

SH970I

Service Manual

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WARNING

To prevent from fire or shock hazard,do not expose monitor to any rain or any form of water.High voltage is inside the monitor so please do not remove the back cover of the cabinet if you are not a qualified monitor engineer.Contact the local dealer or the nearest **Proview** branch office if you need help.

A. IMPORTANT SAFETY INSTRUCTION

Prior to using this service manual,please ensure that you have carefully followed all the procedures outlined in the user's manual for this product.

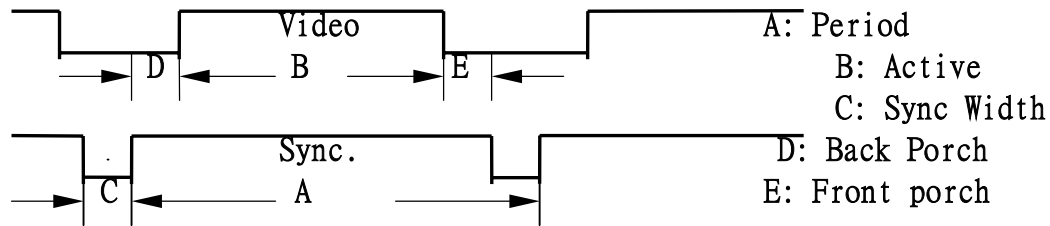
1. Read all of these instructions.
2. Save these instructions.
3. Follow all warnings and instructions a marked on the product.
4. Unplug this product from the wall outlet before cleaning.Do not use liquid cleaners or aerosol cleaners, use a damp cloth for cleaning.
5. Do not use this product near water.
6. Do not place this product on an unstable cart,stand or tablle.The product may fall,causing serious damage to the product.
7. Slots and openings in the cabinet and the back or bottom are provided for ventilation,to ensure reliable operation of the product and to protect it from overheating,those openings must not be blocked or covered.The openings should never be blocked by placing the product on a bed,sofa, rug, or other similar surface.This product should not be placed in a built-in installation less proper ventilation is provided.
8. This products should be operated from the type of power source indicated on the marketin label. If you are not sure of the type of power available, consult your dealer or local power company
9. This product is equipped with a 3-wire grounding type plug,a plug having a third (grounding) pin.This plug will only fit into a grounding-type power outlet.This is a safety feature,if you are unable to insert the plug into the outlet,contact your electrician to replace your obsolete outlet.Do not defeat the purpose of the grounding-type plug.
10. Do not allow anything to rest on the power cord.Do not locate this product where persons will walk on the cord.
11. If an extension cord is used with this product,make sure that the total of the ampere ratings on the product plugged into the extension cord to the waplugged into outlet does not exceed 15 ampere.
12. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.Never spill liquid of any kind on the product.
13. Do not attempt to service this product yourself,as opening or removing covers may expose you to dangerous voltage points or other risks.Refer all servicing to service personnel.
14. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the product.
 - c. If the product has been exposed to rain or water.
 - d. If the product does not operate normally,when the operating instructions are followed.Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extension work by a qualified technician to restore the product to normal operation.
 - e. If the product has been dropped or the cabinet has been damaged.

- f. If the product exhibits a distinct change in performance, indicating a need for service.

B. SPECIFICATIONS

1. Maximum Resolution	1280*1024 @ 75Hz
2. Recommend Resolution	1280*1024 @ 60Hz
3. Synchronization Range	
Horizontal	30 – 81 KHz
Vertical	56– 75 Hz
4. Active Display Area	337.9mm (H) x 270.3mm (V)
5. Dot Pitch	0.264(H) x 0.264(V) mm
6. Support display colors	16.7M color
7. Contrast Ratio (Typical)	450:1
8. Luminance of White	260cd/m ²
9. Bandwidth	135MHz
10. User Control	4 Key Switch
11. OSD Function	Brightness, Contrast, H-Pos, V-Pos, H. Size, Phase, Color Select, Auto, Reset, Language, OSD Adjust, Exit
12. View Angle CR=5	
Horizontal	+/-70 Degrees
Vertical	+/-70 Degrees
13. Power Source	90-264 Vac 60 / 50 Hz
14. Power Consumption	48W (max.)
15. Connection Type	15 Pin D Type
16. Input Signal	
Video	Analog R.G.B. , 0.7Vp-p / 75 Ohms
Sync.	TTL level, positive or negative polarity
17. Color Temperature	Cool / Warm
18. Dimension (WxHxD)	452mm x 465mm x 142mm
19. Monitor Weight	4.8Kg
20. Base Operation	
Tilt	0 / + 15 degree
21. Power Saving	
ON	< 50W
STAND BY	< 5W
OFF	< 5W
22. Signal Connector Pin Assignment	
Pin No.	
	1. Red
	2. Green
	3. Blue
	4. Ground
	5. Self Test
	6. Red Ground
	7. Green Ground
	8. Blue Ground
	9. V _{DD} from PC for DDC
	10. Sync. Ground
	11. Ground
	12. SDA (For DDC)
	13. Horizontal Sync.
	14. Vertical Sync.
	15. SCL (For DDC)
23. Audio signal	
	3.5Φ stereo phone jack
	Input Sensitivity : 200mV
	2.5+2.5W 8Ω Speaker

C.TIMING CHART

[illegible]

Preset Modes	VESA 1024X768	VESA 1024X768	VESA 1024X768	VESA 1280X1024	VESA 1280X1024
Dot Rate	65.000MHz	75.000MHz	78.750MHz	108.00MHz	135.00MHz
F.H	48.363KHz	56.476KHz	60.023KHz	63.98KHz	79.976KHz
A-period	20.677us	17.707us	16.660us	15.630us	12.504us
B-Active	15.754us	13.653us	13.003us	11.852us	9.481us
C-Sync.width	2.092us	1.813us	1.219us	1.037us	1.067us
D-Back Porch	2.462us	1.920us	2.235us	2.296us	1.837us
E-Front Porch	0.369us	0.321us	0.203us	0.444us	0.119us
F . V	60.004Hz	70.069Hz	75.029Hz	60.020Hz	75.025Hz
A-Period	16.666ms	14.272ms	13.328ms	16.661ms	13.329ms
B-Active	15.880ms	13.599ms	12.795ms	16.005ms	12.804ms
C-Sync.width	0.124ms	0.106ms	0.050ms	0.047ms	0.038ms
D-Back Porch	0.600ms	0.513ms	0.466ms	0.594ms	0.475ms
E-Front Porch	0.062ms	0.054ms	0.017ms	0.016ms	0.013ms
H/V SYNC	- -	- -	+ +	+ +	+ +
Interlaced	NON	NON	NON	NON	NON

