

MA982K

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

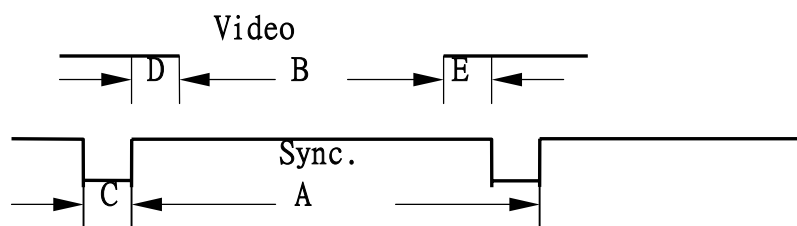
Prior to using this service manual,please ensure that you have carefully followed all the procedures outlined in the user's manual for this product.

1. Read all of these instructions.
2. Save these instructions.
3. Follow all warnings and instructions marked on the product.
4. Unplug this product from the wall outlet before cleaning.Do not use liquid cleaner or aerosol cleaner, 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 table.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,since proper ventilation is provided.
8. This products should be operated with the type of power source indicated on the marked label. If you are not sure of the type of power is available, consult with 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 damage 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. Never push any kinds of objects 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 any kinds of liquid on the product.
12. Do not attempt to service this product yourself,as opening or removing covers may expose you to dangerous voltage points or other risk.Refer all servicing to service personnel.
13. 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 involved in the operating instructions ,since improper adjustment of other controls may result in damage and will often require extra 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

Panel General Specification	
Panel Model	Hannstar HSD190ME12-A00
Screen Diagonal	19" TFT
Active Display Area	376.32mm (H) x 301.056mm (V)
Pixel Pitch	0.294(H) x 0.294(V) mm
Number of Colors	16.2M colors
View Angle	
Horizontal	+/-70 degree
Vertical	-60/+70 degree Typical
Luminance of White	250cd/m ² (Typical)
Contrast Ratio (Typical)	500:1
Maximum Resolution	1280 x 1024 @ 75Hz
Recommend Resolution	1280 x 1024 @ 75Hz
Synchronization Range	
Horizontal	30 – 80 KHz
Vertical	60– 75 Hz
Pixel Rate	135 MHz
User Control	5 Key Switch
OSD Function	Auto, Brightness, Contrast, H-position, V-position, H-size, Phase, Reset, Color selection (R, G, B, cool, warm), OSD , Language, Exit.
Power Source	90 – 264 Vac 60 / 50 Hz
Power Consumption	60 W (max.)
Connection Type	15 Pin D-Sub Type;
Input Signal	
Video	D-Sub: Analog R.G.B. , 0.7Vp-p / 75 Ohms
Sync.	TTL level, positive or negative polarity
Color Temperature	Cool / Warm / user mode
Dimension (WxHxD)	426x429.6x210 (mm)
Monitor Weight	5.4 kg
Base Operation	
Tilt	-5 / + 15 degree
Power Saving	
ON	< 60W
STAND BY	< 3W
OFF	< 3W
Signal Connector Pin Assignment	
D-SUB Pin No.	<div> 1. Red Video 2.Green Video 3.Blue Video 4.GND 5.Self Test </div> <div> 6. Red Ground 7. Green Ground 8. Blue Ground 9. +5V from PC 10. Sync. GND </div> <div> 11. GND 12. SDA For DDC1/2B 13. H-sync. 14. V-sync-DDC1 15. SCL For DDC2B </div>
Sound Output	2.5Wx2 8Ω Speaker

C . TIMING CHART



A: Period
B: Active
C: Sync Width
D: Back Porch
E: Front porch

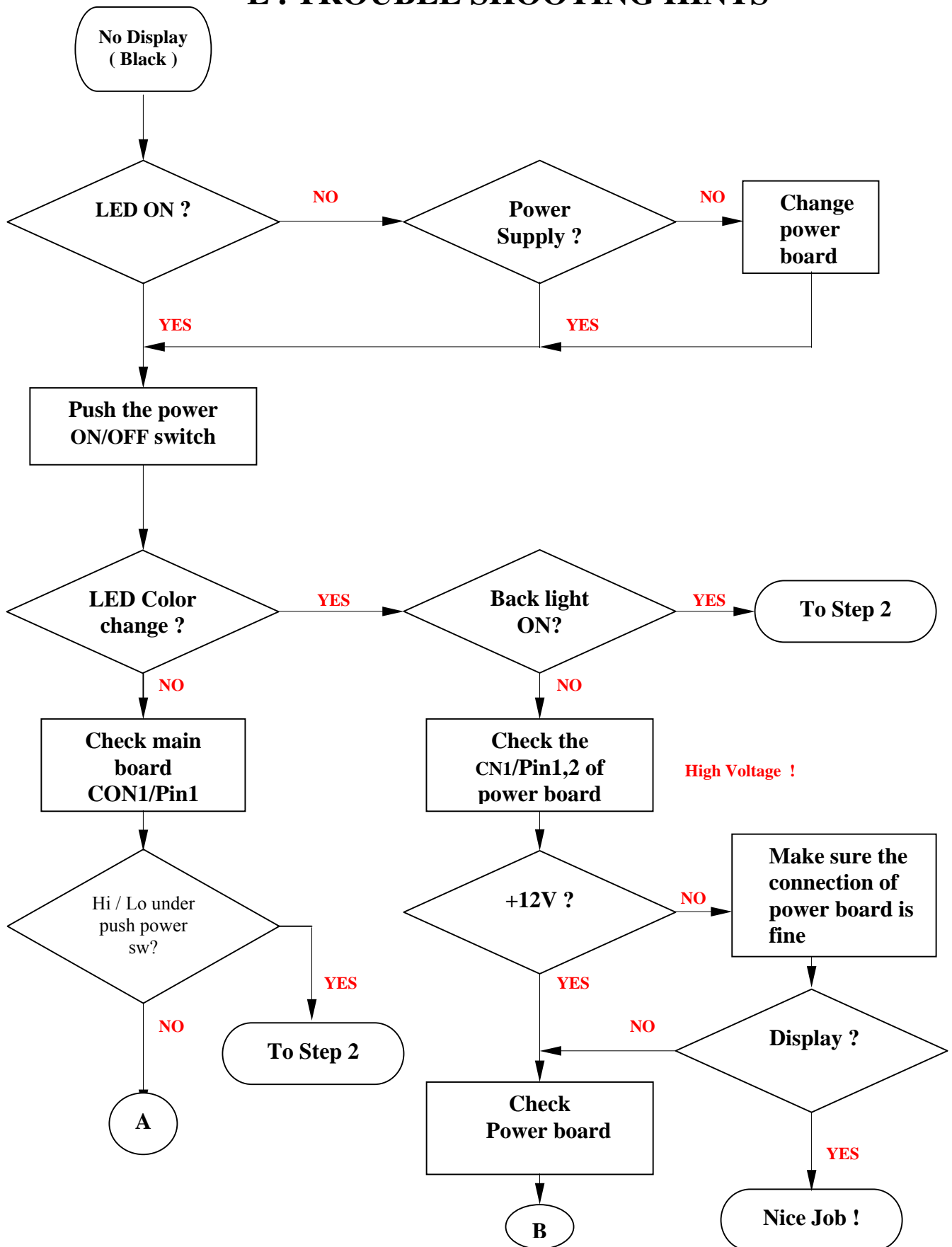
Preset Modes	VGA 640X350	VGA 640X400	VGA 640X480	VESA 640X480	VESA 640X480	VGA 720X400	VESA 800X600	VESA 800X600	VESA 800X600
Pixel Rate	25.175MHz	25.175MHz	25.175MHz	31.500MHz	31.500MHz	28.322MHz	36.000MHz	40.000MHz	50.000MHz
F.H	31.469KHz	31.469KHz	31.469KHz	37.861KHz	37.500KHz	31.469KHz	35.156KHz	37.879KHz	48.077KHz
A-period	31.778us	31.778us	31.778us	26.413us	26.667us	31.777us	28.444us	26.400us	20.800us
B-Active	25.422us	25.422us	25.422us	20.317us	20.317us	25.422us	22.222us	20.000us	16.000us
C-Syn	3.813us	3.813us	3.813us	1.270us	2.032us	3.813us	2.000us	3.200us	2.400us
D-Back Porch	1.907us	1.907us	1.589us	3.810us	3.810us	1.907us	3.556us	2.200us	1.280us
E-Front Porch	0.636us	0.636us	0.954us	1.016us	0.508us	0.635us	0.666us	1us	1.12us
F . V	70.087Hz	70.087Hz	59.941Hz	72.810Hz	75.000Hz	70.087Hz	56.250Hz	60.317Hz	72.188Hz
A-Period	14.268ms	14.268ms	16.683ms	13.734ms	13.333ms	14.268ms	17.778ms	16.579ms	13.853ms
B-Active	11.122ms	12.711ms	15.253ms	12.678ms	12.800ms	12.711ms	17.067ms	15.840ms	12.480ms
C-Syn	0.064ms	0.064ms	0.064ms	0.079ms	0.080ms	0.064ms	0.057ms	0.106ms	0.125ms
D-Back Porch	1.907ms	1.112ms	0.794ms	0.528ms	0.427ms	1.112ms	0.626ms	0.607ms	0.478ms
E-Front Porch	1.175ms	0.381ms	0.572ms	0.449ms	0.026ms	0.381ms	0.028ms	0.026ms	0.77ms
H/V SYNC	+ -	- +	- -	- -	- -	- +	+ +	+ +	+ +
Interlaced	NON	NON	NON	NON	NON	NON	NON	NON	NON

