RES. CHIP_R_KOHM_820_0.1W_J_TAPING	
R372	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R374	6252240156P00	RES.CHIP-R_KOHM_2.4_1/10W_J_0603	
R375	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R376	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R378	6252560246P00	RES.CHIP-R_KOHM_56_1/10W_F_0603_COMPOSTA	
R379	6252560246P00	RES.CHIP-R_KOHM_56_1/10W_F_0603_COMPOSTA	
R380	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R383	6252100056P	RES. CHIP_R_OHM_100_1/10W_J_603	
R601	6253560242P	RES. CHIP_R_KOHM_56_1/8W_F_805	
R602	6253150242P00	RES.CHIP-R_KOHM_15_1/8W_F_0805	
R603	6253560242P	RES. CHIP_R_KOHM_56_1/8W_F_805	
R604	6253300242P00	RES.CHIP-R_KOHM_30_1/8W_F_0805	
R605	6253150242P00	RES.CHIP-R_KOHM_15_1/8W_F_0805	
R801	6228110557P	RES. MGF_MOHM_1_1/4W_J_AT52	
R802	6201080012P	THERMISTOR_OHM_8_3A_P=5_SCK_083_TKS	
R804	6228120557P	RES. MGF_MOHM_2_1/4W_J_T52	
R807	6212133954P	RES. CF_OHM_3.3_1/4W_J_T26_MINI	
R808	6224630124P	RES. MF_KOHM_30.1_1/4W_F_T26	
R811	6221239852P	RES. MOF_OHM_0.39_2W_J_HOR	
R813	6221010157P	RES. MOF_OHM_100_1/4W_J_AT52	
R814	6221022057P	RES. MOF_OHM_22_1/4W_J_AT52	
R815	6221022157P	RES. MOF_OHM_220_1/4W_J_AT52	
R817	6212151354P	RES. CF_KOHM_51_1/4W_J_T26_MINI	
R823	6212127154P	RES. CF_OHM_270_1/4W_J_T26_MINI	
R824	6224633024P	RES. MF_KOHM_33_1/4W_F_T26	
R825	6212110254P	RES. CF_KOHM_1_1/4W_J_T26_MINI	
R826	6212110254P	RES. CF_KOHM_1_1/4W_J_T26_MINI	
R827	6224633024P	RES. MF_KOHM_33_1/4W_F_T26	
R828	6212110254P	RES. CF_KOHM_1_1/4W_J_T26_MINI	
R851	6224636514P	RES. MF_KOHM_3.65_1/4W_F_T26	

TRANSISTOR

CKT_ID	Component	Description	Pri
I301	6427000018P50	FET_P-CHNL_AO3419_3P_SOT23_AOS	50
Q101	6426008505P	FET_N_CHNL_2N7000TA_200mA/60V_F	
Q102	6421000525P	TRANSISTOR_NPN_KTC945_P_AT_KEC	50
Q102	6421000535P	TRANSISTOR_NPN_2SC945P_TO_92_B/	51
Q103	6423000215P	TRANSISTOR_PNP_KTA733_P_AT_TO	50
Q103	6423000225P	TRANSISTOR_PNP_2SA733P_TO_92_B/	51

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TRANSISTOR

CKT_ID	Component	Description	Pri
Q105	6428000010P50	FET_AOP609_8P_DIP_AOS	50
Q106	6421000525P	TRANSISTOR_NPN_KTC945_P_AT_KEC	50
Q106	6421000535P	TRANSISTOR_NPN_2SC945P_TO_92_B/	51
Q107	6421000525P	TRANSISTOR_NPN_KTC945_P_AT_KEC	50
Q107	6421000535P	TRANSISTOR_NPN_2SC945P_TO_92_B/	51
Q108	6421000525P	TRANSISTOR_NPN_KTC945_P_AT_KEC	50
Q108	6421000535P	TRANSISTOR_NPN_2SC945P_TO_92_B/	51
Q301	6422000018P20	TRANSISTOR_NPN_PMBS3904_SOT23_PHILIPS	51
Q301	6422007318P	TRANSISTOR_NPN_MMBT3904_7_SOT23_DII	52
Q301	6422007328P	TRANSISTOR_NPN_LMBT3904LT1G_SOT23_LRC	50
Q302	6422000018P20	TRANSISTOR_NPN_PMBS3904_SOT23_PHILIPS	51
Q302	6422007318P	TRANSISTOR_NPN_MMBT3904_7_SOT23_DII	52
Q302	6422007328P	TRANSISTOR_NPN_LMBT3904LT1G_SOT23_LRC	50
Q303	6422000018P20	TRANSISTOR_NPN_PMBS3904_SOT23_PHILIPS	51
Q303	6422007318P	TRANSISTOR_NPN_MMBT3904_7_SOT23_DII	52
Q303	6422007328P	TRANSISTOR_NPN_LMBT3904LT1G_SOT23_LRC	50
Q306	6422000018P20	TRANSISTOR_NPN_PMBS3904_SOT23_PHILIPS	51
Q306	6422007318P	TRANSISTOR_NPN_MMBT3904_7_SOT23_DII	52
Q306	6422007328P	TRANSISTOR_NPN_LMBT3904LT1G_SOT23_LRC	50
Q308	6422000018P20	TRANSISTOR_NPN_PMBS3904_SOT23_PHILIPS	51
Q308	6422007318P	TRANSISTOR_NPN_MMBT3904_7_SOT23_DII	52
Q308	6422007328P	TRANSISTOR_NPN_LMBT3904LT1G_SOT23_LRC	50
Q803	6426000190PF0	FET_N-CHNL_STP9NK65ZFP_6.4A/650V_ST	51
Q803	6426014260P70	FET_N-CHNL_KHB7D0N65F1_7A/650V_KEC	50

PACKING ASSYS

CKT_ID	Component	Description	Pri
1P11	7749206234P0A	CARTON_ACER_T17AN_AL1716W_2160SETS	
1P21	7749106560P0A	CUSHION_FOAM_EPS_ACER-AL1716W_2160SETS_L<(>&<)>R_472x117x398(H)	
1P31	7749003210P0A	BAG_LDPE+EPE_ORDINARY_ALL_MODEL_L680x_W550mmxH0.55mm	
1P33	7749001360P0B	BAG_LLDPE_ORDINARY_ALL_MODEL_W500mm*H0.	
1P34	7749001370P0A	BAG_LLDPE_FILM_STRETCH_WRAP_ALL_MODEL_W	
1P37	7749003190P0A	BAG_PE_ORDINARY_FOR_ACER_L300xW300xT0.05 mm	
1P41	7749600730P0A	TAPE_PACKING_50mx65mmx0.055mm_ACER	
1P42	7749600850P0A	TAPE_PACKING_914Mx60mmx0.065mm_FOR_ACER	
1P43	7749600200P0A	TAPE_MASKING_PACKING_25mm(w)x45m_LITEON	
1P44	7749600650P0A	TAPE_PACKING_250Mx15mmx0.95mm_ALL_MODEL	
1P51	7749406860P0A	BOARD_CORNER_PAPER_2100x50x3mm_HP	
1P52	7749401590P0A	BOARD_CORNER_PAPER_850x50x3mm	
1P53	7749404900P0A	BOARD_CORNER_PAPER_1050*50*3mm_H	
1P56	7749401870P0A	PAPER_BOARD_1120*900*4mm_H	
2B01	7735432480P0A	LABEL_MOD_#6360_89.5x49.5_ACER_NON-TCO	
2P01	7735431081P0A	LABEL_PACKING_LB_WHITE_100x80_ACER_ALL	
2P04	7735431688P0A	LABEL_VISTA(WORKS)_CMYK_65x28.6_ALL	
2P09	7735421811P0A	LABEL_PACKING_LB_WHT_152.4x101.6_ALL	
2U01	1241000205P	ID_DATE_CODE_LABEL	
2U02	1241000208P	LABEL_IC_LABEL_ALL_ART_PAPER_3x2mm	
2U03	1241000205P	ID_DATE_CODE_LABEL	
2U04	1241000205P	ID_DATE_CODE_LABEL	
2U04	1241000400P	MODEL_LABEL_WHITE	
3U01	1241000205P	ID_DATE_CODE_LABEL	
6BB1	7749600940P0A	TAPE_PACKING_114x36x0.25mm_FOR_ACER_R20_BUNW	
8C01P	7735431685P0A	LABEL_VISTA(WORKS)_CMYK_25.4x11.2_LENOVO_T15AN	
8CC2	7749600950P0A	TAPE_PACKING_86x28x0.25mm_FOR_ACER_R20BU	
8U01	1241000205P	ID_DATE_CODE_LABEL	
TAP1	1120000700P	TAPE_PVC	

MECHANICAL PARTS

CKT_ID	Component	Description	Pri
6B01	7737616800P0A	RC_ASSY_#6800_ABS_94V0_ACER_T17ANHW	
6BA1	7742243050P0A	RC_#6800_ABS_94V0_ACER_T17ANHW	
6D01	7737816630P0A	BRACKET_ASSY_CHASSIS_ACER_T17ANHW_SECC_T=0.8mm	
6DA1	7748716910P0A	BRACKET_CHASSIS_ACER_T17ANHW_SECCT=0.8mm	
6DB1	7742005160P0A	RUBBER_CUSHION_COVER_NBR_BLK_L6.5xW4.5xH_0.8mm	
6F01	7737517400P0A	FC_ASSY_#6790/#6810_ABS94V0_ACER_T17BNHW	
6FA1	7742243000P0A	FC_#6790/#6810P_ABS_94HB_ACER_R17BNHW	

