Acer B173
Service Guide

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Conventions

The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen
Note	Gives bits and pieces of additional information related to the current topic.
Warning	Alerts you to any damage that might result from doing or not doing specific actions.
Caution	Gives precautionary measures to avoid possible hardware or software problems.
Important	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. this Service Guide provides you with all technical information relating to the BASICCONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. please not WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide, for ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and Service of customer machines.

WARNING: (FOR FCC CERTIFIED MODELS)

NOTE: this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, Which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

NOTICE:

1. The changes or modifications not expressly approved by the party responsible for compliance could void

the user's authority to operate the equipment.

2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

As an ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

WARNING:

To prevent fire or chock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, Swimming pool or in a wet basement.

- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacture or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacture and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet area provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 3.5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter (output 12V DC) which have UL,CSA listed license

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness in the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

Table of contents

Chapter 1

Monitor Feature

LCD Panel	Driving system	TFT Color LCD
	Size	17"
	Pixel pitch	0.264 mm
	Viewable angle	AUO: 160(H) x 160 (V) degree SAM: 160(H) x 160 (V) degree
	Brightness	AUO: 300 cd/m²(typ.) SAM: 300 cd/m²(typ.)
	Contrast Ratio	AUO: 800:1(typ.) SAM: 1000:1(typ.)
	Response time	5ms (Tr+Tf)
Input	Video	R,G,B Analog, DVI box (optional)
	Separate Sync	H/V TTL
	H-Frequency	31-80KHZ
	V-Frequency	56-75HZ
Display Color		AUO: 16.2 million Colors SAM: 16.7 million colors
Maximum Dot Clock ®		135MHz
Max Resolution		1280x1024@75HZ
Plug & Play		VESA FPMPMI
EPA ENERGY STAR	ON Mode	<37W
	OFF Mode	<1W
Audio output		Rated Power 2.0W rms(Per channel)
Input Connector		D-Sub 15 pin, DVI 24 pin,(optional)
Input Video Signal		Analog : 0.7Vp-p,75OHM
Screen Size (Active)		Horizontal : 337.9mm Vertical : 270.3mm
Power Source		90~264 Vac, 47~63HZ
Environmental Considerations		Operating Temp : 5 to 40 degree ; Storage Temp : -20 to 0 degree ; Operating Humidity : 20% to 80%
Weight (N.W.)		TBD kg
Dimension		430(W) x 425(H) x 215 (D) mm(with packing)

External Controls :	Switch	* Power Switch * MENU * < / Volume * > / Volume * AUTO * e-color
		* Contrast/brightness * Focus * Clock * H.Position * W.Position * Language * OSD Color temperature * OSD Position & Timeout * Auto Config * Input * Information * Reset * Exit
Regulatory Compliance		cUL, UL, TUV, CE, TCO03, CSA, FCC

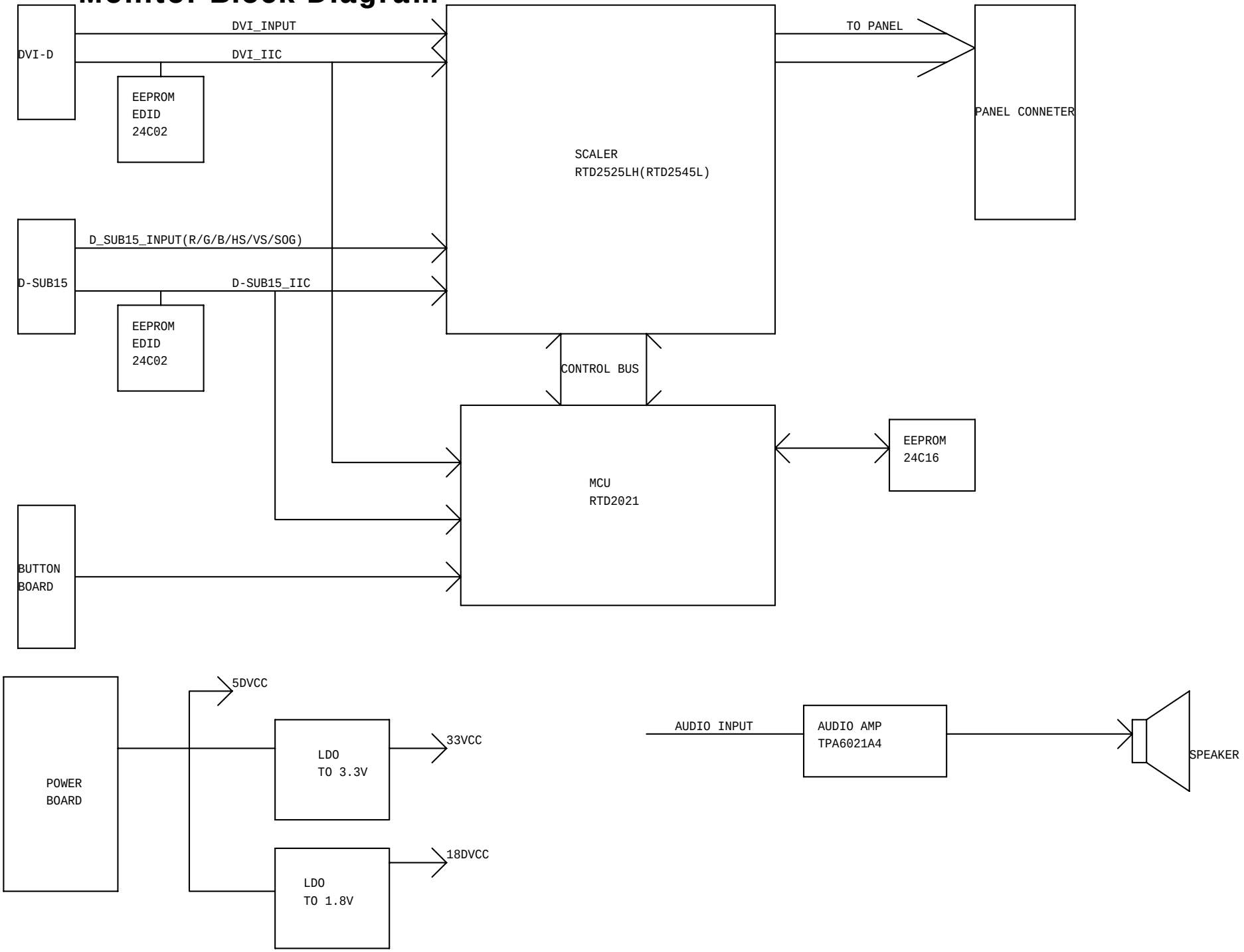
Timings

The product has 26 memory modes in total. 16 modes are preset and 10 modes are user definable.

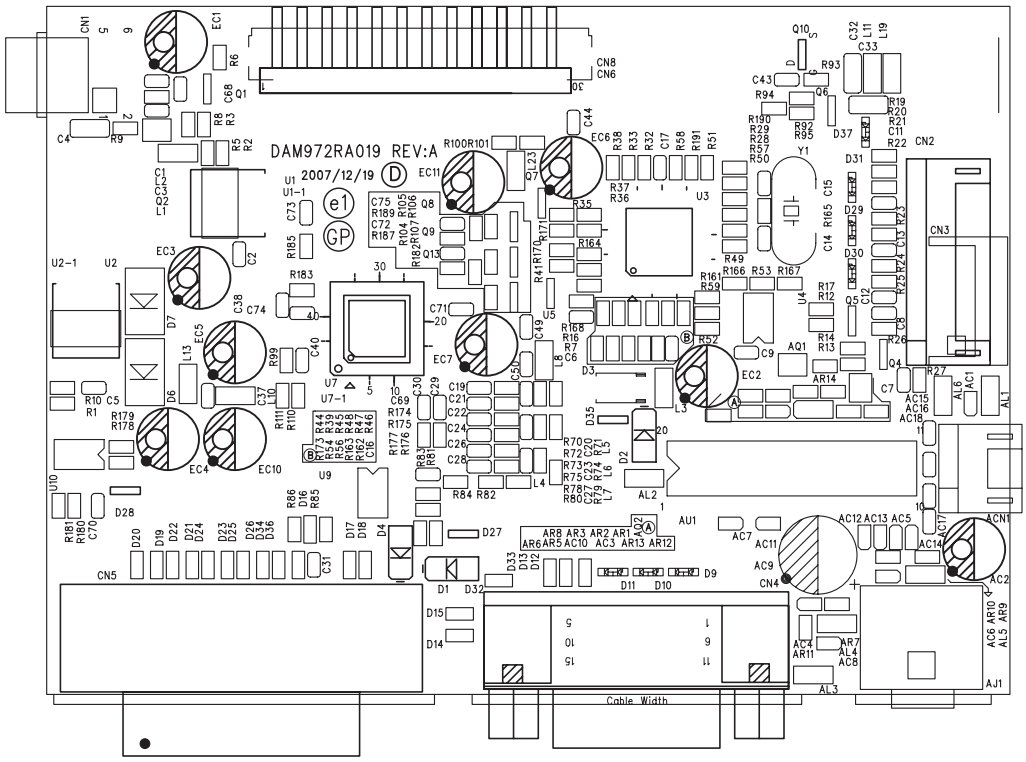
MODE NO.	1	2	3	4
RESOLUTION	720 x 400	640 x 480	640x480	640 x 480
Dot clock(MHz)	28.321	25.175	30.24	31.5
f h	31.469kHz	31.469kHz	35.0kHz	37.861kHz
H-Total (us)	31.78(900dots)	31.778 (800 dots)	28.571(864 dots)	26.413 (832 dots)
H-Sync (us)	3.813(108dots)	3.813 (96 dots)	2.116 (64 dots)	1.270(40 dots)
H-B-P (us)	1.907(54dots)	1.907 (48 dots)	3.175 (96 dots)	4.064(128 dots)
H-Active (us)	25.42(720dots)	25.422 (640 dots)	21.164 (640 dots)	20.317(640 dots)
H-F-P (us)	0.636(18dots)	0.636 (16 dots)	2.116 (64 dots)	0.762(24 dots)
f v	70Hz(70.087)	60Hz (59.940)	66.7 HZ (66.667)	72.809Hz
V-Total (ms)	14.27(449 lines)	16.683 (525 lines)	15.000 (525 lines)	13.735(520 lines)
V-Sync (ms)	0.064(2 lines)	0.064 (2 lines)	0.086 (3 lines)	0.079(3 lines)
V-B-P (ms)	1.112(35 lines)	1.049 (33 lines)	1.114 (39 lines)	0.739(28 lines)
V-Active (ms)	12.71(400 lines)	15.253 (480 lines)	13.714 (480 lines)	12.678(480 lines)
V-F-P (ms)	0.384(12 lines)	0.317 (10 lines)	0.086 (3 lines)	0.237(9 lines)
SYNC. H/V	-/+	- / -	+/+	-/-
POLARITY			Or -/-	
SEP . SYNC	Y	Y	Y	Y
MODE NO.	**5**	**6**	**7**	**8**
RESOLUTION	640 x 480	800 x 600	800 x 600	800 x 600
Dot clock(MHz)	31.5	36	40	49.5
f h	37.500kHz	35.16kHz	37.879kHz	46.875kHz
H-Total (us)	26.667(840 dots)	28.44(1024 dots)	26.40 (1056 dots)	21.333 (1056dots)
H-Sync (us)	2.032 (64 dots)	2.00(72 dots)	3.200 (128 dots)	1.616 (80 dots)
H-B-P (us)	3.810 (120 dots)	3.56(128 dots)	2.200 (88 dots)	3.232 (160 dots)
H-Active (us)	20.317 (640 dots)	22.22(800 dots)	20.00 (800 dots)	16.162 (800 dots)
H-F-P (us)	0.508 (16 dots)	0.67(24 dots)	1.000 (40 dots)	0.323 (16 dots)
f v	75Hz (75)	56.25	60Hz (60.316)	75Hz (75.000)
V-Total (ms)	13.333 (500 lines)	17.78(625 lines)	16.58 (628 lines)	13.333 (625lines)
V-Sync (ms)	0.080 (3 lines)	0.06(2 lines)	0.106 (4 lines)	0.064 (3 lines)
V-B-P (ms)	0.427 (16 lines)	0.63(22 lines)	0.607 (23 lines)	0.448 (21 lines)
V-Active (ms)	12.80 (480 lines)	17.07(600 lines)	15.84 (600 lines)	12.80 (600lines)
V-F-P (ms)	0.027 (1 line)	0.03(1 line)	0.026 (1 line)	0.021 (1 line)
SYNC. H/V	- / -	+/+	+ / +	+ / +
POLARITY				
SEP . SYNC	Y	Y	Y	Y

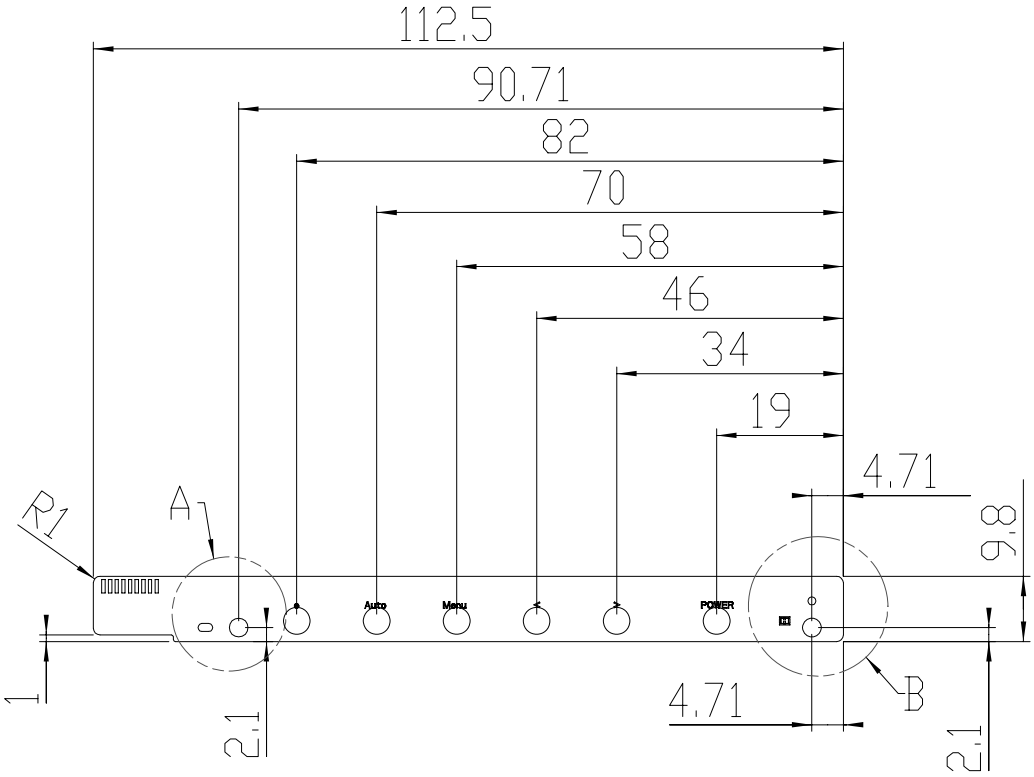
MODE NO.	9	10	11	12
RESOLUTION	800 x 600	832 x 624	1024 x 768	1024 x 768
Dot clock(MHz)	50	57.283	65	75
f h	48.077kHz	49.72kHz	48.363kHz	56.48kHz
H-Total (us)	20.80 (1040dots)	20.11(1152 dots)	20.677(1344 dots)	17.71(1328 dots)
H-Sync (us)	2.400 (120 dots)	1.12(64 dots)	2.092(136 dots)	1.81(136 dots)
H-B-P (us)	1.280 (64 dots)	3.91(224 dots)	2.462(160 dots)	1.92(144 dots)
H-Active (us)	16.00 (800 dots)	14.52(832 dots)	15.754(1024 dots)	13.65(1024 dots)
H-F-P (us)	1.120 (56 dots)	0.56(32 dots)	0.369(24 dots)	0.32(24 dots)
f v	72Hz (72.188)	74.55Hz	60.004Hz	70.07Hz
V-Total (ms)	13.85 (666 lines)	13.41(667 lines)	16.666(806 lines)	14.27(806 lines)
V-Sync (ms)	0.125 (6 lines)	0.06(3 lines)	0.124(6 lines)	0.11(6 lines)
V-B-P (ms)	0.478 (23 lines)	0.78(39 lines)	0.600(29 lines)	0.51(29 lines)
V-Active (ms)	12.48 (600 lines)	12.55 (624 lines)	15.880(768 lines)	13.60(768 lines)
V-F-P (ms)	0.770 (37 line)	0.02(1 line)	0.062(3 lines)	0.05(3 lines)
SYNC. H/V	+ / +	+/+	-/-	-/-
POLARITY				
SEP . SYNC	Y	Y	Y	Y
MODE NO.	**13**	**14**	**15**	**16**
RESOLUTION	1024 x 768	1280 x 1024	1280 x 1024	1152 x 864
Dot clock(MHz)	78.75	108	135	108
f h	60.02kHz	63.981kHz	79.976KHz	67.5 KHz
H-Total (us)	16.66(1312 dots)	15.630 (1688 dots)	12.504 (1688 dots)	14.815(1600 dots)
H-Sync (us)	1.22 (96 dots)	1.037 (112 dots)	1.067 (144 dots)	1.185(128 dots)
H-B-P (us)	2.23 (176 dots)	2.296 (248 dots)	1.837 (248 dots)	2.370(256 dots)
H-Active (us)	13.00 (1024 dots)	11.852 (1280 dots)	9.481 (1280dots)	10.667(1152 dots)
H-F-P (us)	0.20 (16 dots)	0.444 (48 dots)	0.119 (16 dots)	0.593(64 dots)
f v	75.03Hz	60.020Hz	75.025 Hz	75.06 Hz
V-Total (ms)	13.33 (800 lines)	16.661 (1066 lines)	13.329 (1066 lines)	13.333(900 lines)
V-Sync (ms)	0.05 (3 lines)	0.047 (3 lines)	0.038 (3 lines)	0.044(3 lines)
V-B-P (ms)	0.47 (28 lines)	0.594 (38 lines)	0.475 (38 lines)	0.474(32 lines)
V-Active (ms)	12.80 (768 lines)	16.005 (1024 lines)	12.804(1024 lines)	12.800(864 lines)
V-F-P (ms)	0.02 (1 lines)	0.016 (1 line)	0.013 (1 lines)	0.015(1 lines)
SYNC. H/V	-/-	+/+	+/+	+/+
POLARITY				
SEP . SYNC	Y	Y	Y	Y

