

965

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 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 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.

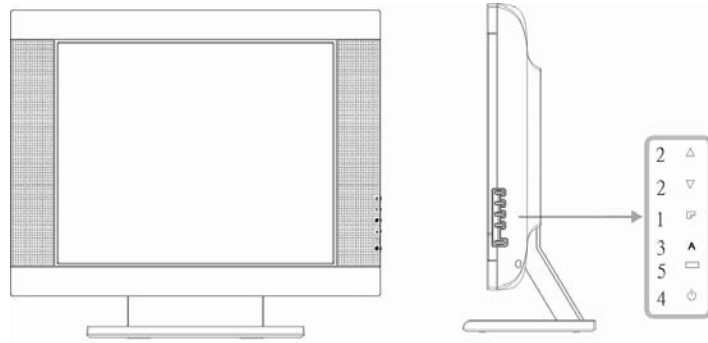
B. SPECIFICATIONS

1. Maximum Resolution	1280 x 1024 @ 75Hz	
2. Recommend Resolution	1280 x 1024 @ 60Hz	
3. Synchronization Range	31 – 80 KHz 60 – 75 Hz	
Horizontal	31 – 80 KHz	
Vertical	60 – 75 Hz	
4. Active Display Area	376mm x 301mm	
5. Dot Pitch	0.294 x 0.294 mm	
6. Support display colors	16.7M	
7. Contrast Ratio (Typical)	600 : 1	
8. Luminance of White	250cd/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	85 , 85 Degrees	
Horizontal	85 , 85 Degrees	
Vertical	85 , 85 Degrees	
13. Power Source	100 – 240 Vac, 60 / 50 Hz	
14. Power Consumption (max.)	60W	
15. Connection Type	15 Pin D Type	
16. Input Signal	Analog R.G.B. , 0.7Vp-p / 75 Ohms	
Video	TTL level, positive or negative polarity	
Sync.		
17. Color Temperature	Cool (9300° K) / Warm (6500° K)	
18. Dimension (WxHxD)	500x460x215mm	
19. Monitor Weight	8.7Kg	
20. Base Operation	0° / + 15°	
Tilt		
21. Power Saving	< 60W	
ON	< 5W	
STAND BY	< 5W	
OFF	< 5W	
22. Signal Connector Pin Assignment	1. Red 2. Green 3. Blue 4. Ground 5. Self Test 6. Red Ground 7. Green Ground 8. Blue Ground	9. 5V _{DC} 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 2+2W 8Ω Speaker	

Presets Modes	VESA 800X600	VESA 1024X768	VESA 1024X768	VESA 1024X768	VESA 1280X1024	VESA 1280X1024
Pixel clock (MHz)	49.500	65.000	75.000	78.750	108.00	135.00
H-Frequency (KHz)	46.875	48.363	56.476	60.023	63.981	97.976
H-Total (µs)	21.333	20.677	17.707	16.660	15.630	12.540
H-Active Display (µs)	16.162	15.754	13.563	13.003	11.852	9.481
H-Blanking (µs)	5.172	4.923	4.053	3.657	3.778	3.022
Front Porch (µs)	0.323	0.369	0.320	0.203	0.444	0.119
H-Sync-width (µs)	1.616	2.092	1.813	1.219	1.037	1.067
H-Back Porch (µs)	3.232	2.462	1.920	2.235	2.296	1.837
V-Frequency (Hz)	75.0	60.0	70.1	75.0	60.0	75.0
V-Total (ms)	13.333	16.666	14.272	13.328	16.661	13.329
V-Active Display (ms)	12.800	15.880	13.599	12.795	16.005	12.804
V-Blanking (ms)	0.533	0.786	0.673	0.533	0.656	0.525
V-Front Porch (ms)	0.021	0.062	0.053	0.017	0.016	0.013
V-Sync-width (ms)	0.064	0.124	0.106	0.050	0.047	0.038
V-Back Porch (ms)	0.448	0.600	0.513	0.466	0.594	0.475
H/V Sync. Polarity	+ +	- -	- -	+ +	+ +	+ +
Interlace	NONE	NONE	NONE	NONE	NONE	NONE