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MECHANICAL PARTS

CKT_ID	Component	Description	Pri
6FB1	7742807870P0A	PUSH BUTTON_#6780#6790_ABS_UL94HB_ACER_R20BUNW-M1	
6FC1	7742807880P0A	PUSH BUTTON_KEY PW_#6780#6790_ABS_UL94HB_ACER_R20BUNW-M1	
6L01A	7742613400P0A	COVER_HINGE_#6800_ABS_UL94HB_ACER_R20BUN W-M1	
6L01B	7111230061P	SCREW-MACHINE-Flat Washer-Pan-M3-6-Zn	
6L01C	7116240081P0A	SCREW-MACHINE-Star Washer-Pan-M4-8-Zn	
6L01D	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	
6L01E	7140330083P0A	SCREW-DOUBLE THREAD-NO WASHER-FLAT HEAD	
6L01F	7110730082P0A	SCREW_MACHINE_NONE_HEX WASHER HEAD_M3_8m m_Fe NI	
6L01G	7140130061P0A	SCREW_MACHINE_WITHOUT_NINDING_M3_6L_BLA	
6L01H	7115240121P0A	SCREW_M4*12_DOUBLE WASHIER	
6L01I	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	
8C01	7742612091P0A	STAND_COVER_#6800_ABS 94HB_ABS 94HB_ACER R17BNW	
8C03	7738001840P0A	HINGE_STAND_WHT_SUS430 T=2.0mm_ACER_T17AN/BNHW	
8C04	7140340162P0A	SCREW_DOUBLE THREAD_NONE_FLAT HEAD_M4x16 mm_NI	
8CA2	7740412200P0A	STAND_BASE_ACER_AL1717_#6800_ABS 94HB ACER 17	
D809N	7110430081P	SCREW-MACHINE-Binding-M3-8-Zn	
D810N	7110430081P	SCREW-MACHINE-Binding-M3-8-Zn	
G801	7748000190P0A	GROUNDING_CONNECTOR_MTS_C150AT_PHOSPHOR	
Q803N	7110430081P	SCREW-MACHINE-Binding-M3-8-Zn	

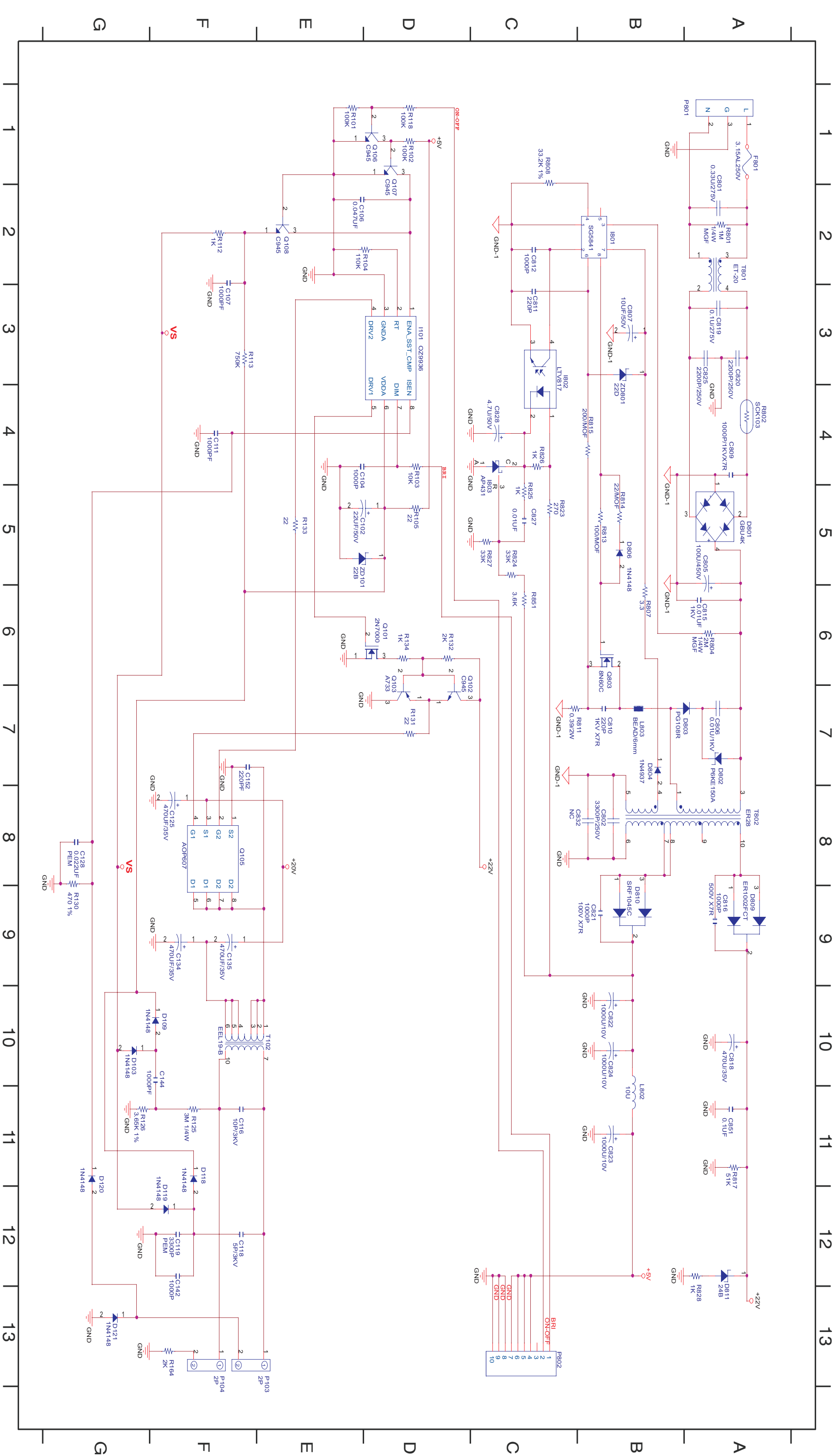
PARTS & MISCELLANEOUS PARTS

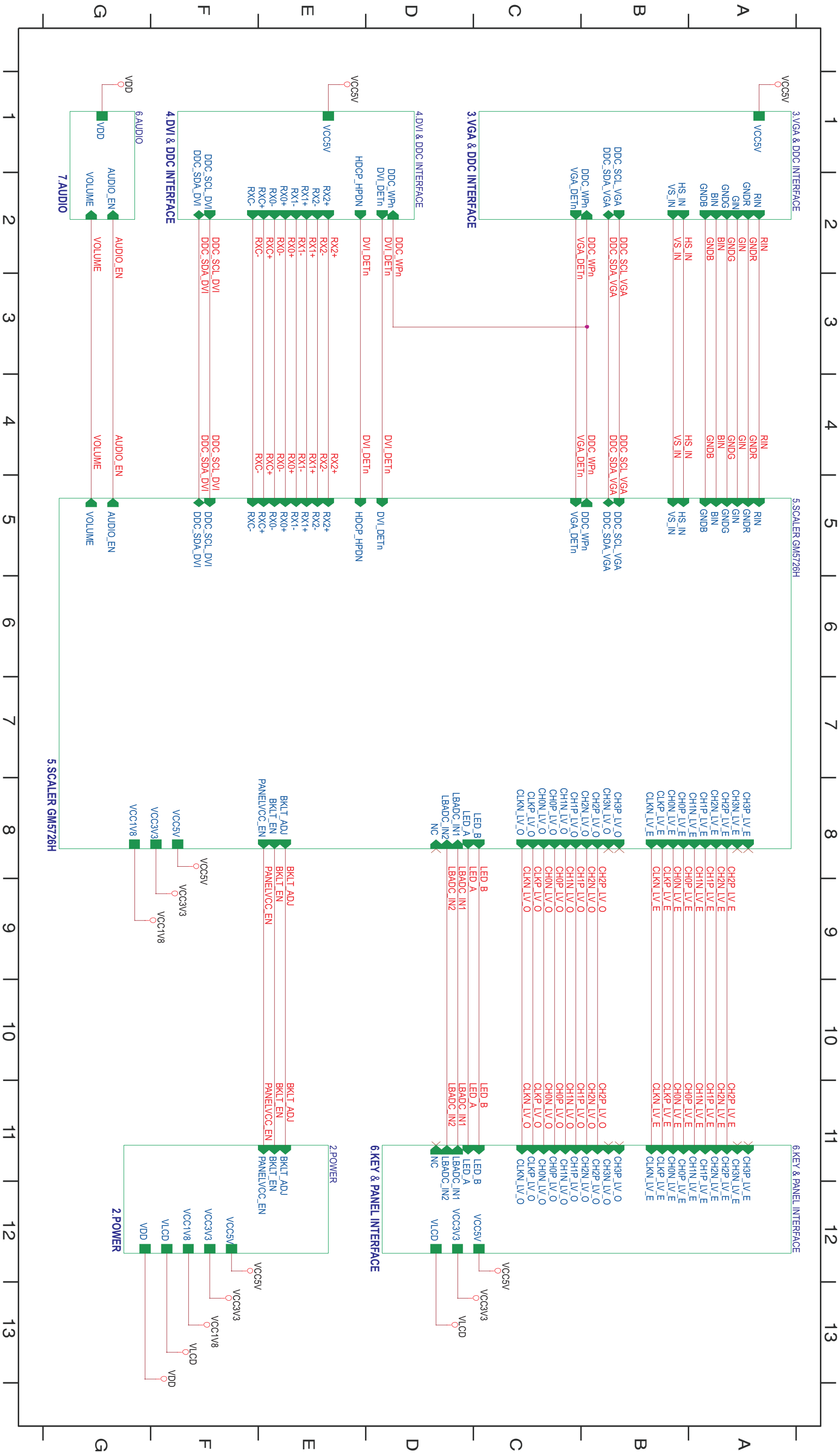
CKT_ID	Component	Description	Pri
6F01T	7742005280P0A	SPONGE_GASKET FORM_WHT_W10xH10xL40mm	
6FD1	7742302790P0A	LENS_KEY_CLEAR_PC_UL94HB_ACER_R20BUNW-M1	
8C02	7737717850P0A	BASE ASSY_#6800_ABS 94V0_ACER_T17BNHW	
8CB2	7742004160P0A	RUBBER CUSHION_FOOT PAD_SILICONE_BLACK	
D809M	7746402831P0A	HEAT SINK_HEAT SINK_B17MTF_AL_CLEA	
F801	6851002050P00	FUSE_TIME LAG_2A/250V_215002MXP_LITTELFU SE	
F801E	6622050010P	FUSE CLIP_FC	
PC01	6716004833P	CABLE_POWER_1800mm_CPQ:268246/HP& CPQ:8121-0731_BLACK_LONGWELL	