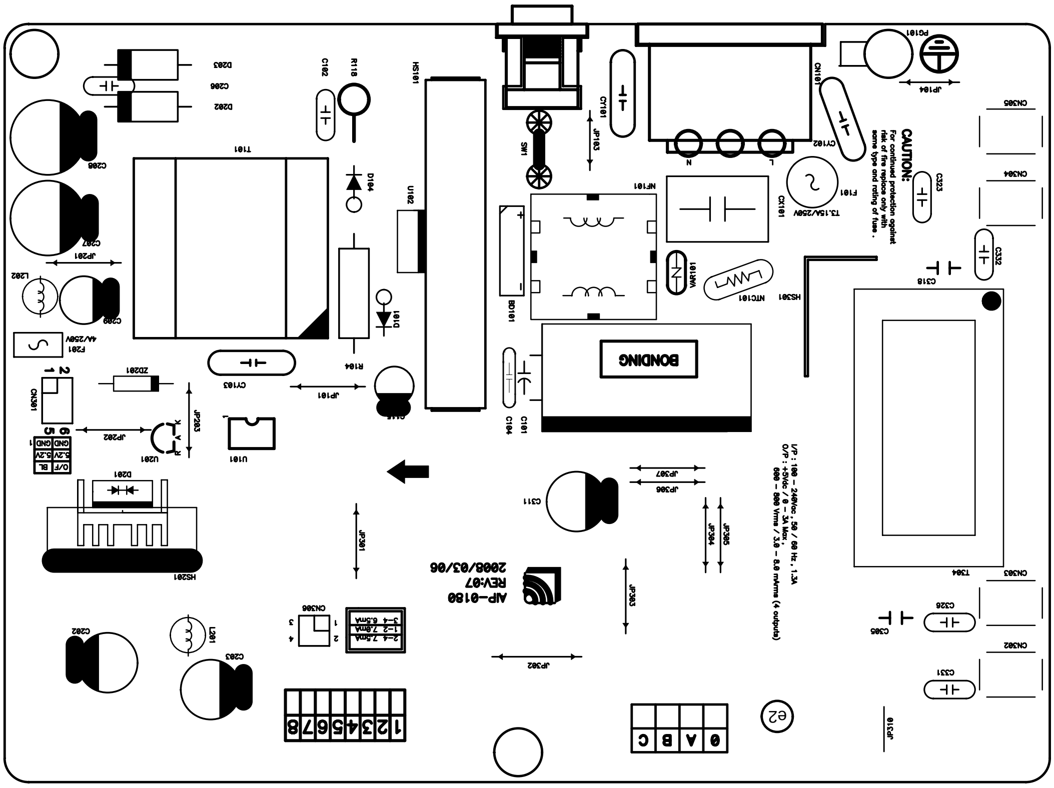
Monitor Block Diagram

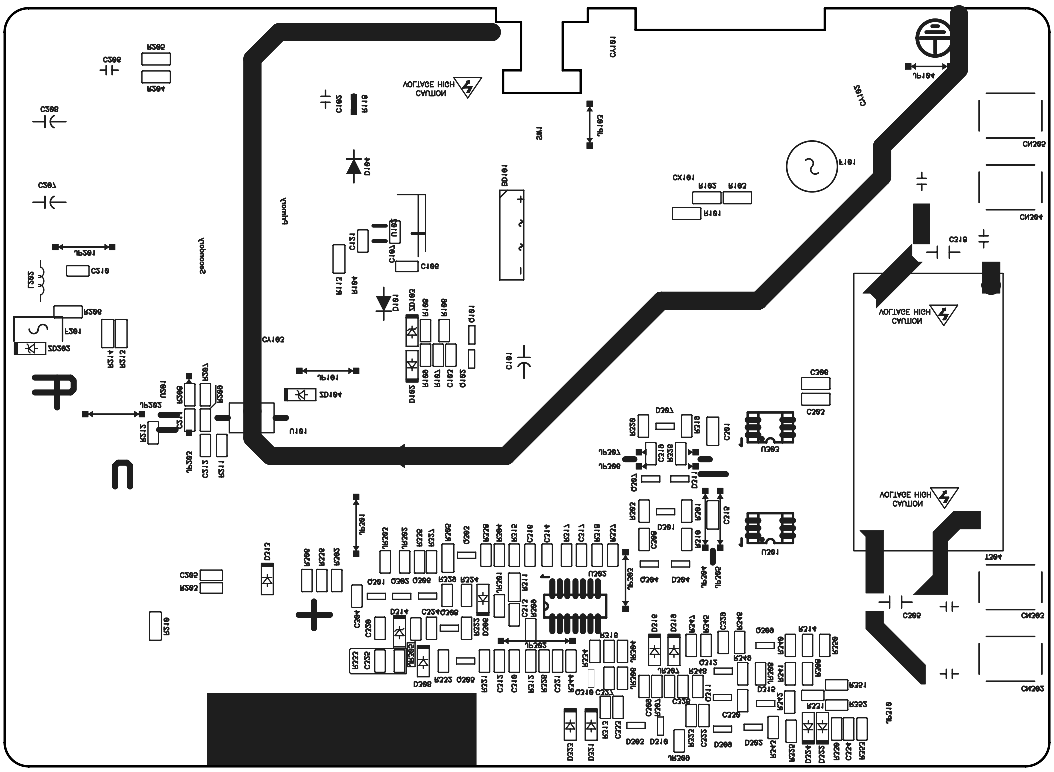


PCB CONDUCTOR VIEW




112.5
90.71
82
70
58
46
34
19
4.71
9.8
R1
A
B
Auto
Menu
POWER
1
2.1
4.71
2.1


AIP-0180
REV:07
2006/03/06
BONDING



Chapter 2

OPERATING INSTRUCTIONS

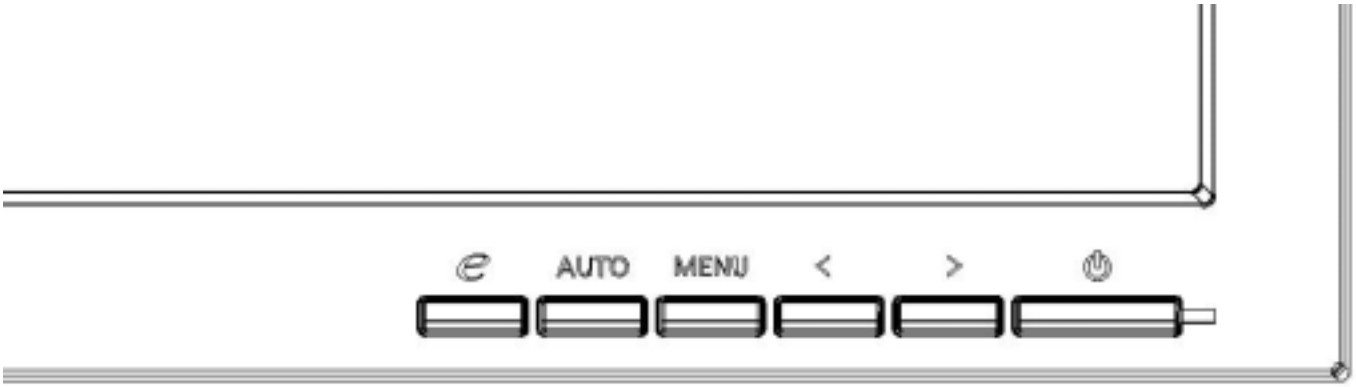
Front Panel Definition

This Section defines the front panel User Interface for Led Indictor and Key function.

Key Definition:

There are six keys defined in this system and described bellows.

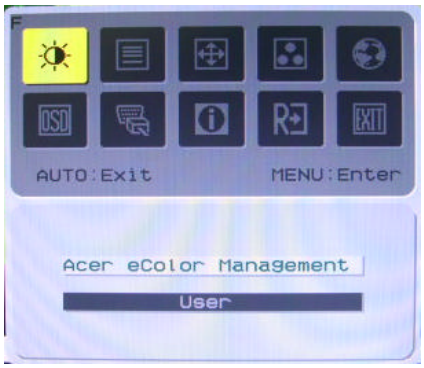
* Adjusting display settings(User can select the key "AUTO + < + POWER" to enter factory mode)



External Controls

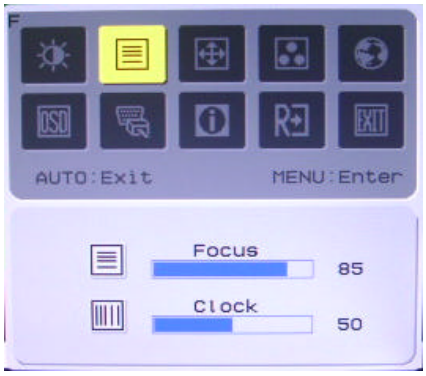
1	⏻	**POWER**	Power on/off Blue: power on Amber: in sleep mode
2	MENU	**OSD Function**	Press to view OSD. Press again to exit a selection in OSD.
3	<	**LEFT / PLUS**	If OSD is active, press to select or adjust OSD options. If OSD is inactive, press once, then press the buttons marked < or > to adjust the volume.
4	>	**RIGHT / MINUS**	If OSD is active, press to select or adjust OSD options. If OSD is inactive, press once, then press the buttons marked < or > to adjust the volume.
5	AUTO	**AUTO**	If OSD is active, press to enter a selection in OSD. If OSD is inactive, press and the monitor will automatically optimize the
6	e	**eColor**	Adjusted Brightness and Contrast by e-color, there are 5 options for your refrence: **User, Text, Standard, Graphics, Movie**

OSD menu



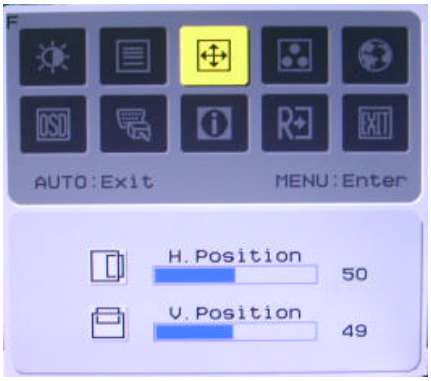
Acer eColor Management:
Brightness and Contrast adjusted by Acer eColor Management.

User:
Brightness and Contrast adjusted by User mode.



Focus:
This removes any horizontal distortion and makes the picture clear and sharp.

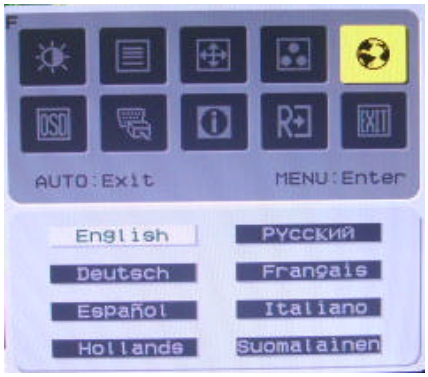
Clock:
If there are any vertical stripes seen on the background of the screen, this renders them less noticeable by minimizing their size. It also changes the size of the horizontal screen.



H-Position:
This adjusts the horizontal.

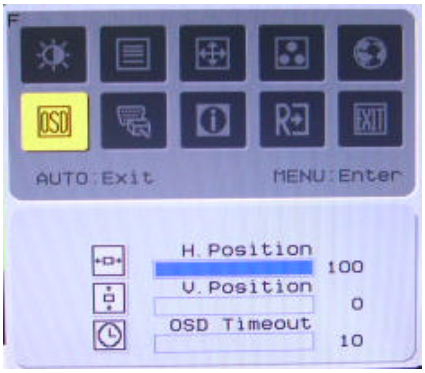
V-Position:
This adjusts the vertical.

Color adjustment:
There are three ways to adjust color:
Warm (reddish white)
Cool (bluish white)
User (you can adjust the colors red, green and blue to the intensity you desire)



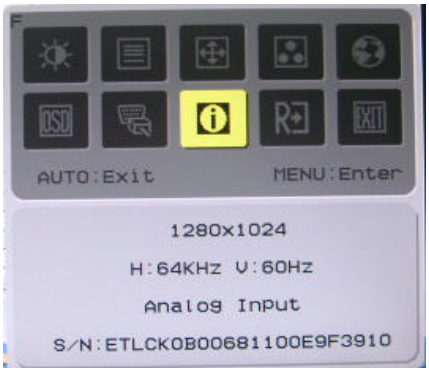
Language for EU:
English, Deutsch, Espanol, Hollands, Pyccknn, Francais, Italiano,

Suomalainen

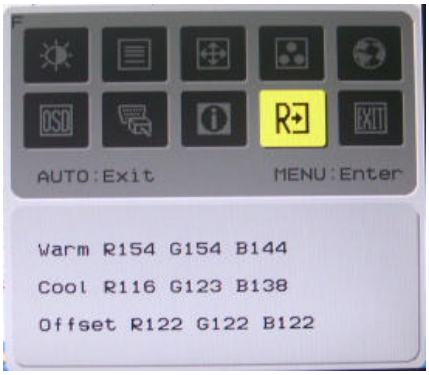


OSD Settings:
This changes the position of the OSD window on the screen and the staying time.

Input signal:
Select either **Analog Input** or **Digital Input** video.



Information:
This shows information about the screen.