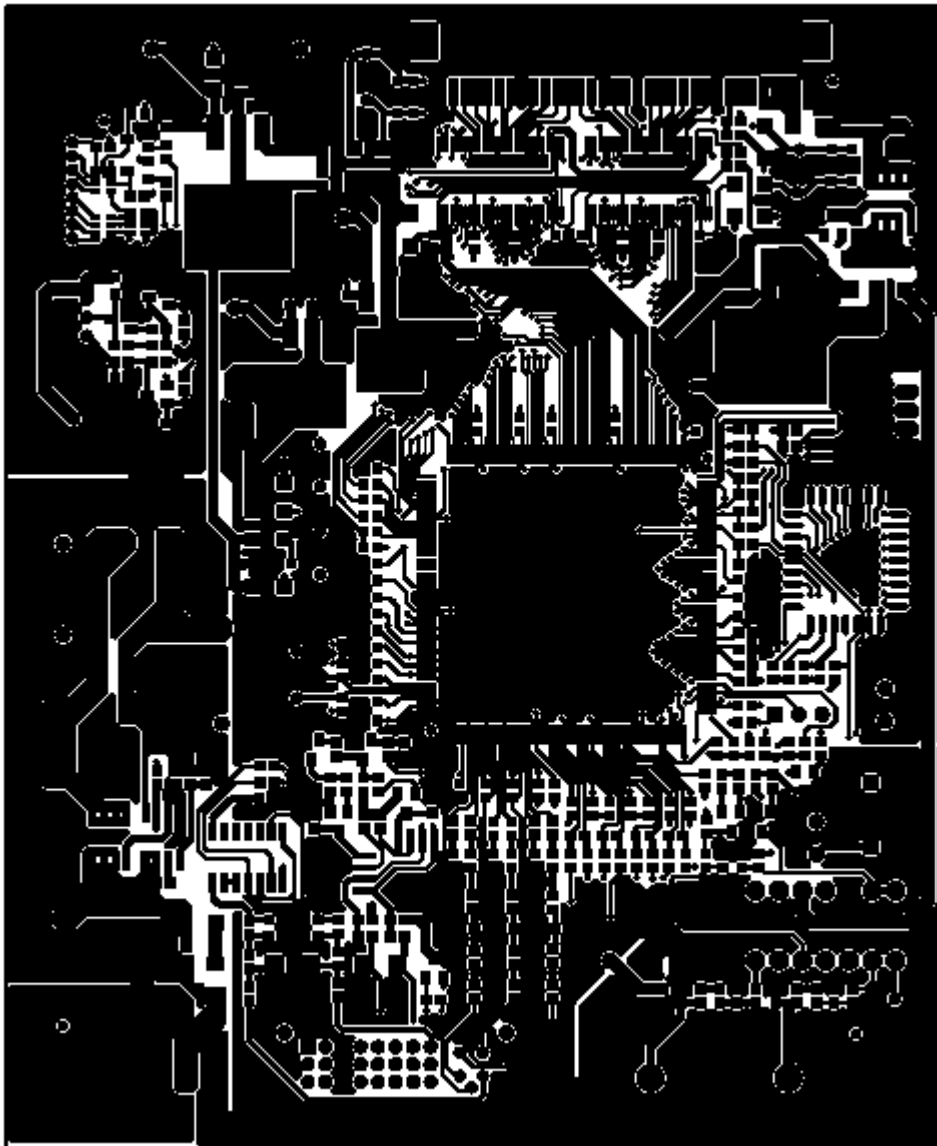
D. CONTROL LOCATION

Font control panel



1. Power Button
2. 2. LED (Power Display)
3. Menu Button
4. Select Button
5. Auto Button

E. CONDUCTION VIEW

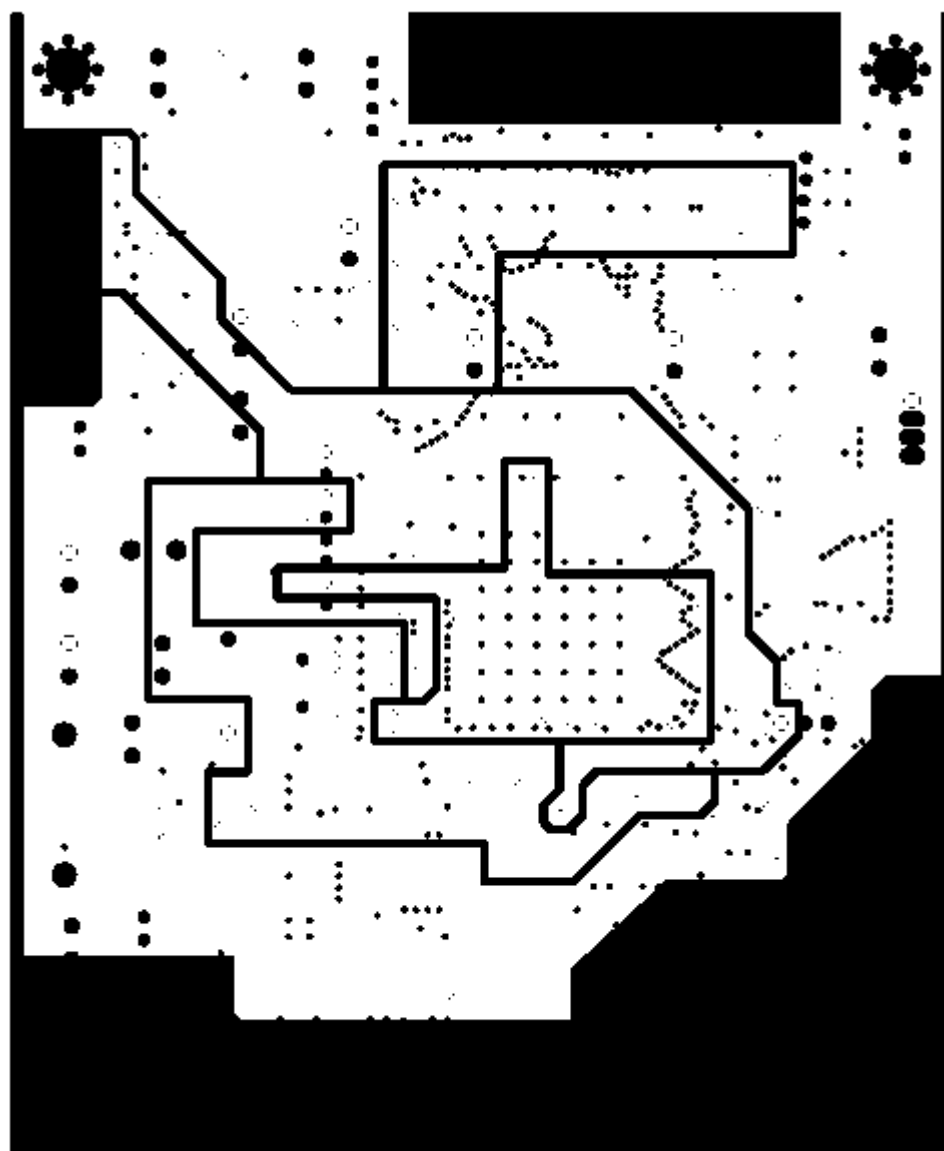


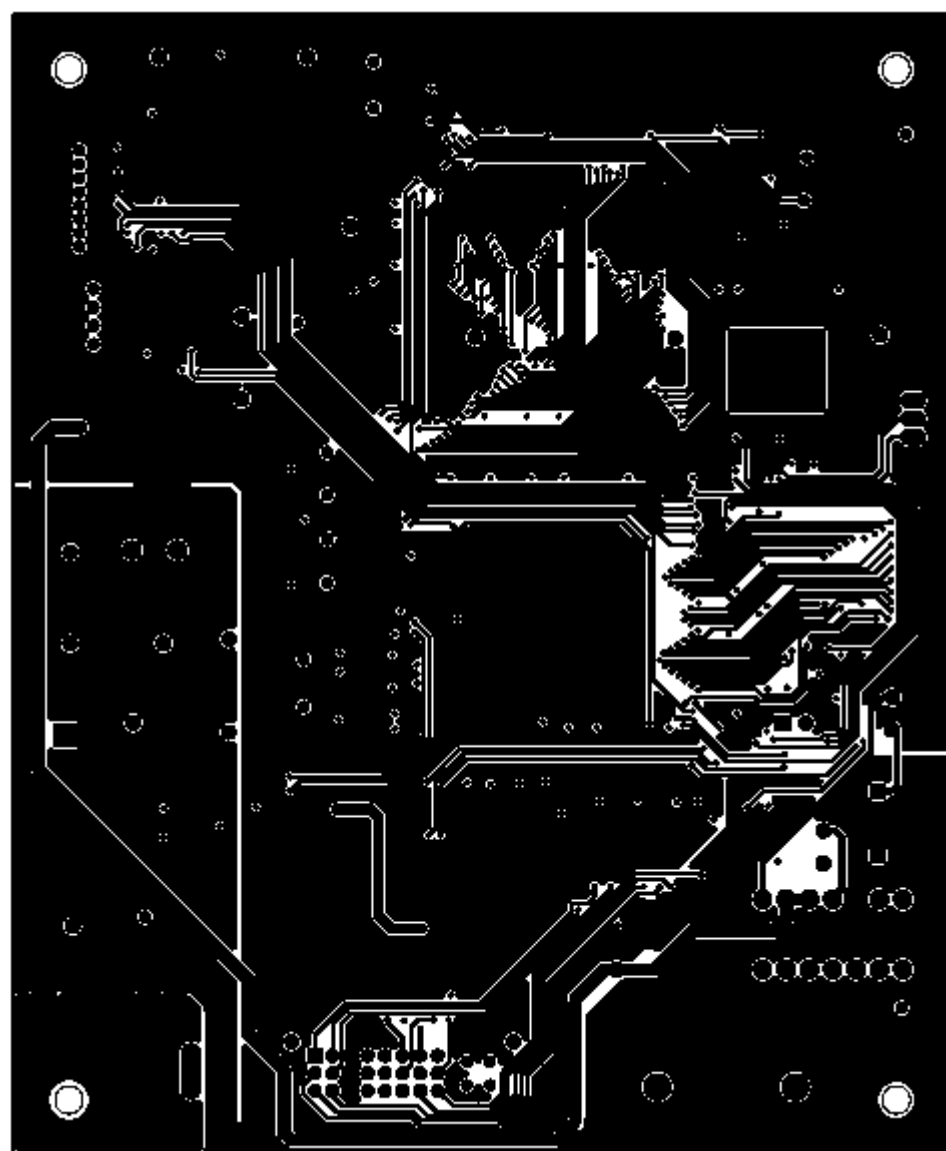
(Component Side)