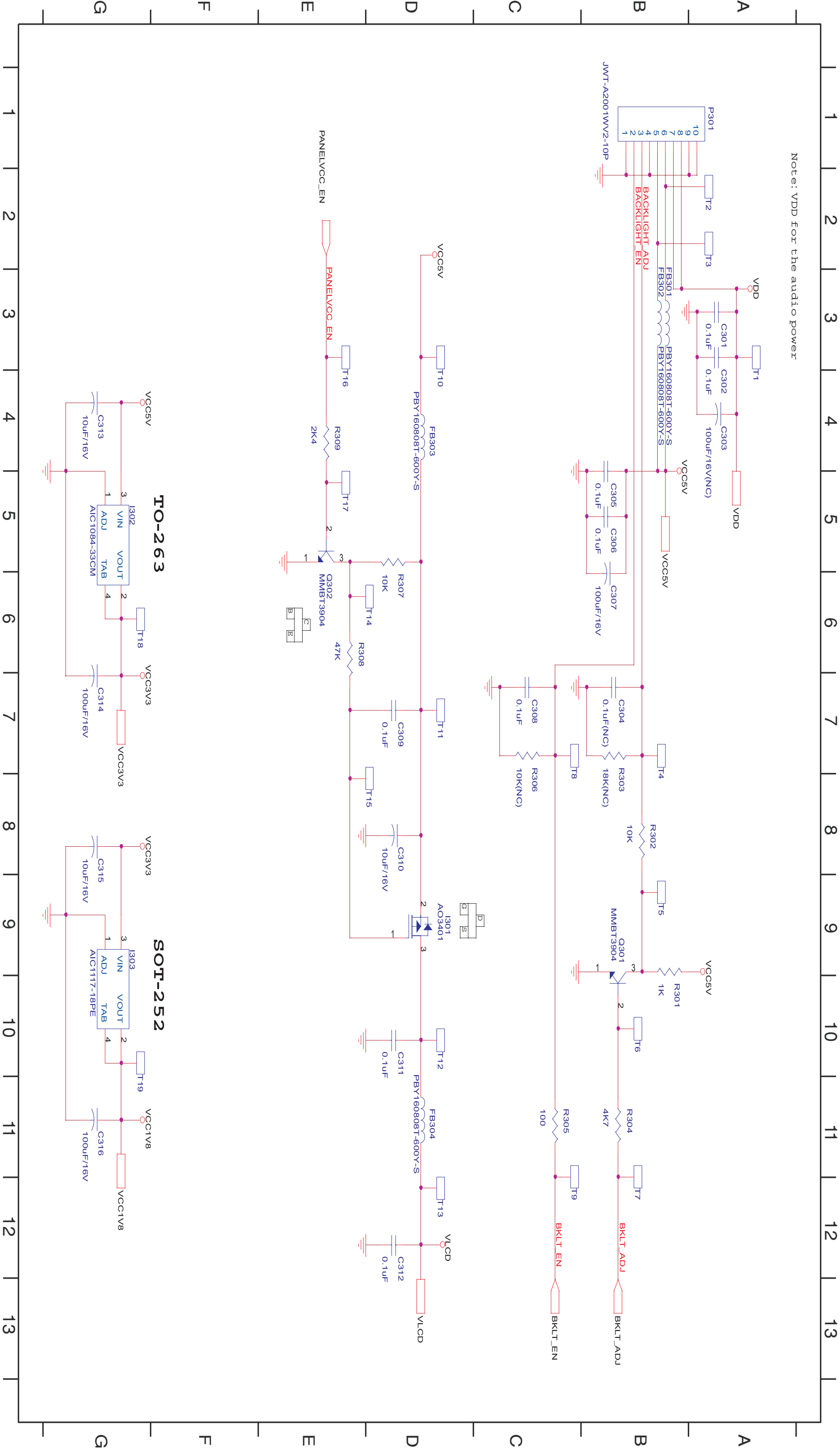
PARTS & MISCELLANEOUS PARTS

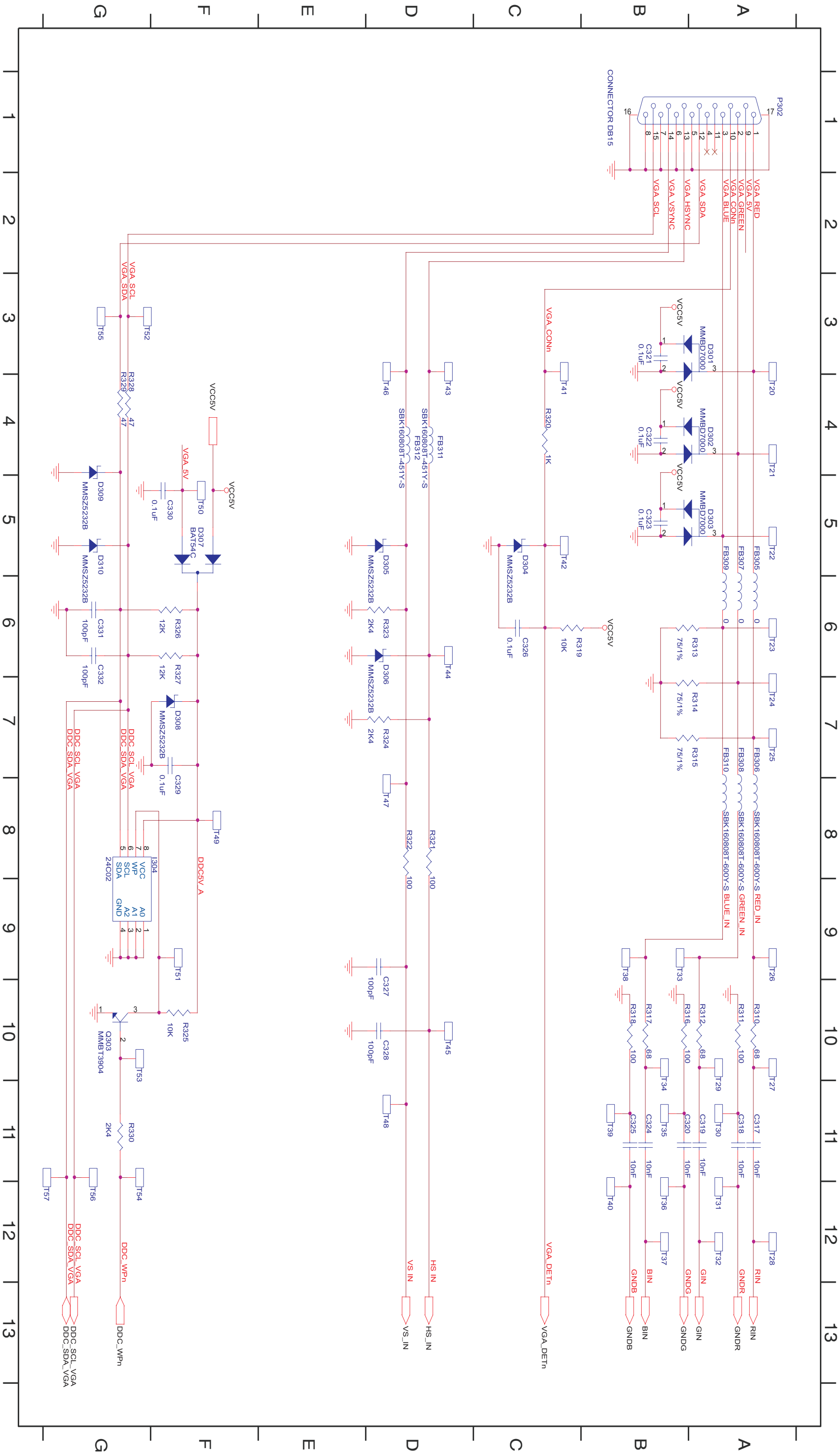
CKT_ID	Component	Description	Pri
Q803M	7746402681P0A	HEAT SINK_K17ANU_AL_6063	
V200	6814175010P14	LCD_17"W_HSD170MGW1-A00(LTC)_HSD_1370g	
X301	6449006400P	CRYSTAL_14.318MHz_AT_49_TOPICS	
Y001	7730303323P0A	MANUAL ASSY_ACER_T17AN_AL1716W_EMEA_27L	
Y002	7730203550P0A	CARD_SCREEN PROTECTOR_ACER_T17AA_AL1716W	
Y0A1	7730203572P0A	CD_MANUAL_ACER_T17AN_AL1716W	
Y0B1	7730203573P0A	CARD_QSG_ACER_T17AN_AL1716W_EMEA	
Y0C1	7730203132P0D	CARD_WARRANTY CARD_ACER_R17AA_AL1717_ACER_19L	
Y0E1	7730203431P0B	CARD_OOBE BOOKLET_ACER	
Y0F1	7730203451P0A	CARD_SP LEAFLET_ACER_ALL MODELS_EMEA	