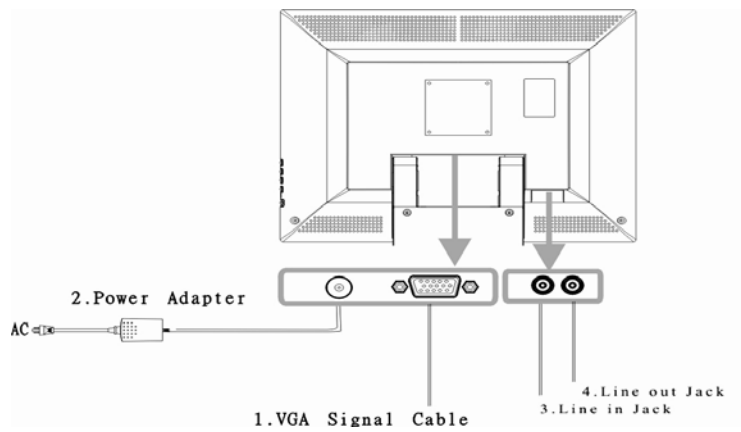
D. CONTROL LOCATION

Font control panel



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

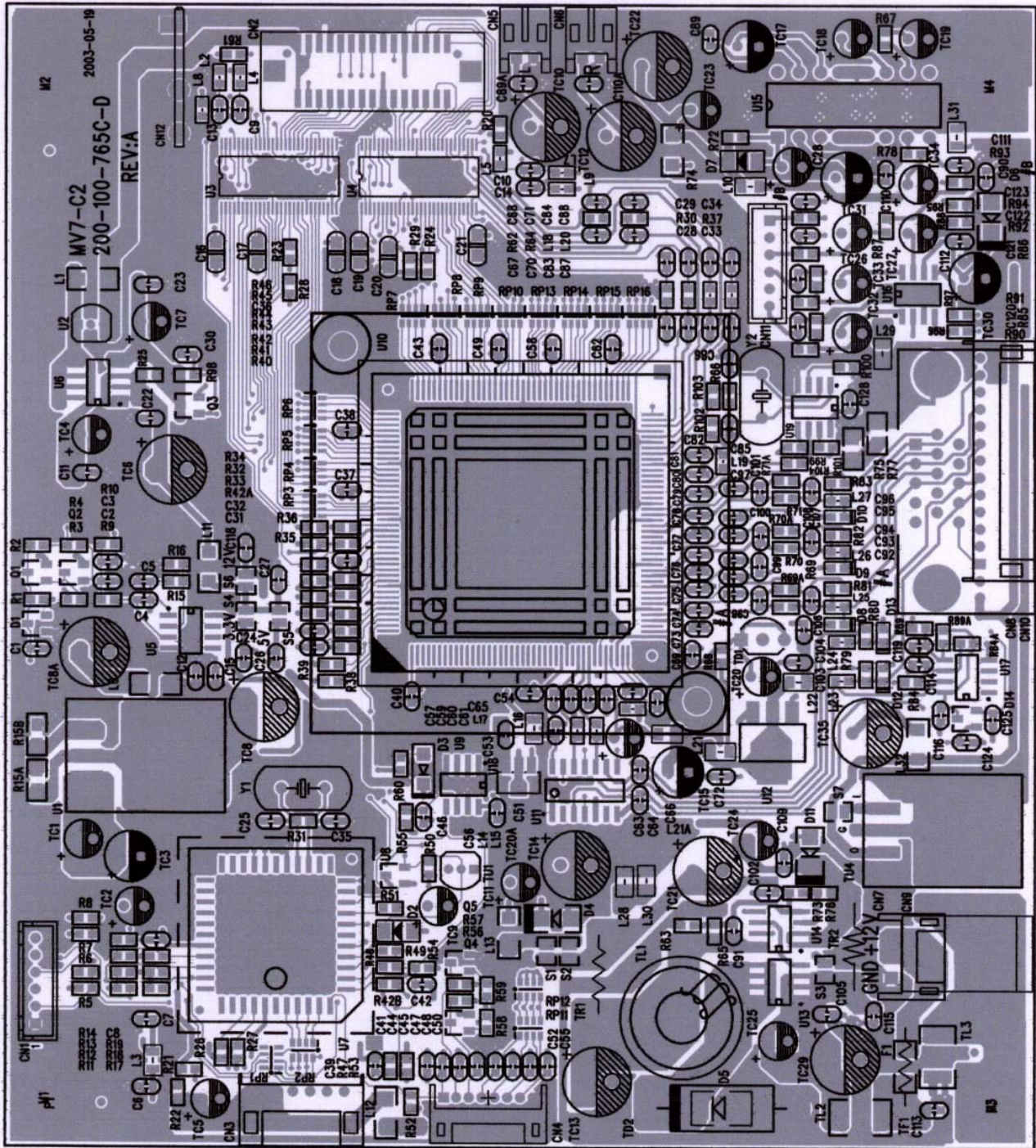