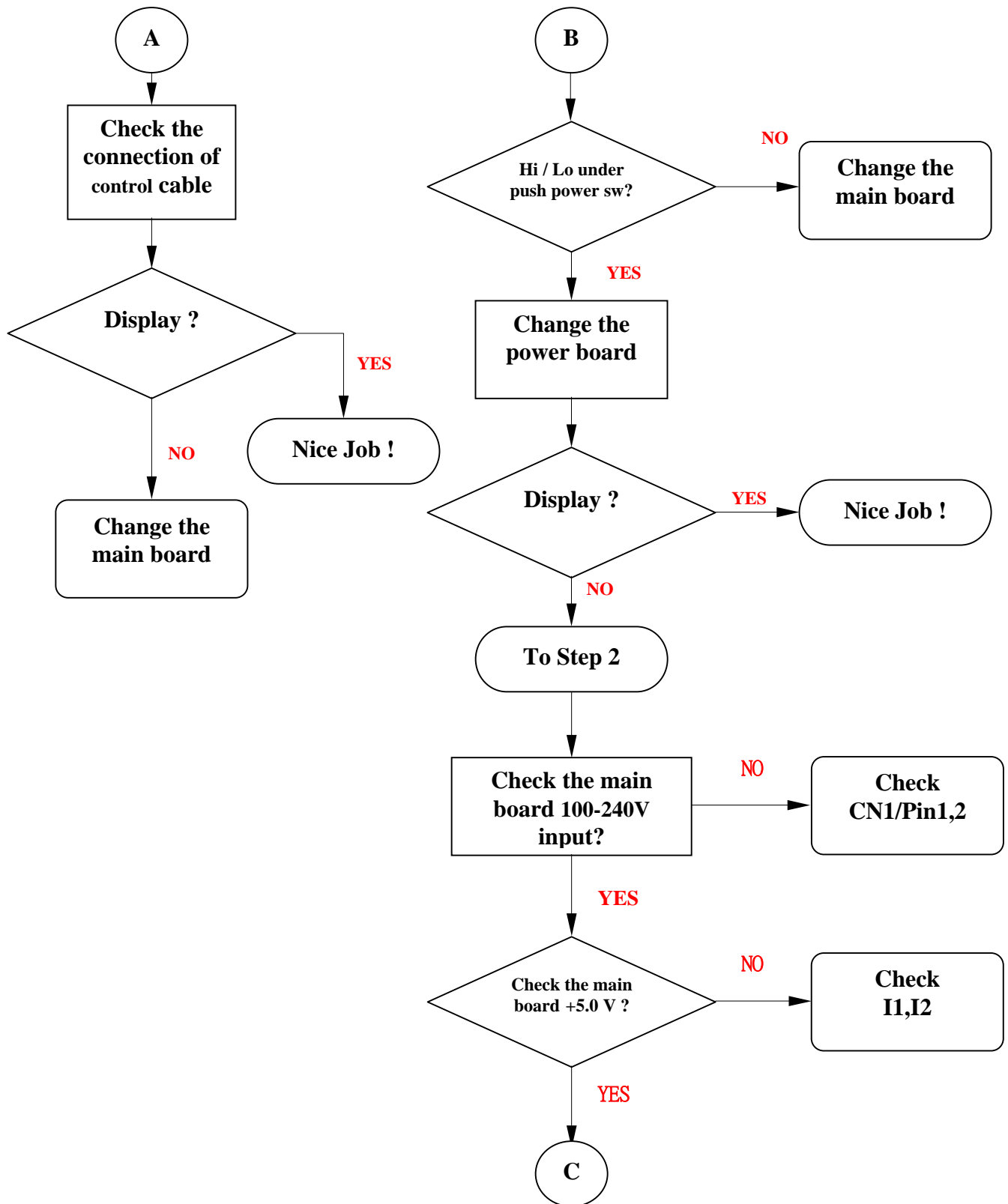
Preset Modes	VESA 800X600	VESA 1024X768	VESA 1024X768	VESA 1024X768	VESA 1280X1024	VESA 1280X1024			
Pixel Rate	49.500MHz	65.000MHz	75.000MHz	78.750MHz	108.00MHz	135.00MHz			
F.H	46.875KHz	48.363KHz	56.476KHz	60.023KHz	63.98KHz	79.976KHz			
A-period	21.333us	20.677us	17.707us	16.660us	15.630us	12.504us			
B-Active	16.162us	15.754us	13.653us	13.003us	11.852us	9.481us			
C-Syn	1.616us	2.092us	1.813us	1.219us	1.037us	1.067us			
D-Back Porch	3.232us	2.462us	1.920us	2.235us	2.296us	1.837us			
E-Front Porch	0.323us	0.369us	0.321us	0.203us	0.444us	0.119us			
F . V	75.000Hz	60.004Hz	70.069Hz	75.029Hz	60.020Hz	75.025Hz			
A-Period	13.333ms	16.666ms	14.272ms	13.328ms	16.661ms	13.329ms			
B-Active	12.800ms	15.880ms	13.599ms	12.795ms	16.005ms	12.804ms			
C-Syn	0.064ms	0.124ms	0.106ms	0.050ms	0.047ms	0.038ms			
D-Back Porch	0.448ms	0.600ms	0.513ms	0.466ms	0.594ms	0.475ms			
E-Front Porch	0.021ms	0.062ms	0.054ms	0.017ms	0.016ms	0.013ms			
H/V SYNC	+ +	- -	- -	+ +	+ +	+ +			
Interlaced	NON	NON	NON	NON	NON	NON			

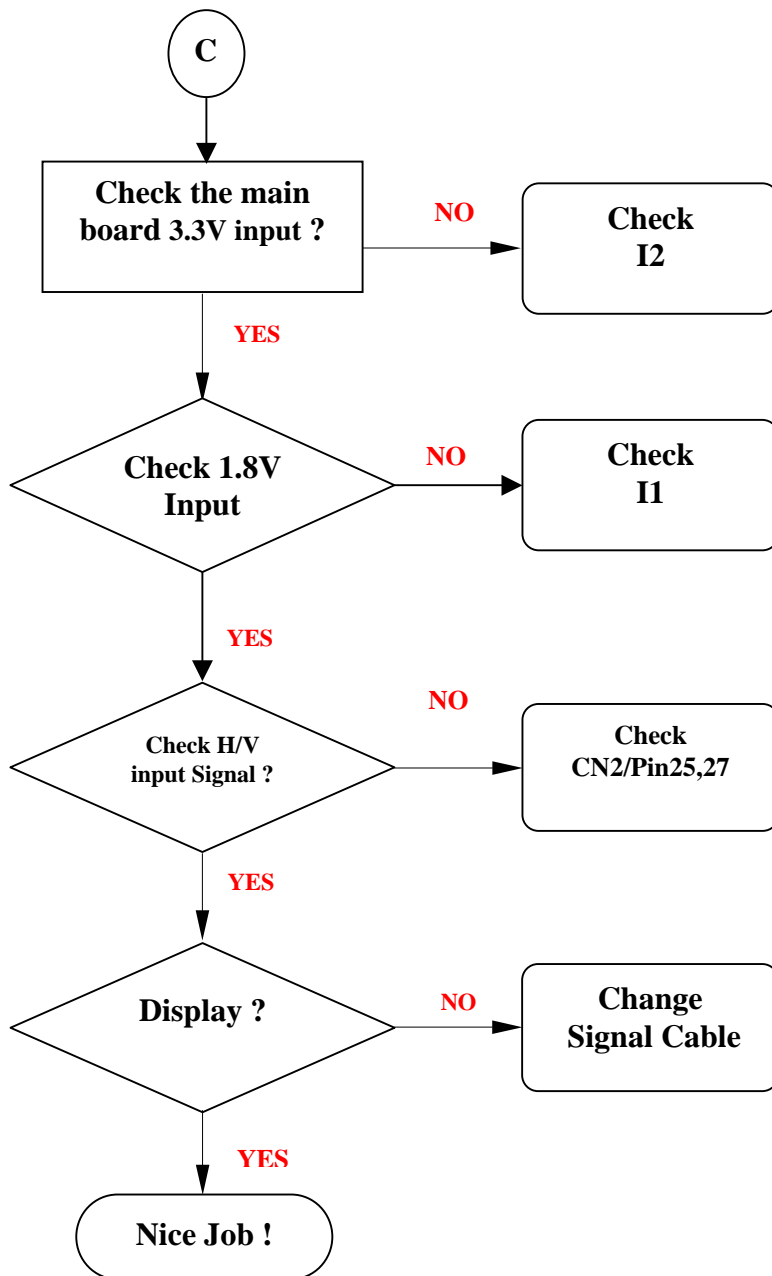
D. ADJUSTMENT PROCEDURE

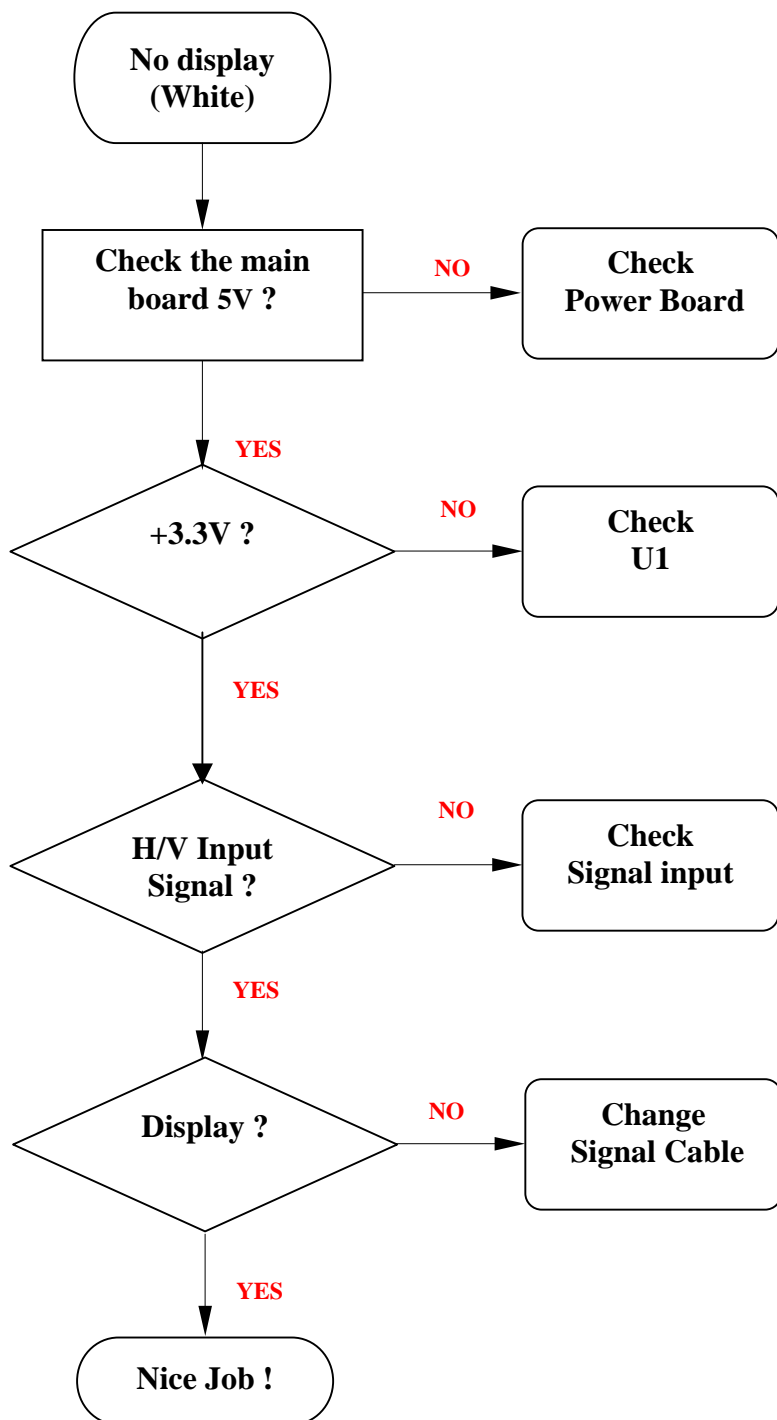
ITEM Program Menu.		# Test Meter * Test Point @ Pattern	Operation	Check Value
A	Power supply Check	# Digital Voltmeter * CN2 @ Crosshatch Pattern (1280x1024, 60Hz)	1. Plug power cable into the LCD monitor directly. 2. Make sure the voltage of the power plug (CN2) on the Power Board to the value shown at right.	220Vac ±0.2V
B	Power Saving Check	# Wattmeter # PC or Pattern generator @ Crosshatch Pattern (1280x1024, 60Hz)	1. Unplug the signal cable into the monitor. 2. Turn the power switch of the monitor ON . 3. Check monitor power indicator light up blue flashing every other second. 4. Make sure the wattmeter value shown at right. 5. OSD will be display “ NO SIGNAL ” Picture.	< 3W
C	Into Factory mode	# PC or Pattern generator @ Crosshatch Pattern (1280x1024, 60Hz)	1. Hold Down key, then turn the power switch of the monitor OFF . 2. Hold Up key, then turn the power switch of the monitor ON . 3. You can enter factory adjustment mode.	
D	Auto mode Check	# PC or Pattern generator @ Crosshatch Pattern (1280x1024, 60Hz)	1. Press and release the Auto key to adjust display mode to its utmost performance according to VGA setting.	
E	White Balance Adjust	# PC or Pattern generator @ White Pattern (1280x1024, 60Hz)	1. Move the OSD to the COLOR mode (AUTO COLOR). 2. set color is Cool using the OSD, Check the value shown at right. $Y = 250 \pm 20 \text{cd/m}^2$ $x = 0.283 \pm 0.02$ $y = 0.297 \pm 0.02$ 3. set color is Warm using the OSD, Check the value shown at right. $Y = 250 \pm 20 \text{cd/m}^2$ $x = 0.313 \pm 0.02$ $y = 0.329 \pm 0.02$	
F	OSD Language Setting	# PC or Pattern generator	1. Move the OSD to the OSD setting mode 2. Move the OSD to the LANGUAGE mode. 3. You can choose one of the language you need.	