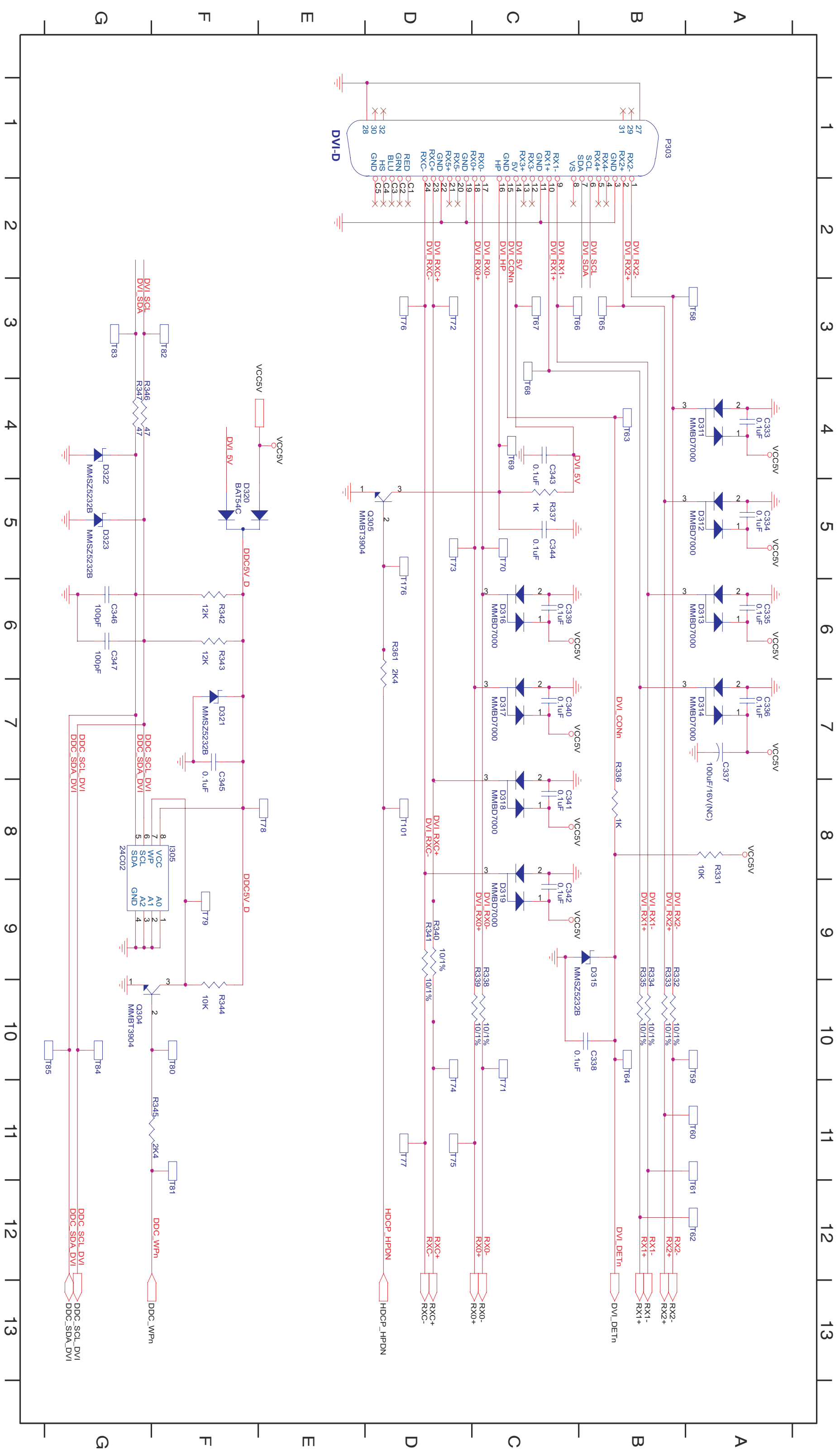
6.1 ACER_LCD_AL1716W_SCHEMATICS_POWER BOARD