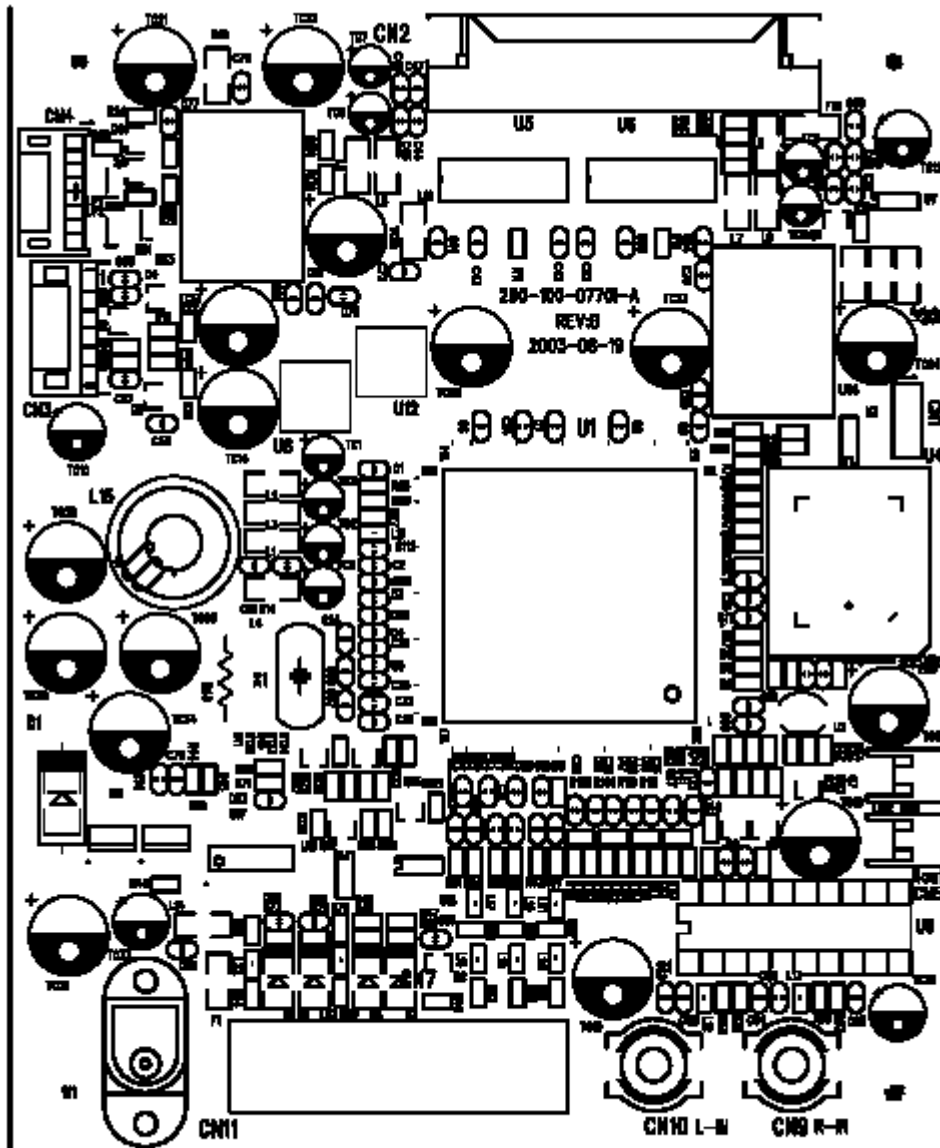
MAIN BOARD



MAIN BOARD (Component Side)