Rear panel



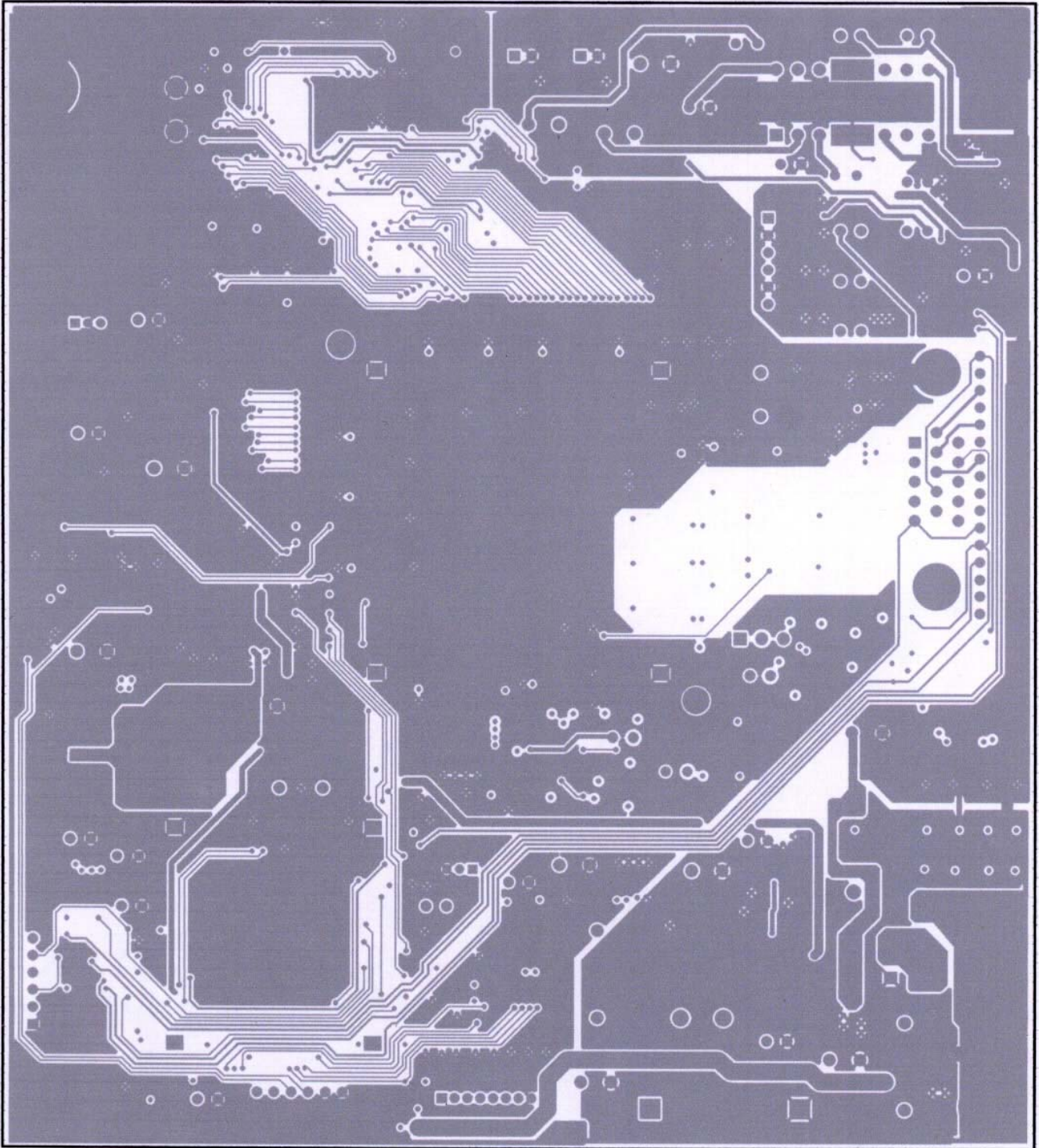
1. VGA Signal Cable
2. Power jack
3. Line in jack

E. CONDUCTION VIEW

MAIN BOARD (Component Side)