E . TROUBLE SHOOTING HINTS









F. SPARE PARTS LIST

Main Board/ Control Board

No.	Parts Number	Parts Description	Unit	Q'ty	Location
1	002-F00-MA782KC	USER MANUAL	EA	1	
2	005-000-L2PROV	CARTON	EA	1	
3	200-100-M713I-A	PCB MASTER REV A M713i	EA	1	
4	200-701-MA782	CONTROL PCB	EA	1	
5	281-031-39004	SMD 390ohm 0603 +-1%	EA	1	R40,
6	281-031-75R04	RES 75 1% 1/10W 0603 SMD.	EA	3	R29,R32,R36,
7	281-035-0R04	RES 0ohm 5% 1/10W 0603 SMD.	EA	4	R103,R3,R440,R39,
8	281-035-1004	RES 10ohm 5% 1/10W 0603 SMD.	EA	1	R41,
9	281-035-1014	RES 100ohm 5% 1/10W 0603 SMD	EA	4	R66,R67,R213,R4,
10	281-035-1024	RES 1K 5% 1/10W 0603 SMD.	EA	6	R5,R14,R69,R70,R105,R106,
11	281-035-1034	RES 10K 5% 1/10W 0603 SMD.	EA	12	R21,R23,R42,R64,R65,R68,R72,R111, R19,R20,R207,R47,
12	281-035-1044	RES 100K 5% 1/10W 0603 SMD.	EA	1	R6,
13	281-035-1824	RES 1.8K 5% 1/10W 0603 SMD.	EA	2	R17,R22,
14	281-035-2004	RES 20 5% 1/10W 0603 SMD.	EA	3	R28,R31,R35,
15	281-035-2024	RES 2K +-5% 1/10W 0603 SMD	EA	1	R112,
16	281-035-2224	RES 2.2K 5% 1/10W 0603 SMD.	EA	2	R24,R204,
17	281-035-2234	RES 22K 5% 1/10W 0603 SMD.	EA	1	R13,
18	281-035-3044	RES 300K 5% 1/10W 0603 SMD.	EA	1	R114,
19	281-035-3304	RES 33ohm 5% 1/10W 0603 SMD.	EA	4	R211,R212,R26,R27,
20	281-035-3314	RES 330ohm 1/10W 0603 SMD.	EA	3	R62,R63,R113,
21	281-035-3324	RES 3.3K 5% 1/10W 0603 SMD.	EA	1	R208,
22	281-035-3334	RES 33K 5% 1/10W 0603 SMD.	EA	2	R206,R1,
23	281-035-4704	RES 47ohm 5% 1/10W 0603 SMD.	EA	7	R30,R34,R37,R43,R44,R45,R46,
24	281-035-4714	RES 470ohm 5% 1/10W 0603 SMD.	EA	1	R33,
25	281-035-4724	RES 4.7K 5% 1/10W 0603 SMD.	EA	5	R2,R109,R110,R102,R16,
26	281-035-4734	RES 47K 5% 1/10W 0603 SMD.	EA	2	R107,R108,
27	281-035-8224	RES 8.2K 5% 1/10W 0603 SMD.	EA	1	R74,
28	282-103-2454	RES-NET 10Kohm 5% SMD 8P4R.	EA	6	RN12,RN13,RN14,RN15,RN6,RN5,
29	282-220-2454	22X4 +-5% 1/10W SMD 8P4R	EA	2	RN10,RN11,
30	285-056-B160C	SMD VARISTOR SIZE 0603 5.6V 30PF	EA	13	D3,D4,D7,D9,D8,D101,D5,D6,D31,D32,D33, D34,D35,
31	330-100-16255	5mm EC 10uF 16V 105C M TP MI. 4*5	EA	8	TC7,TC9,TC8,TC10,TC11,TC12,TC14,TC5,
32	330-221-16205	E.CAP 220UF/16V +-20% 105C.	EA	7	TC101,TC102,TC103,TC104,TC3,TC4,TC6,
33	330-470-16275	EC. 47uF/16V Elec.radial 5*7.	EA	2	TC1,TC2,
34	381-102-035054	NPO 1000P/50V +-5% 0603 SMD	EA	1	C23,
35	381-220-032554	SMD CC 22pF 25V NPO 0603.	EA	4	C49,C52,C66,C68,
36	382-474-031664	SMD CC X7R 0.47uF 10V 0603 +-10%	EA	2	C103,C104,

37	385-104-032584	Y5V 0.1u/25V +80%-20% 0603	EA	37	C1,C2,C4,C6,C7,C11,C12,C13,C14,C15, C17,C32,C33,C34,C35,C36,C37,C38,C39, C40,C41,C42,C43,C44,C45,C46,C47,C48, C53,C54,C56,C59,C102,C105,C3,C64,C65,
38	385-105-031684	Y5V 1uF/16V +80%-20% 0603.	EA	1	C5,
39	385-473-032584	Y5V 0.047u/25V +80%-20% 0603	EA	6	C19,C21,C22,C25,C26,C31,
40	401-170-0200	TACT SWITCH HOR (H=5mm).	EA	5	S1,S2,S3,S4,S5,
41	481-LCC-0440	SOCKET 44PIN PLCC.	EA	1	U5,
42	483-302-2388	2.5P 254FH15 1S H8.50mm	EA	1	CN1,
43	504-A00-7496L	AUDIO AMP. IC FOR ST/TDA7496L.	EA	1	U101,
44	506-0AI-18CE	AIC 1084CE 1.8V T0252 SMD.	EA	1	I1,
45	506-10E-8050IQ	MXIC MX10E8050IQ PLCC44	EA	1	
46	506-524-LC21-S	MEMORY IC 24LC21 SMD .ST	EA	1	U2,
47	506-5NM-24C16	24C16 SO8 MEMORY IC SMD.	EA	1	U4,
48	506-MST-TSU16AK	SMD MST TSU16AK	EA	1	U3,
49	506-RAS-1117-33	LDO AS1117L 3.3V SOT-223 1A	EA	1	I2,
50	518-02N-3904	TR NPN PMBS3904 40V 100mA	EA	7	Q1,Q2,Q7,Q4,Q6,Q103,Q203,
51	518-02N-3906	TR PNP PMBS3906 40V 100mA	EA	1	Q204,
52	518-1CE-9435	MOSFET CE9435A S08.	EA	1	U1,
53	520-005-L317-F	LED 3D2P	EA	1	D1,
54	528-010-4001L	DL4001 50V/1.A SOD SMALL TYPE	EA	2	D11,D12,
55	528-2BA-T54C	SMD DIODE BAT54C SOT23.	EA	1	D1,
56	528-R1N-4148	DIODE 1N4148 SOT-34 SMD.	EA	2	D10,D2,
57	529-025-02R4	ZENER DIODE 2.4V/2.4A 1206 SMD	EA	1	D13,
58	531-110-49US	11.0592MHZ HC 49US CRYSTAL.	EA	1	Y1,
59	531-143-49US-2	KTS QYSTAL 14.318MHZ. 20PF	EA	1	X1,
60	558-352-5000	SMD FUSE 1206 24V 5A.	EA	1	F1,
61	600-151-5200B	POWER CORD BLACK 1.5M	EA	1	
62	610-151-28G9-F	SIGNAL CABLE 1.5M WITH AUDIO+CORE	EA	1	
63	622-10A-9101	JUMPER 0.56D*7.5mm.	EA	1	JP1,
64	630-002-1009	BASE 2pin JWT A2001	EA	2	CN102,CN103,
65	630-008-1009	BASE 8P.180°	EA	1	C0N1,
66	630-008-C001	JST 1.5mm HEADER ZR	EA	1	J1,
67	630-026-S2006	BASE 26P /JWTA2006	EA	1	JP1,
68	630-028-1008S	BASE 28PIN	EA	1	CN2,
69	631-A30-JM713-A1	M713 17"19"LVDS CABLE 30P 18cm	EA	1	
70	631-C08-8M713	M713 8P2.0-1.5 290 +CORE	EA	1	
71	640-003-0005	SHRINKING TUBE 5mm Φ3mm	EA	1	
72	705-590-900H	19"HANNSTAR ME12-A00	EA	1	
73	780-103-3000A	BEAD FCM1608K-300T07	EA	3	FB4,FB5,FB6,
74	780-104-1210	FB 0805/120ohm LB201209-601U.	EA	2	L101,L102,

75	780-104-600E30	SMD BEAD 0805 60 Ω /100MHz 3A	EA	9	FB1,FB3,FB7,FB8,FB9,FB10,FB11,FB12,L1
76	824-2R5-JM723-L	L SPK. 2.5W 8ohm	EA	1	
77	824-2R5-JM723-R	R SPK. 2.5W 8ohm	EA	1	
78	860-ALZ-M713W-F	POWER 3in1 AI-0088 A F	EA	1	
79	899-00F-M713-A	M/B ASS'Y	EA	1	
80	899-400-MA982D	CONTROL/B ASS'Y	EA	1	

Power Board(AI-0088AF)

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
1	JUMPER WIRE	0.75*7.5mm		JP1(A), JP2(A),	8.000	PCS
				JP3(A), JP7(A),		
				JP12(A), JP25(A),		
				JP26(A), JP27(A),		
2	JUMPER WIRE	0.6 φ *12.5mm		JP4(A),	1.000	PCS
3	JUMPER WIRE	0.6*15mm		JP6(A), JP8(A),	4.000	PCS
				JP9(A) , JP31(A),		
4	JUMPER WIRE	0.6*5mm		JP10(A), JP13(A),	15.00	PCS
				JP14(A), JP15(A),		
				JP16(A), JP17(A),		
				JP18(A), JP19(A),		
				JP20(A), JP21(A),		
				JP22(A), JP23(A),		
				JP24(A), JP28(A),		
				JP29(A),		
5	JUMPER WIRE	0.6 φ *17.5		JP5(A),	1.000	PCS
6	JUMPER WIRE	0.6 φ *10mm		JP32(A), JP33(A),	3.000	PCS
				JP34(A),		
7	JUMPER WIRE	0.6 φ *20mm		JP11(A), JP30(A),	2.000	PCS
8	CABLE TIE	2.5*97		FOR CN2,	1.000	PCS
9	CHIP-RESISTOR	1206 300K Ω 1%	YAGEO	R114(B),	1.000	PCS
9-1		1206 300K Ω 1%	TZAI YUAN			
9-2		1206 300K Ω 1%	COMPOSTAR			
10	CHIP-RESISTOR	1206 91K Ω 1%	YAGEO	R126(B),	1.000	PCS
10-1		1206 91K Ω 1%	TZAI YUAN			
10-2		1206 91K Ω 1%	COMPOSTAR			
11	CHIP-RESISTOR	0805 1.5K Ω 1%	YAGEO	R110(B), R111(B),	4.000	PCS
11-1		0805 1.5K Ω 1%	TZAI YUAN	R122(B), R123(B),		
11-2		0805 1.5K Ω 1%	COMPOSTAR			
12	CHIP-RESISTOR	0805 1.2K Ω 1%	YAGEO	R128(B),	1.000	PCS
12-1		0805 1.2K Ω 1%	TZAI YUAN			
12-2		0805 1.2K Ω 1%	COMPOSTAR			
13	CHIP-RESISTOR	0805 160K Ω 1%	YAGEO	R124(B),	1.000	PCS
13-1		0805 160K Ω 1%	COMPOSTAR			
14	CHIP-RESISTOR	0805 30K Ω 1%	YAGEO	R008(B),	1.000	PCS
14-1		0805 30K Ω 1%	TZAI YUAN			
14-2		0805 30K Ω 1%	COMPOSTAR			