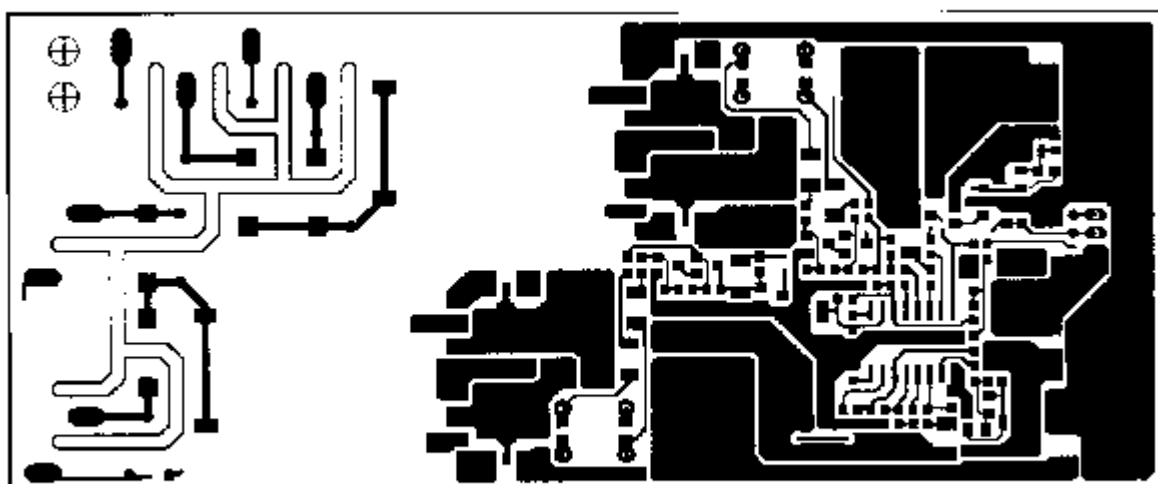




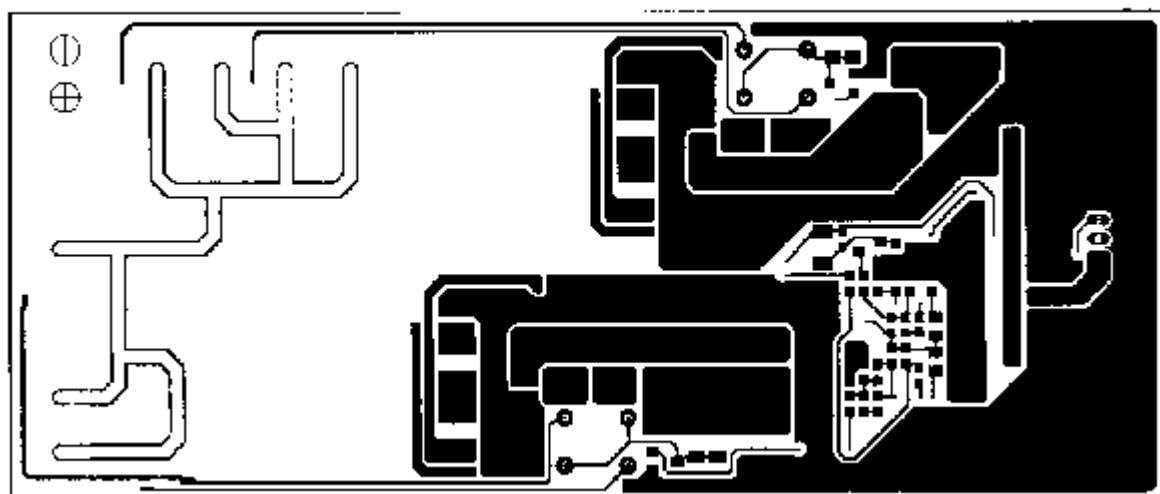


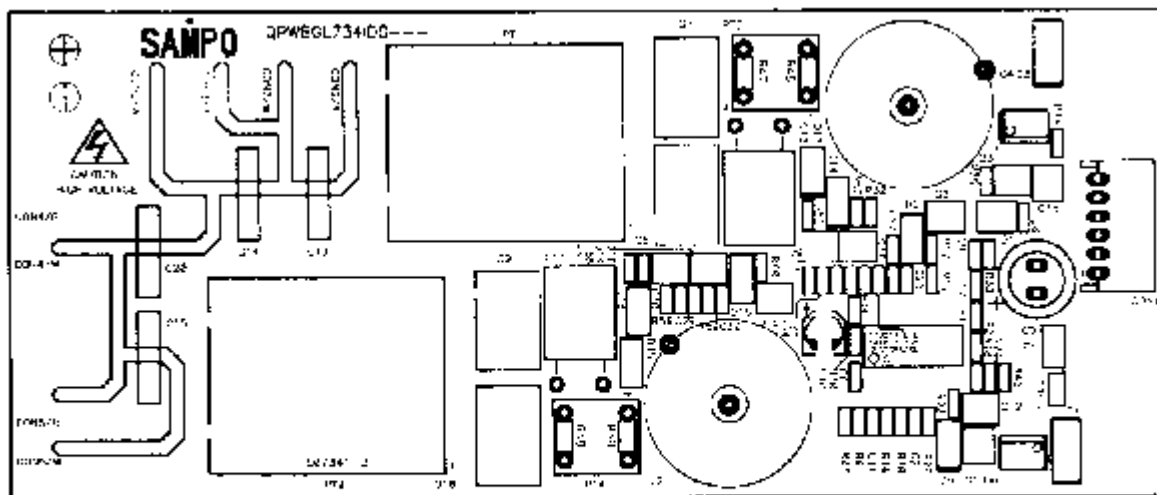
MAIN BOARD (Solid Side)