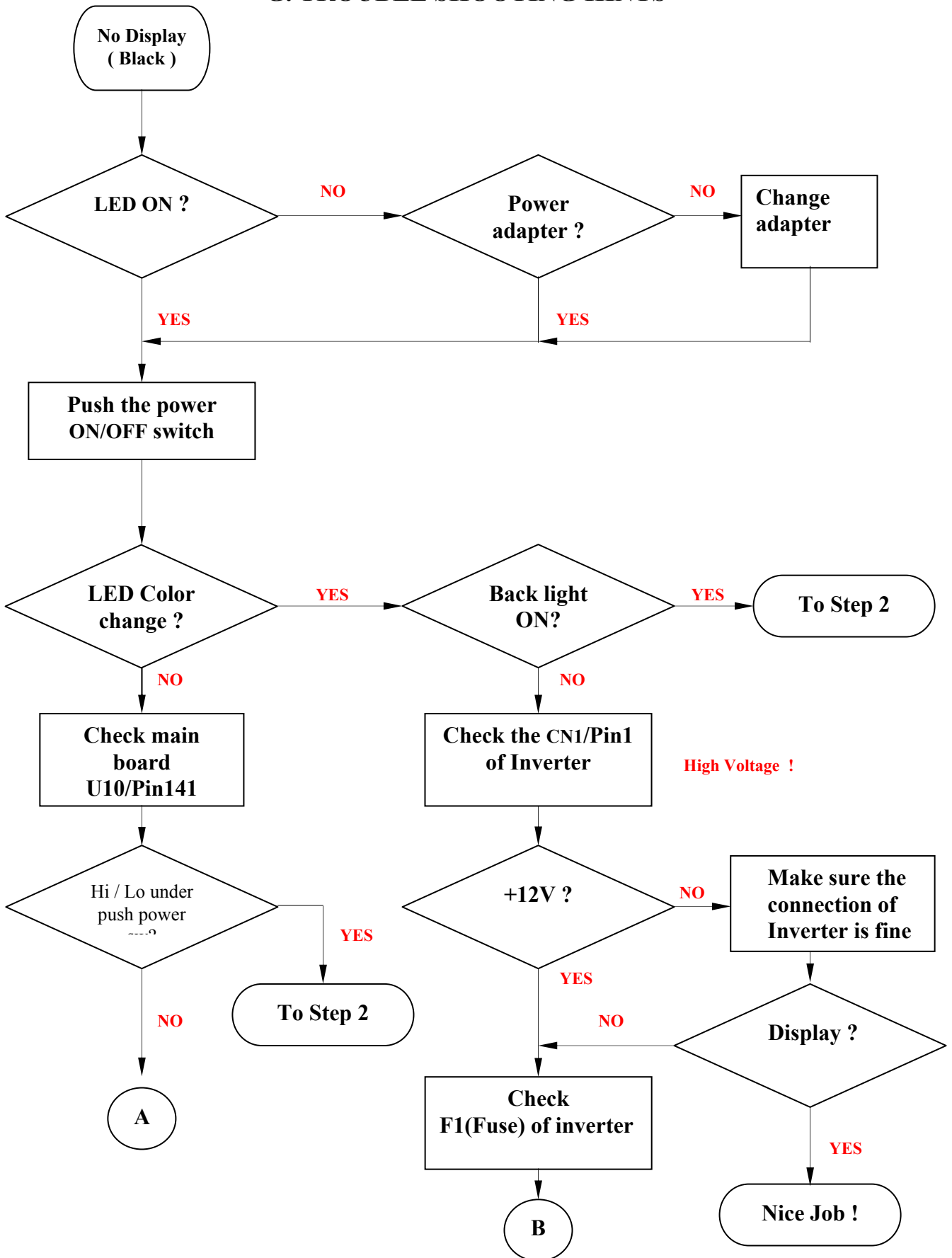
MAIN BOARD (Solid Side)