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R,G,B OFFSET :

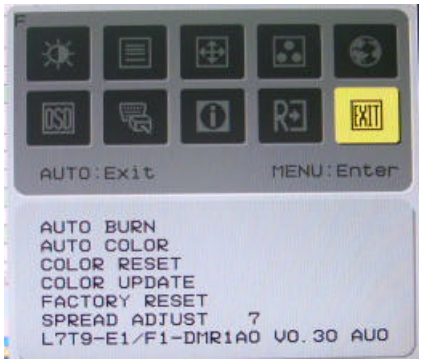
Adjust current RGB cut off level

R,G,B GAIN :

Adjust current RGB Driver value.

SPREAD :

Adjust chip set internal frequency spread effect for EMI testing.



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AUTO BURN :

Use the chip set internal pattern for hot running monitor panel and inverter.

AUTO COLOR :

Perform Auto Balance measurement by chip set internal signal. And reference these values to initial all other color temperature detail parameters.

COLOR UPDATE:

Force presently R,G,B offset and gain parameters update to currently temperature memory address.

FACTORY RESET :

Recall to factory setting and power off immediately.

VERSION :

Display F/W version and panel vender and DDC serial no.

Acer e-color management

key

	Brightness	Contrast
User	77	50
Text	44	50
Standard	77	50
Graphics	97	60
Movie	77	56

LED Definition

The system equips one dual color (blue/amber) led to indict system status and defined as bellows:

LED Color	System Status
Blue	System in normal operation mode
Amber	System in power-saving mode
Dark	System in power-off mode

LOGO:

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.

HOW TO OPTIMIZE THE DOS-MODE

Plug and play

Plug & play DDC2B feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities. The communication channel is defined in two levels, DDC2B.

The DDC2B is a bi-directional data channel based on the I^2C protocol. The host can request EDID information over the DDC2B channel.

THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association(VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

USING THE RIGHT POWER CORD

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volt AC.
Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V,CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.
Please note that power supply card needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

Chapter 3

Machine assembly

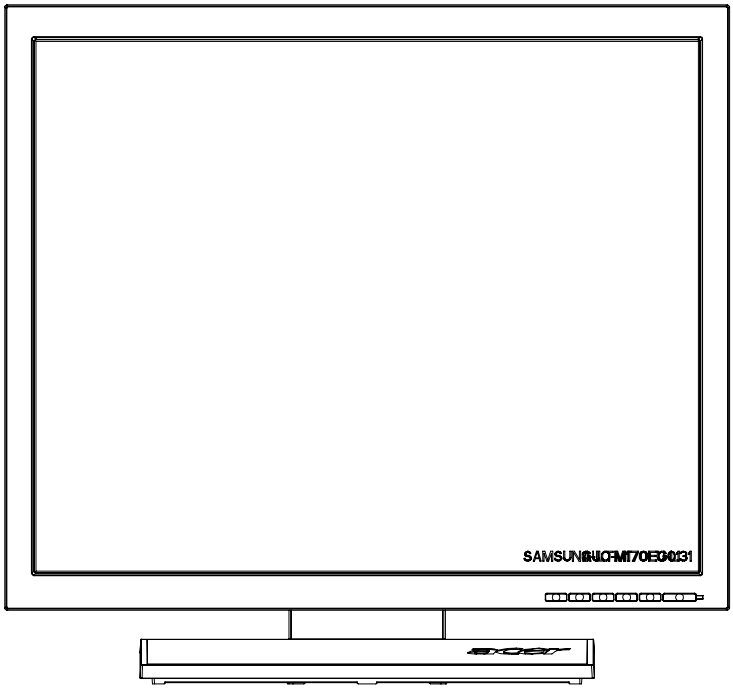
This chapter contains step-by-step procedures on how to assemble the monitor for maintenance and trouble shooting

NOTE: 1. The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding to avoid mismatch when putting back the components.

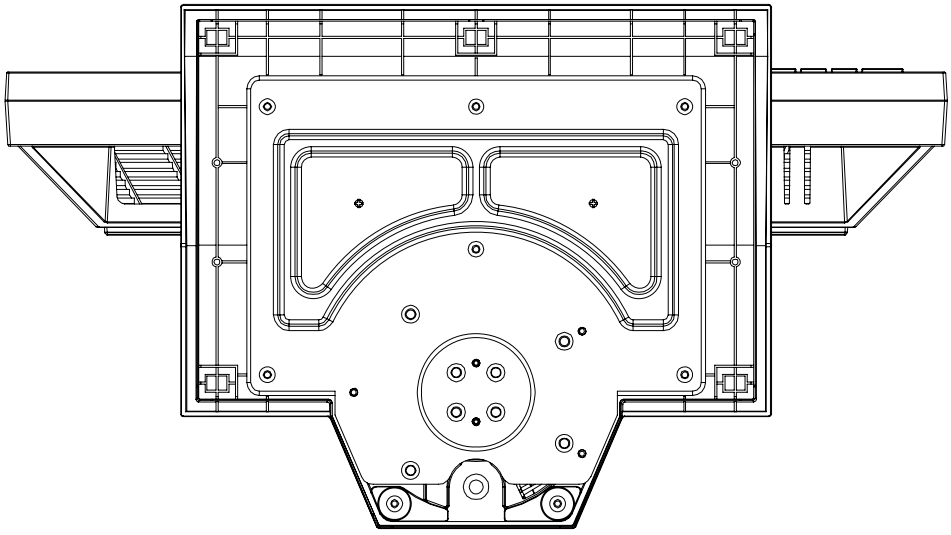
2. Note: The monitor surface is susceptible to scratching! Therefore, lay the monitor on a soft surface when mounting or removing the base.

3. Wear gloves.

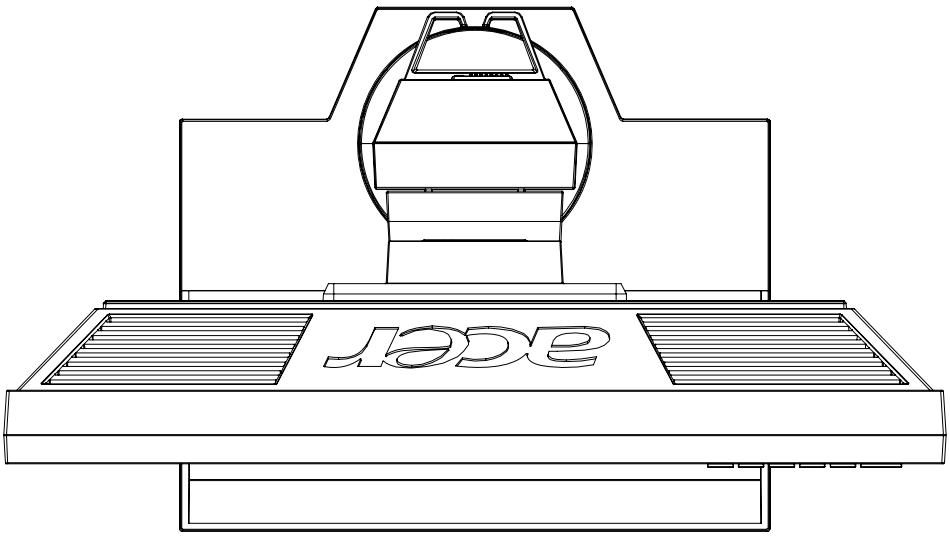
Front View: (unit: mm)



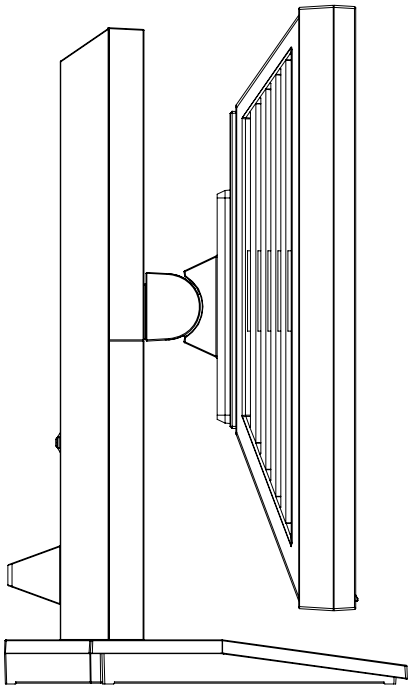
Real View:

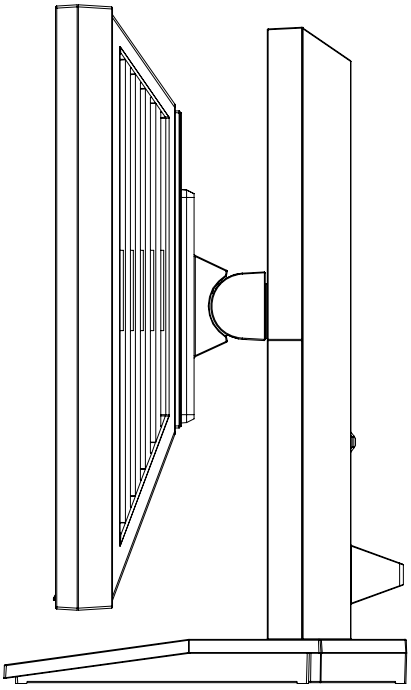


Top View:



Side View: (unit: mm)

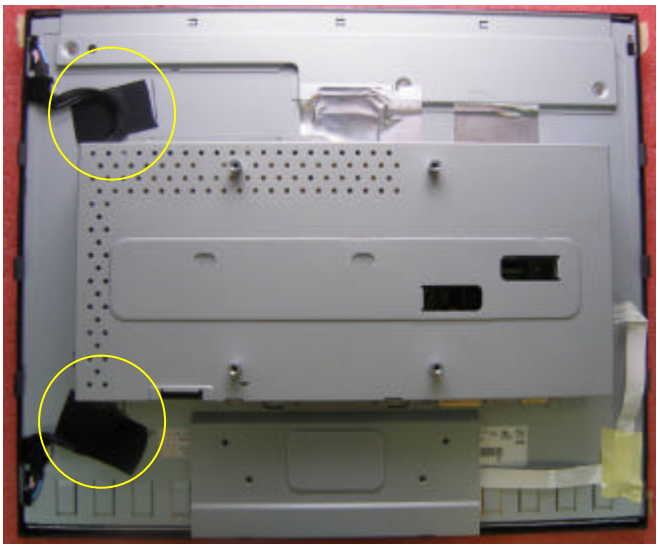




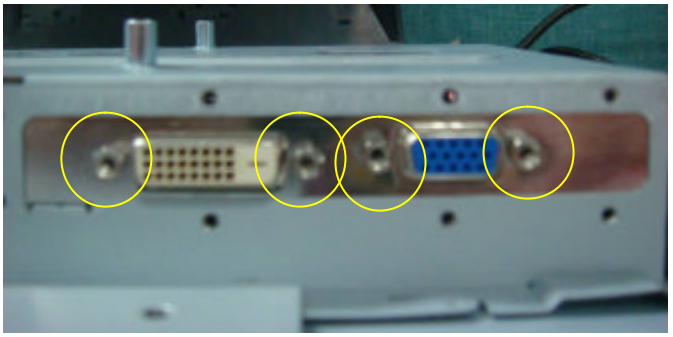
Assembly Procedure

1. Remove 4pcs screws from adjusted stand.

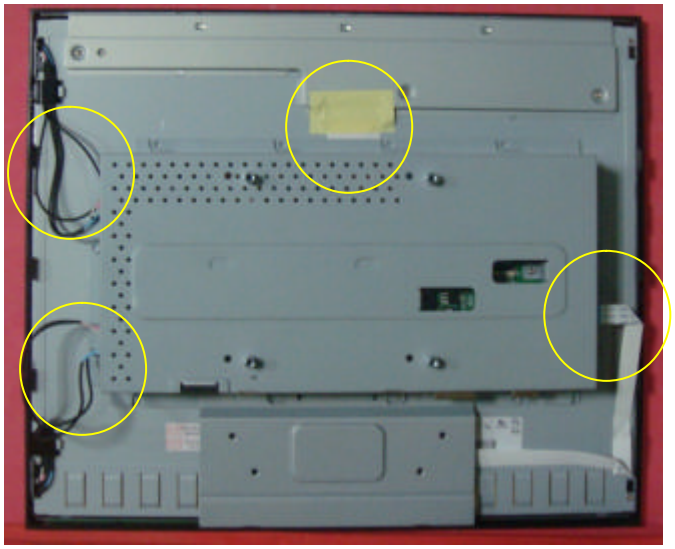
2. Take off the rear cover from LCD.