TOP

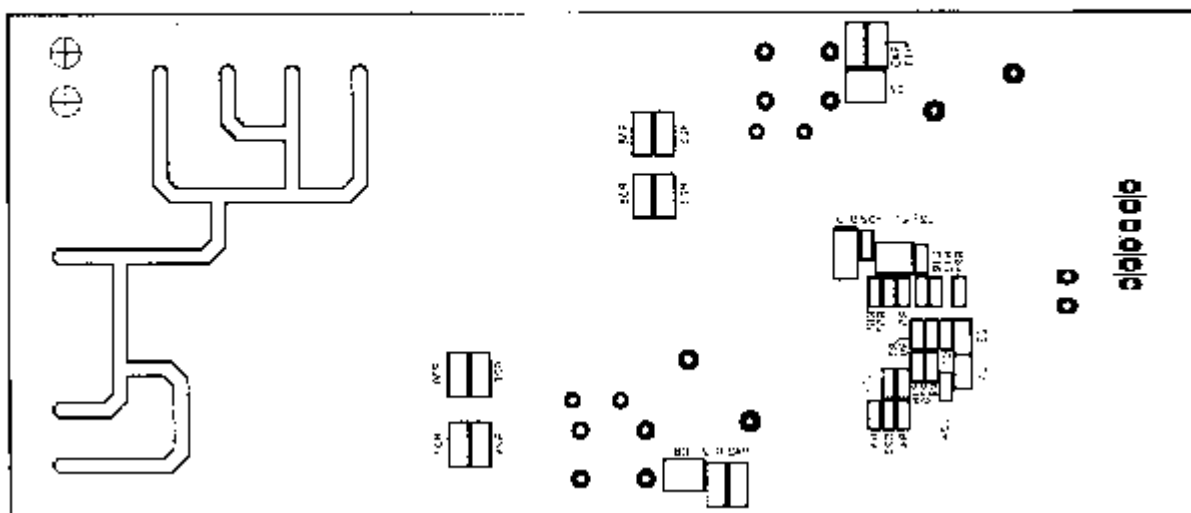


МОПСО





NOTE: TOP

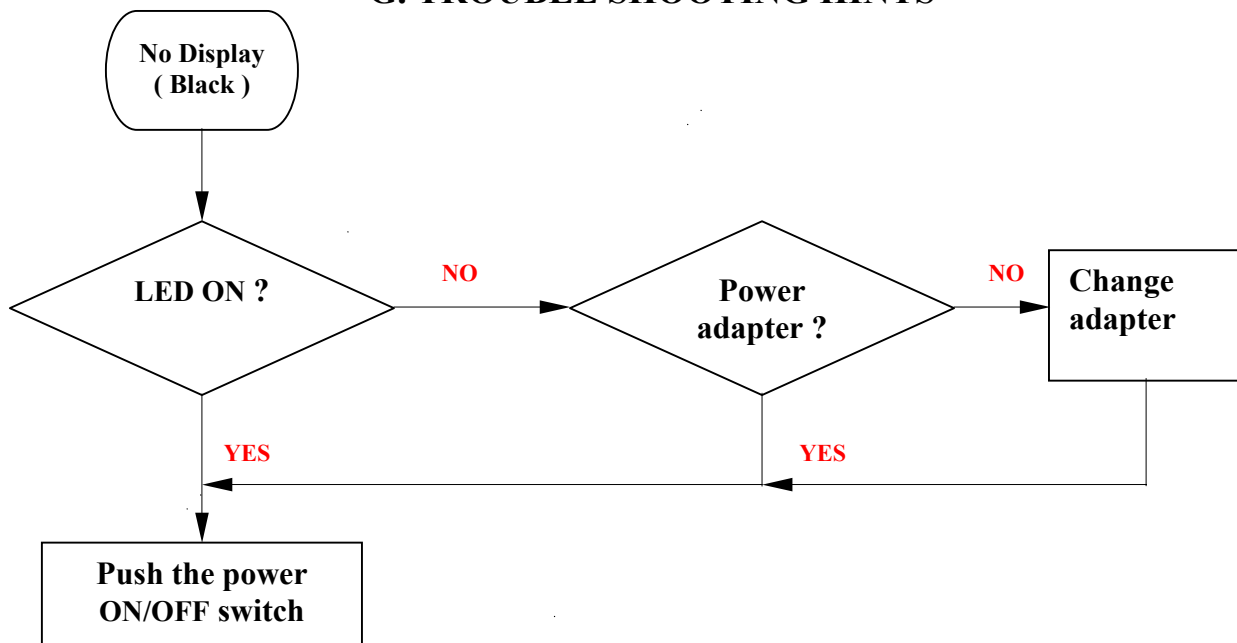


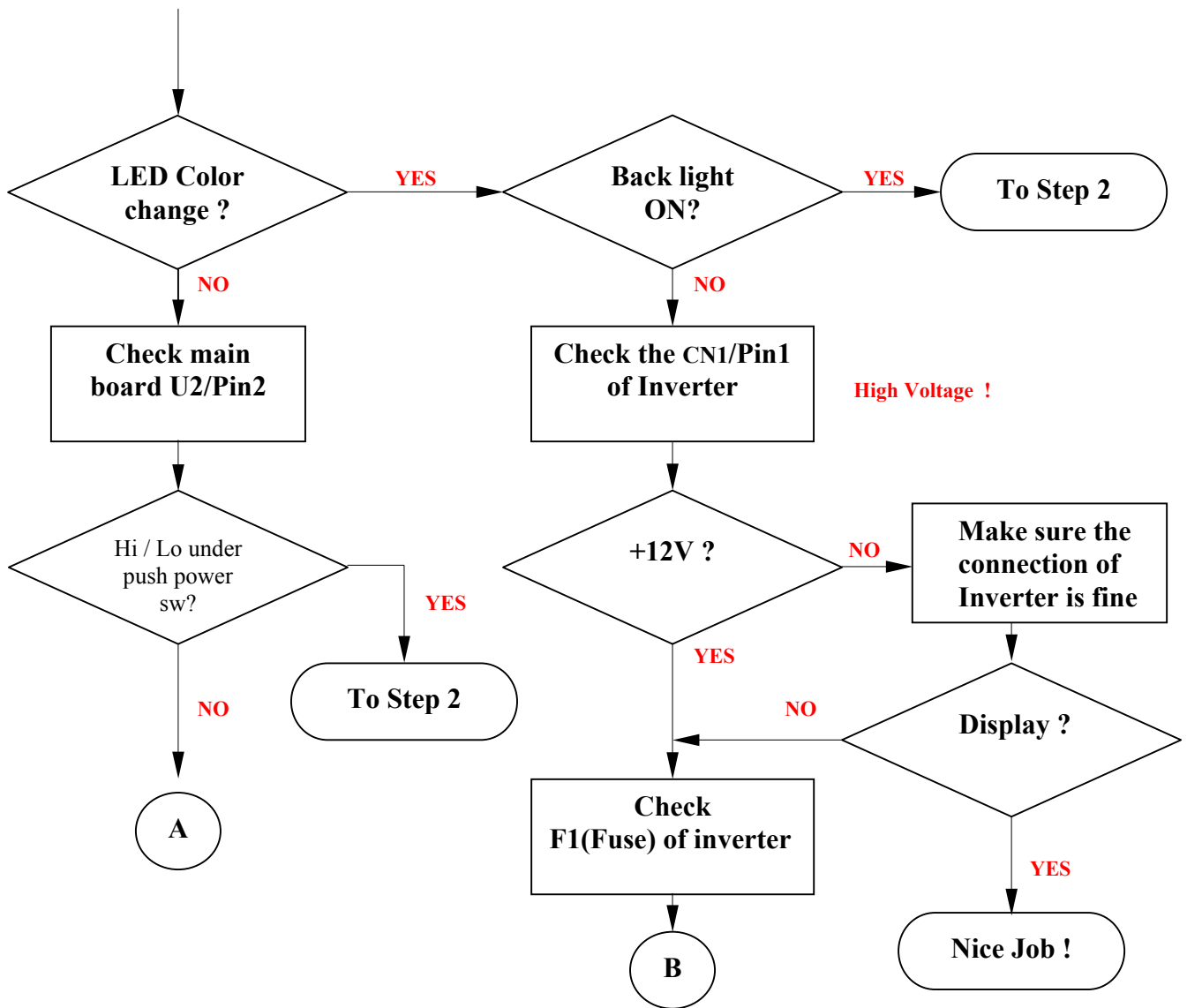
F. ADJUSTMENT PROCEDURE

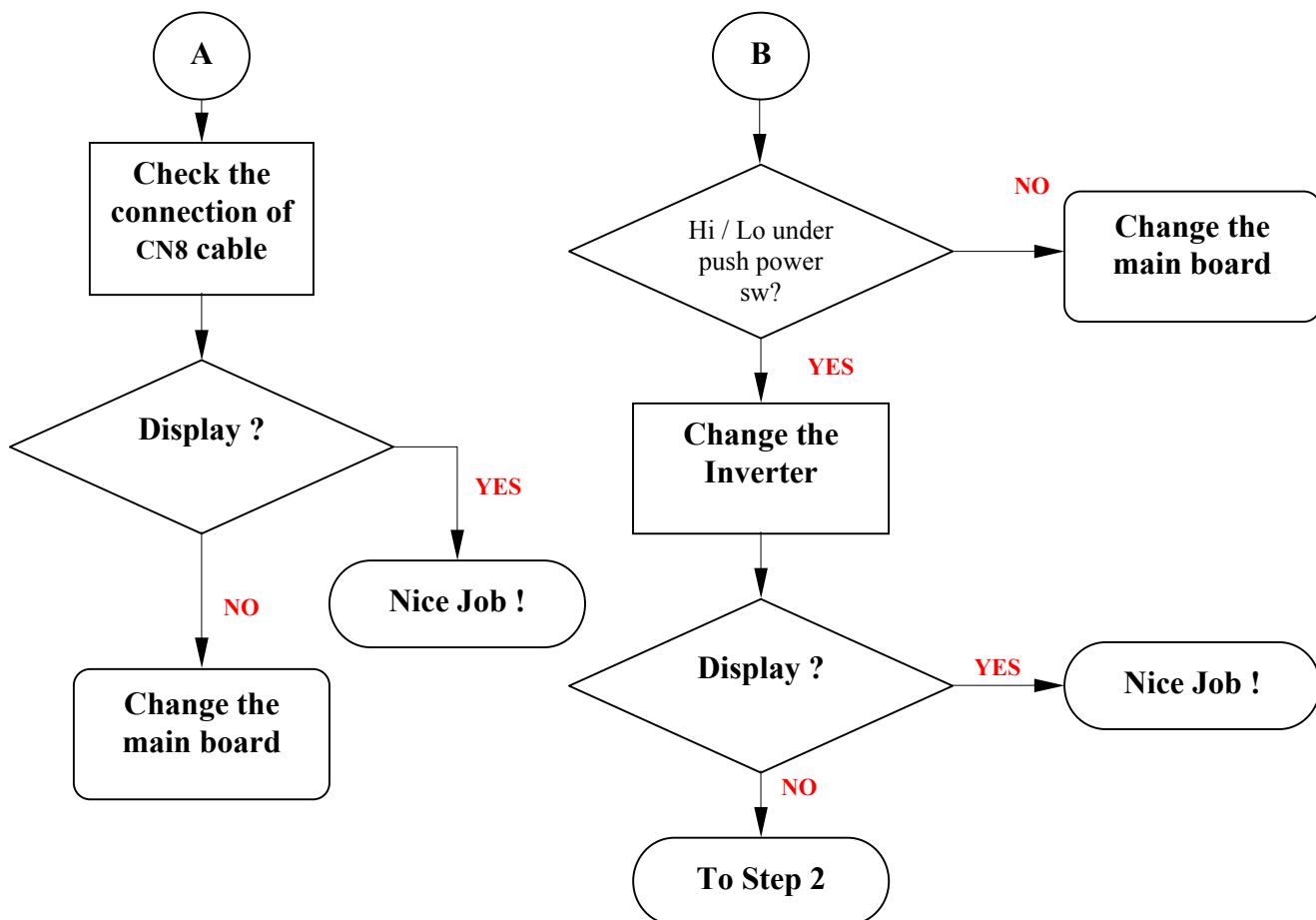
ITEM Program Menu.		# Test Meter * Test Point @ Pattern	Operation	Check Value
A	B+ Check	# Digital Voltmeter * CN7 @ Crosshatch Pattern (31.5KHz,640x480)	<ol style="list-style-type: none"> 1. Plug power cable into the adapter, check adapter power indicator light up green. 2. Make sure the voltage of the power plug (CN7) on the main PCB to the value shown at right. 	12.0V ±0.2V

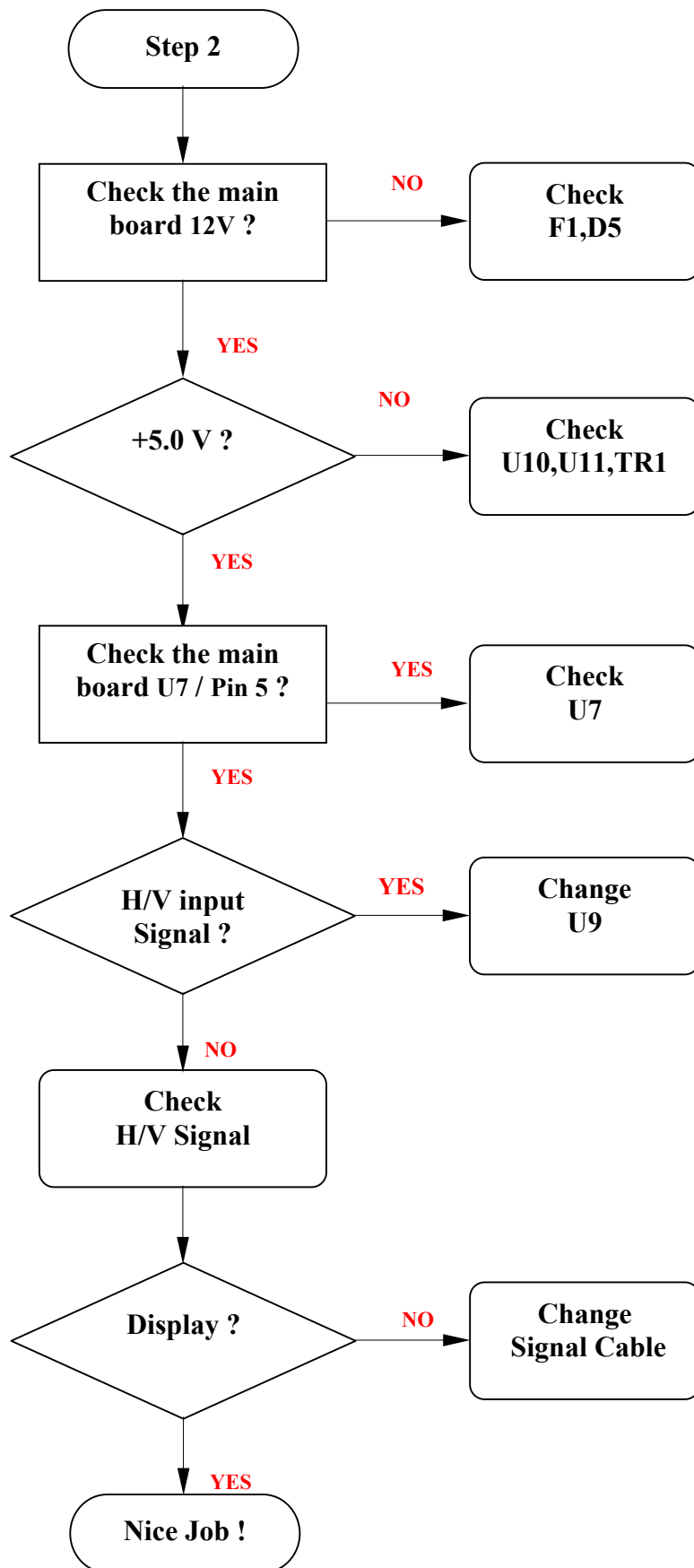
B	Power Saving Check	# Wattmeter # PC or Pattern generator @ Crosshatch Pattern (31.5KHz,640x480)	<ol style="list-style-type: none"> 1. Unplug the signal cable into the monitor. 2. Turn the power switch of the monitor ON. 3. Check monitor power indicator light up orange. 4. Make sure the wattmeter value shown at right. 5. OSD will be display “NO SIGNAL” Picture. 	< 2.5W