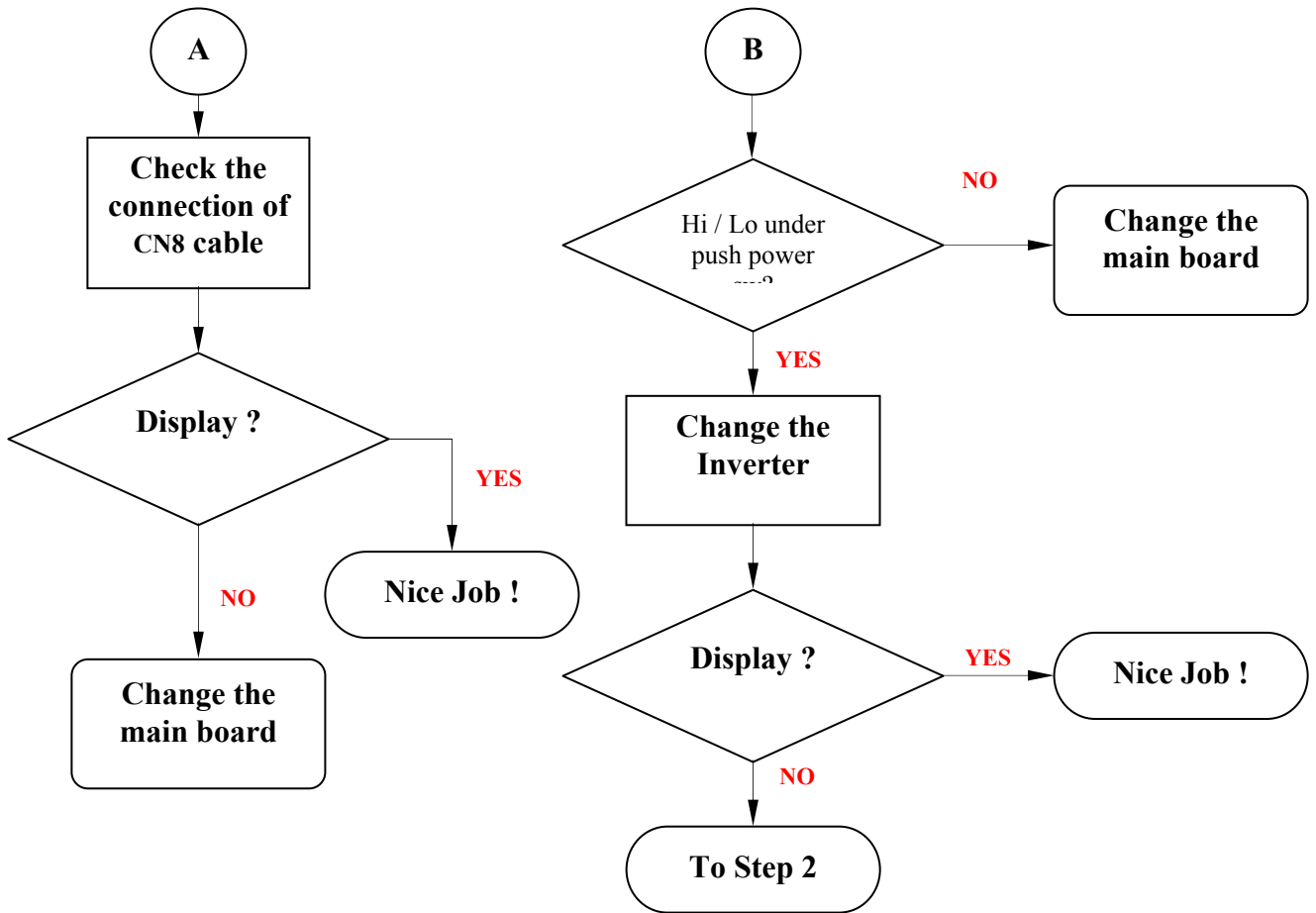


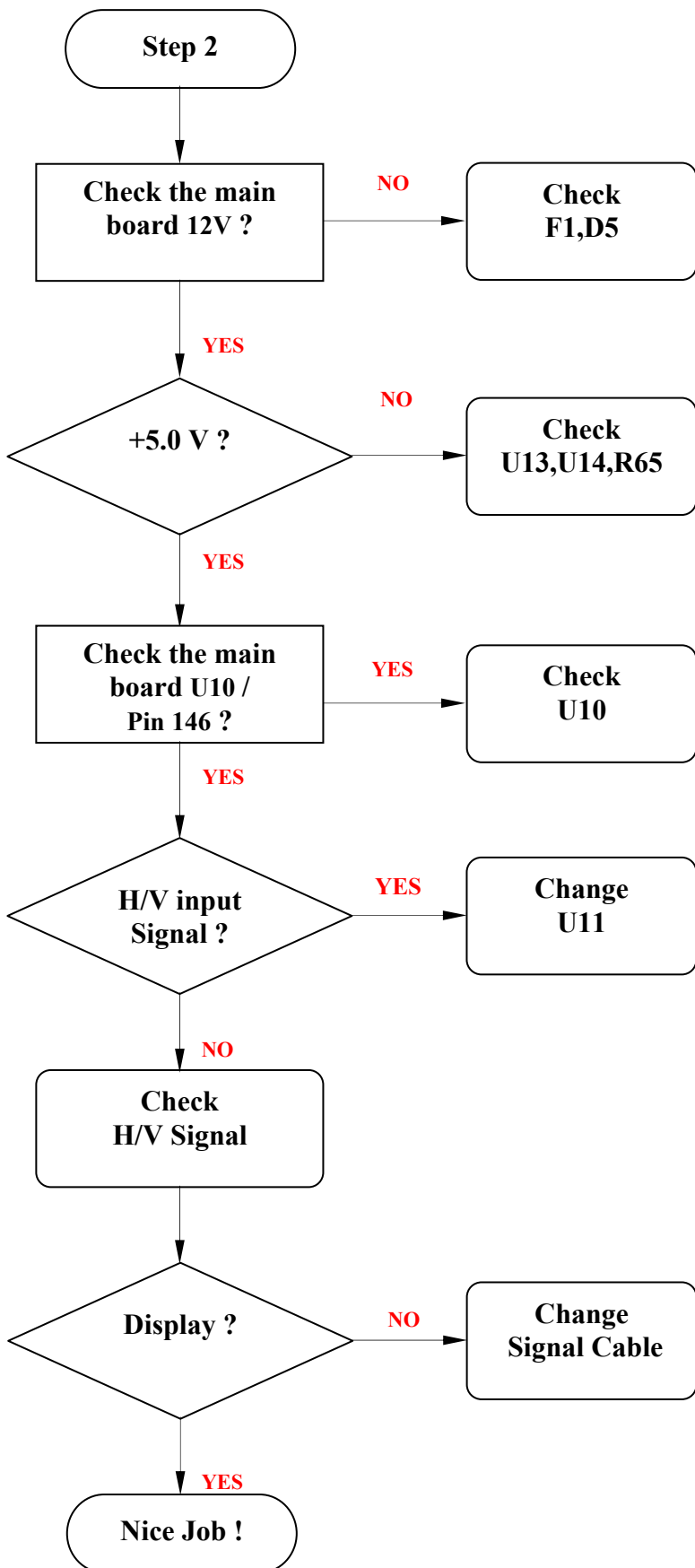
F. ADJUSTMENT PROCEDURE

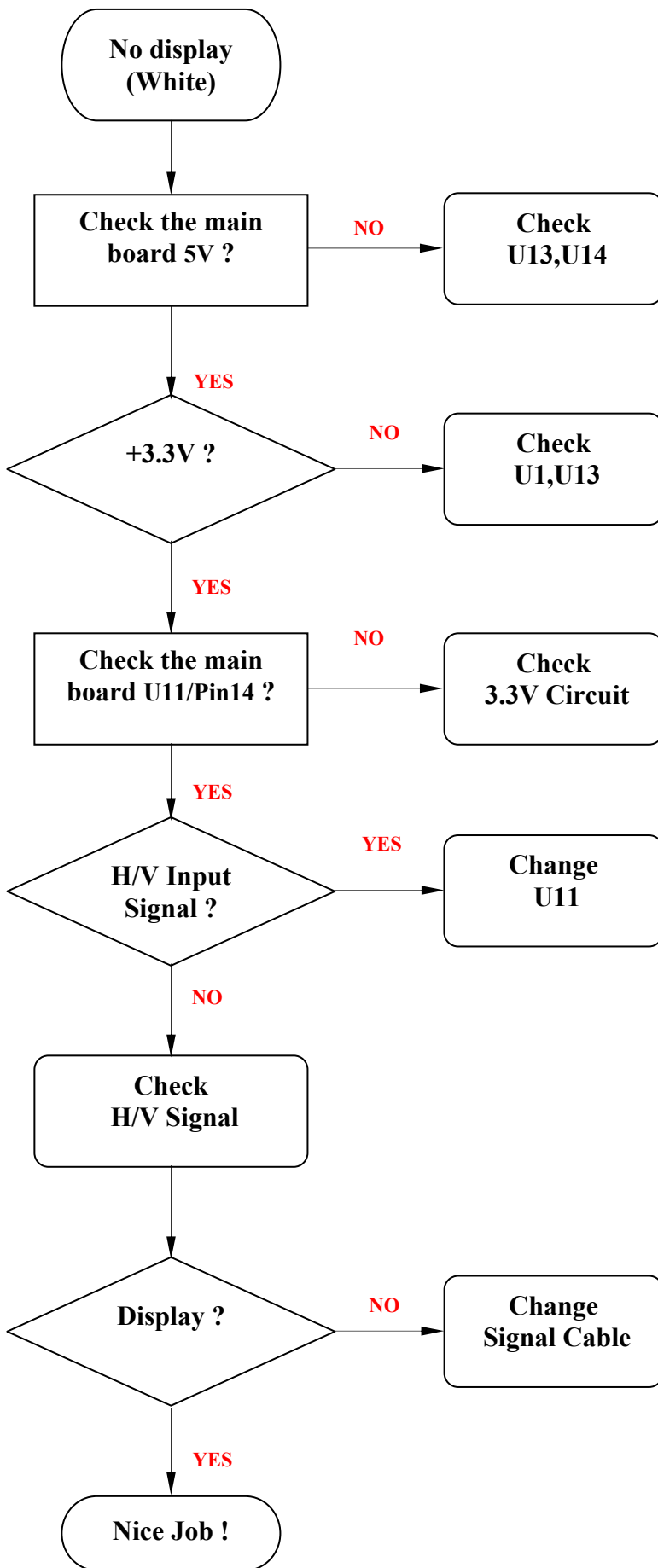
ITEM Program Menu.		# Test Meter * Test Point @ Pattern	Operation	Check Value
A	B+ Check	# Digital Voltmeter * CN7 @ Crosshatch Pattern (31.5KHz,640x480)	<ol style="list-style-type: none"> 1. Plug power cable into the adapter, check adapter power indicator light up green. 2. Make sure the voltage of 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 release the MENU knob to activate the OSD menu. 2. Move the OSD to the AUTO function, press MENU key auto adjust 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. $Y = 220 \pm 0.1FL$ $x = 0.283 \pm 0.01$ $y = 0.297 \pm 0.01$ 3. set color is 6500°K using the OSD, Check the value shown at right. $Y = 220 \pm 0.1FL$ $x = 0.313 \pm 0.01$ $y = 0.329 \pm 0.01$ 	
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. REPLACEMENT PARTS LIST