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
15	CHIP-RESISTOR	0805 560K Ω 1%	YAGEO	R112(B),	1. 000	PCS
15-1		0805 560K Ω 1%	TZAI YUAN			
15-2		0805 560K Ω 1%	COMPOSTAR			
16	CHIP-RESISTOR	1206 0 Ω 5%	YAGEO	R045(B), JR105(B),	5. 000	PCS
16-1		1206 0 Ω 5%	TZAI YUAN	JR002(B), JR004(B),		
16-2		1206 0 Ω 5%	COMPOSTAR	JR005(B),		
17	CHIP-RESISTOR	1206 10 Ω 5%	YAGEO	R013(B),	1. 000	PCS
17-1		1206 10 Ω 5%	TZAI YUAN			
17-2		1206 10 Ω 5%	COMPOSTAR			
18	CHIP-RESISTOR	1206 1K Ω 5%	YAGEO	R016(B),	1. 000	PCS
18-1		1206 1K Ω 5%	TZAI YUAN			
18-2		1206 1K Ω 5%	COMPOSTAR			
19	CHIP-RESISTOR	1206 100K Ω 5%	YAGEO	R018(B), R019(B),	4. 000	PCS
19-1		1206 100K Ω 5%	TZAI YUAN	R020(B), R021(B),		
19-2		1206 100K Ω 5%	COMPOSTAR			
20	CHIP-RESISTOR	1206 180 Ω 5%	YAGEO	R027(B),	1. 000	PCS
20-1		1206 180 Ω 5%	TZAI YUAN			
20-2		1206 180 Ω 5%	COMPOSTAR			
21	CHIP-RESISTOR	1206 2K Ω 5%	YAGEO	R015(B), R034(B),	2. 000	PCS
21-1		1206 2K Ω 5%	TZAI YUAN			
21-2		1206 2K Ω 5%	COMPOSTAR			
22	CHIP-RESISTOR	1206 22 Ω 5%	YAGEO	R012(B), R024(B),	2. 000	PCS
22-1		1206 22 Ω 5%	TZAI YUAN			
22-2		1206 22 Ω 5%	COMPOSTAR			
23	CHIP-RESISTOR	1206 27K Ω 5%	YAGEO	R044(B), R047(B),	2. 000	PCS
23-1		1206 27K Ω 5%	TZAI YUAN			
23-2		1206 27K Ω 5%	COMPOSTAR			
24	CHIP-RESISTOR	1206 470 Ω 5%	YAGEO	R136(B), R102(B),	2. 000	PCS
25	CHIP-RESISTOR	1206 47K Ω 5%	YAGEO	R035(B),	1. 000	PCS
25-1		1206 47K Ω 5%	TZAI YUAN			
26	CHIP-RESISTOR	1206 51 Ω 5%	YAGEO	R014(B),	1. 000	PCS
26-1		1206 51 Ω 5%	TZAI YUAN			
26-2		1206 51 Ω 5%	COMPOSTAR			
27	CHIP-RESISTOR	1206 510K Ω 5%	YAGEO	R001(B), R002(B),	3. 000	PCS
27-1		1206 510K Ω 5%	TZAI YUAN	R003(B),		
27-2		1206 510K Ω 5%	COMPOSTAR			
28	CHIP-RESISTOR	1206 560 Ω 5%	YAGEO	R028(B),	1. 000	PCS

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
28-1		1206 560Ω 5%	TZAI YUAN			
28-2		1206 560Ω 5%	COMPOSTAR			
29	CHIP-RESISTOR	0805 0Ω 5%	YAGEO	R121(B), R127(B),	9.000	PCS
29-1		0805 0Ω 5%	TZAI YUAN	JR101(B), JR102(B),		
29-2		0805 0Ω 5%	COMPOSTAR	JR103(B), JR104(B),		
				JR106(B), JR001(B),		
				JR003(B),		
30	CHIP-RESISTOR	0805 100Ω 5%	YAGEO	R106(B), R109(B),	2.000	PCS
30-1		0805 100Ω 5%	TZAI YUAN			
30-2		0805 100Ω 5%	COMPOSTAR			
31	CHIP-RESISTOR	0805 1K 5%	YAGEO	R105(B), R006(B),	3.000	PCS
31-1		0805 1K 5%	TZAI YUAN	R007(B),		
31-2		0805 1K 5%	COMPOSTAR			
32	CHIP-RESISTOR	0805 10KΩ 5%	YAGEO	R004(B), R005(B),	2.000	PCS
32-1		0805 10KΩ 5%	TZAI YUAN			
32-2		0805 10KΩ 5%	COMPOSTAR			
33	CHIP-RESISTOR	0805 100KΩ 5%	YAGEO	R107(B), R119(B),	2.000	PCS
33-1		0805 100KΩ 5%	TZAI YUAN			
33-2		0805 100KΩ 5%	COMPOSTAR			
34	CHIP-RESISTOR	0805 15KΩ 5%	YAGEO	R117(B), R129(B),	2.000	PCS
34-1		0805 15KΩ 5%	TZAI YUAN			
34-2		0805 15KΩ 5%	COMPOSTAR			
35	CHIP-RESISTOR	0805 150KΩ 5%	YAGEO	R130(B),	1.000	PCS
35-1		0805 150KΩ 5%	TZAI YUAN			
35-2		0805 150KΩ 5%	COMPOSTAR			
36	CHIP-RESISTOR	0805 1.5MΩ 5%	YAGEO	R116(B),	1.000	PCS
36-1		0805 1.5MΩ 5%	TZAI YUAN			
36-2		0805 1.5MΩ 5%	COMPOSTAR			
37	CHIP-RESISTOR	0805 2.2KΩ 5%	YAGEO	R101(B), R103(B),	2.000	PCS
37-1		0805 2.2KΩ 5%	TZAI YUAN			
37-2		0805 2.2KΩ 5%	COMPOSTAR			
38	CHIP-RESISTOR	0805 22KΩ 5%	YAGEO	R131(B), R132(B),	4.000	PCS
38-1		0805 22KΩ 5%	TZAI YUAN	R133(B), R134(B),		
38-2		0805 22KΩ 5%	COMPOSTAR			
39	CHIP-RESISTOR	0805 33KΩ 5%	YAGEO	R120(B),	1.000	PCS
39-1		0805 33KΩ 5%	TZAI YUAN			
39-2		0805 33KΩ 5%	COMPOSTAR			

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
40	CHIP-RESISTOR	0805 470K Ω 5%	YAGEO	R135(B),	1.000	PCS
40-1		0805 470K Ω 5%	TZAI YUAN			
40-2		0805 470K Ω 5%	COMPOSTAR			
41	CHIP-RESISTOR	0805 5.1K Ω 5%	YAGEO	R031(B),	1.000	PCS
41-1		0805 5.1K Ω 5%	TZAI YUAN			
41-2		0805 5.1K Ω 5%	COMPOSTAR			
42	CHIP-RESISTOR	0805 68K Ω 5%	YAGEO	R118(B), R125(B),	3.000	PCS
42-1		0805 68K Ω 5%	TZAI YUAN	R033(B),		
42-2		0805 68K Ω 5%	COMPOSTAR			
43	CHIP-RESISTOR	0805 75 Ω 5%	YAGEO	R104(B), R108(B),	2.000	PCS
43-1		0805 75 Ω 5%	TZAI YUAN			
44	CHIP-RESISTOR	0805 820 Ω 5%	YAGEO	R032(B), R043(B),	2.000	PCS
44-1		0805 820 Ω 5%	TZAI YUAN			
44-2		0805 820 Ω 5%	COMPOSTAR			
45	VARISTOR	TVR07471	THINKING	VAR1(A),	1.000	PCS
45-1		GNR07D471K	CERAMATE			
46	MOF-RESISTOR	1/2W 10 Ω 5%	TZAI YUAN	R010(A),	1.000	PCS
47	E-CAP.	KM 100uF 450V 18*35	SAMXON	C001(A),	1.000	PCS
48	E-CAP.	LZR 150uF 25V 8*7 105 $^{\circ}$ C	HER MEI	C101(A), C105(A),	2.000	PCS
48-1		GK 150uF 25V 8*7 105 $^{\circ}$ C	SAMXON			
49	HIGH VOLTAGE CAP.	222PF 1KV	TDK	C002(A),	1.000	PCS
49-1		222PF 1KV	JYA-NAY			
50	HIGH VOLTAGE CAP.	470PF 500V	TDK	C009(A), C010(A),	2.000	PCS
50-1		470PF 500V	JYA-NAY			
51	HIGH VOLTAGE CAP.	15PF 3KV	TDK	C106(A), C110(A),	4.000	PCS
51-1		15PF 3KV	UNIVERSE	C117(A), C121(A),		
52	HIGH VOLTAGE CAP.	15PF 6KV	TDK	C107(A), C118(A),	2.000	PCS
52-1		15PF 6KV	UNIVERSE			
53	X-CAPACITOR	0.22uF 300V 17*15.5*7.5	SHINY SPACE	CX001(A), CX002(A),	2.000	PCS
53-1		0.22uF 300V 17*15.5*7.5	CHENG TUNG			
54	CHIP-CAPACITOR	0805 0.47uF 16V X7R	HEC	C005(B), C128(B),	3.000	PCS
54-1		0805 0.47uF 25V X7R	YAGEO	C115(B),		
54-2		0805 0.47uF 16V X7R	TDK			
55	CHIP-CAPACITOR	0805 1uF 10V X5R	HEC	C109(B), C124(B),	2.000	PCS
55-1		0805 1uF 16V X7R	YAGEO			
55-2		0805 1uF 10V X7R	TDK			
56	CHIP-CAPACITOR	1206 2.2uF 16V X7R	HEC	C102(B), C104(B),	2.000	PCS

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
56-1		1206 2.2uF 16V X7R	YAGEO			
56-2		1206 2.2uF 16V X7R	TDK			
57	CHIP-CAPACITOR	0805 820PF 25V NPO	HEC	C114(B),	1.000	PCS
57-1		0805 820PF 25V NPO	YAGEO			
57-2		0805 820PF 25V NPO	TDK			
58	CHIP-CAPACITOR	0805 100PF 50V NPO	HEC	C123(B),	1.000	PCS
58-1		0805 100PF 50V NPO	YAGEO			
58-2		0805 100PF 50V NPO	TDK			
59	CHIP-CAPACITOR	0805 0.001uF 50V X7R	HEC	C004(B),	1.000	PCS
59-1		0805 0.001uF 50V X7R	YAGEO			
59-2		0805 0.001uF 50V X7R	TDK			
60	CHIP-CAPACITOR	0805 0.1uF 50V X7R	HEC	C007(B), C126(B),	7.000	PCS
60-1		0805 0.1uF 50V X7R	YAGEO	C008(B), C017(B),		
60-2		0805 0.1uF 50V X7R	TDK	C103(B), C111(B),		
				C116(B),		
61	CHIP-CAPACITOR	0805 2200PF 50V X7R	HEC	C129(B), C130(B),	4.000	PCS
61-1		0805 2200PF 50V X7R	YAGEO	C131(B), C132(B),		
61-2		0805 2200PF 50V X7R	TDK			
62	CHIP-CAPACITOR	0805 0.022uF 50V X7R	HEC	C112(B), C113(B),	5.000	PCS
62-1		0805 0.022uF 50V X7R	YAGEO	C120(B), C122(B),		
62-2		0805 0.022uF 50V X7R	TDK	C125(B),		
63	CHIP-CAPACITOR	0805 0.01uF 50V X7R	HEC	C108(B), C119(B),	3.000	PCS
63-1		0805 0.01uF 50V X7R	YAGEO	C016(B),		
63-2		0805 0.01uF 50V X7R	TDK			
64	Y-CAP.	1000PF 250V Y2 fof AI0088F	TDK	CY001(A), CY002(A),	2.000	PCS
64-1		1000PF 250V Y2 fof AI0088F	JYA-NAY			
64-2		2200PF 250V Y2 fof AI0088AF	TDK			
64-3		2200PF 250V Y2 fof AI0088AF	JYA-NAY			
65	Y-CAP.	4700PF 250V Y1 fof AI0088F	TDK	CY004(A),	1.000	PCS
65-1		4700PF 250V Y1 fof AI0088F	JYA-NAY			
65-2		2200PF 250V Y1 fof AI0088AF	TDK			
65-3		2200PF 250V Y1 fof AI0088AF	JYA-NAY			
66	E-CAP.	GF 1000uF 25V 10*20	SAMXON	C014(A), C013(A),	4.000	PCS
				C019(A), C027(A),		
67	E-CAP.	GF 220uF 25V 8*12	SAMXON	C020(A),	1.000	PCS
68	E-CAP.	GF 47uF 25V 6.3*11	SAMXON	C006(A),	1.000	PCS
69	E-CAP.	GF 470uF 25V 10*16	SAMXON	C011(A), C012(A),	2.000	PCS