C	Into Factory mode	# PC or Pattern generator @ Crosshatch Pattern (31.5KHz,640x480)	<ol style="list-style-type: none"> 1. Hold < key,then turn the power switch of the monitor OFF. 2. Hold > key,then turn the power switch of the monitor ON. 3. You can into factory adjustment mode. 	
D	Auto mode Check	# PC or Pattern generator @ Crosshatch Pattern (1024x768/60Hz)	<ol style="list-style-type: none"> 1. Press and relese the MENU knob to activate the OSD menu. 2. Move the OSD to the AUTO function,press MENU key auto adjuat display mode to its utmost performance according to VGA setting. 3. In the event of the display image needs further adjustment 	
E	White Balance Adjust	# PC or Pattern generator @ White Pattern (1024x768/60Hz)	<ol style="list-style-type: none"> 1. Move the OSD to the COLOR mode (AUTO COLOR). 2. set color is 9300°K using the OSD,Check the value shown at right. Y = 220±0.1FL x = 0.283±0.01 y = 0.297±0.01 3. set color is 6500°K using the OSD,Check the value shown at right. Y = 220±0.1FL x = 0.313±0.01 y = 0.329±0.01 	
F	OSD Language Setting	# PC or Pattern generator	<ol style="list-style-type: none"> 1. Move the OSD to the LANGUAGE mode. 2. You can choose one of the eight language you need. 	