3. Tear off all the tapes and connectors.

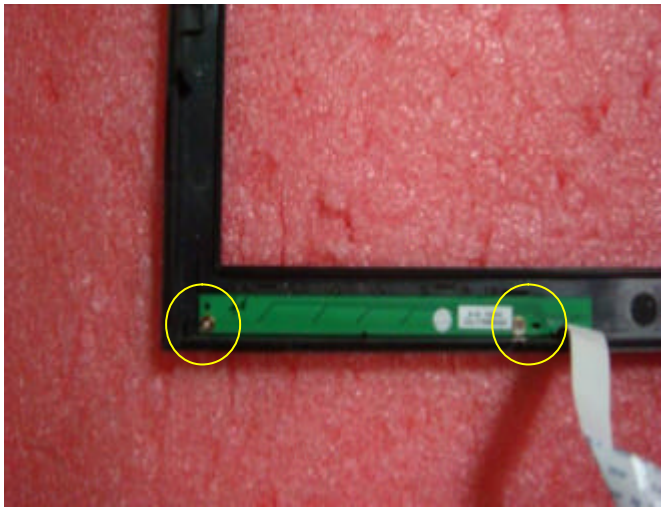


4. Remove 4pcs IO NUTS from joints.

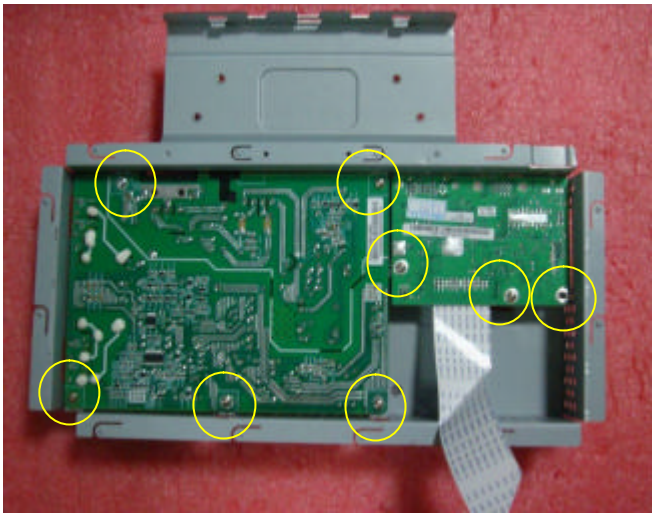


5. Tear off the lamp cables from p/b and the LVDs cable from panel.

6. Take off the LCD bezel from panel.



7. Take off 2pcs screws from b/b and take off it from bezel.



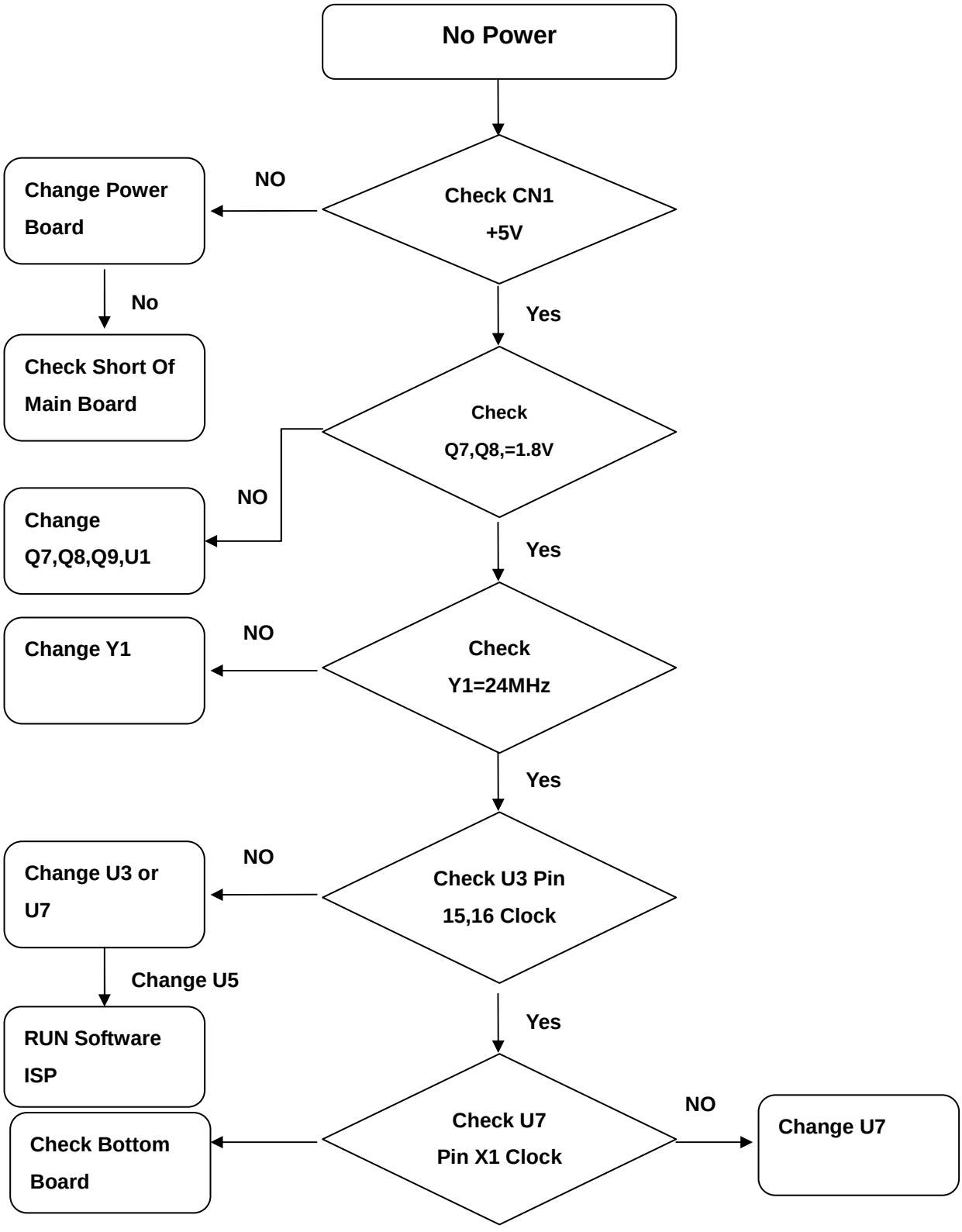
8. Remove 8pcs screws from m/b and p/b, then disconnect them from PCB shielding.

Chapter 4

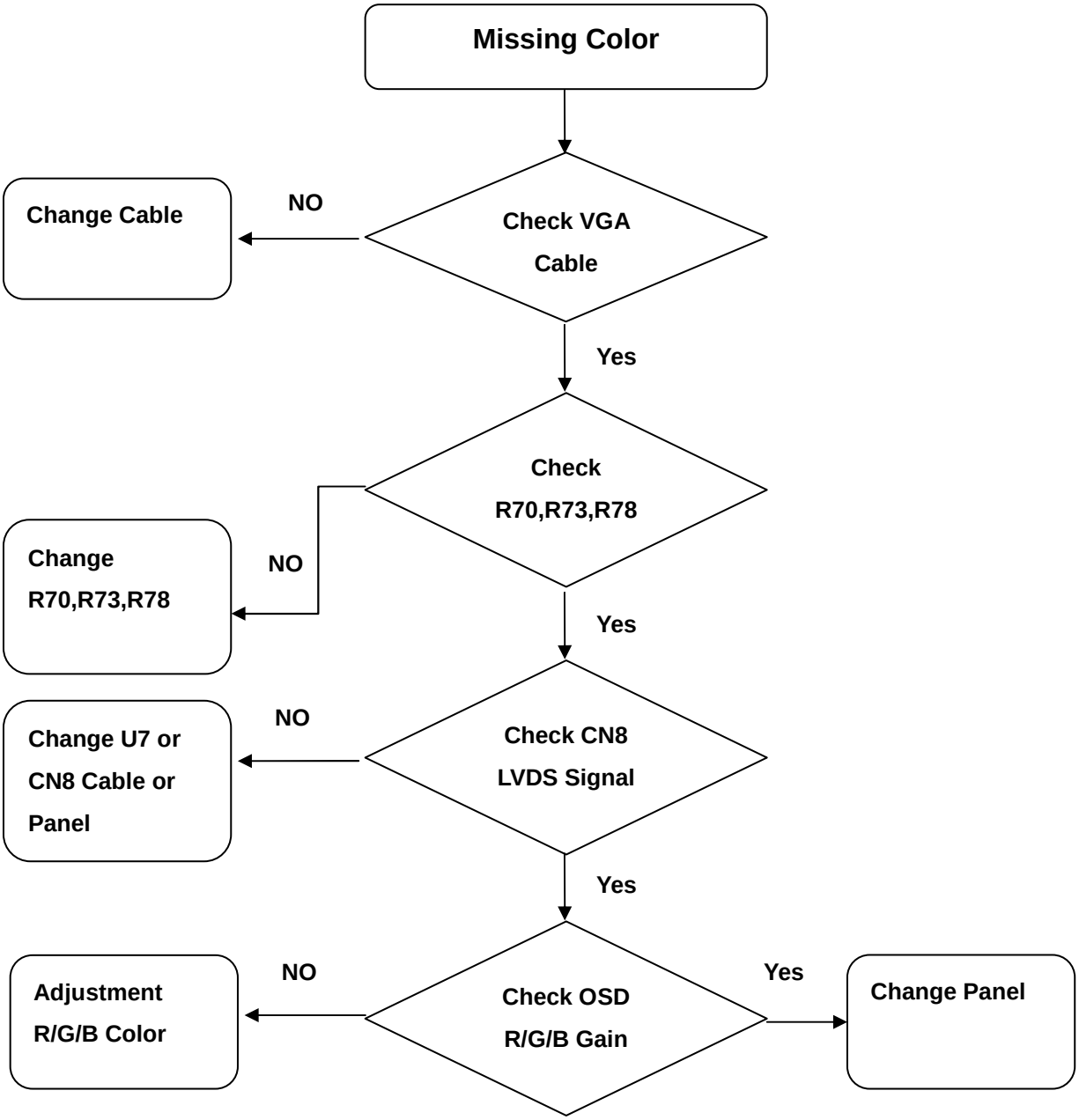
TROUBLE SHOOTING

This chapter provides trouble shooting information for B173

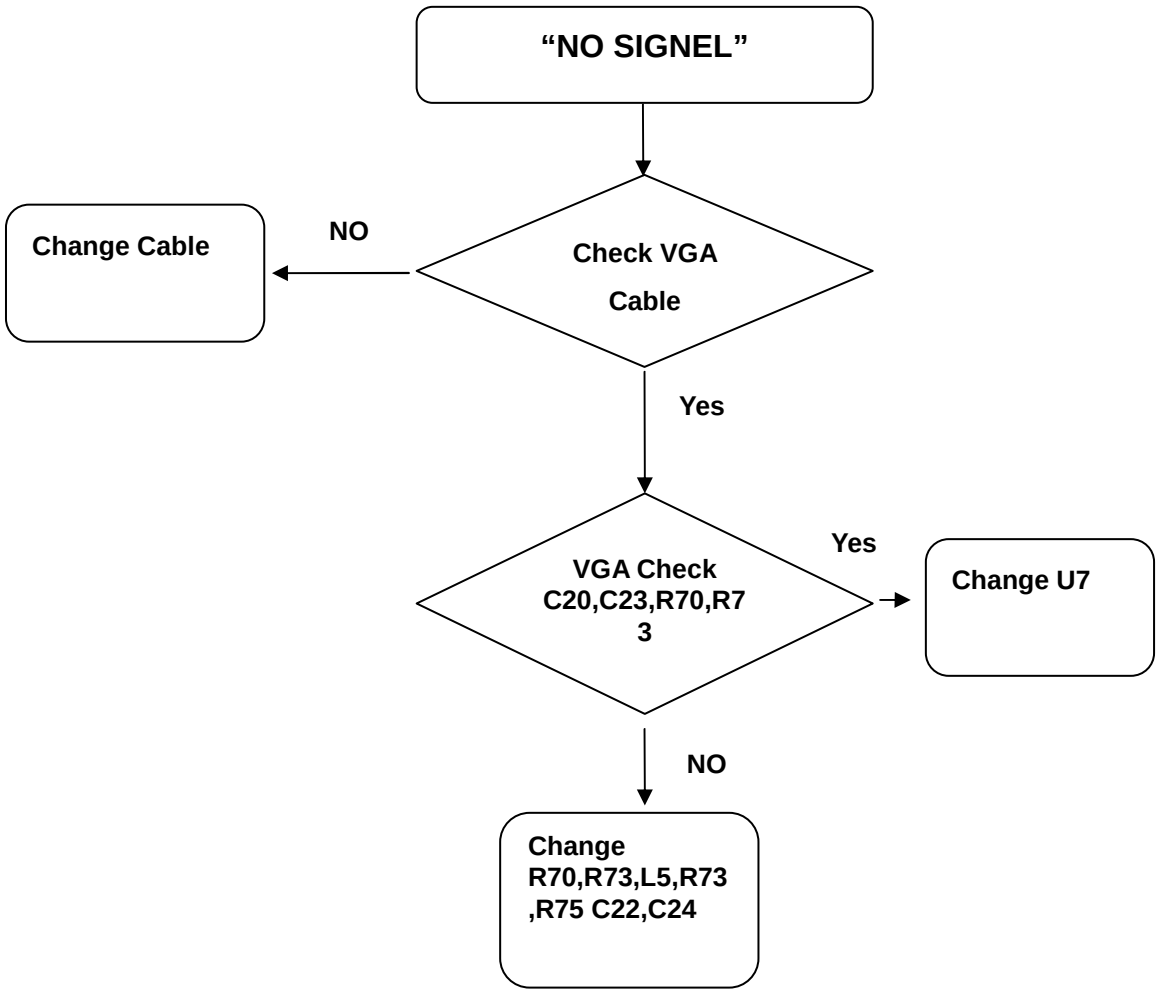
1. No Power



2. Missing Color



3. Always show “NO SIGNEL”

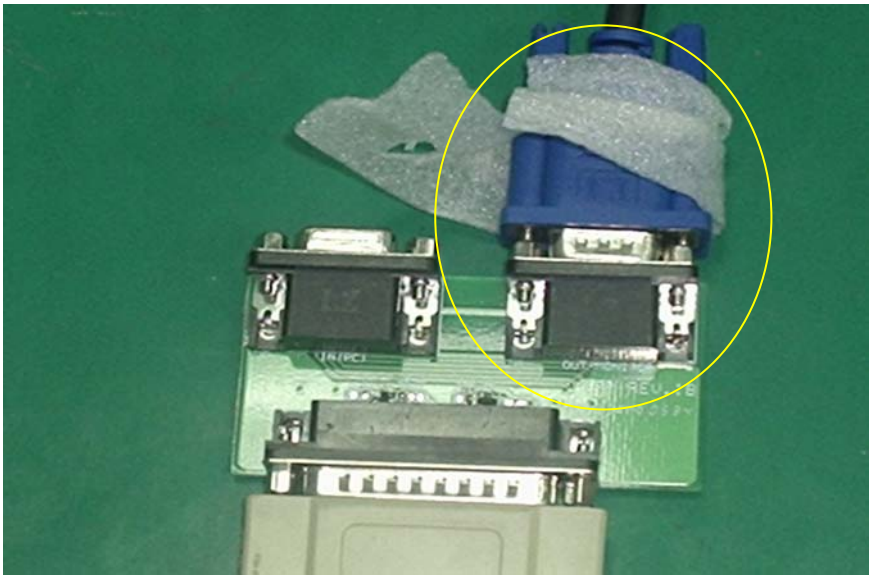


RTD Tool Only ISP Basic operations

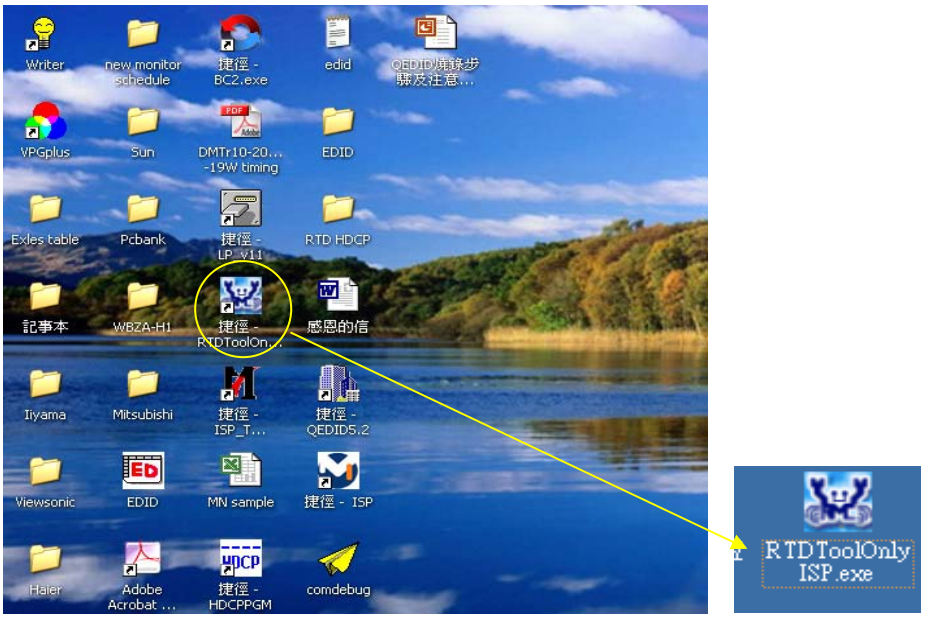
Before write

1. Please insure connect LPT cord to PC LPT Port.
2. The correct connection ISP tool to LPT Cord.

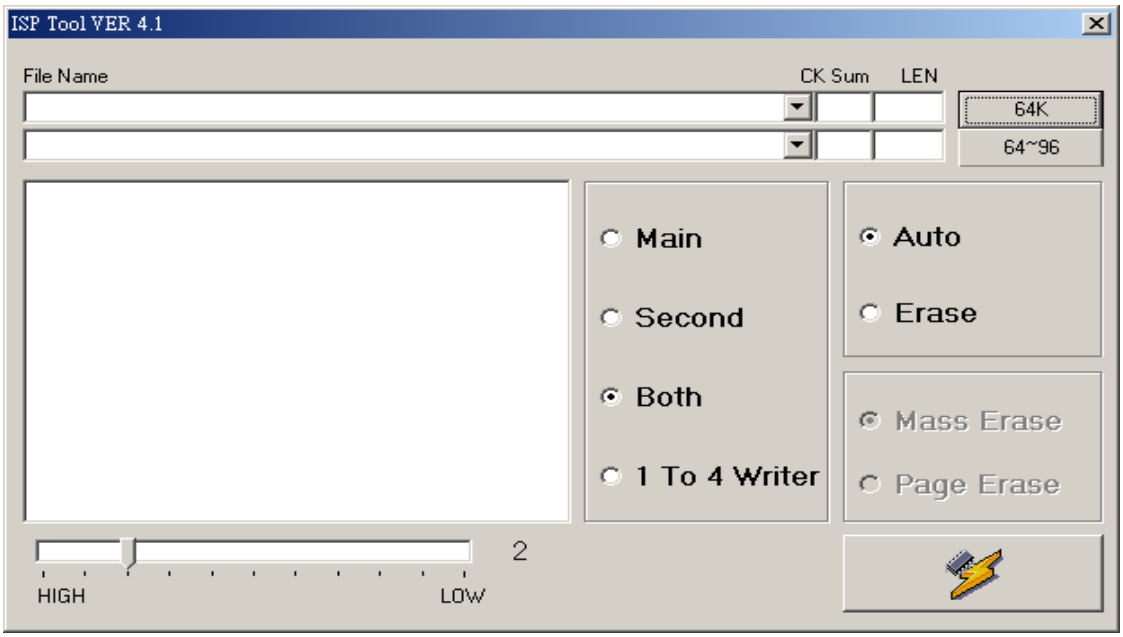
When write BIOS, Need connect VGA Cord to ISP tool