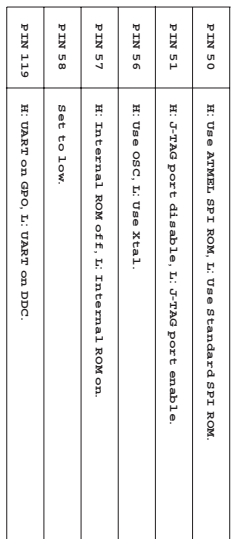


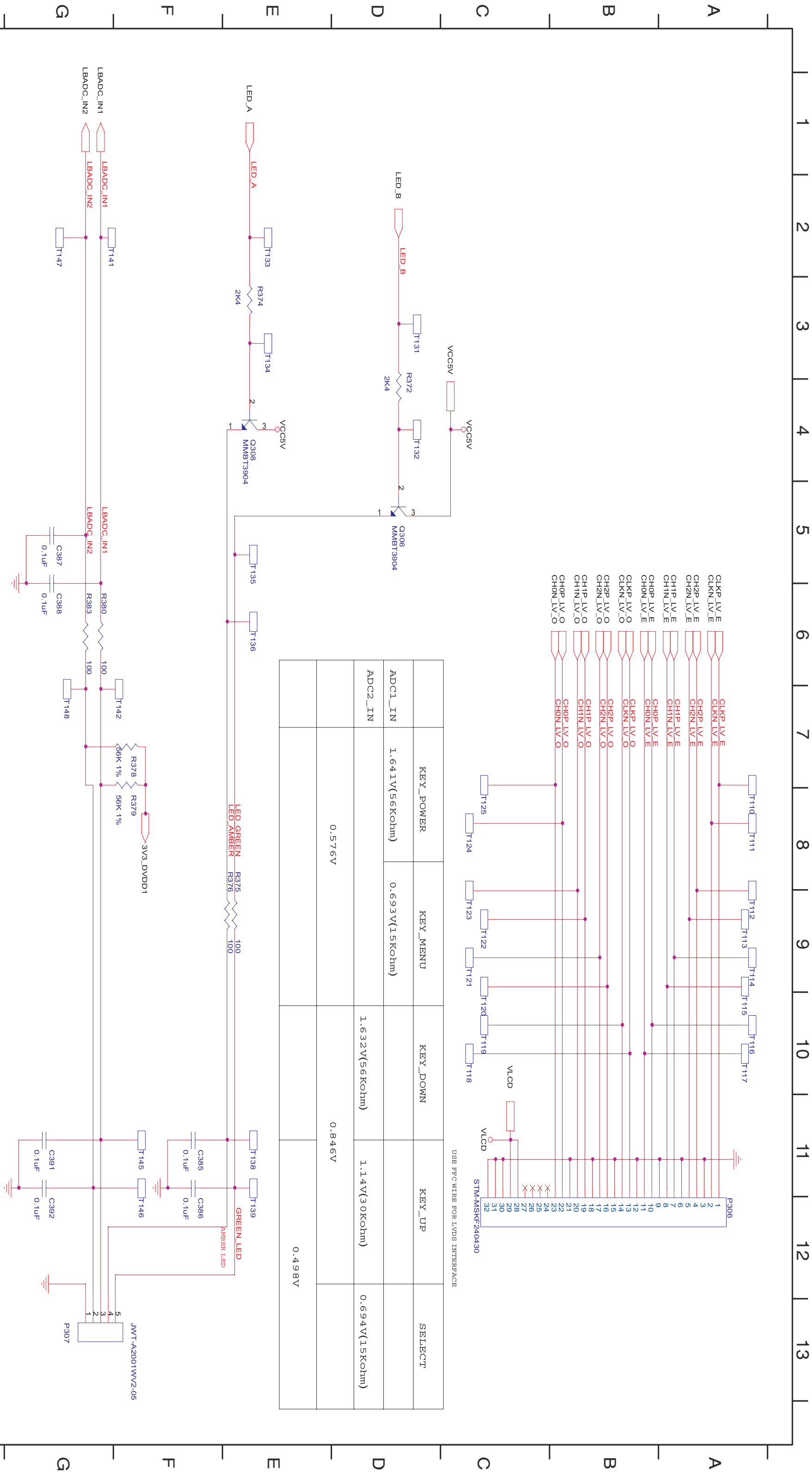


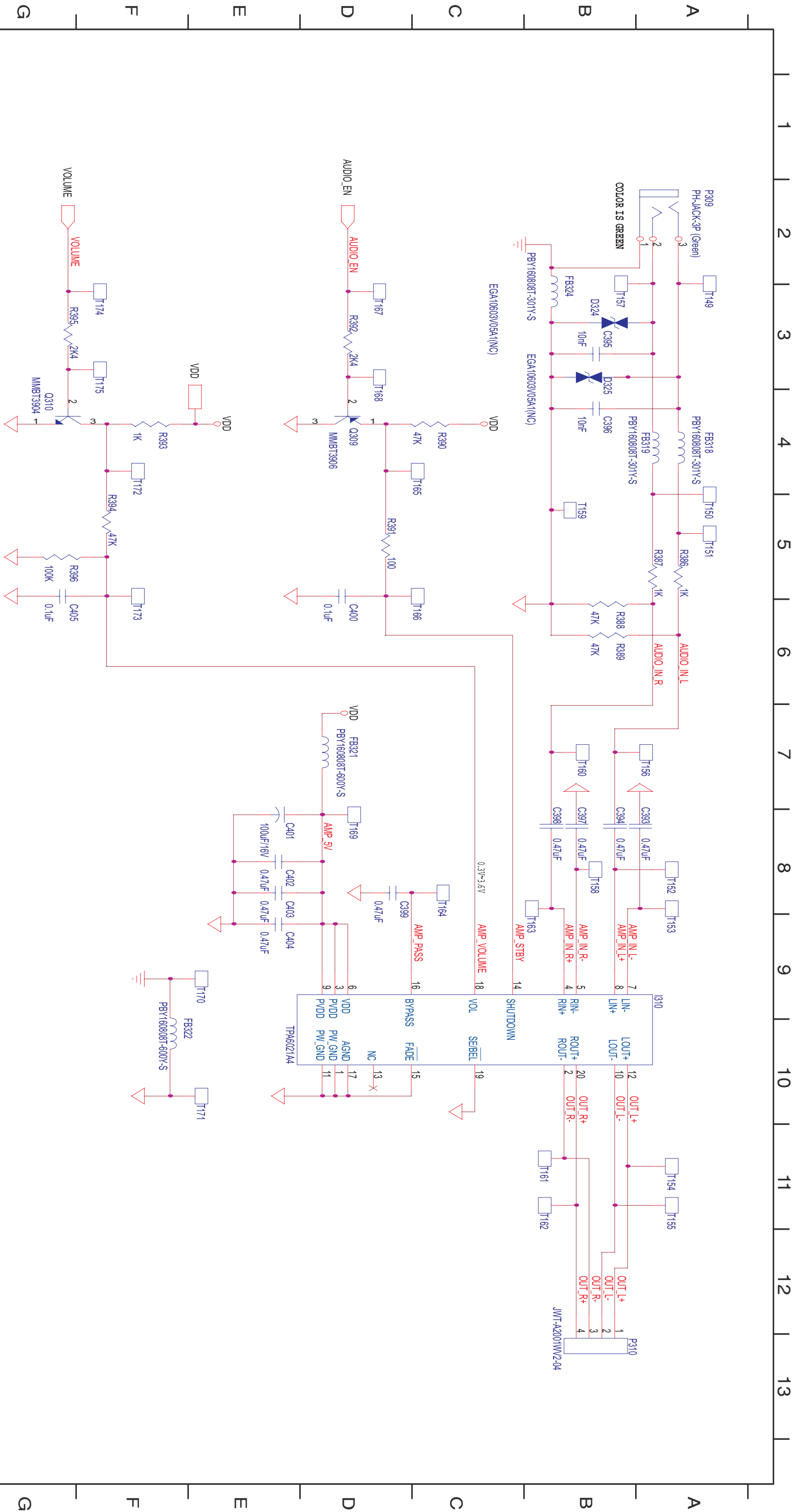




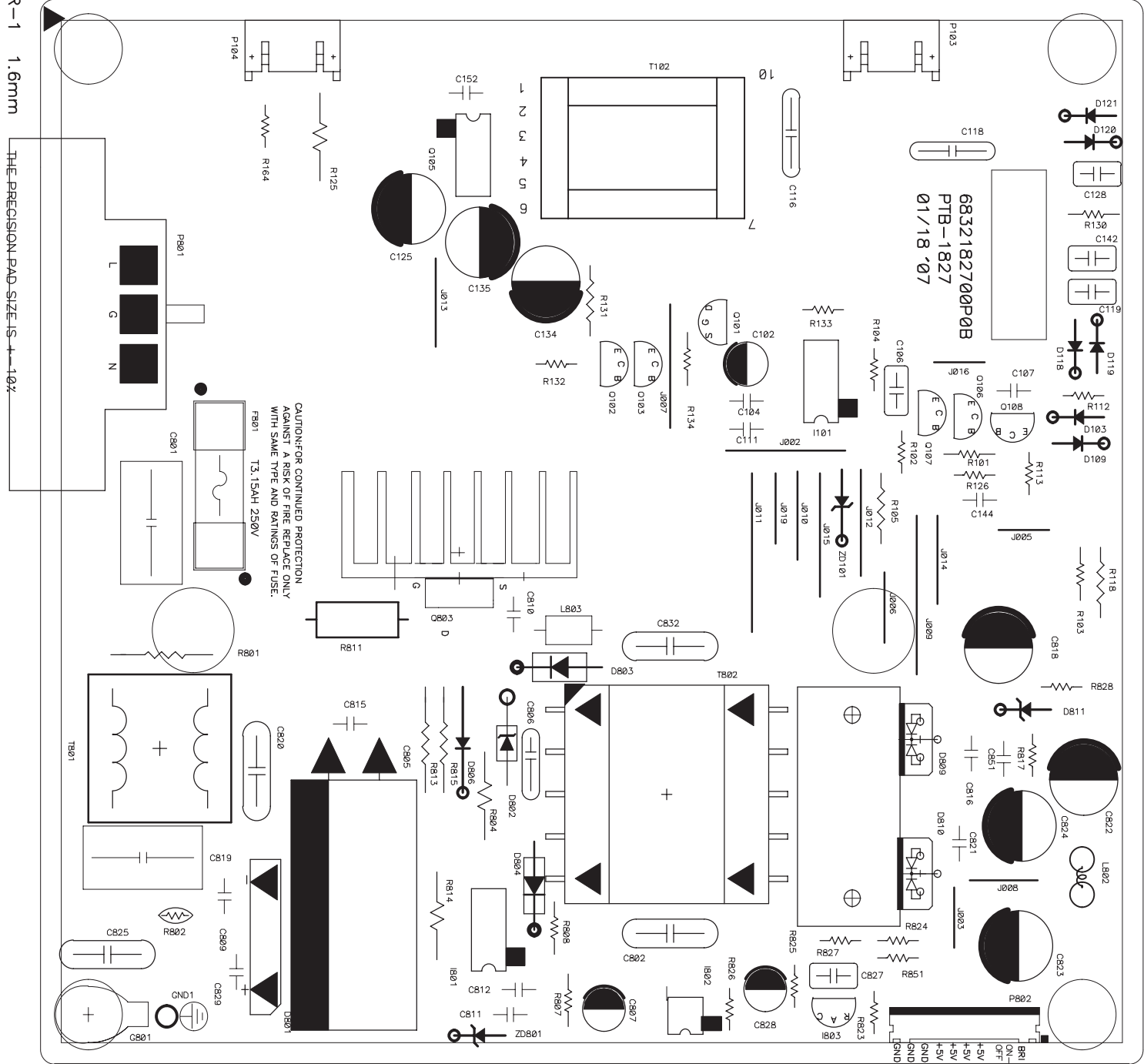




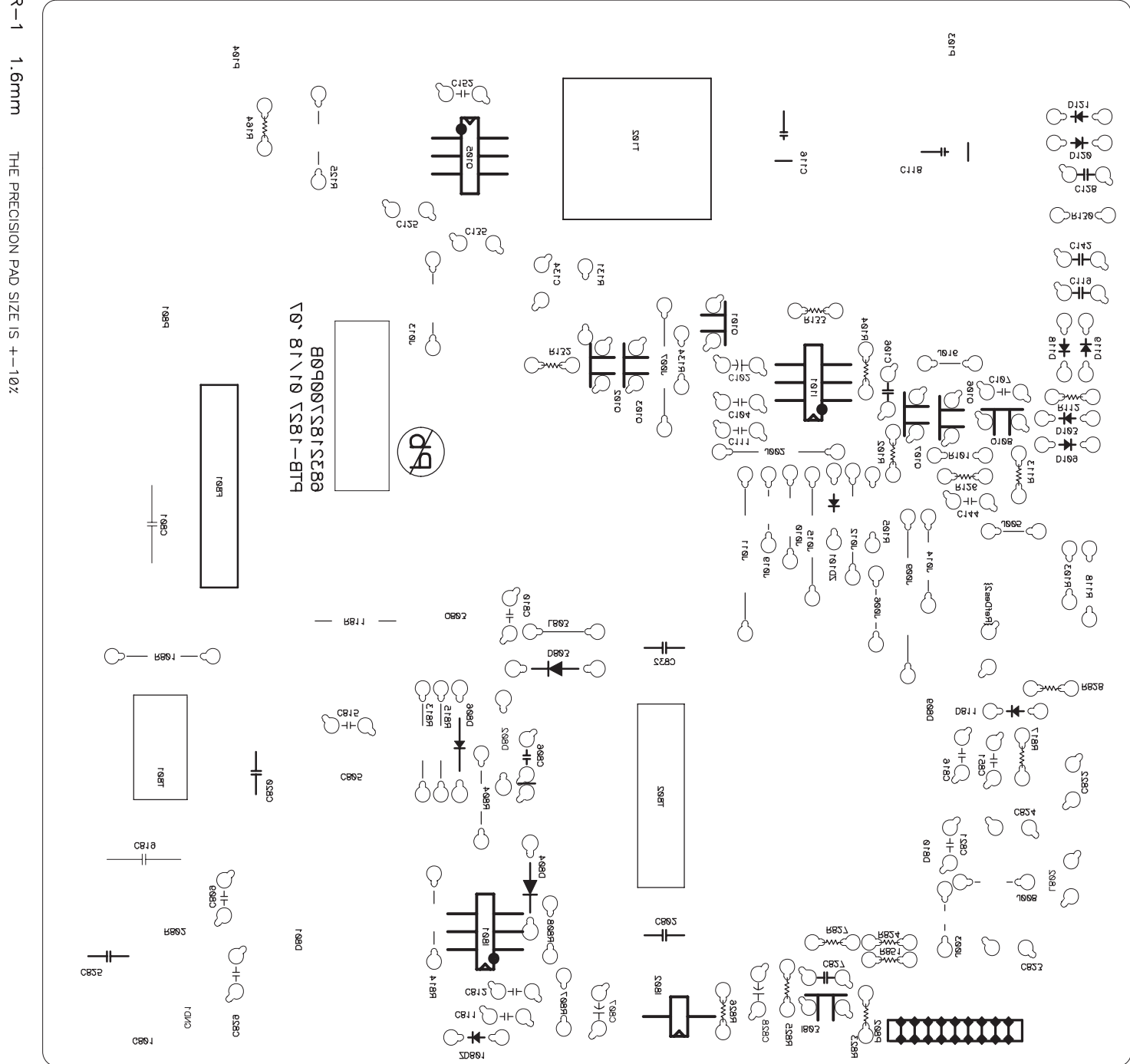


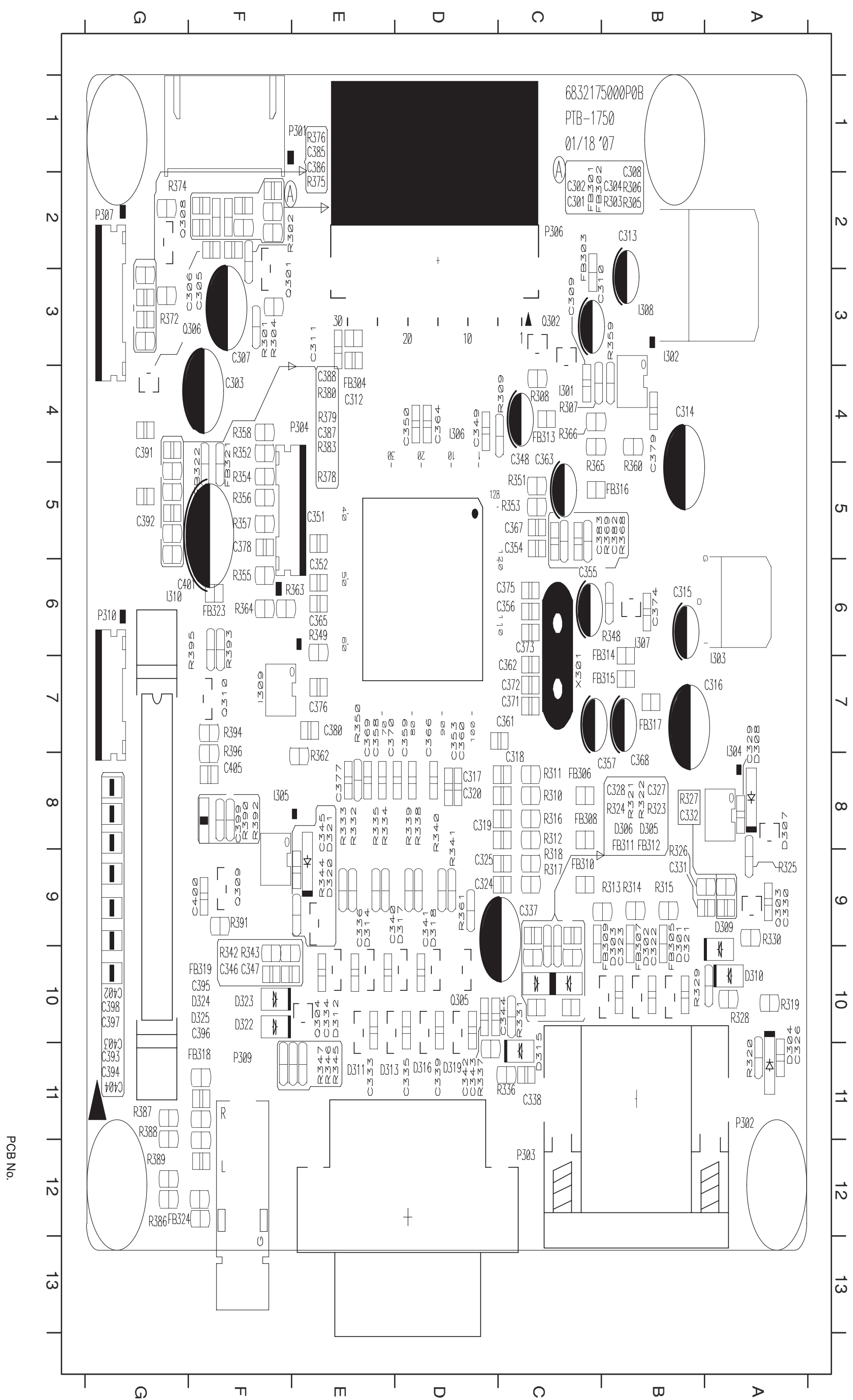


POWER BOARD-TOP SILK




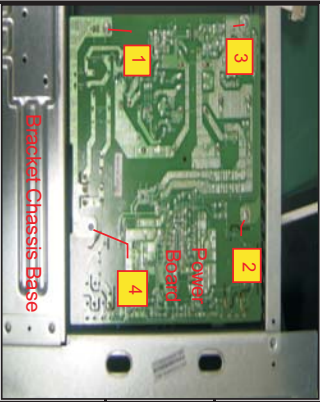
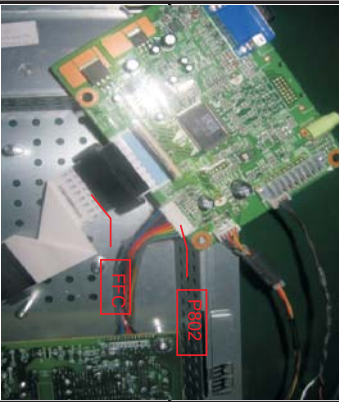