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
70	DIODE	CD4148WP	CPO	D002(B), D114(B),	7.000	PCS
70-1		LL4148	Telefunk	D003(B), D101(B),		
70-2		RLS4148TE-11	ROHM	D102(B), D103(B),		
				D107(B),		
71	DIODE	P6KE12A	LITEON	ZD002(A),	1.000	PCS
71-1		P6KE12A	GW			
72	DIODE	1N4007	LITEON	D001(A), D004(A),	2.000	PCS
73	DIODE	BAV99	PHILIPS	D104(B), D105(B),	8.000	PCS
73-1		BAV99	DII	D106(B), D108(B),		
73-2		BAV99	LITEON	D109(B), D110(B),		
				D111(B), D112(B),		
74	DIODE	BAW56	PHILIPS	D113(B), D115(B),	2.000	PCS
74-1		BAW56	Infineon			
74-2		BAW56	GS			
75	BRIDGE DIOE	KBP206G	LITEON	BD001(A),	1.000	PCS
76	ZENER DIODE	RLZ6.2B 5.96~6.27V	ROHM	ZD003(B),	1.000	PCS
76-1		HZK6C 5.8~6.4V	RENESAS			
77	ZENER DIODE	RLZ8.2B 7.78~8.19V	ROHM	ZD101(B), ZD102(B),	3.000	PCS
77-1		HZK9A 7.7~8.53V	RENESAS	ZD103(B),		
78	ZENER DIODE	RLZ15B 13.89~14.62V	ROHM	ZD001(B),	1.000	PCS
78-1		HZK15 14.1~15.5V	RENESAS			
79	MOSFET	A04606 S08	AOS	U101(B), U102(B),	4.000	PCS
79-1		P2103NV	NIKO SEM	U104(B), U105(B),		
79-2		AM4502C	Analog Power			
79-3		AM4512C	Analog Power			
80	TRANSISTOR	PMBS3904	PHILIPS	Q103(B), Q003(B),	2.000	PCS
80-1		SST3904	ROHM			
80-2		KN3904S	KEC			
81	TRANSISTOR	PMBS3906	PHILIPS	Q002(B),	1.000	PCS
81-1		SST3906	ROHM			
81-2		KN3906S	KEC			
82	TRANSISTOR	KRA104S	KEC	Q101(B),	1.000	PCS
82-1		DTA144EKA	ROHM			
83	TRANSISTOR	KRC104S	KEC	Q102(B),	1.000	PCS
83-1		DTC144EKA	ROHM			
84	PWM	NCP1203D60	ON	IC001(B),	1.000	PCS
85	PWM	BIT3193	BITEK	U103(B),	1.000	PCS

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
86	OPTO COUPLER	LTV817C	LITEON	U001(A),	1.000	PCS
86-1		H11A817C	FAIRCHILD			
86-2		EL817(C)	EVERLIGHT			
87	R. E. G	KIA431A 1%	KEC	U002(A),	1.000	PCS
87-1		KA431AZTA 1%	FAIRCHILD			
88	BEAD CORE	A8H041040016 fof A10088F	EROCORE	FOR D004, CY004(A),	4.000	PCS
88-1		A8H041040016 fof A10088AF	EROCORE	FOR CY004, FOR D004,	3.000	PCS
89	CHOKE	CC-001636	LI TAI	NF001(A),	1.000	PCS
90	CHOKE	CC-000331	LI TAI	L001(A), L002(A),	2.000	PCS
91	LINE FILTER	LF-002500	LI TAI	NF002(A),	1.000	PCS
91-1		FT-0317	LIEN CHANG			
92	TRANSFORMER	PT-003184	LI TAI	T002(A),	1.000	PCS
92-1		AT-0339	LIEN CHANG			
93	FUSE	MST3. 15A 250V 8.35*7.7mm	CONQUER	F003(A),	1.000	PCS
94	FUSE	SR-5 3.15A 250V	SAVE	F001(A),	1.000	PCS
94-1		MRT 3.15A 250V	BEL			

1	THERMISTOR	SCK-055(MS)	THINKING	NTC1,	1.000	PCS
2	TUBE	15*18mm		FOR NTC1,	1.000	PCS

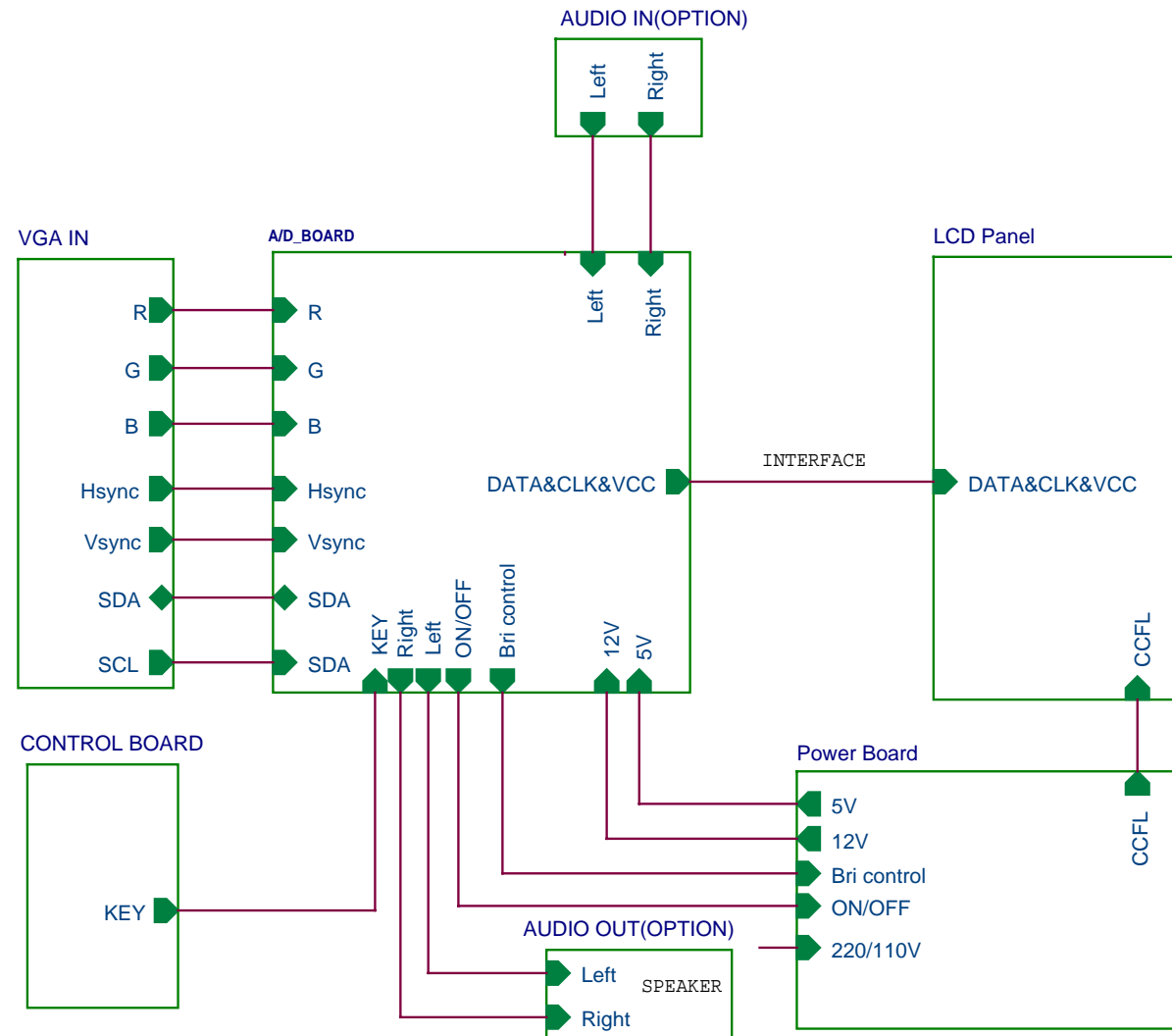
1	NKNP-RESISTOR	NKNP 2W 0.39Ω 5%	TZAI YUAN	R17(A),	1.000	PCS
2	TUBE	7*16mm		FOR R17,	1.000	PCS

1	MOSFET	2SK2645-01	FUJI	Q001(A),	1.000	PCS
2	SCREW	M3*8 WHITE		FOR Q001,	1.000	PCS
3	HEAT SINK	101.3*18.8*4T*2		HEAT1(A),	1.000	PCS
4	SILICON	AK100 1罐2KG			0.000	KG

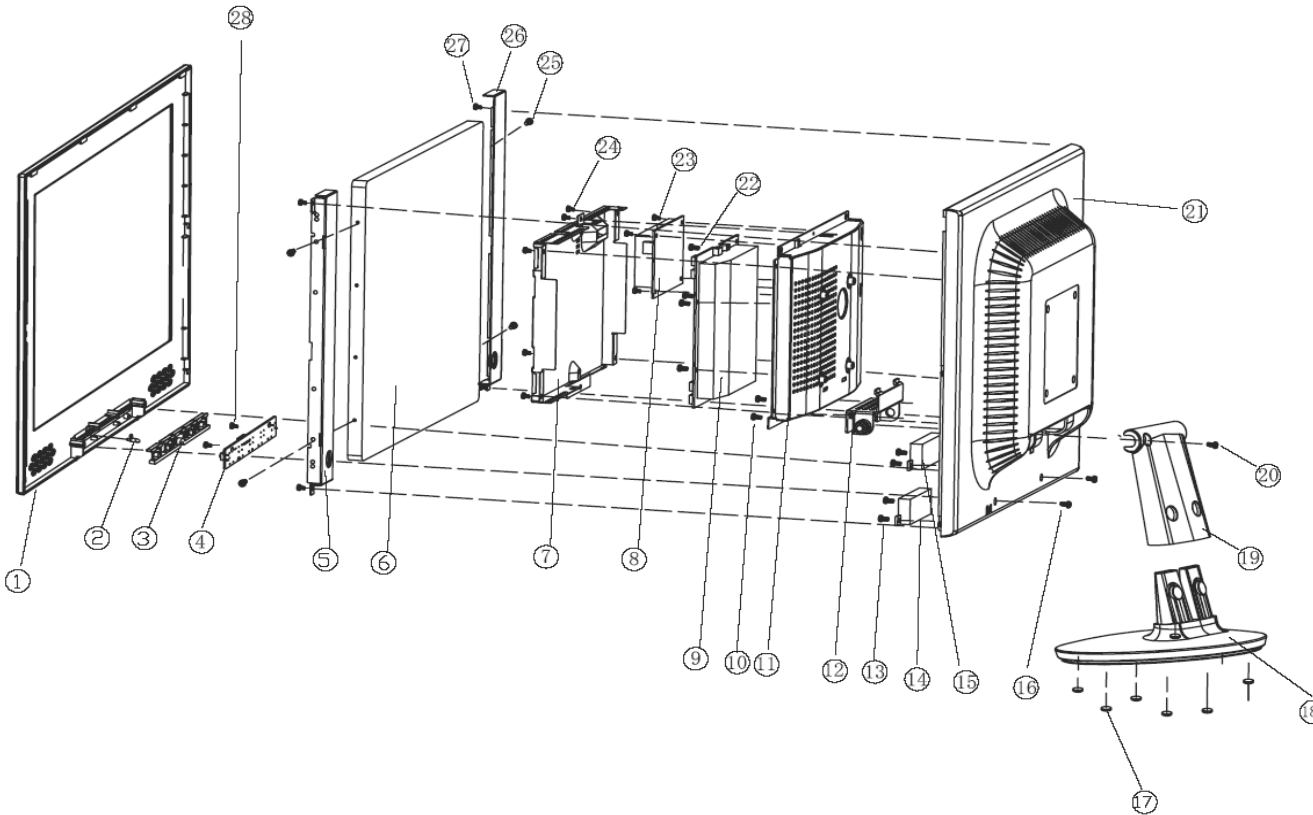
1	DIODE	MBR10100CT	LITEON	D007(A),	1.000	PCS
2	DIODE	SBL1060CT	LITEON	D006(A),	1.000	PCS
3	R. E. G	KIA7812A	KEC	D008(A),	1.000	PCS
4	SILICON RUBBER	TO-220 0.3mm		FOR D007, D006,	2.000	PCS
5	BUSHING	TO-220 M3		FOR D007, D006,	2.000	PCS
6	SCREW	M3*8 WHITE		FOR D007, D006, D008,	3.000	PCS
7	HEAT SINK	94.2*18.8*4T		HEAT2(A),	1.000	PCS