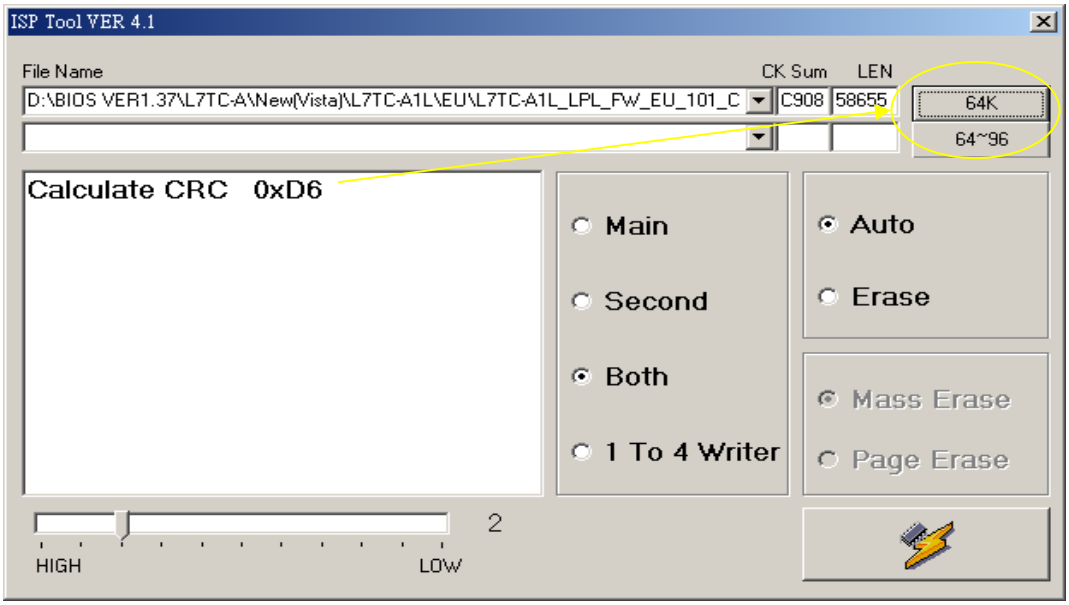
Double Click “RTDTOOL ONLY ISP” procedure。



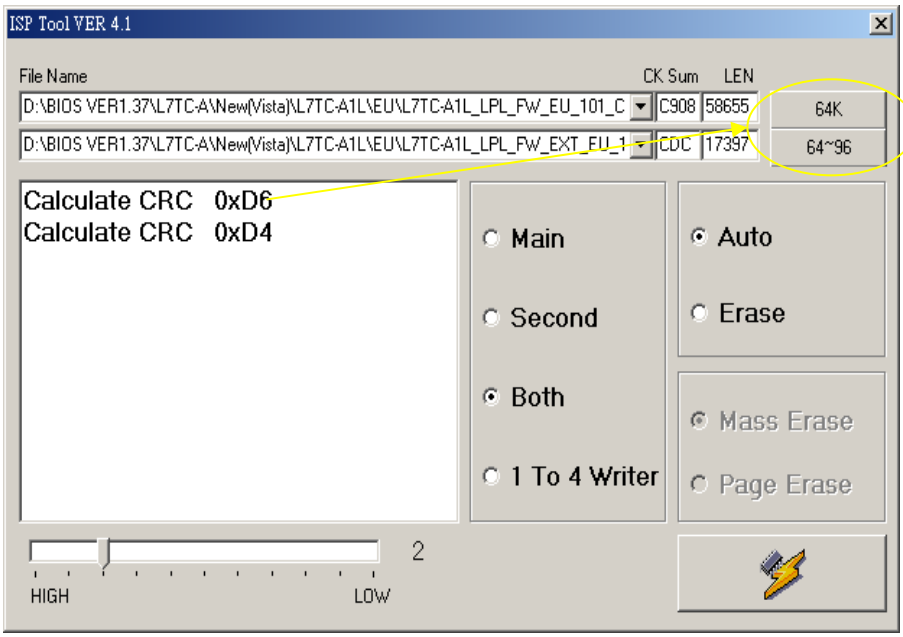
Pop out the follow operation surface



Click 64K, choose the first bios file (bios file choose from the local disk)



Click 64K~96K,choose the second bios file （the first and the second files save together）



Setup file properties

Main acts as the main writing file.

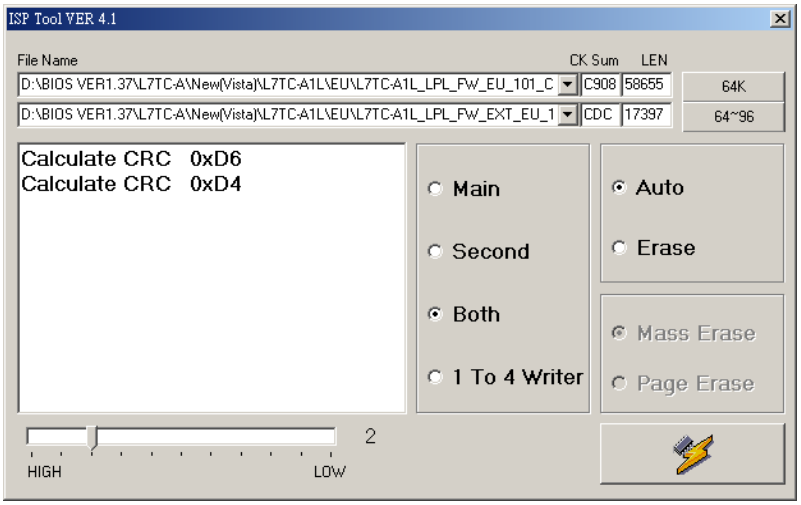
Second acts as the second writing file.

Both acts as both files writing together.

1TO 4 writer acts as 4PCS main boards writing together.

AUTO acts as the pc writing automatically.

Erase acts as procedure erased the former bios of monitor.



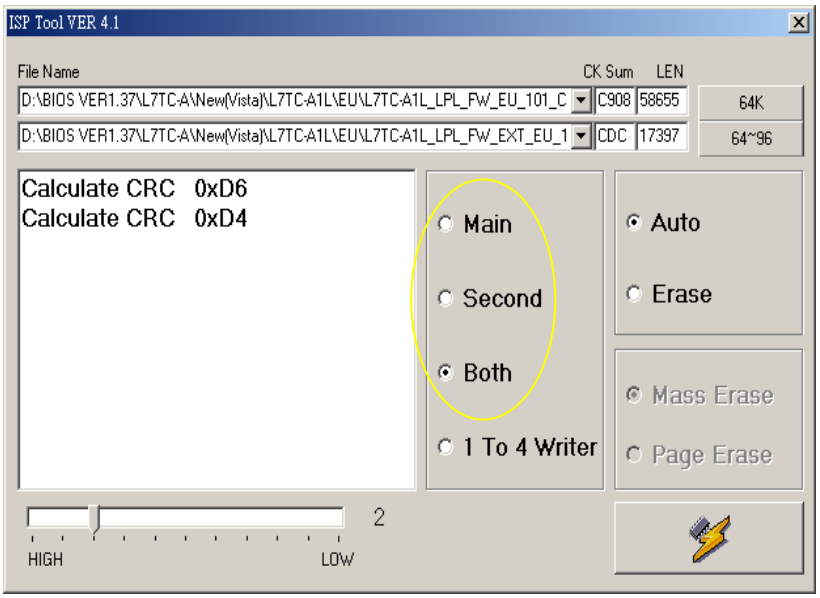
When write PCBANK(WDZV-W1) model bios, use the two files, setup file properties as fellow:

1. Within 64K option, choose no Extend bios file;
2. Within 64K~~96K option, choose the Extend bios file;
3. Choose “Both” property;
4. Choose “auto”;
5. Click  , go to write.

Notice: The distinction ”64K” and “64-96K” is from BIOS file name.

64K: WDZV-W1_SAM_FW_V100_0x90_061907

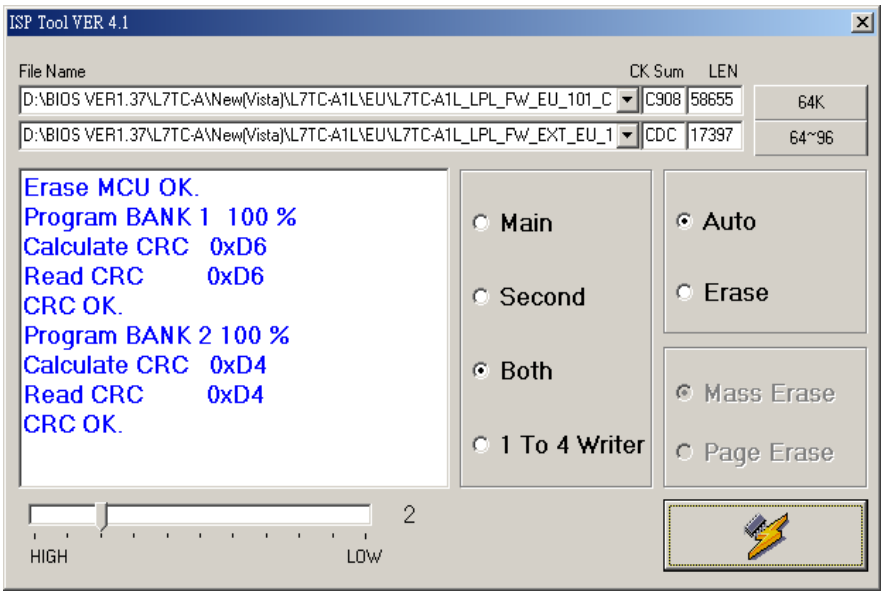
64-96K: WDZV-W1_SAM_FW_V100_0x89_Extend_061907



Click  , go to writing, it is necessary for writing to turn on monitor .

During writing, can't cut off electricity, and VGA cord can't fall off.

After writing OK, will display "CRC OK".



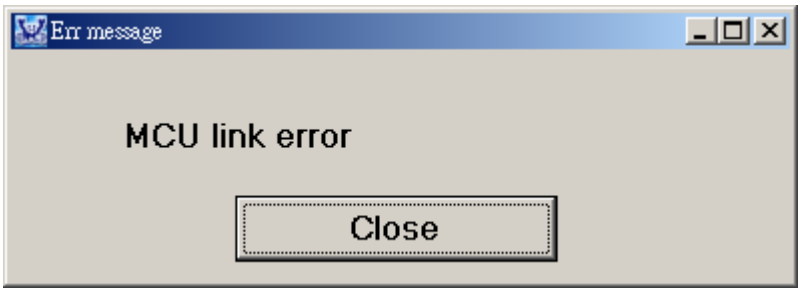
Notices:

Writing is not going, will come out the right message "MCU link error".

Analysis:

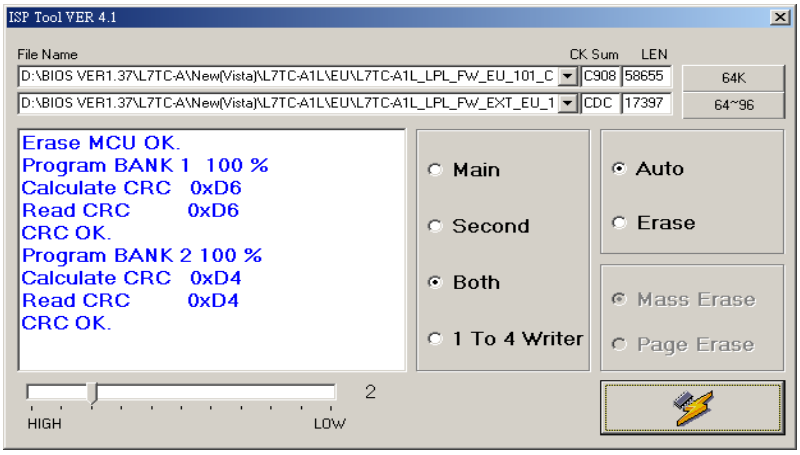
Check:

1. If connect to writing card and writing cords is ok or all tool are ok?
2. If monitor is "on" state (can't into factory state, please retry again)
3. If cords connections is ok?
4. If PC LPL is ok?
5. Monitor of main board is gook?



Notices:

warning！ prohibit from choosing the error position of BIOS file “64K” and “64~~94”, Maybe writing, but writing to display the Chaos of OSD, abnormal.



Chapter 5

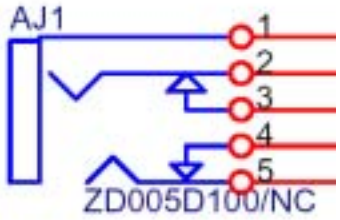
Connector Information

Phone jack stereo

PIN1. AC power cord: CEE22 typed connector

PIN2. Audio cable

PIN3. Audio: Line-in receptacle



15 pin mini D-Sub connector

PIN	Signal
1	Red
2	Green
3	Blue
4	No Pin
5	Ground
6	Ground Red
7	Ground Green
8	Ground Blue
9	+5 V for DDC
10	Ground
11	Ground
12	SDA (DDC Data)
13	H – Sync
14	V – Sync
15	SCL (DDC Clock)

DVI-D connector (optional)

PIN	Signal
1	TMDS data2-
2	TMDS data2+

3	TMDS data2 shield
4	NC
5	NC
6	DDC clock
7	DDC data
8	Not connected
9	TMDS data1-
10	TMDS data1+
11	TMDS data1 shield
12	NC
13	NC
14	+5V
15	Ground (return for +5 V and H/V sync)
16	Hot plug detect
17	TMDS data0-
18	TMDS data0+
19	TMDS data0 shield
20	NC
21	NC
22	TMDS clock shield
23	TMDS clock+
24	TMDS clock-

Chapter 6

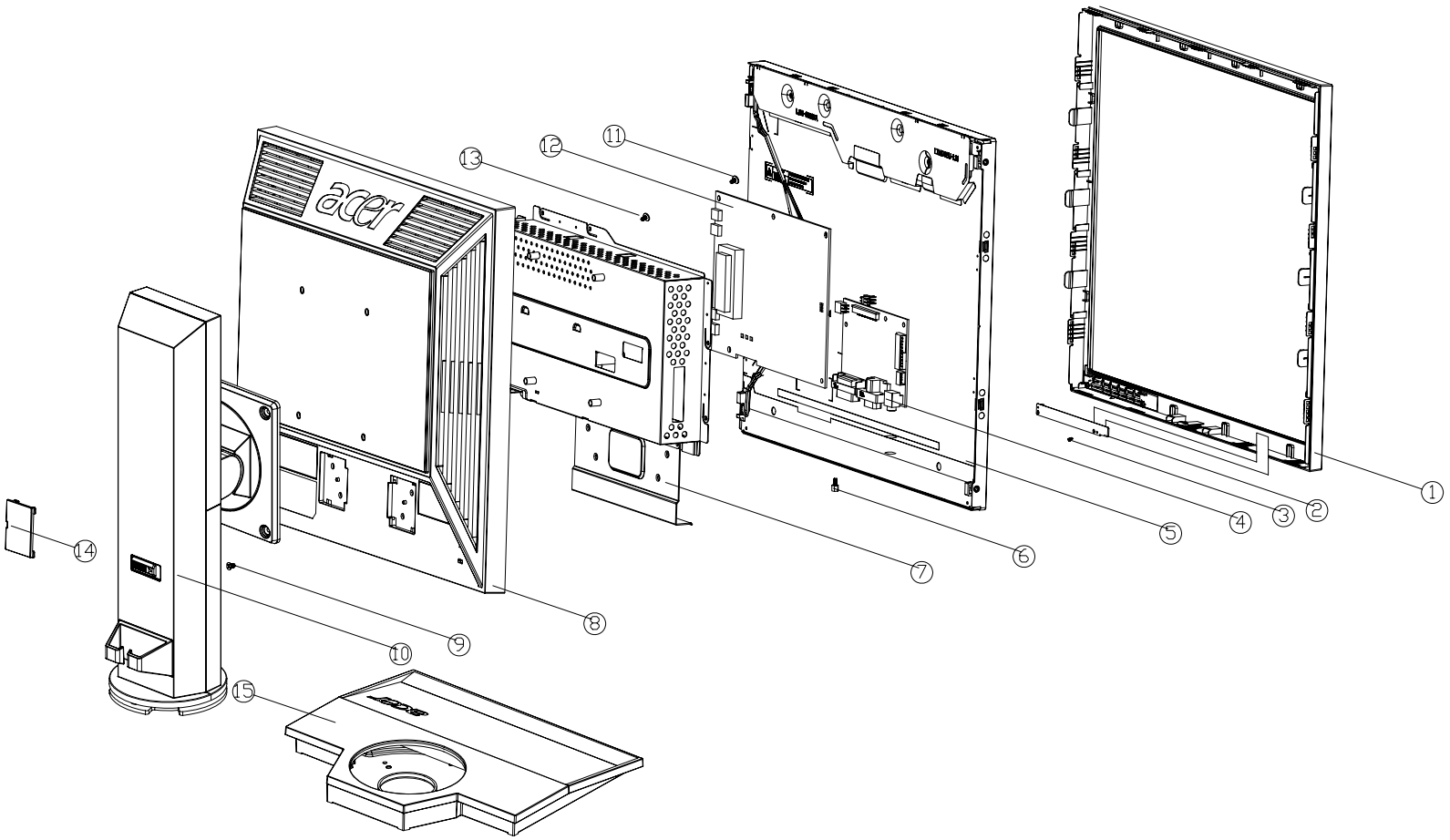
FRU (Field Replaceable Unit) LIST

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of B173. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel(http://aicsl.acer.com.tw/spl/). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED CERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how best to dispose it, or follow the rules set by your regional Acer office on how to return it.