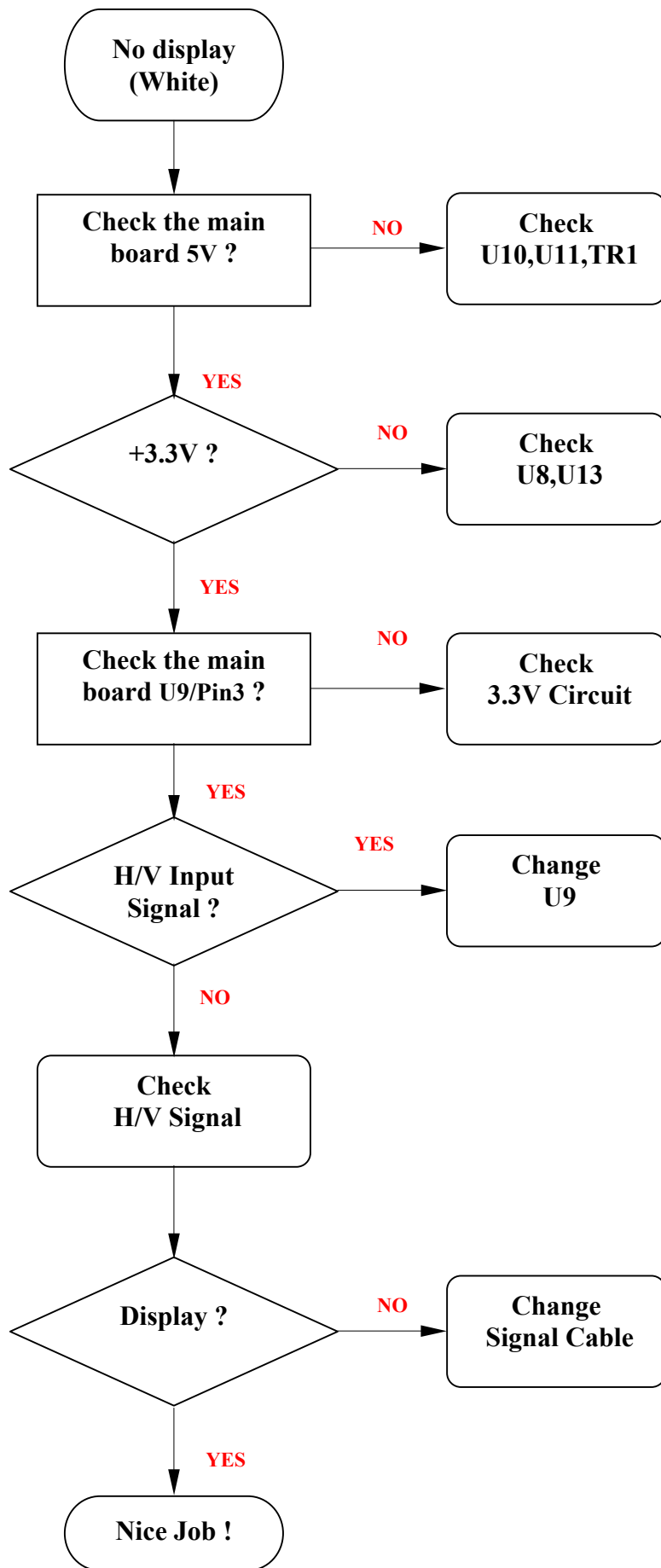
G. TROUBLE SHOOTING HINTS



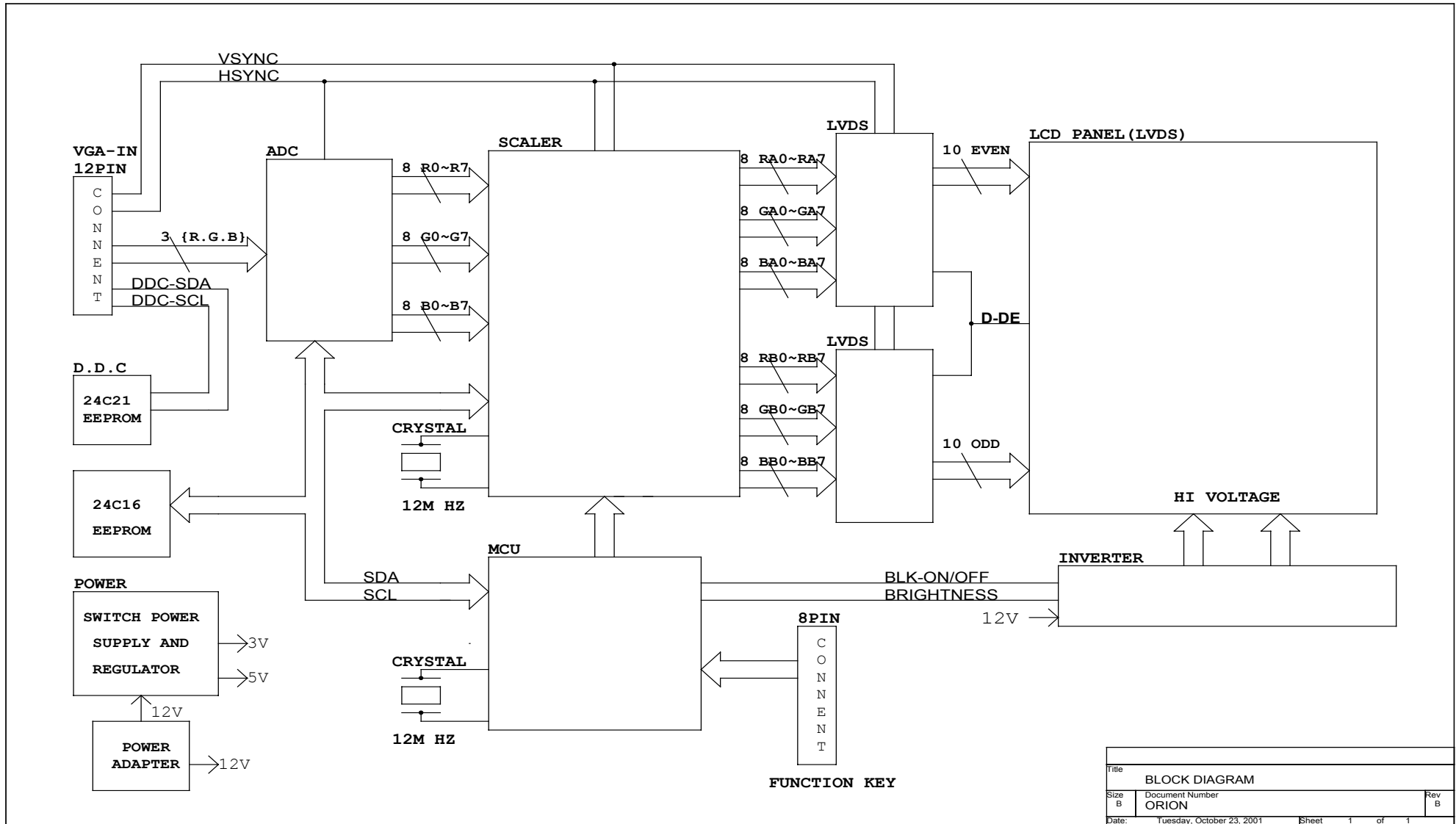




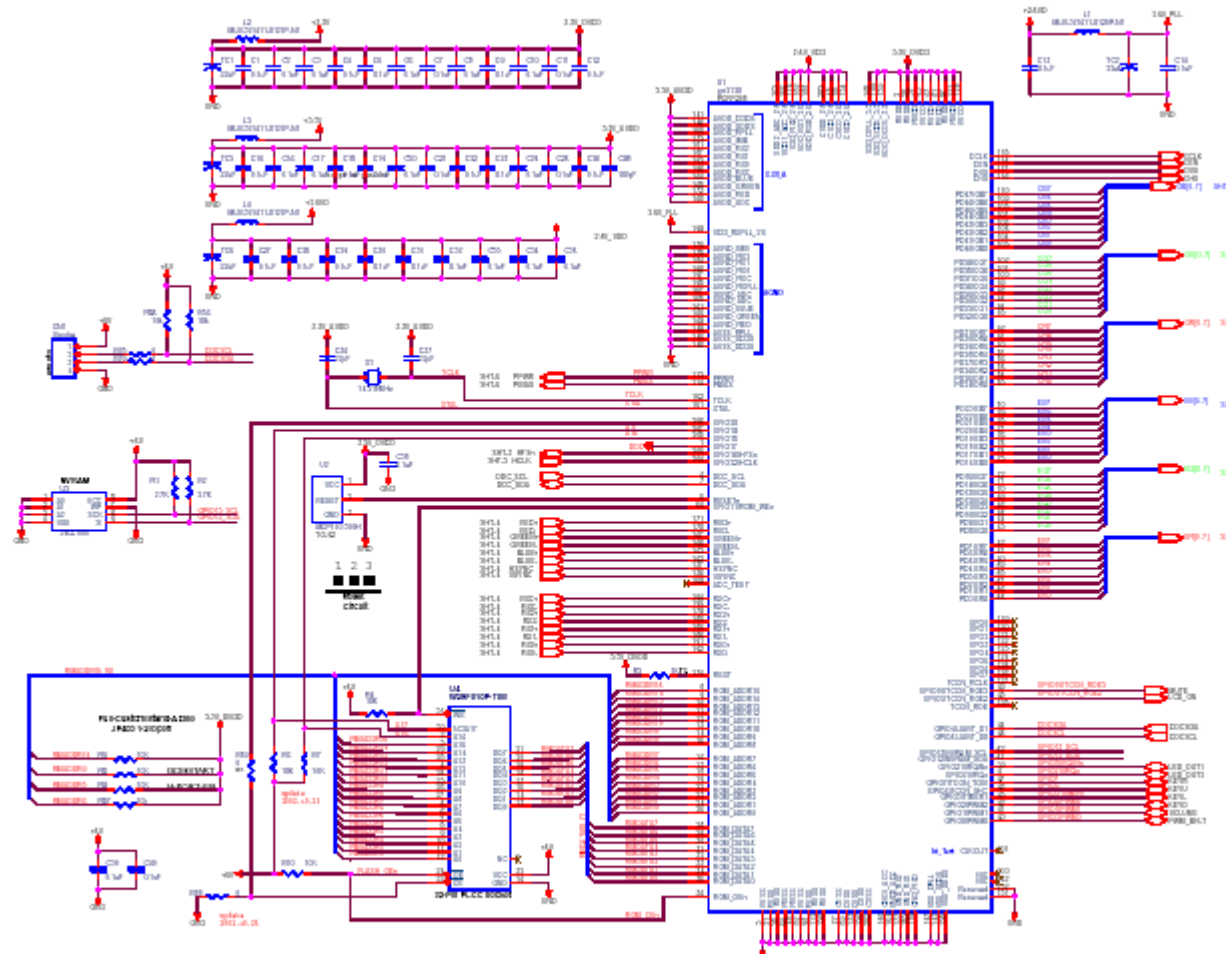




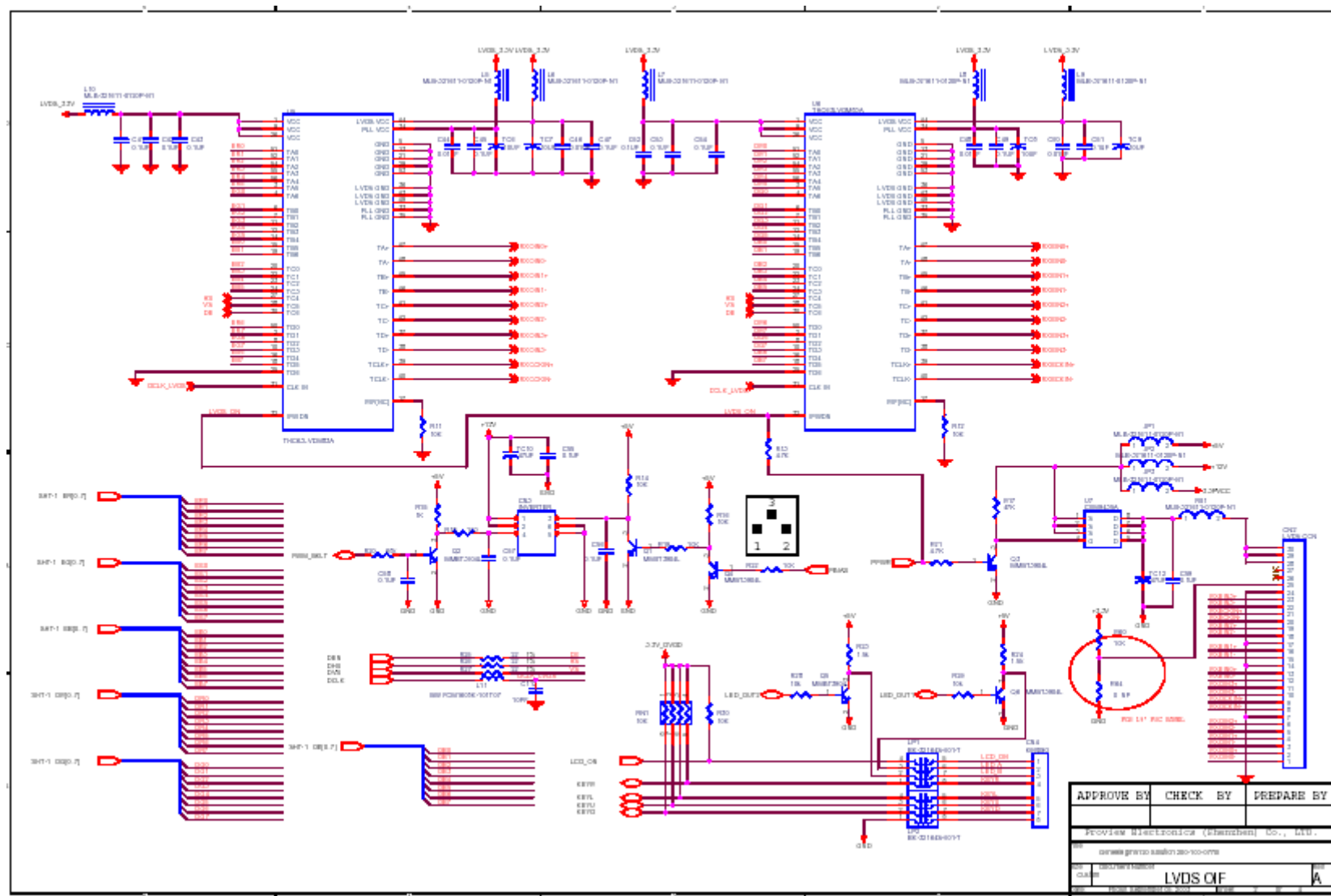
H. BLOCK DIAGRAM