ITEM	NAME	DESCRIPTION	MANUFACTURER	POSITION	Q' T	UNIT
99	PCB	AI-0088 REV:F FR-1	CHIAN YOU AND TAI HONG	FOR LIEN CHANG DONG GUAN	1.000	PCS
100	A/C SOCKET	M0601050	LANDWIN	CN2(A),	1.000	PCS
101	CONNECTOR	CQ3502P0210T	LANDWIN	CN101(A), CN102(A),	4.000	PCS
101-1		LM403-002-LF-2	UNICORN	CN103(A), CN104(A),		
102	CONNECTOR	7313P10011	LANDWIN	CN1(A),	1.000	PCS
102-1		254B2S05G116-3	UNICORN			
103	LABLE	QC OK LABLE		FOR T101,	1.000	PCS
104	LABLE	HI-POT OK LABLE		FOR T002,	1.000	PCS
105	GREEN GLUE	綠色螺絲固定劑			0.000	KG
106	GLUE	KE-40RTV 1支330ml	SHINETSU		0.005	PCS
106-1		ESW2044	CANADA		0.005	PCS
107	TRANSFORMER	IT0316		T101(A), T102(A),	2.000	PCS

G. BLOCK DIAGRAM




H. EXPLODED DIAGRAM



ECN No	REV	DESCRIPTION	DATE	DRAWING BY	APPROVED BY

28	Screw	2	105-006-3012
27	Screw	4	107-010-3072
26	panel frame L	1	121-001-MA982K
25	Screw	4	101-005-3033
24	Screw	5	107-008-3073
23	Screw	3	107-005-3082
22	Screw	4	101-005-3033
21	rear cover	1	151-001-58K6A-1
20	Screw	1	100-010-4033-1
19	base arm	1	151-701-UK913S4
18	base	1	151-702-LP19S4-A
17	Rubber Foot	6	155-001-UK513
16	Screw	2	100-010-3013
15	speaker	1	824-2R5-JM723-R
14	speaker	1	824-2R5-JM723-L
13	screw	4	101-005-3033
12	hinge	1	126-001-UK913-A
11	BKT-CASE-PCB	1	121-B0U-LP17-A
10	screw	2	108-308-4133-1
9	Power PCB	1	860-ALZ-M713W-F
8	Main Board	1	899-00F-M713-A
7	BKT-COVER-PCB	1	121-B0U-LP17-B
6	PANEL	1	705-590-900H
5	Panel frame R	1	121-001-MA982K
4	Adjustor PCB	1	899-400-MA982D
3	Adjustor Knob	1	154-504-982D
2	Lens	1	154-501-982D
1	Front panel	1	151-A00-MN254-A

100% NEXT ASY APPLICATION		UNLESS OTHERWISE SPECIFIED TOLERANCES		PART NAME MA982K		MODEL NAME MA982K	
THERE ANGLE PROJECTION 		METRIC 0.X ± 0.2 0.XX ± 0.1		ANGLES ± 0.5		PART NO LMQ-KQC-L2U314-CED	
MATERIAL: FINISH: WEIGHT:		SCALE 2005.2.2		DRAWING BY 郭列亮		APPROVED FILE NO DRAWING FILE NO	
NO. MTL. SCALE DRAWING		DATE		APPROVED BY		NOTE : A3	
				PROVIEW			

I. SCHEMATIC DIAGRAM

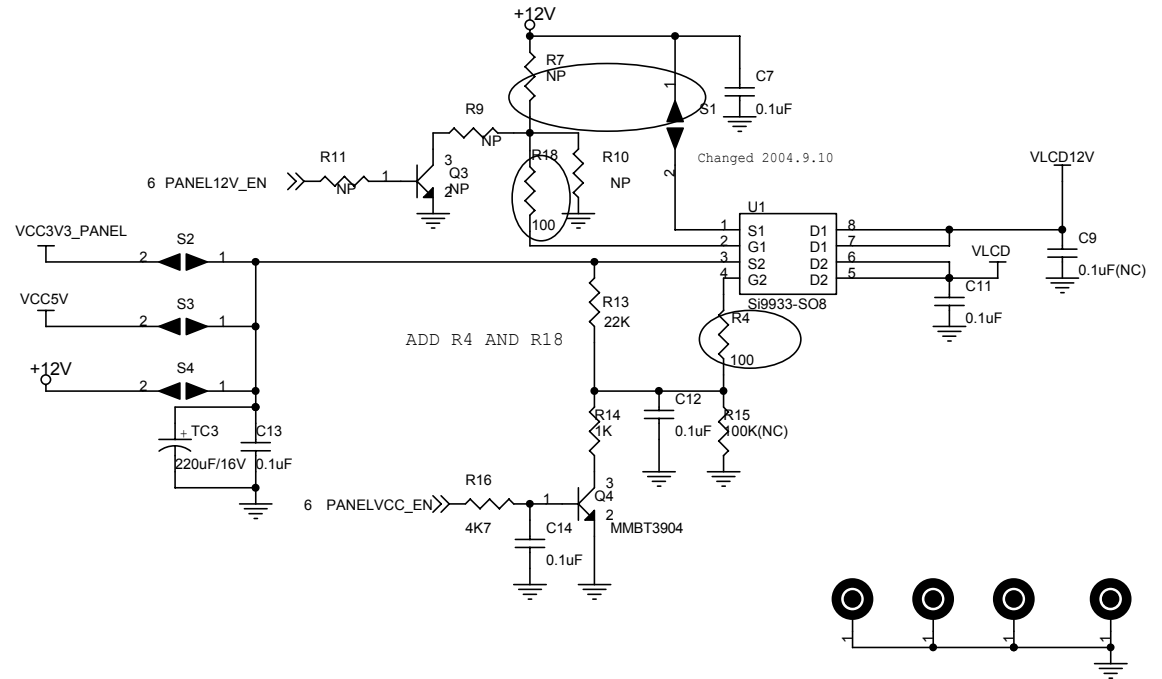
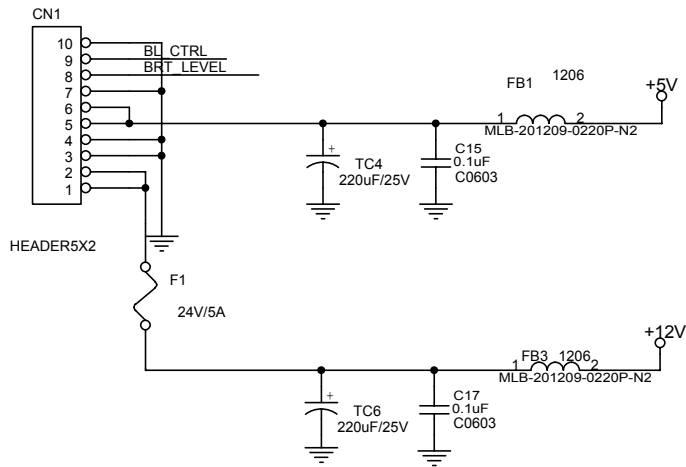
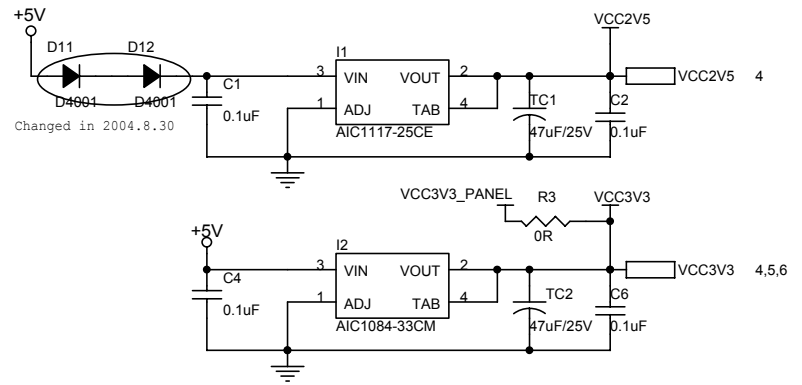
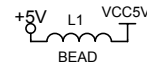
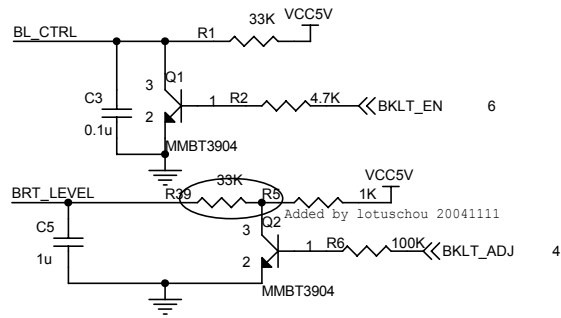
TOP LEVEL

- 1. S1:THE FIRST VERSION OF THE COST DOWN MODEL,MSTAR SOLUTION
- 2.change note:audio schematic add D13) D2'power schematic add R4'C101 change TC5
- 3.DVI schmatic add R8,R12.power schmatic add R18.



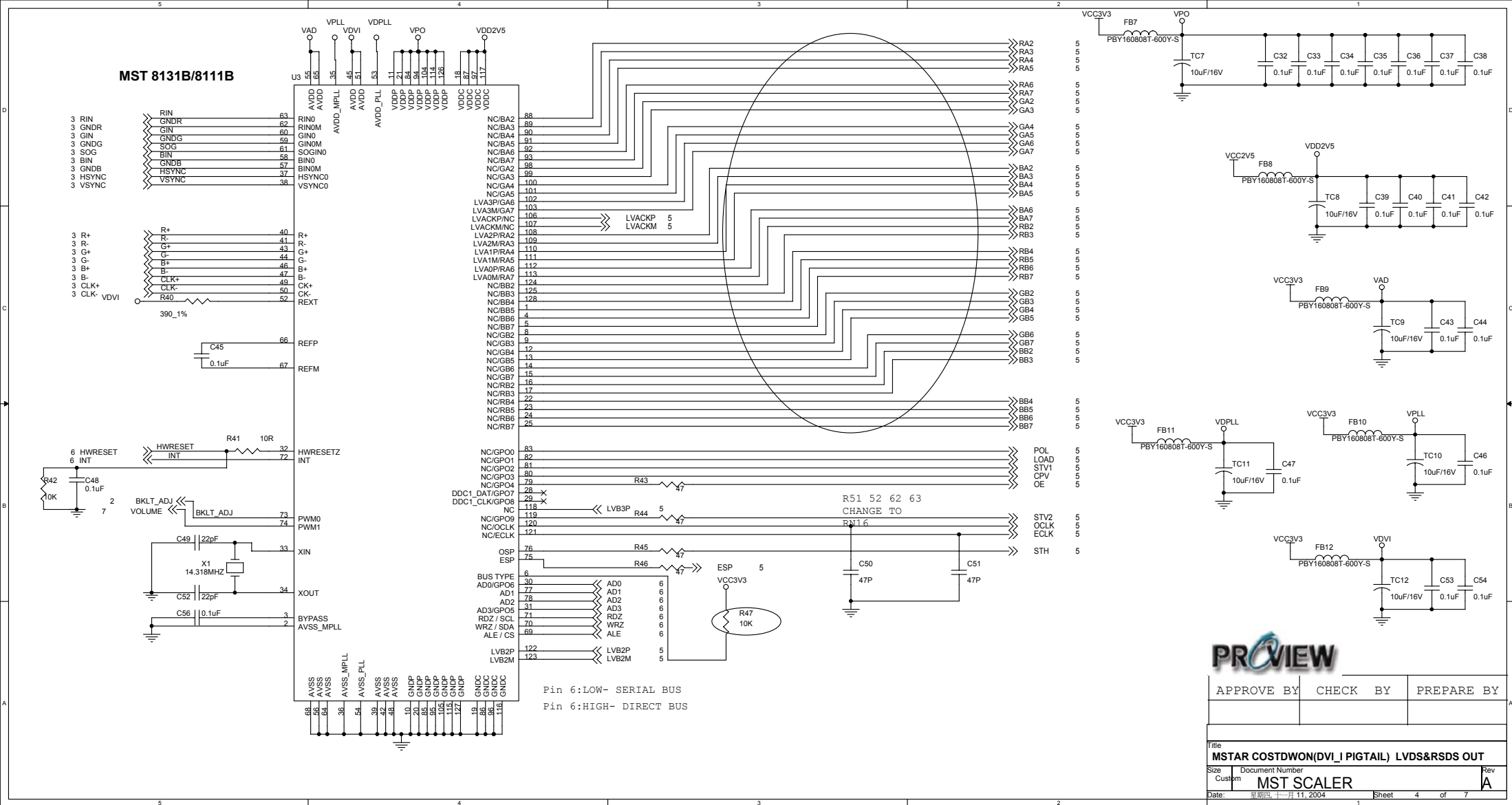
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Title			
MSTAR COSTDWON(DVI_I PIGTAIL) LVDS&RSDS OUT			
Size	Document Number		Rev
Custom	TOP LEVEL		A
Date: 星期四,十一月 11, 2004		Sheet 1	of 7