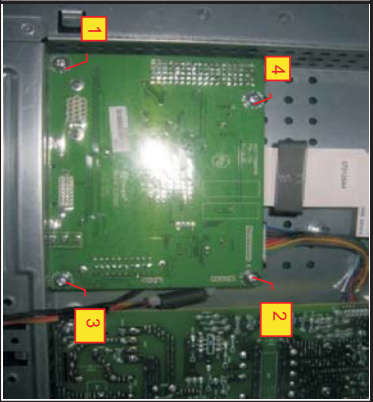
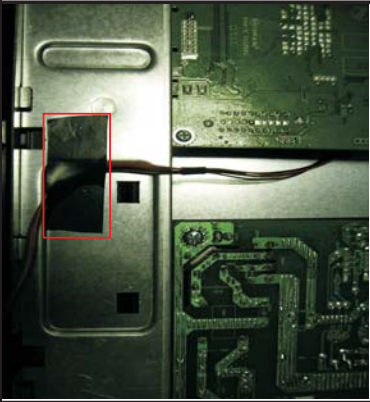
POWER BOARD-BOTTOM SILK


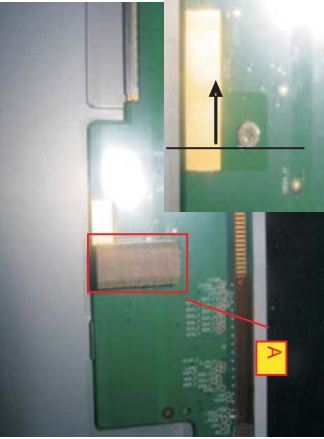

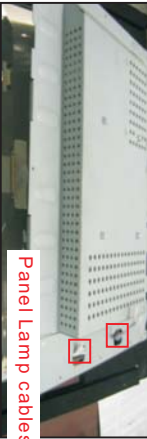
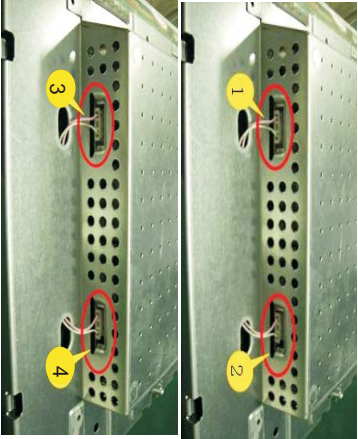
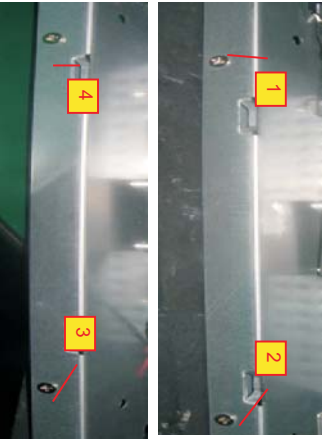


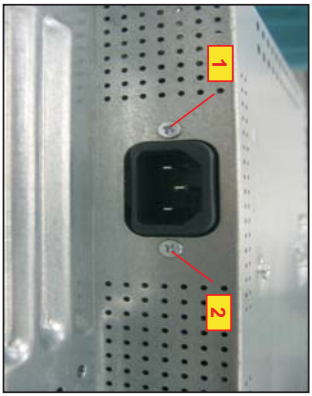
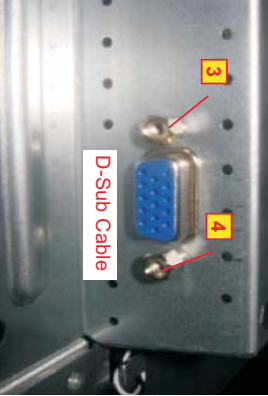
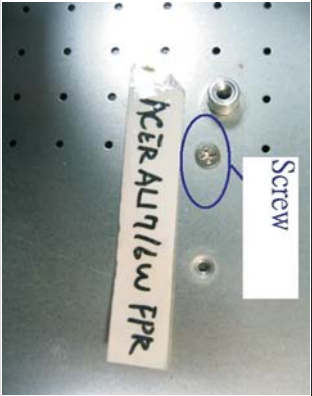