NO	Parts No.	Description	Part Location	Q'ty
1	002-001-TC09	TC099 Statement		1
2	002-001-CEPOV-B	CE Statement		1
3	002-L00-865A	User Manual		1
4	003-101-TC09	TC099 Label for Carton		1
5	005-500-965C	965 Carton	For PROVIEW Logo	1
6	153-001-TC099	TC099 Label for Panel		1
7	153-U00-0565M	Back Label		1
8	153-U00-0565	Back Label		1
9	170-005-LCD5	PE Bag		1
10	170-000-0848C	PE Bag 0.07mm 14*30.5cm		1
11	170-005-VM541	PE Bag 300*200mm		1
12	631-003-0004	Audio Cable 1650mm PC99 577C		1
13	003-002-0848-AM	Carton Label 70*40mm		1
14	003-002-0848-A	Carton Label 70*40mm		1
15	160-001-AY765	Polyfoam Stand ASM Top		1
16	160-002-AY765	Polyfoam Stand ASM Bottom		1
17	160-003-AY765	Polyfoam for Panel R		1
18	160-004-AY765	Polyfoam for Panel L		1
19	153-007-0765	Back Label (Audio)		1
20	002-G01-0567-A	Warranty card		1
21	846-120-E0AL-A	Adapter 60W 12V / 5A		1
22	631-003-A011-2C	3.5 ϕ Audio Cable 180cm		1
23	153-001-TC099	All Series TCO99 Label for Panel		1
24	170-005-LCD7	LCD PE Bag		
25	705-590-950C	CMO 19" LM190EN02-L01 LVDS		1
26	200-100-765C-B	M/B For 765C REV:A		1
27	281-031-11004	RES 110ohm +-1% 1/10W 0603 SMD		1
28	281-031-20014	SMD R 2K 1% 0603		1
29	281-031-21504	SMD R0603 215ohm 1%		1
30	281-031-68014	SMD R 6.8K 0603 1%		1
31	281-035-0R04	RES 0ohm 5% 1/10W 0603 SMD		16
32	281-035-1014	RES 100ohm 5% 1/10W 0603 SMD		3
33	281-035-1024	RES 1K 5% 1/10W 0603 SMD		4
34	281-035-1034	RES 10K 5% 1/10W 0603 SMD		18
35	281-035-1044	RES 100K 5% 1/10W 0603 SMD		6
36	281-035-1054	RES 1M 5% 1/10W 0603 SMD		1
37	281-035-1814	RES 180ohm +-5% 1/10W 0603 SMD		1
38	281-035-2224	RES 2.2K 5% 1/10W 0603 SMD		1
39	281-035-2234	RES 22K 5% 1/10W 0603 SMD		4
40	281-035-3304	RES 33ohm 5% 1/10W 0603 SMD		19
41	281-035-3314	RES 330 5% 1/10W 0603 SMD		3
42	281-035-4724	RES 4.7K 5% 1/10W 0603 SMD		6