L7T9-F1

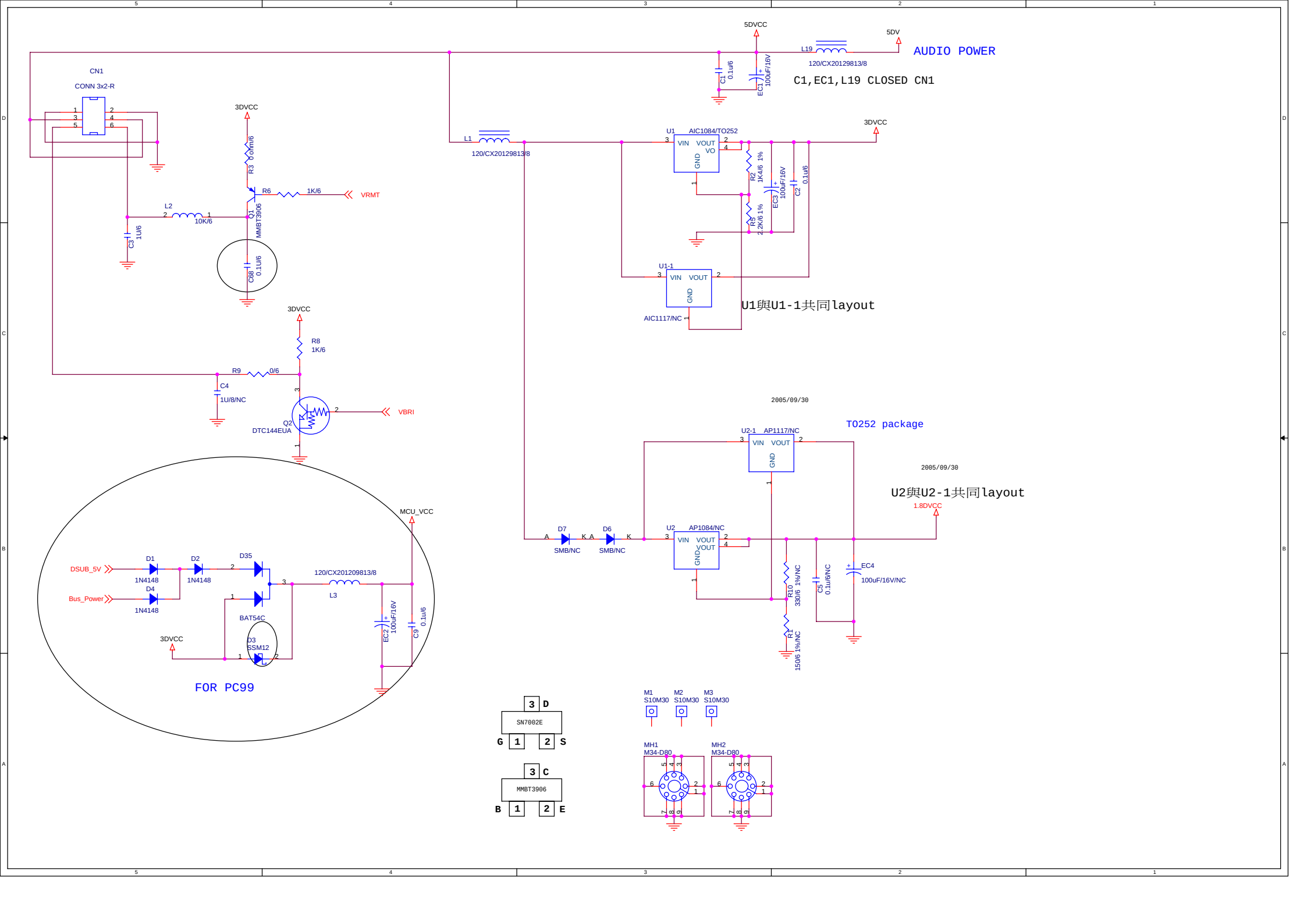


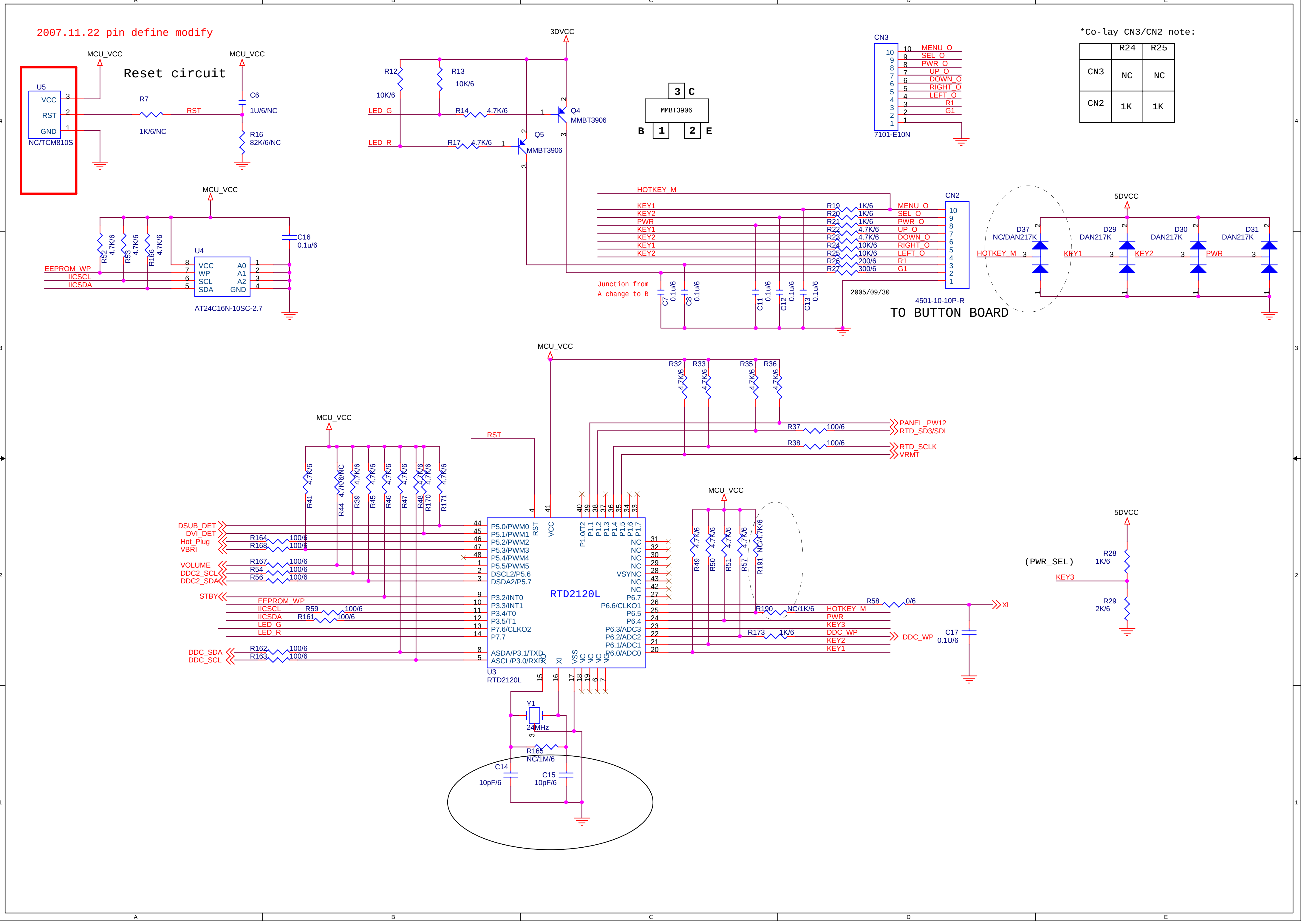
ITEM	Part Number	Part Description	Qty
01	34L7T9LB012	L7T9-F1 LCD BEAEL SUB ASSY GP	1
02	23L7TEBB005	L7TE BUTTON/B ASSY(L7T9-E1)GP	1
03	MF20025IBJ8	SCREW F2*2.5-I(NI)GP	2
04	21M972RAE07	L7TE M/B ASSY(L7T9-E1,RTD2525LH)DUAL	1
05	2AL7T9PTA00	L7T9-E1 PANEL KIT ASSY(AU,5MS)GP	1
06	MBLI1004018	ID NUT LI(MBLI1004,REV3A)GP	4
07	36L7T9PS019	L7T9-F1 PCB SHIELDING ASSY GP	1
08	35L7T9LS011	L7T9-F1 LCD COVER SUB ASSY GP	1
09	MM40120B240	SCREW M4.0*12-B(BLACK,NYLOK)GP	4
10	KNL7T901015	STAND ASSY L7T9-F1(KNL7T901,R3A)GP	1
11	MF30060BBJ6	SCREW F3.0*6-B(NI)GP	6
12	AS53B4CCB01	PI 40W 4L(175*127,W/SW)AIP-0180A	1
	AS53B4CSB02	PI 40W 4L(175*127,W/SW)FSP040-1PI02A	
13	MK30060BJN0	SCREW K3.0*6.0 B(MC)WASH GP	1
14	EBL7T904012	HINGE COVER L7T9-F1(EBL7T904,R3A)B	2
15	KNL7T902011	BASE ASSY L7T9-F1(KNL7T902,R3A)GP	1