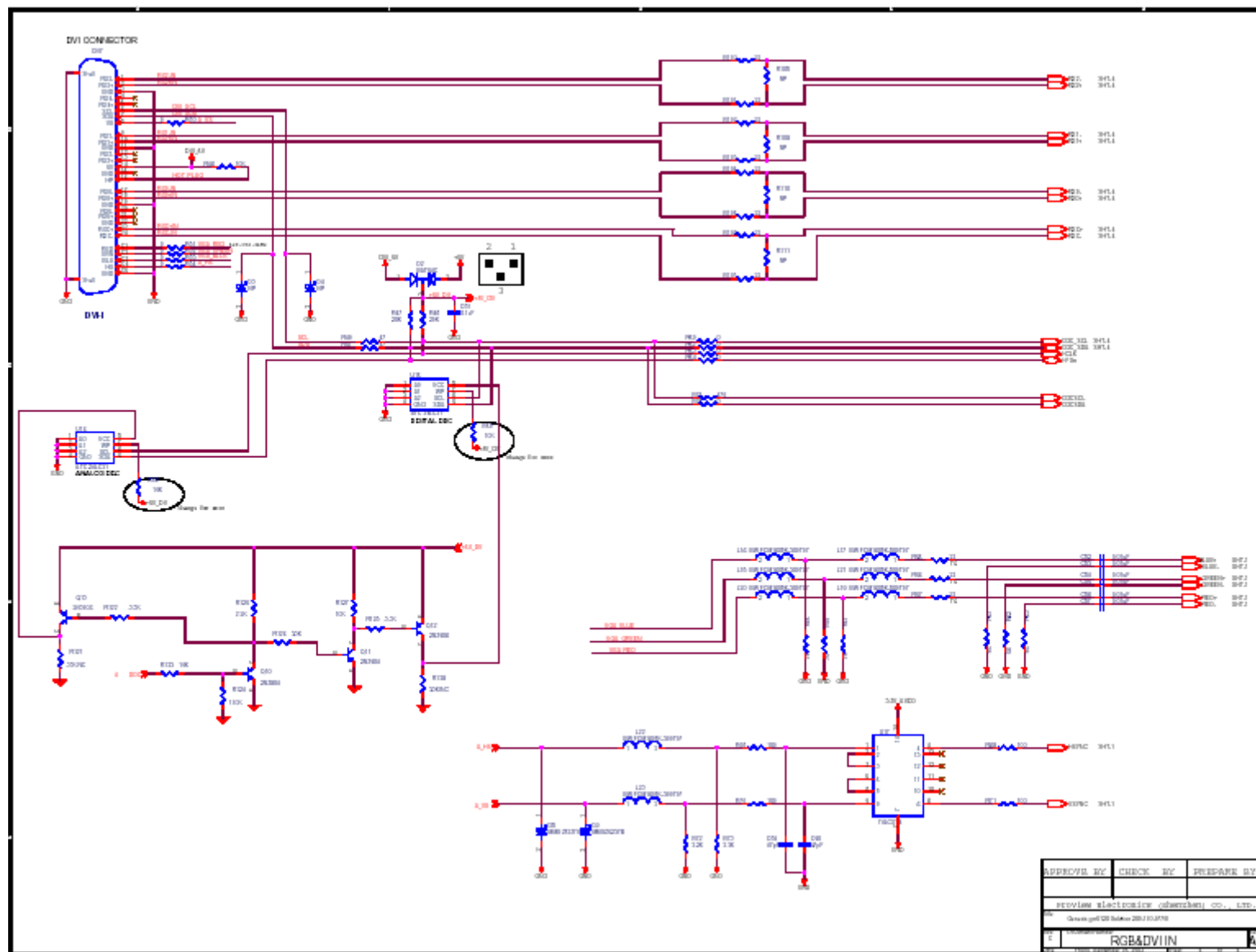


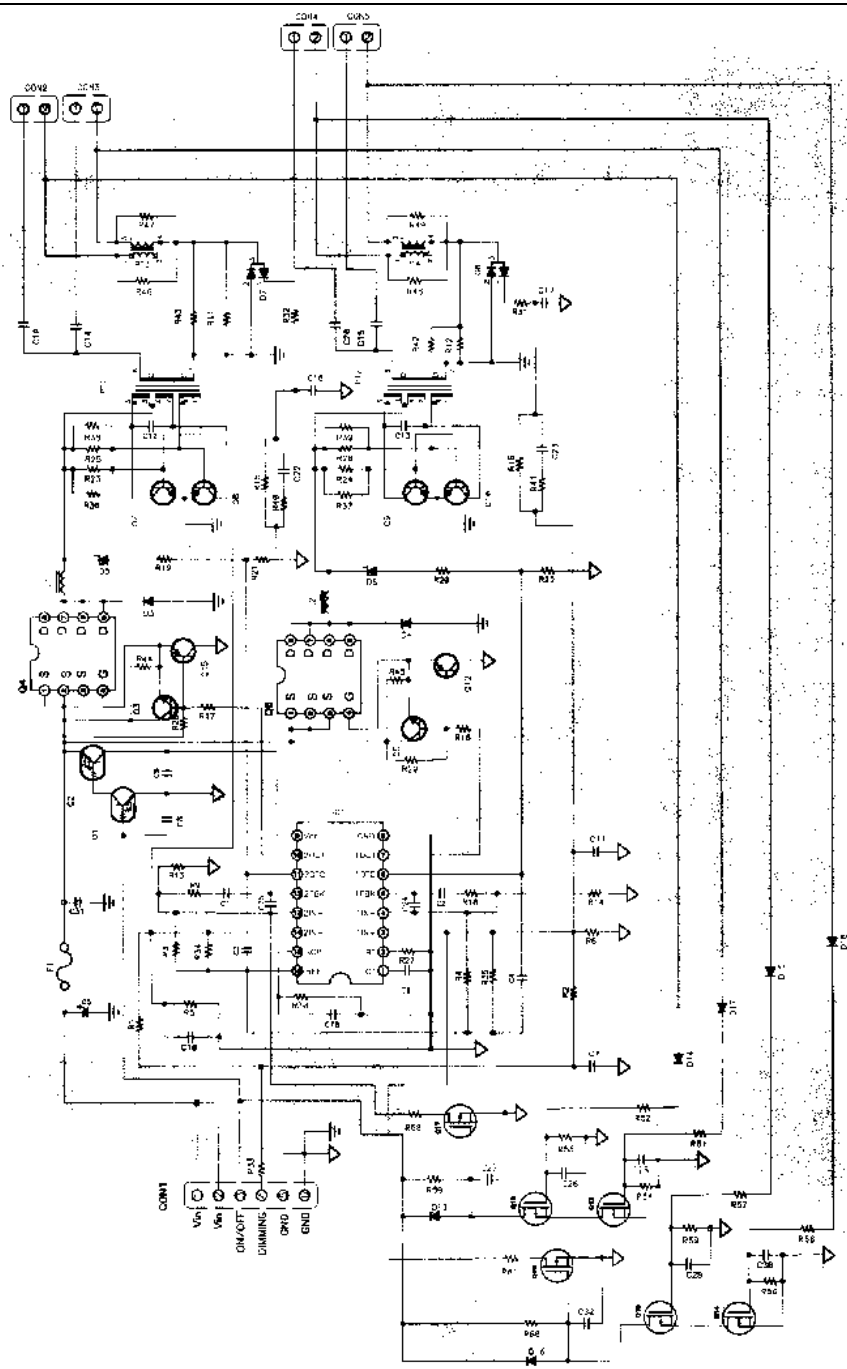
I.SCHEMATIC DIAGRA



APPROVE BY	CHECK BY	PREPARE BY
FOR THE MANUFACTURER (SIGNED) BY: [Signature]		
Date: 2014.05.05		
qm5120 SCALER		







Memu.