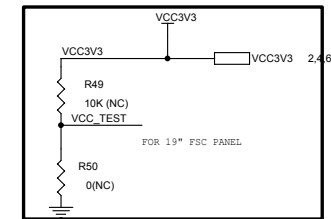
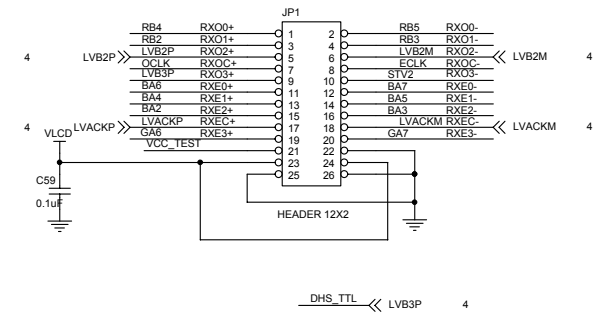
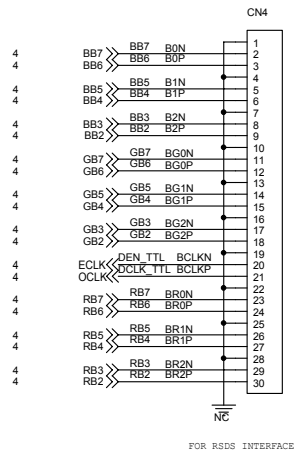
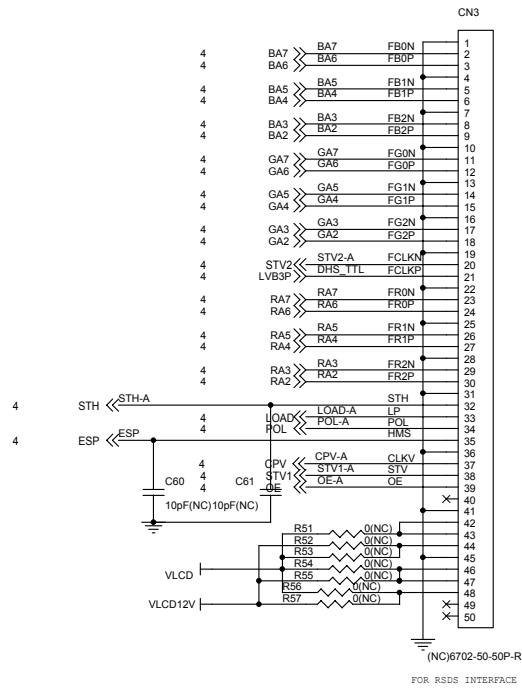
To Inverter



PROVIEW

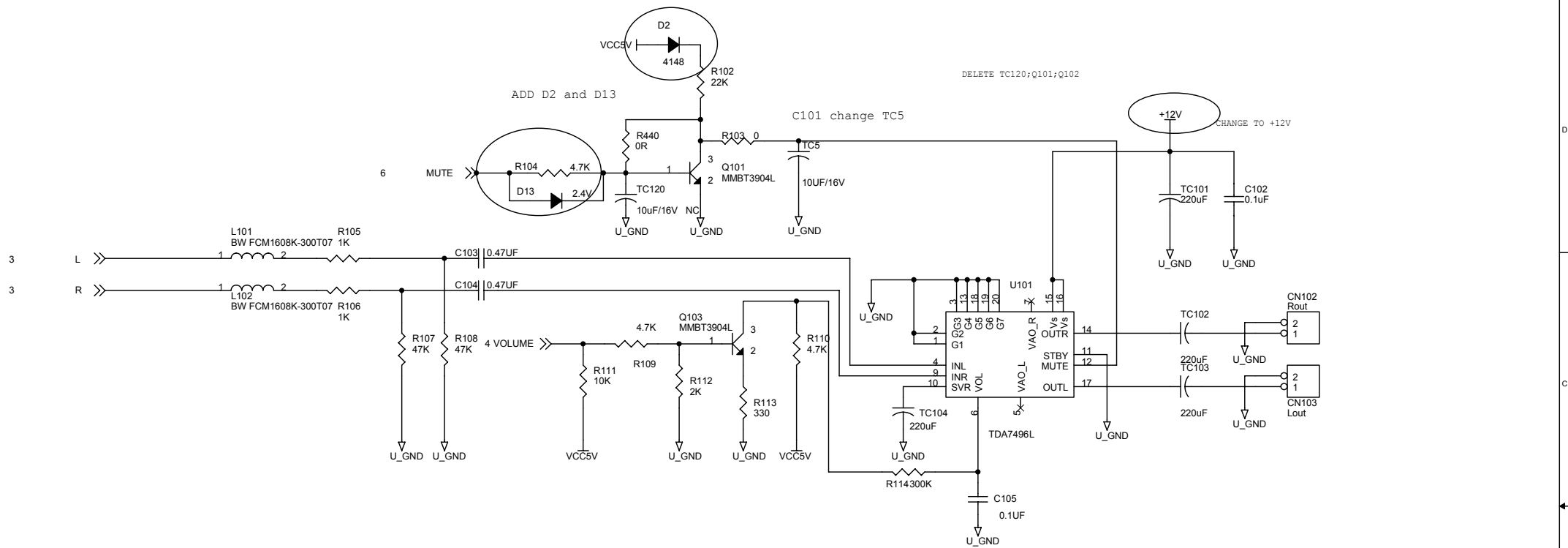
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Title		
MSTAR COSTDWON(DVI_I PIGTAIL) LVDS&RSDS OUT		
Size	Document Number	Rev
Custom		A
Date:	星期四, 十一月 11, 2004	Sheet 2 of 7





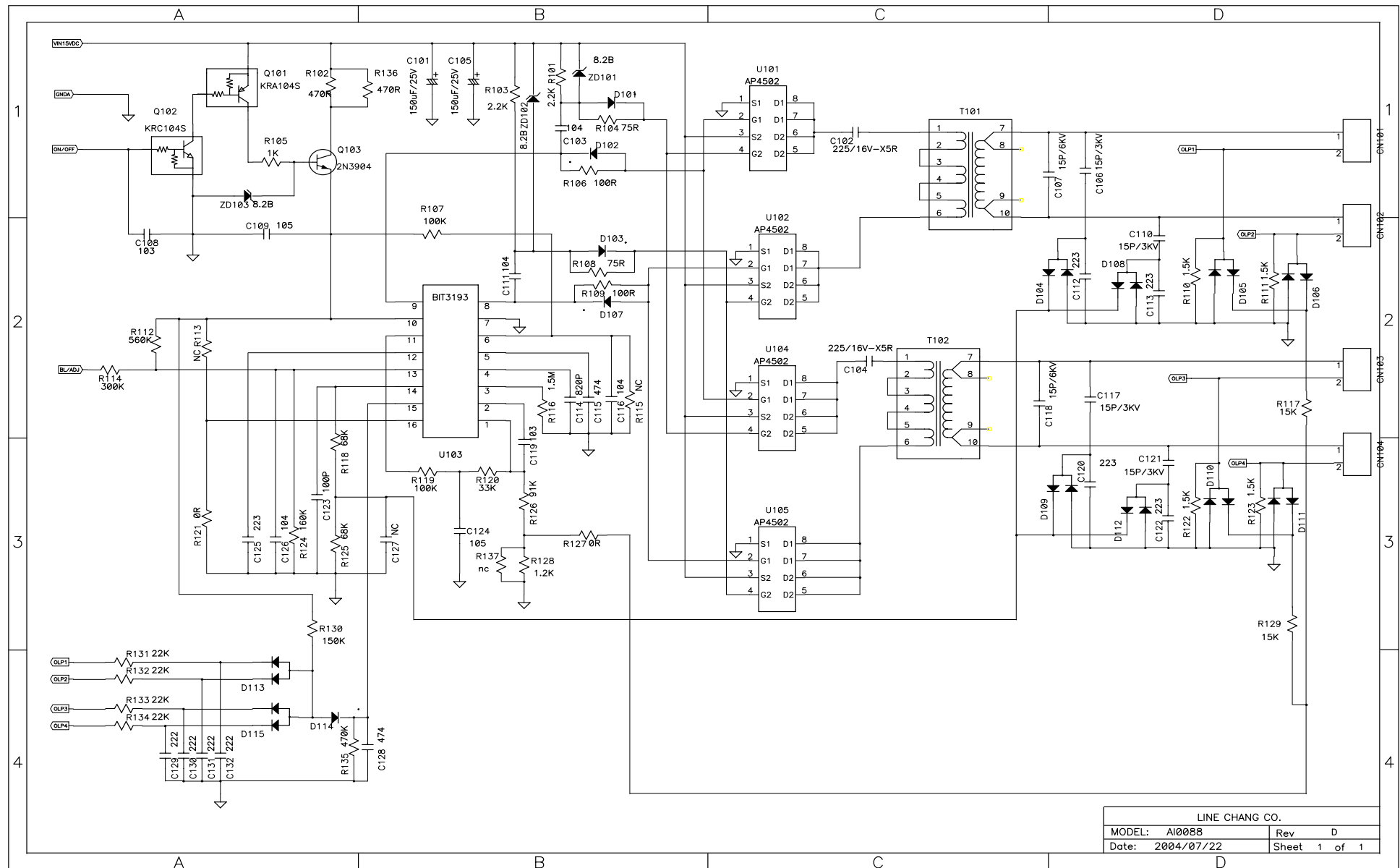
PROVIEW

APPROVE BY	CHECK BY	PREPARE BY
Title		
MSTAR COSTDWON(DVI_I PIGTAIL) LVDS&RSDS OUT		
Size	Document Number	Rev
Custom	PANEL INTERFACE	A
Date:	星期四, 十一月 11, 2004	Sheet 5 of 7