Chapter 7

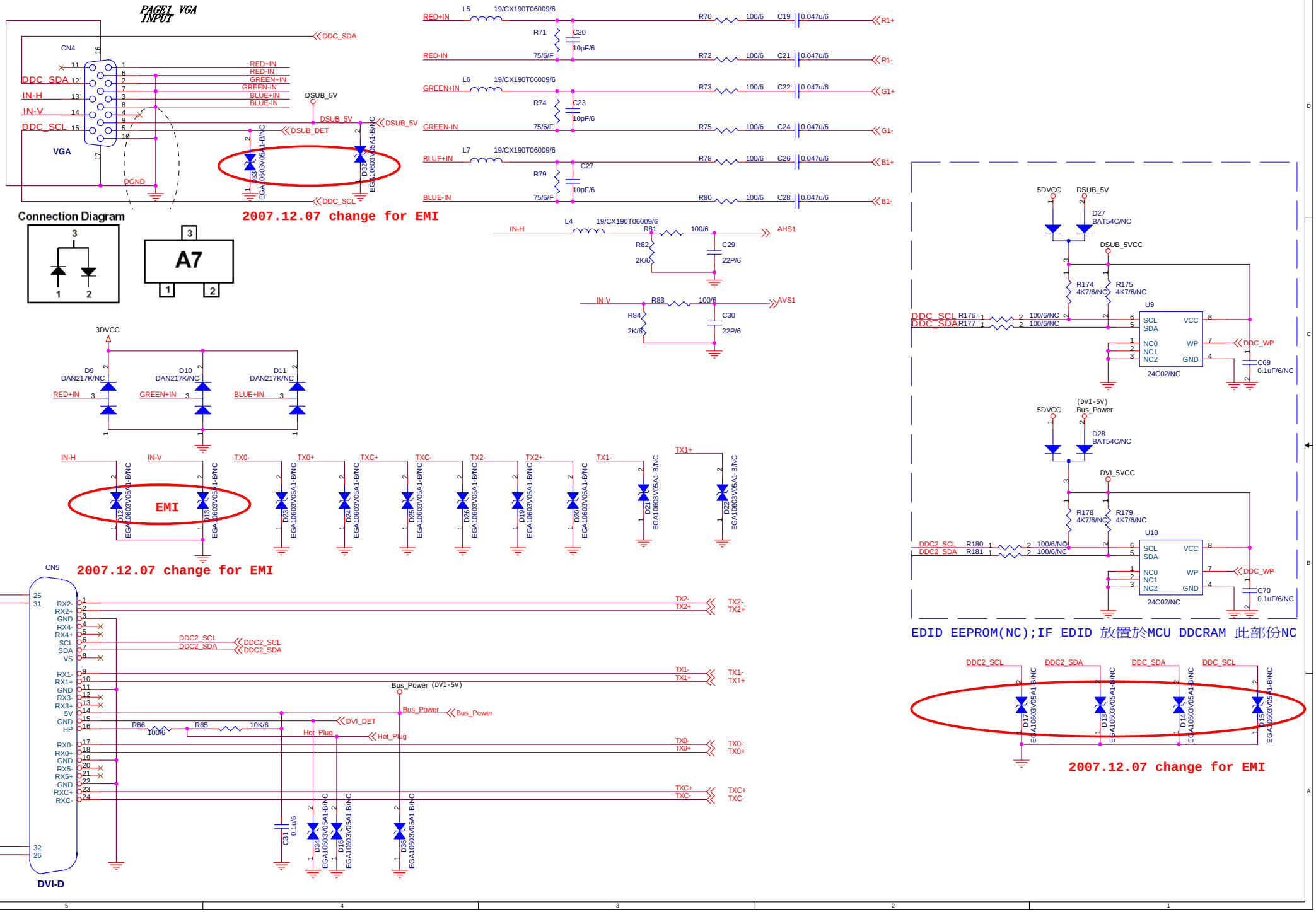
SCHEMATIC DIAGRAM

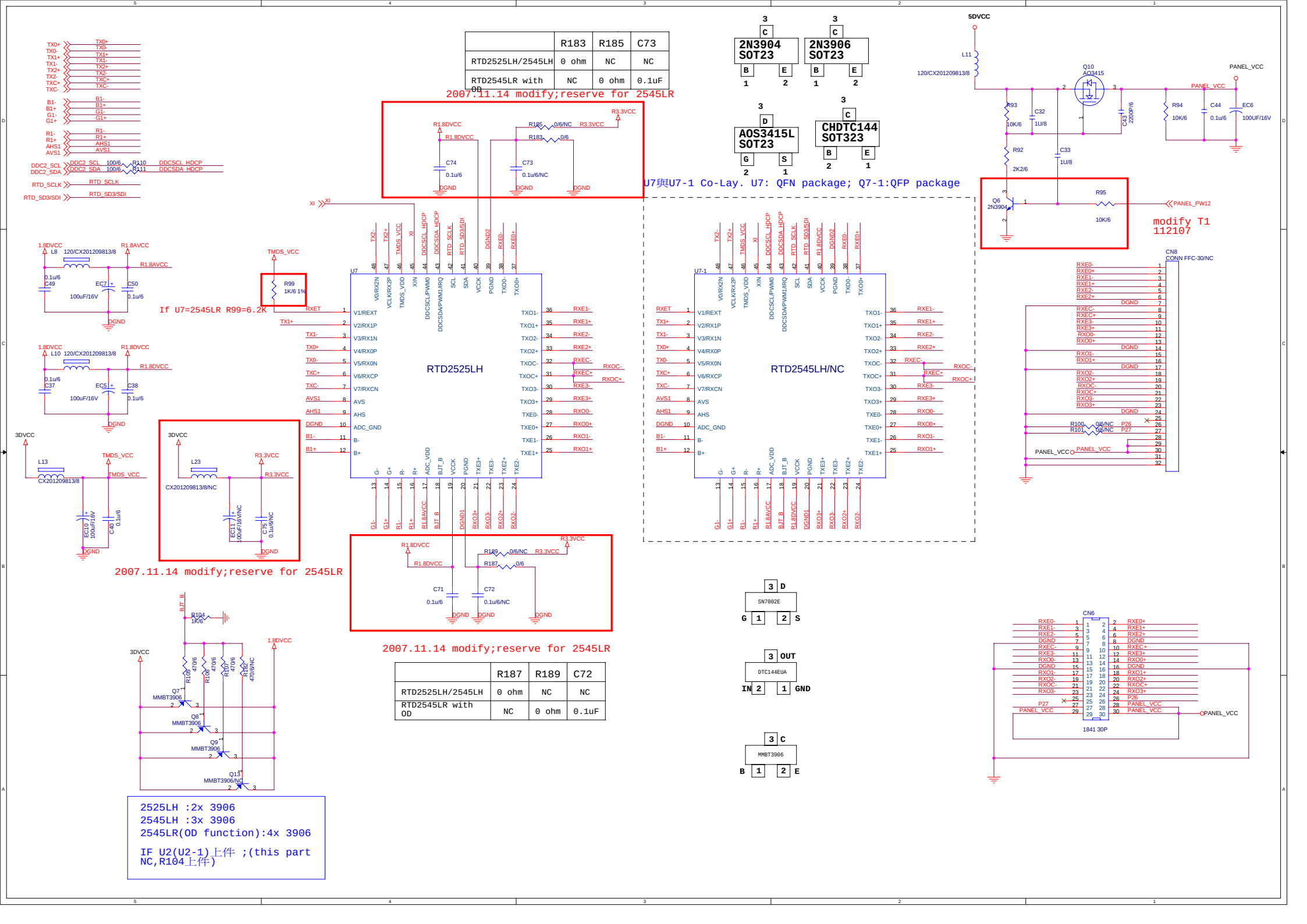
CONTENTS

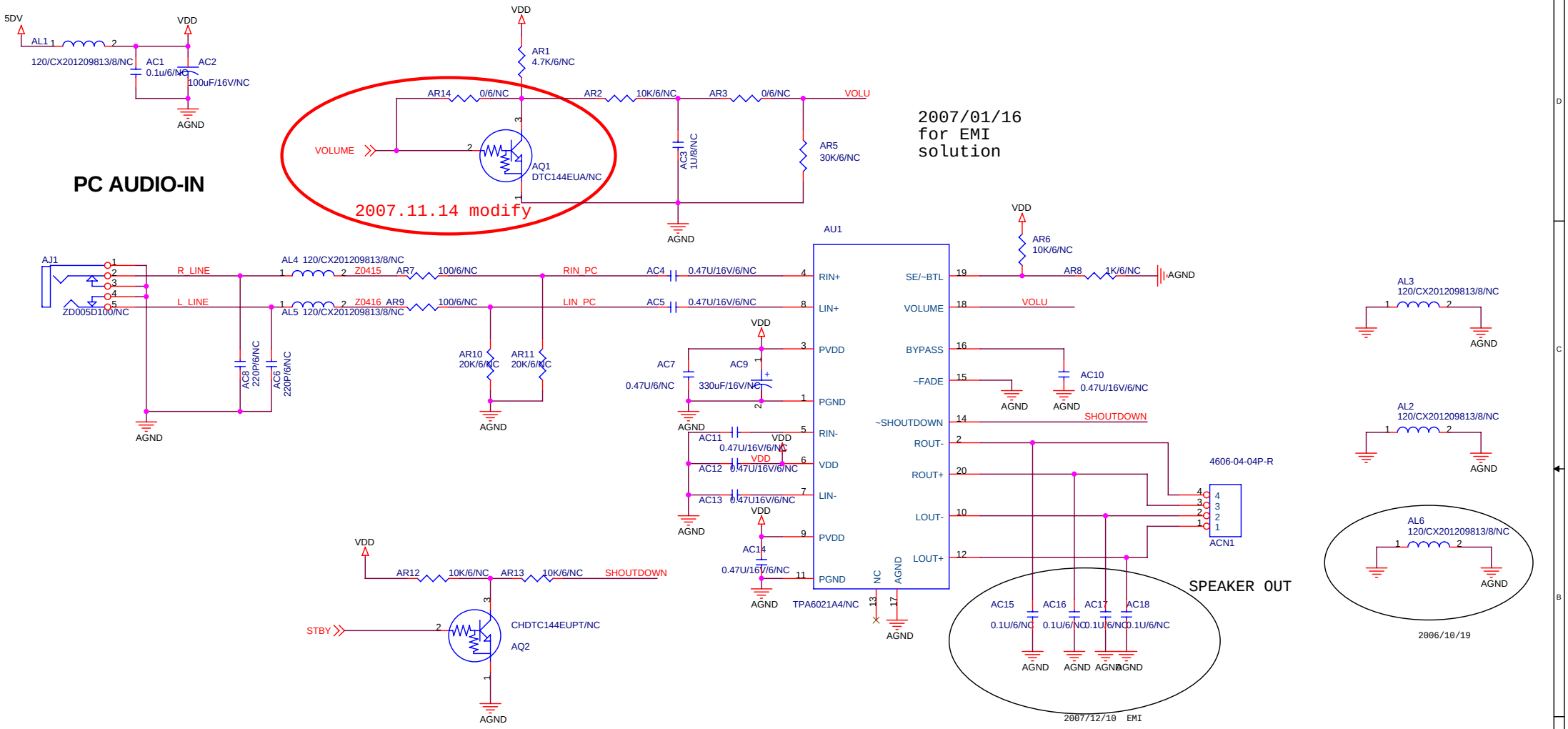

AUDIO POWER
C1,EC1,L19 CLOSED CN1
5DVCC
5DV
L19
120/CX20129813/8
C1 0.1u6
EC1 100uF/16V
CN1
CONN 3x2-R
3DVCC
R3 0.0/6
R6 1K/6
VRMT
L2
10K/6
Q1 MMBT3906
C3 1U/6
C68 0.1U/6
L1
120/CX20129813/8
U1 AIC1084/TO252
VIN VOUT VO GND
R2 1K4/6 1%
R5 2.2K/6 1%
EC3 100uF/16V
C2 0.1u6
U1-1
VIN VOUT GND
AIC1117/NC
U1與U1-1共同layout
R8 1K/6
R9 0/6
C4 1U/8/NC
Q2 DTC144EUA
VBRI
2005/09/30
TO252 package
U2-1 AP1117/NC
VIN VOUT GND
2005/09/30
U2與U2-1共同layout
1.8DVCC
D7 SMB/NC
D6 SMB/NC
U2 AP1084/NC
VIN VOUT VOUT GND
R10 330/6 1%/NC
R11 150/6 1%/NC
C5 0.1u/6/NC
EC4 100uF/16V/NC
MCU_VCC
DSUB_5V
Bus_Power
D1 1N4148
D2 1N4148
D4 1N4148
D35 BAT54C
D3 SSM12
120/CX201209813/8
L3
EC2 100uF/16V
C9 0.1u/6
FOR PC99
SN7002E
MMBT3906
M1 S10M30
M2 S10M30
M3 S10M30
MH1 M34-D80
MH2 M34-D80



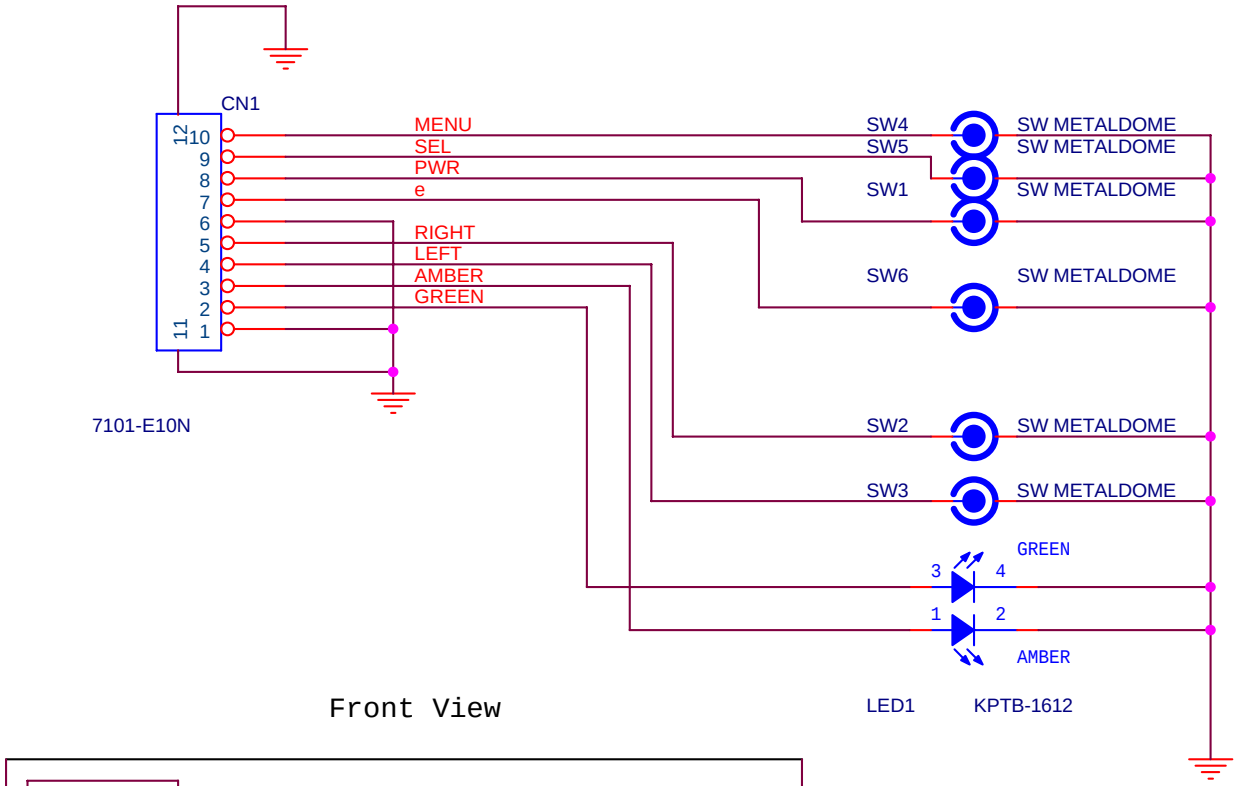
2007.11.22 pin define modify
Reset circuit
MCU_VCC
U5
VCC
RST
GND
NC/TCM810S
R7
1K/6/NC
RST
C6
1U/6/NC
R16
82K/6/NC
3DVCC
R12
10K/6
R13
10K/6
LED_G
LED_R
R14
4.7K/6
R17
4.7K/6
Q4
MMBT3906
Q5
MMBT3906
MMBT3906
B
C
E
CN3
MENU_O
SEL_O
PWR_O
UP_O
DOWN_O
RIGHT_O
LEFT_O
R1
G1
7101-E10N
*Co-lay CN3/CN2 note:
R24
R25
CN3
NC
NC
CN2
1K
1K
HOTKEY_M
KEY1
KEY2
PWR
R19 1K/6
R20 1K/6
R21 1K/6
R22 4.7K/6
R23 4.7K/6
R24 10K/6
R25 10K/6
R26 200/6
R27 300/6
CN2
4501-10-10P-R
TO BUTTON BOARD
2005/09/30
Junction from
A change to B
C7 0.1u/6
C8 0.1u/6
C11 0.1u/6
C12 0.1u/6
C13 0.1u/6
5DVCC
D37
NC/DAN217K
D29
DAN217K
D30
DAN217K
D31
DAN217K
EEPROM_WP
IICSCL
IICSDA
R52 4.7K/6
R53 4.7K/6
R166 4.7K/6
U4
VCC
WP
SCL
SDA
A0
A1
A2
GND
AT24C16N-10SC-2.7
C16
0.1u/6
R32
R33
R35
R36
R37 100/6
R38 100/6
PANEL_PW12
RTD_SD3/SDI
RTD_SCLK
VRMT
RST
R41
R44 4.7K/6/NC
R39
R45
R46
R47
R48
R170
R171
DSUB_DET
DVI_DET
Hot_Plug
VBRI
VOLUME
DDC2_SCL
DDC2_SDA
STBY
R164 100/6
R168 100/6
R167 100/6
R54 100/6
R56 100/6
R59 100/6
R161 100/6
R162 100/6
R163 100/6
DDC_SDA
DDC_SCL
LED_G
LED_R
P5.0/PWM0
P5.1/PWM1
P5.2/PWM2
P5.3/PWM3
P5.4/PWM4
P5.5/PWM5
DSCL2/P5.6
DSDA2/P5.7
P3.2/INT0
P3.3/INT1
P3.4/T0
P3.5/T1
P7.6/CLKO2
P7.7
ASDA/P3.1/TXD
ASCL/P3.0/RXD
RTD2120L
U3
RTD2120L
VSYNC
P6.7
P6.6/CLKO1
P6.5
P6.4
P6.3/ADC3
P6.2/ADC2
P6.1/ADC1
P6.0/ADC0
R49
R50
R51
R57
R191 NC/4.7K/6
R190 NC/1K/6
R173 1K/6
R58 0/6
XI
HOTKEY_M
PWR
KEY3
DDC_WP
KEY2
KEY1
C17
0.1U/6
(PWR_SEL)
R28
1K/6
R29
2K/6
KEY3
Y1
24MHz
R165
NC/1M/6
C14
10pF/6
C15
10pF/6


PAGE1 VGA INPUT
CN4
DDC_SDA
IN-H
IN-V
DDC_SCL
VGA
DGND
RED+IN
RED-IN
GREEN+IN
GREEN-IN
BLUE+IN
BLUE-IN
DSUB_5V
DSUB_DET
DDC_SCL
L5 19/CX190T06009/6
L6 19/CX190T06009/6
L7 19/CX190T06009/6
R70 100/6 C19 0.047u/6 R1+
R72 100/6 C21 0.047u/6 R1-
R73 100/6 C22 0.047u/6 G1+
R75 100/6 C24 0.047u/6 G1-
R78 100/6 C26 0.047u/6 B1+
R80 100/6 C28 0.047u/6 B1-
R71 C20 10pF/6 75/6/F
R74 C23 10pF/6 75/6/F
R79 C27 10pF/6 75/6/F
2007.12.07 change for EMI
Connection Diagram
A7
L4 19/CX190T06009/6
R81 100/6 AHS1
R82 2K/6 C29 22P/6
R83 100/6 AVS1
R84 2K/6 C30 22P/6
3DVCC
D9 DAN217K/NC
D10 DAN217K/NC
D11 DAN217K/NC
EMI
TX0- TX0+ TXC+ TXC- TX2- TX2+ TX1- TX1+
EGA10603V05A1-B/NC
CN5
DVI-D
RX2- RX2+ GND RX4- RX4+ SCL SDA VS
RX1- RX1+ GND RX3- RX3+ 5V GND HP
RX0- RX0+ GND RX5- RX5+ GND RXC+ RXC-
DDC2_SCL
DDC2_SDA
Bus_Power (DVI-5V)
DVI_DET
Hot_Plug
R86 100/6 R85 10K/6
C31 0.1u/6
2007.12.07 change for EMI
5DVCC
DSUB_5V
D27 BAT54C/NC
DSUB_5VCC
R174 4K7/6/NC
R175 4K7/6/NC
U9
DDC_SCL R176 100/6/NC
DDC_SDA R177 100/6/NC
SCL SDA VCC NC0 NC1 NC2 WP GND
DDC_WP
C69 0.1uF/6/NC
24C02/NC
(DVI-5V)
Bus_Power
D28 BAT54C/NC
DVI_5VCC
R178 4K7/6/NC
R179 4K7/6/NC
U10
DDC2_SCL R180 100/6/NC
DDC2_SDA R181 100/6/NC
C70 0.1uF/6/NC
EDID EEPROM(NC);IF EDID 放置於MCU DDCRAM 此部份NC
DDC_SDA
DDC_SCL
2007.12.07 change for EMI