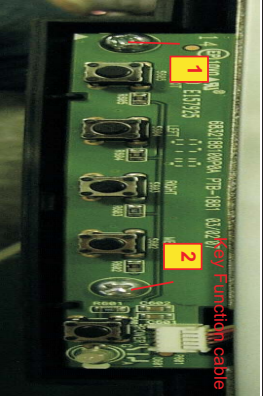



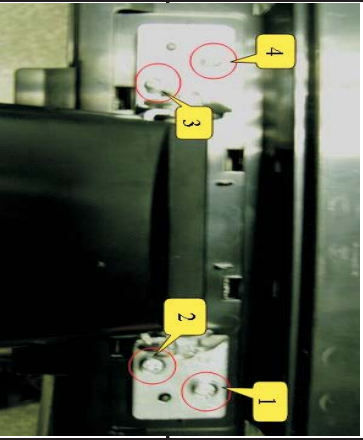





7. Assembly and Disassembly Procedures

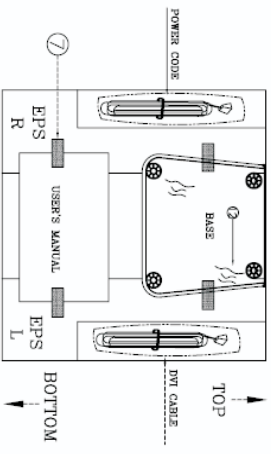

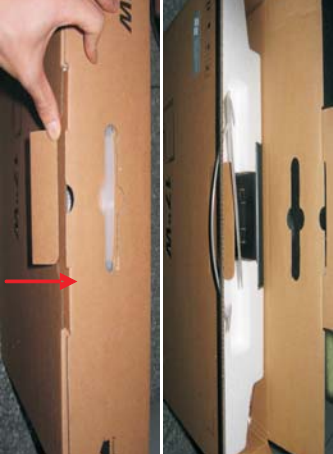
7.1 Assembly Procedures

Steps	Photo	Procedures	Spare Parts List		Q'ty	Remark
			Part Number	Part Name		
S1		Take a Bracket Chassis Base on a protective cushion and stick a insulator on the specific position.	7737816630P0A	BRACKET ASSY _CHASSIS _ACER T17ANHW_SECC T=0.8mm	1	-
S2		Take a Power board and turn it over. Then, put it on the specific positions of Bracket Chassis Base. Use a Phillips-head screwdriver screwed the No.1~4 screws till that Power board and Bracket Chassis base firmly attached.	5114300839P	T17BNHW-G1(99)_ACER_POWER BD	1	-
			7116240081P0A	SCREW-MACHINE-Star Washer-Pan-M4-8-Zn	1	Screw Size=M4x8; Torque:=7~9KGF.CM
			7111230061P	SCREW-MACHINE-Flat Washer-Pan-M3-6-Zn	3	Screw Size=M3x6; Torque:=7~9KGF.CM
S3		Take a Interface board and connect FFC, P802, and key function cables to connectors of Interface board. Tear off the tape sticked on the FFC cable.	5113301738P	T17ANHW-G1(99)_ACER_INTERFACE BD	-	-
			6712300067PC0	HARNESS_FFC_30P(1.0)_200mm_20696_P-TWO	-	-
S4		Use a Phillips-head screwdriver screwed the No.1~4 screws till that Interface board and Bracket Chassis base firmly attached.	7111230061P	SCREW-MACHINE-Flat Washer-Pan-M3-6-Zn	4	Screw Size=M3x6; Torque:=7~9KGF.CM
S5		Fix the Key Function cable with a PVC tape	1120000700P	Tape PVC	1	-


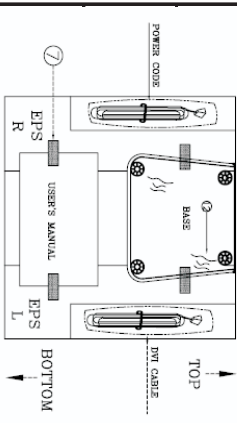



Steps	Photo	Procedures	Spare Parts List		Q'ty	Remark
			Part Number	Part Name		
S6		Put a panel on a protective cushion and examine the surface see if has any unexpect dust or scratch.	6814175010P14	LCD_17"W_HSD170MGW1-A00(LTC) _HSD_1370g	1	-
S7		Turn over the panel and stick a Gasket form on the position A.	7742005280P0A	SPONGE_GASKET FORM_WHT_W10xH10xL40mm	1	
S8		Move the Bracket Chassis Module on the top of the LCD panel and connect FFC cable to LCD panel.	-	-	-	
S9		Take lamp cables out from the holes shown as the photo.	-	-	-	
		Plug 4 lamp cables to the connectors of Power Board.	-	-	-	
S10		Use a Phillips-head screwdriver screwed the No.1~4 screws on both side and assemble the LCD panel and Bracket Chassis module.	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	4	Screw Size=M3x5; Torque:=2~3KGF.CM

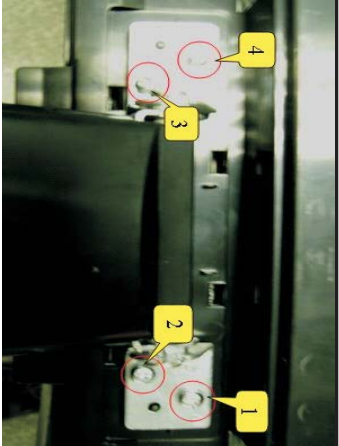




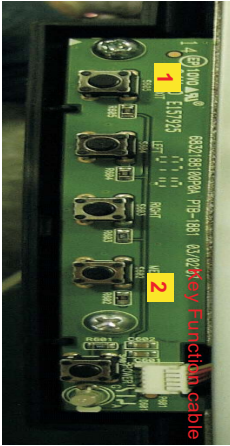
Steps	Photo	Procedures	Spare Parts List		Q'ty	Remark
			Part Number	Part Name		
S11		Use a Phillips-head screwdriver screwed the No.1~2 screws.	7140330083P0A	SCREW_DOUBLE THREAD_NONE_FLAT HEAD_M3_8	2	Screw Size=M3x8; Torque=5~6KGF.CM
S12		Use a Hex-head screwdriver screwed the D-Sub connectors No.3~4 Hex Nut to fix it.	7110730082P0A	SCREW_MACHINE_NONE_HEX WASHER HEAD_M3_8mm_Fe NI	2	Screw Size=M3x8; Torque=4.5~6.5KGF.KGF.CM
S13		Use a Phillips-head screwdriver fixed Heat-sink on the Bracket Chassis module.	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	1	Screw Size=M3x5; Torque=5~7KGF.KGF.CM
S14		Put a Rear Bezel (inner side faced up) on the table and move the assembled panel module on its top.	7737616800P0A	RC ASSY_#6800_ABS 94V0_ACER_T17BNHW	1	-
S15		Put a Front Bezel on the table	7737517400P0A	FC ASSY_#6790/#6810_ABS94V0_ACER_T17BNHW	1	-
S16		Connect the Function Key cable to connector located on the Function Key board.	5113800899P	T17BNHW-G1(99)_ACER_FUNCTION KEY BD	1	-
S17		Use a Phillips-head screwdriver screwed number 1~2 screws and fixed the Function Key board on the Front Bezel.	7140130061P0A	SCREW_MACHINE_WITHOUT_NINDING_M3_6L_BLA	2	Screw Size=M3x6; Torque=6~8KGF.CM
S18		Turn over the panel module (screen faced up), and then press down on the number 1~3 positions of both sides till two assembled parts firmly attached.	-	-	-	-


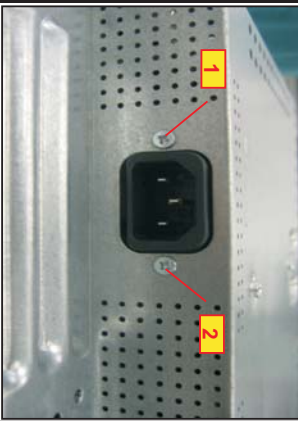
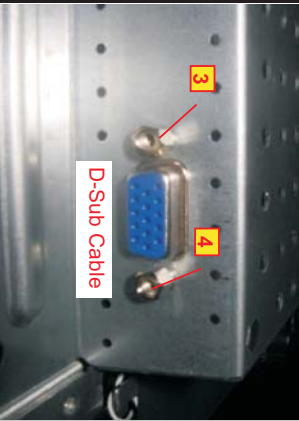
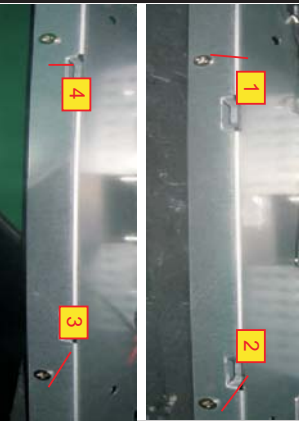
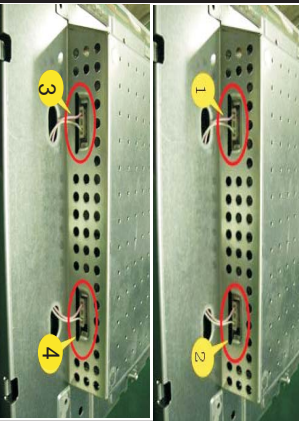
Steps	Photo	Procedures	Spare Parts List		Qty	Remark
			Part Number	Part Name		
S19		Turn over the LCD module (screen faced down), then take a Stand Base and put it on specific positions as photo left. Use a Phillips-head screwdriver assembled the Stand base to LCD module with 4 screws.	7115240121P0A	SCREW_M4*12_DOUBLE WASHIER	4	Screw Size=M4x12; Torque=12~14KGF.CM
			7740412200P0A	STAND_BASE_ACER_AL1717_#6800_ABS 94HB	1	-
S20		Lock the stand cover according to the order of the number 1~2 till two parts firmly attached.	7742612091P0A	STAND_COVER_#6800_ABS 94HB_ABS 94HB_ACER R17BNW	1	-
S21		Stick a Screen Card on the Front Bezel with two tapes.	7749600200P0A	TAPE_MASKING_PACKING_25mm(w)x45m_LITEON	2	-
			7730203550P0A	CARD_SCREEN PROTECTOR_ACER_T17AA_AL1716W	1	-
S22		Stick a Vista label on the rear side of Front Bezel (nearby Stand Base).	7735431685P0A	LABEL_VISTA(WORKS)_CMYK_25.4x11.2_LENОВО T15AN	1	-
S23		Take a LDPE+EPE bag (L680xW550mmxH0.55mm) to cover the LCD monitor.	7749003210P0A	BAG_LDPE+EPE_ORDINARY_ALL MODEL_L680xW550mmxH0.55mm	1	-
S24		Take a PE bag (L300xW300xT0.05 mm) to cover the Stand Base.	7749003190P0A	BAG_PE_ORDINARY_FOR ACER_L300xW300xT0.05 mm	1	-
S25		Take two cushion foams; one is held the left side of LCD monitor, and another is held the right side.	7749106560P0A	CUSHION_FOAM_EPS_ACER-AL1716W_2160SETS_L<(>8<)>R_472x117x398(H)	2	-
			7749600200P0A	TAPE_MASKING_PACKING_25mm(w)x45m_LITEON	4	-