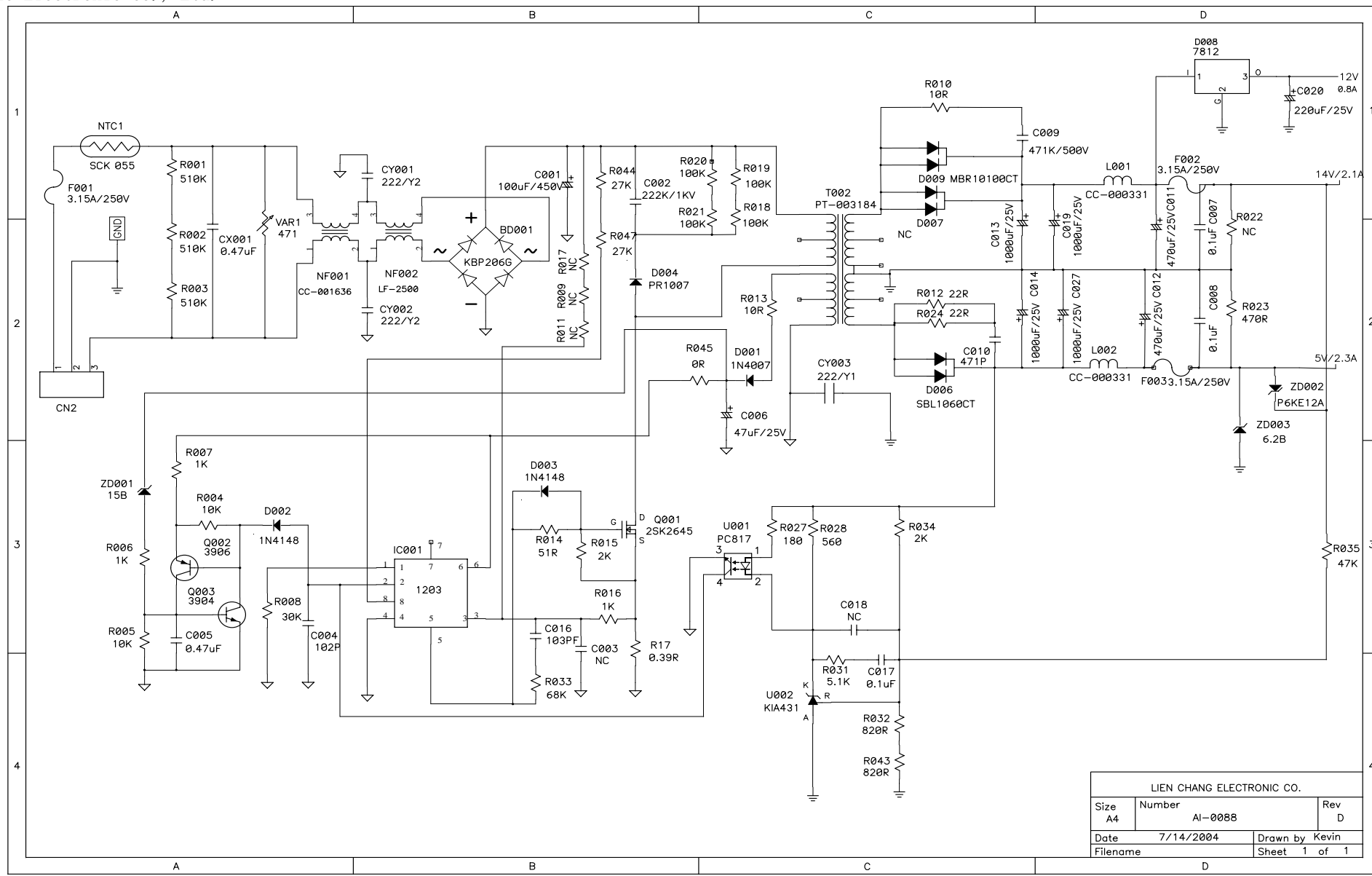
PROVIEW

APPROVE BY	CHECK BY	PREPARE BY
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Size B	Document Number	Rev
	AUDIO	A
Date: 星期四, 十一月 11, 2004	Sheet 7 of 7	1



MODEL:AI-0088FAI-0088AF(Spec No.:01)

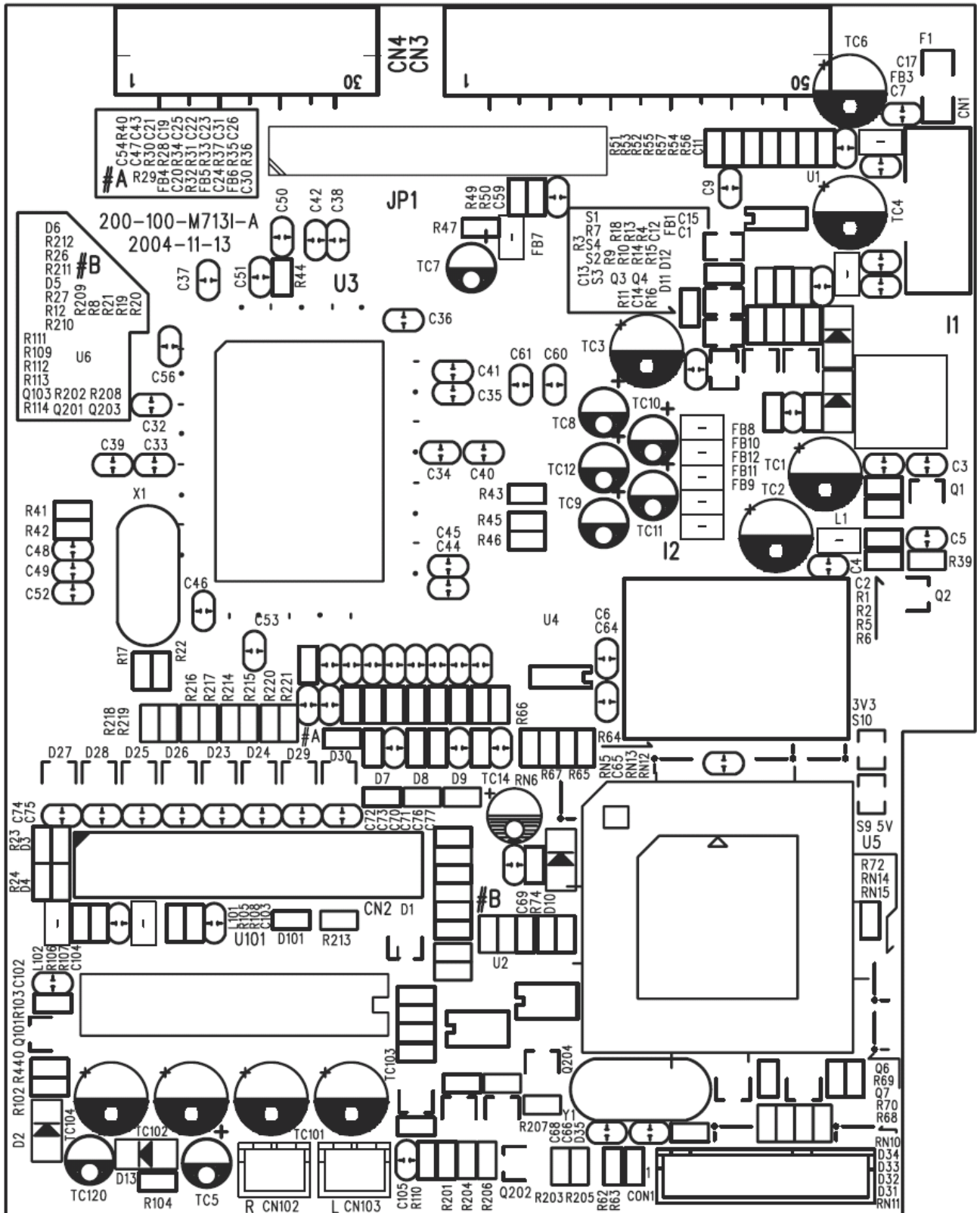
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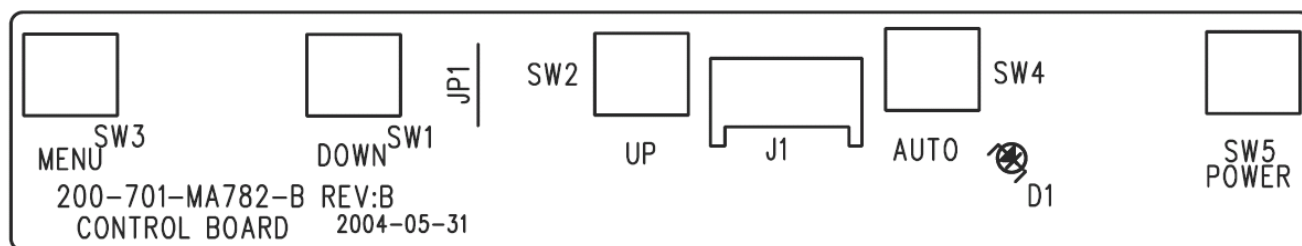
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Main Board

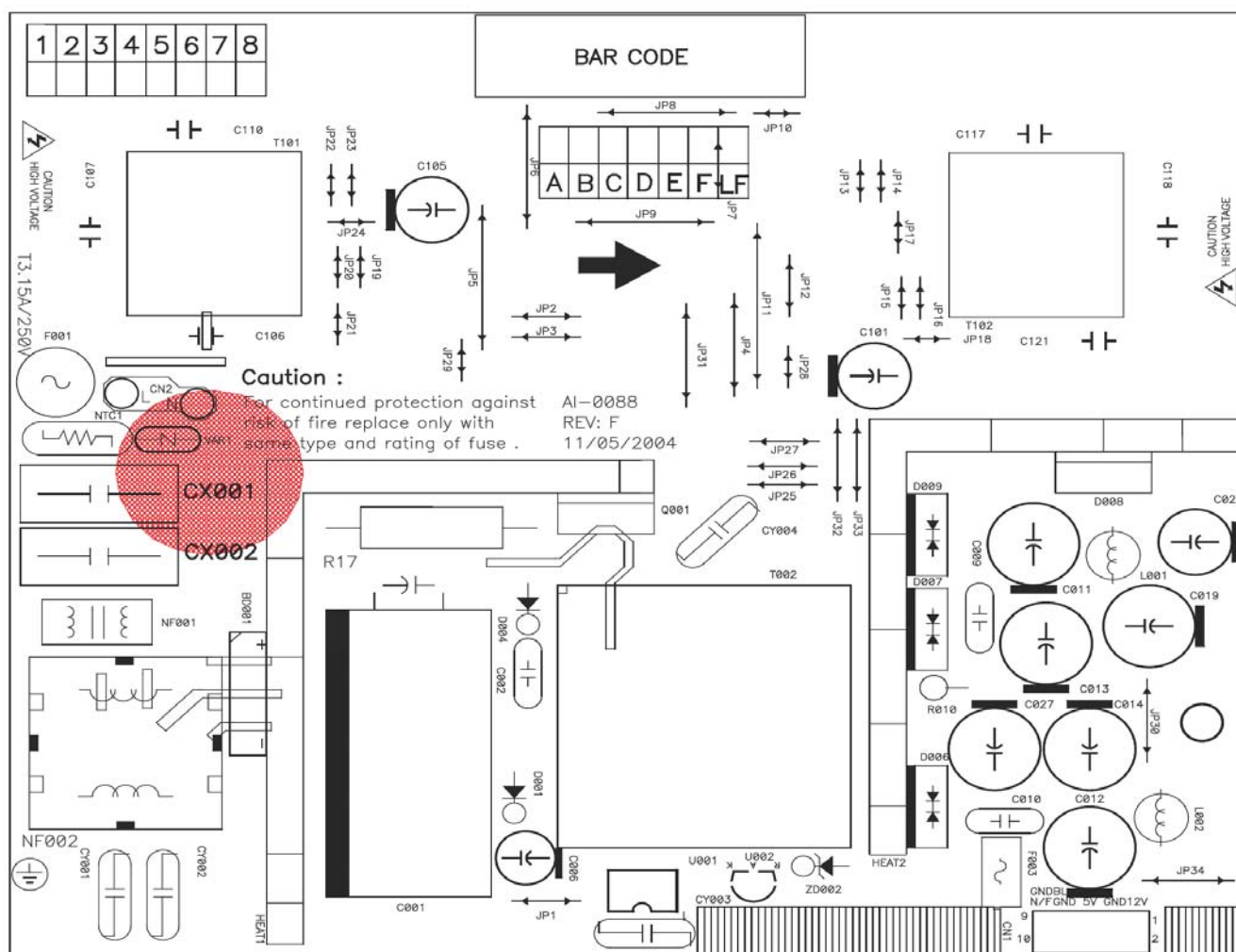


Control Board



Power Board

Top layer



MEMO