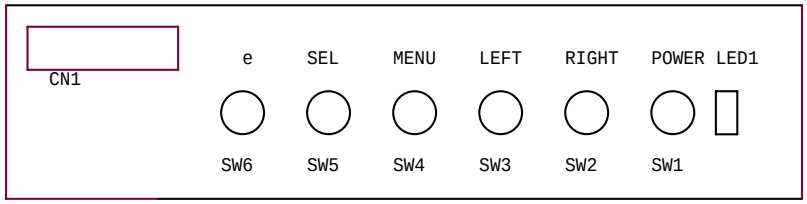

R183 R185 C73
RTD2525LH/2545LH 0 ohm NC NC
RTD2545LR with OD NC 0 ohm 0.1uF
2007.11.14 modify;reserve for 2545LR
2N3904 SOT23
2N3906 SOT23
AOS3415L SOT323
CHDTC144 SOT323
5DVCC
Q10 AO3415
PANEL_VCC
U7 RTD2525LH
U7-1 RTD2545LH/NC
U7與U7-1 Co-Lay. U7: QFN package; Q7-1:QFP package
If U7=2545LR R99=6.2K
modify T1 112107
CN8 CONN FFC-30/NC
SN7002E
DTC144EUA
MMBT3906
CN6 1841 30P
R187 R189 C72
RTD2525LH/2545LH 0 ohm NC NC
RTD2545LR with OD NC 0 ohm 0.1uF
2007.11.14 modify;reserve for 2545LR
2525LH :2x 3906
2545LH :3x 3906
2545LR(OD function):4x 3906
IF U2(U2-1)上件 ;(this part NC,R104上件)


PC AUDIO-IN
2007.11.14 modify
2007/01/16
for EMI
solution
SPEAKER OUT
2007/12/10 EMI
2006/10/19
5DV
VDD
AGND
AL1 120/CX201209813/8/NC
AC1 0.1u/6/NC
AC2 100uF/16V/NC
AR1 4.7K/6/NC
AR14 0/6/NC
AR2 10K/6/NC
AR3 0/6/NC
VOLU
VOLUME
AQ1 DTC144EUA/NC
AC3 1U/8/NC
AR5 30K/6/NC
AJ1
ZD005D100/NC
R_LINE
L_LINE
AL4 120/CX201209813/8/NC
AL5 120/CX201209813/8/NC
Z0415
Z0416
AR7 100/6/NC
AR9 100/6/NC
RIN_PC
LIN_PC
AC4 0.47U/16V/6/NC
AC5 0.47U/16V/6/NC
AC8 220P/6/NC
AC6 220P/6/NC
AR10 20K/6/NC
AR11 20K/6/NC
AU1
RIN+
LIN+
PVDD
PGND
RIN-
VDD
LIN-
PVDD
PGND
NC
AGND
TPA6021A4/NC
AC7 0.47U/6/NC
AC9 330uF/16V/NC
AC11 0.47U/16V/6/NC
AC12 0.47U/16V/6/NC
AC13 0.47U/16V/6/NC
AC14 0.47U/16V/6/NC
SE/~BTL
VOLUME
BYPASS
~FADE
~SHOUTDOWN
ROUT-
ROUT+
LOUT-
LOUT+
AR6 10K/6/NC
AR8 1K/6/NC
AC10 0.47U/16V/6/NC
SHOUTDOWN
4606-04-04P-R
ACN1
AR12 10K/6/NC
AR13 10K/6/NC
STBY
CHDTC144EUPT/NC
AQ2
AC15 0.1U/6/NC
AC16 0.1U/6/NC
AC17 0.1U/6/NC
AC18 0.1U/6/NC
AL3 120/CX201209813/8/NC
AL2 120/CX201209813/8/NC
AL6 120/CX201209813/8/NC

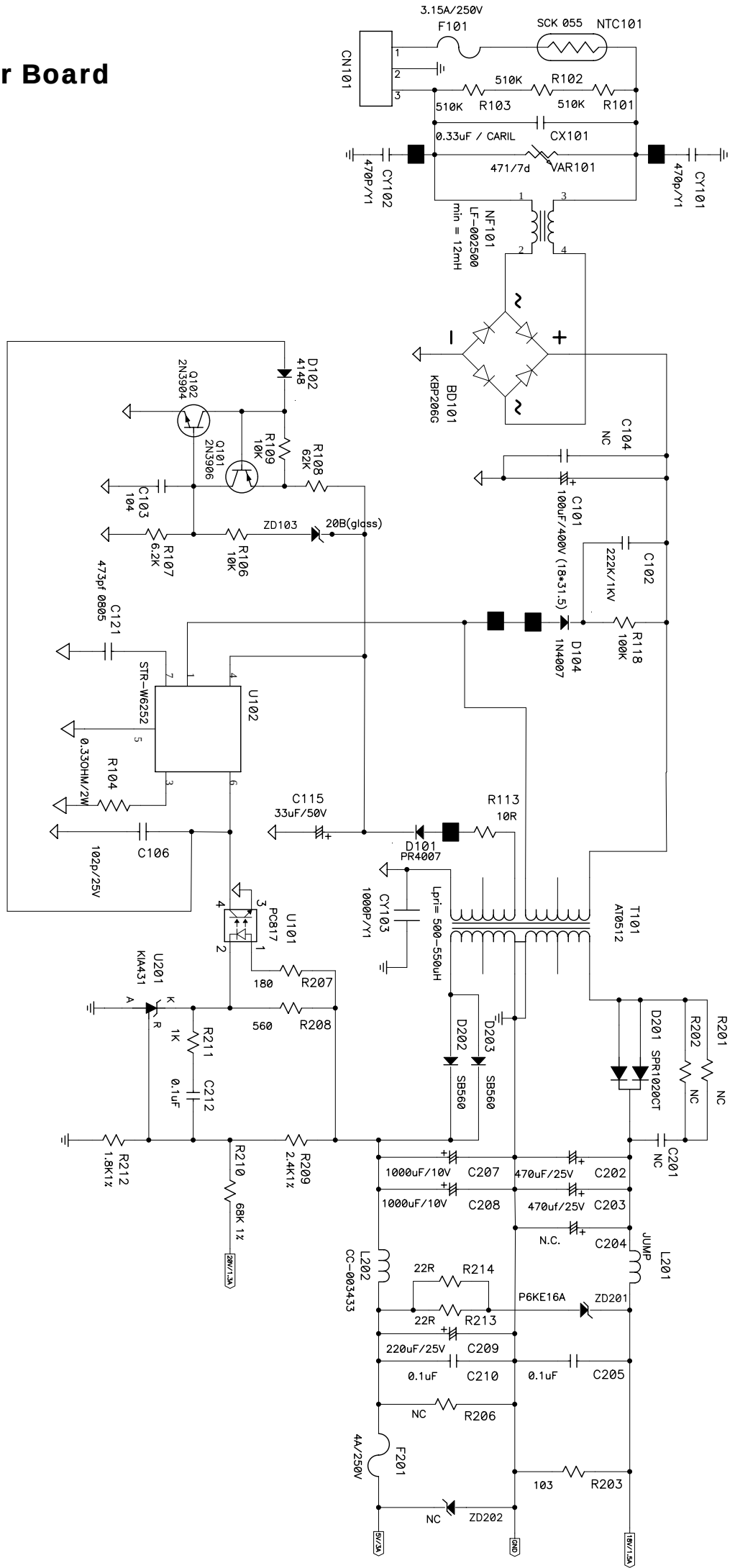
Button Board

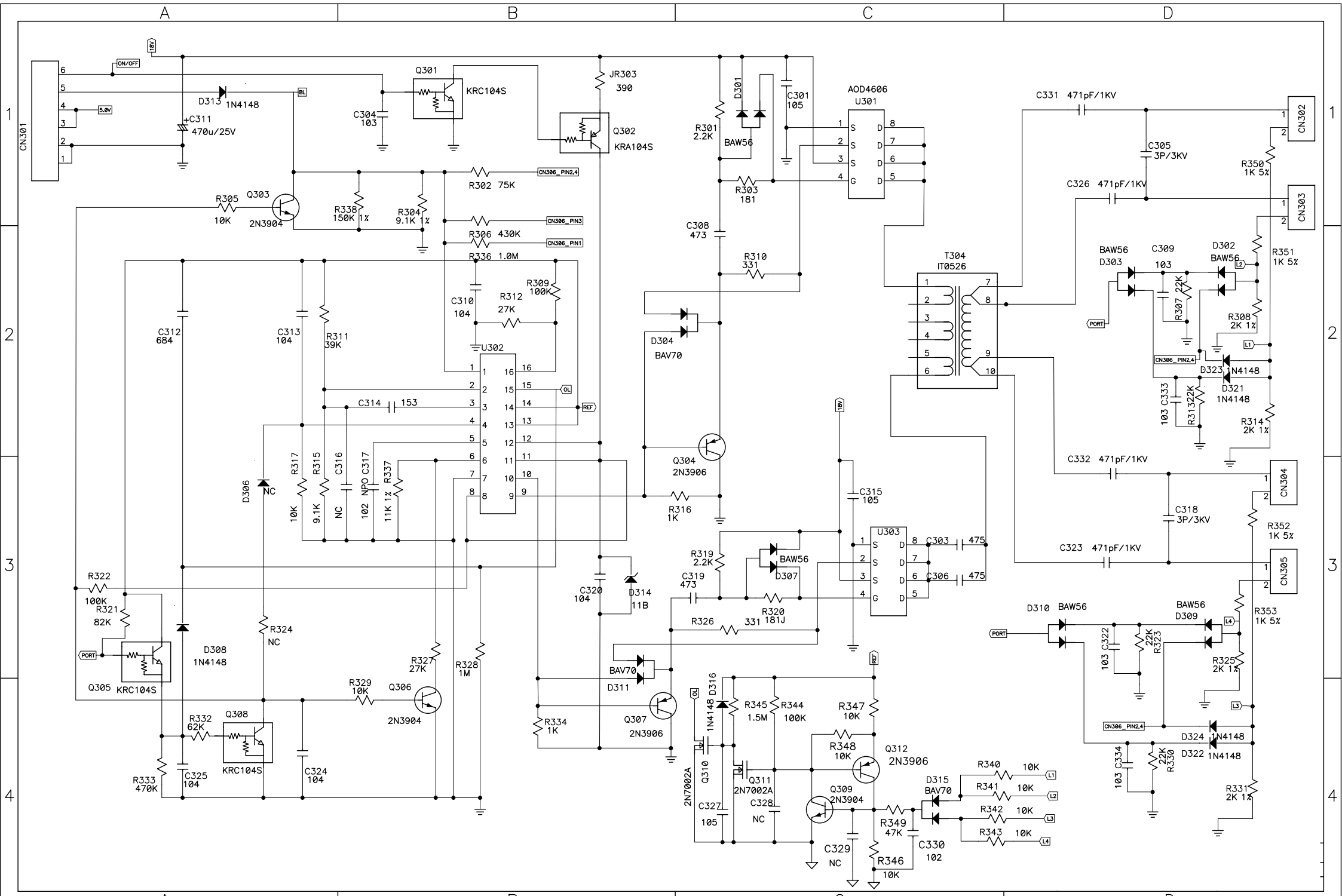


Front View



Power Board


3.15A/250V
F101
SCK 055
NTC101
CN101
510K
R102
510K
R103
510K
R101
0.33uF / CARIL
CX101
471/7d
VAR101
470P/Y1
CY102
470p/Y1
CY101
NF101
LF-002500
min = 12mH
BD101
KBP206G
C104
NC
C101
100uF/400V (18*31.5)
C102
222K/1KV
D102
4148
Q102
2N3904
Q101
2N3906
R109
10K
R108
62K
C103
104
ZD103
20B(glass)
R107
6.2K
R106
10K
C121
473pf 0805
D104
1N4007
R118
100K
STR-W6252
U102
0.33OHM/2W
R104
C115
33uF/50V
R113
10R
D101
PR4007
C106
102p/25V
U101
PC817
CY103
1000P/Y1
Lpri= 500-550uH
T101
AT0512
U201
KIA431
180
R207
560
R208
R211
1K
C212
0.1uF
D202
SB560
D203
SB560
D201
SPR1020CT
R202
NC
R201
NC
C201
NC
R212
1.8K1%
R210
68K 1%
R209
2.4K1%
1000uF/10V
C207
470uF/25V
C202
1000uF/10V
C208
470uf/25V
C203
N.C.
C204
JUMP
L201
L202
CC-003433
22R
R214
P6KE16A
ZD201
22R
R213
220uF/25V
C209
0.1uF
C210
0.1uF
C205
NC
R206
4A/250V
F201
103
R203
NC
ZD202
5V/3A
GND
18V/1.5A


CN301
ON/OFF
5.0V
D313 1N4148
+C311 470u/25V
Q301 KRC104S
C304 103
JR303 390
Q302 KRA104S
R301 2.2K
D301 BAW56
C301 105
AOD4606 U301
R303 181
R302 75K
CN306_PIN2,4
R305 10K
Q303 2N3904
R338 150K 1%
R304 9.1K 1%
CN306_PIN3
R306 430K
CN306_PIN1
R336 1.0M
C308 473
R310 331
C310 104
R312 27K
R309 100K
C312 684
C313 104
R311 39K
U302
C314 153
OL
REF
D304 BAV70
Q304 2N3906
C315 105
R316 1K
D306 NC
R317 10K
R315 9.1K
C316 NC
C317 NPO 102
R337 11K 1%
U303
R319 2.2K
BAW56 D307
C319 473
R320 181J
R326 331
C303 475
C306 475
C320 104
D314 11B
D311 BAV70
Q307 2N3906
R322 100K
R321 82K
D308 1N4148
R324 NC
R327 27K
R328 1M
R329 10K
Q306 2N3904
Q305 KRC104S
R332 62K
Q308 KRC104S
R333 470K
C325 104
C324 104
R334 1K
D316 1N4148
R345 1.5M
R344 100K
R347 10K
R348 10K
Q312 2N3906
Q310 2N7002A
Q311 2N7002A
C327 105
C328 NC
Q309 2N3904
C329 NC
R349 47K
C330 102
R346 10K
D315 BAV70
R340 10K
R341 10K
R342 10K
R343 10K
C331 471pF/1KV
C305 3P/3KV
C326 471pF/1KV
R350 1K 5%
CN302
CN303
T304 IT0526
BAW56 D303
C309 103
D302 BAW56
R307 22K
R308 2K 1%
R351 1K 5%
D323 1N4148
D321 1N4148
C333 103
R313 22K
R314 2K 1%
C332 471pF/1KV
C318 3P/3KV
C323 471pF/1KV
CN304
CN305
R352 1K 5%
R353 1K 5%
D310 BAW56
D309 BAW56
C322 103
R323 22K
R325 2K 1%
D324 1N4148
D322 1N4148
C334 103
R330 22K
R331 2K 1%
PORT
L1
L2
L3
L4