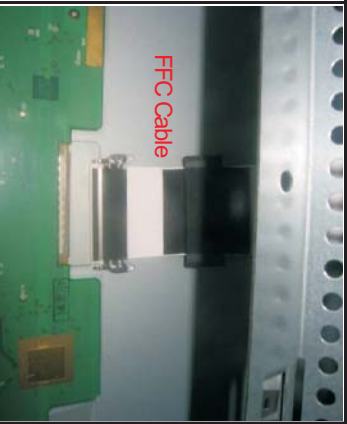
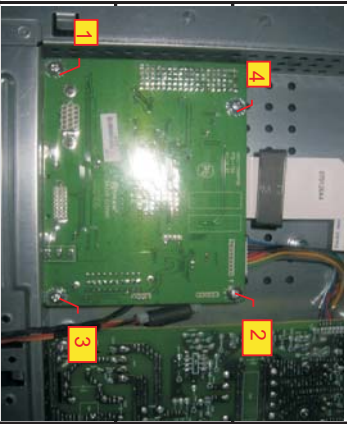
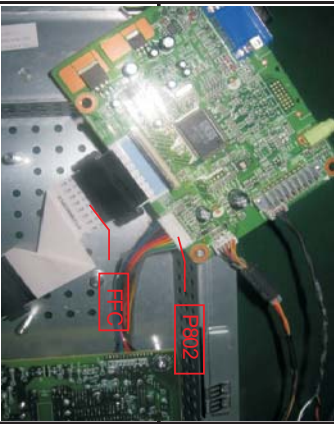
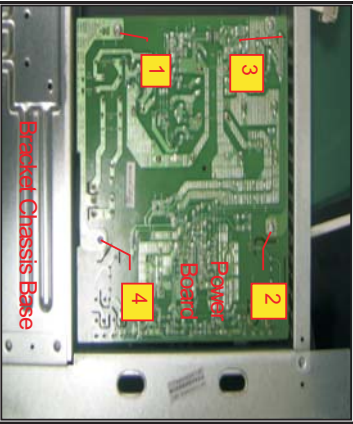
Steps	Photo	Procedures	Spare Parts List		Qty	Remark
			Pat Numbur	Part Name		
S26		Put accessories on the specific positions and fix the Stand Base and User's Manuals with two tapes as photo left.	7730303323P0A	MANUAL ASSY_AOER_T177AN_AL1716W_EN/EA_27L	1	-
			6716004833P	Power cable	1	-
			6715003019P00	DM cable	1	-
S27		Move previous assembled parts into the carton and stick Vista tables on the front and rear sides of carton. Then	7749206234P0A	CARTON_AOER_T177AN_AL1716W_2160SETS	1	-
S28			7735431081P0A	Packing label	2	-
S29			7735431685P0A	LABEL_VISTA(WORKS)_OMK_25.4x11.2_LENOVO T15AN	2	-
S30		Packing the carton.	-	-	-	-

7.2 Disassembly Procedures

Steps	Photo	Procedures	Spare Parts Usage		Q'ty	Remark
			Part Number	Part Name		
S1		Open the carton with a proper tool.	7749206234P0A	CARTON_ACER_T17AN_AL1716W_2160SETS	1	-
			7735431081P0A	Packing label	2	-
			7735431685P0A	LABEL_VISTA(WORKS)_CMYK_25.4x11.2_LENOVO T15AN	2	-
			7740412200P0A	STAND_BASE_ACER_AL1717_#6800_ABS 94HB	1	-
			7730303323P0A	MANUAL_ASSY_ACER_T17AN_AL1716W_EMEA_27L	1	-
S2		Take out all accessories and returned product with cushion foams from the carton. (Optional: it depends on whether if end users return the accessories.)	6716004833P	Power cable	1	
			6715009019P00	DVI cable	1	
			7749106560P0A	CUSHION_FOAM_EPS_ACER-AL1716W_2160SETS_ L(>&<)>R_472x117x398(H)	2	-
			7749003210P0A	BAG_LDPE+EPE_ORDINARY_ALL_MODEL_L680xW550mmxH0.55mm	1	-
			7749003190P0A	BAG_PE_ORDINARY_FOR ACER_L300xW300xT0.05 mm	1	-
S3		Move the returned LCD monitor to a working table, then remove cushion foams and LDPE+EPE bag.	7730203550P0A	CARD_SCREEN_PROTECTOR_ACER_T17AA_AL1716W	1	-
S4		Tear off tapes to remove the screen protector card. Turn over the LCD monitor (screen faced down),	7742612091P0A	STAND_COVER_#6800_ABS 94HB_ABS 94HB_ACER R17BNW	1	-
			7738001840P0A	HINGE_STAND_WHT_SUS430 T=2.0mm_ACER_T17AN/BNHW	1	-
		Disassemble the stand cover.				

Steps	Photo	Procedures	Spare Parts Usage		Q'ty	Remark
			Part Number	Part Name		
S5		Use a Phillips-head screwdriver unscrew 4 screws to release the stand base.	7115240121P0A	SCREW_M4*12_DOUBLE WASHIER	4	Screw Size=M4x12; Torque=12~14KGF.CM
			7740412200P0A	STAND_BASE_ACER_AL1717_#6800_ABS 94HB	1	-
S6		Turn over the LCD monitor (screen faced up).	-	-	-	-
S7		Place cloth on the panel where you are working on to protect the panel. Continuely, wedge your finger between the front bezel and the panel, then pry up on the front bezel to disengage the locking mechanism.	-	-	-	-
S8		Work your way along the front bezel to disengage all the locking mechanism.	-	-	-	-
S9		Once all the locking mechanisms are release from front bezel; remove the bezel carefully.	7737517400P0A	FC ASSY_#6790/#6810_ABS94V0_ACER_T17BNHW	1	-
S10		Use a Phillips-head screwdriver unscrewed number 1~2 screws to release the Key Function board from the Front Bezel.	5113800899P	T17BNHW-G1(99)_ACER_FUNCTION KEY BD	1	-
			7140130061P0A	SCREW_MACHINE_WITHOUT_NINDING_M3_6L_BLA	2	Screw Size=M3x6; Torque=6~8KGF.CM

Steps	Photo	Procedures	Spare Parts Usage		Qty	Remark
			Part Number	Part Name		
S11		Use both hand to remove the LCD panel module and put Rear Bezel aside.	7737616800P0A	RC ASSY_#6800_ABS 94V0_ACER_T17ANHWW	1	-
S12		Use a Phillips-head screwdriver unscrewed the screw to release the Heat-sink.	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	1	Screw Size=M3x5; Torque=5~7KGFKGF.CM
S13		Use a Phillips-head screwdriver unscrewed the number 1~2 screws to disassemble the power plug.	7140330083P0A	SCREW_DOUBLE THREAD_NONE_FLAT HEAD_M3_8	2	Screw Size=M3x8; Torque=5~6KGFKGF.CM
S14		Use a Hex-head screwdriver unscrewed the No.3~4 Hex Nut to release the D-Sub connectors.	7110730082P0A	SCREW_MACHINE_NONE_HEX WASHER HEAD_M3_8mm_Fe NI	2	Screw Size=M3x8; Torque=4.5~6.5KGFKGF.CM
S15		Use a Phillips-head screwdriver unscrewed the No.1~4 screws to disassemble the LCD panel and Bracket Chassis module.	7110330052P0A	SCREW-MACHING-FLAT HEAD-M3-5-NI	4	Screw Size=M3x5; Torque=2~3KGFKGF.CM
S16		Unplug 4 lamp cables (No. 1~4).	-	-	-	-

Steps	Photo	Procedures	Spare Parts Usage		Qty	Remark
			Part Number	Part Name		
S17	 FFC Cable	Disconnect the FFC cable to the connector of panel.	-	-	-	-
S18		Use a Phillips-head screwdriver unscrewed the No. 1~4 screws to release the interface board.	5114300839P	T17BNHW-G1(99)_ACER_POWER BD	1	-
			7116240081P0A	SCREW-MACHINE-Star Washer-Pan-M4-8-Zn	1	Screw Size=M4x8; Torque:=7~9KGF.CM
			7111230061P	SCREW-MACHINE-Flat Washer-Pan-M3-6-Zn	3	Screw Size=M3x6; Torque:=7~9KGF.CM
S19		Disconnect the FFC, P802, and key function cables to connectors of interface board.	5113301738P	T17ANHW-G1(99)_ACER_INTERFACE BD	-	-
			6712300067PC0	HARNESS_FFC_30P(1.0)_200mm_20696_P-TWO	-	-
S20	 Power Board P802 FFC Bracket Chassis Base	Use a Phillips-head screwdriver unscrewed the No. 1~4 screws to disassemble the power board.	5114300839P	T17BNHW-G1(99)_ACER_POWER BD	1	-
			7116240081P0A	SCREW-MACHINE-Star Washer-Pan-M4-8-Zn	1	Screw Size=M4x8; Torque:=7~9KGF.CM
			7111230061P	SCREW-MACHINE-Flat Washer-Pan-M3-6-Zn	3	Screw Size=M3x6; Torque:=7~9KGF.CM