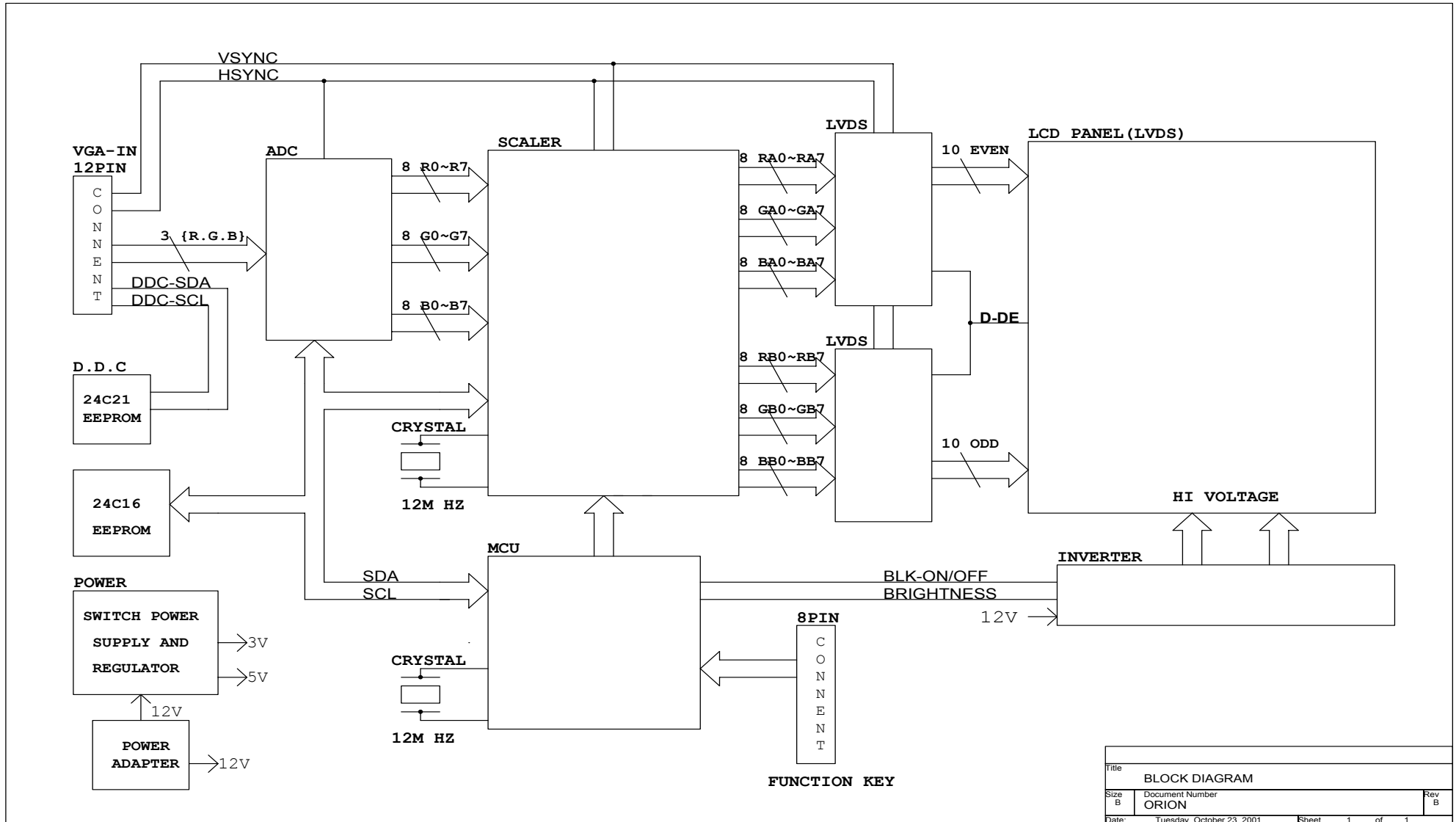
43	281-035-4734	RES 47K 5% 1/10W 0603 SMD		2
44	281-035-5114	RES 510 5% 1/10W 0603 SMD		2
45	281-035-7504	SMD R 75 ohm 0603		3
46	281-045-0R04	RES 0 ohm +-5% 1/8W 0805 SMD		5
47	281-075-1014	RES 100ohm 5% 1/4W 1206 SMD		1
48	282-103-2454	RES-NET 10Kohm 5% SMD 8P4R		1
49	282-330-2454	RES-NET 33ohm 5% SMD 8P4R		14
50	381-151-032554	SMD CC 150PF 25V NPO 0603 +-5%		1
51	381-220-032554	SMD CC 22pF 25V NPO 0603		14
52	381-221-032554	NPO 220PF/25V +-5% 0603 SMD		4
53	381-301-032554	SMD CC NPO 25V 300PF 5% 0603		1
54	382-103-032564	SMD CC 0.01uF/25V X7R 0603 +-10%		9
55	382-393-032564	SMD CC 0.039uF/25V X7R 0603		1
56	382-472-032564	Y5V 0.1u/25V +80%-20% 0603		3
57	385-104-032584	IC DC TO DC IC.AIC1578(SMD)		66
58	385-105-041684	Y5V 1uF/16V +80%-20% 0805		3
59	385-334-032584	Y5V 0.33u/25V +80%-20% 0603		2
60	481-LCC-0440	SOCKET 44PIN PLCC		1
61	506-0AI-CY33	AIC1117CY-33 3.3V 900mA SMD		1
62	506-0CS-5828	LVD (8bit 56pin)TSSOP		2
63	506-2AI-C1578	IC DC TO DC IC.AIC1578(SMD)		1
64	506-524-LC21	Memory IC 24LC21 SMD		1
65	506-5NM-24C16	24C16 SO8 Memory IC SMD		1
66	506-774-LCX14	74LCX SOIC14 HI Speed TTL SMD		1
67	506-800-358D	LM358D SO8 OP AMP IC		1
68	506-A00-2257-S	IC PT2257-S		1
69	506-RXX-7809	SMD TO263 78T09A/UTC		1
70	506-SMA-SCOTVP2	MRT Scaler IC MASCOTVP2		1
71	506-XAT-C1084	Adj. Regulator ATC1084CM TO263		1
72	518-02N-3904	NPN 2N3904S(SMD)		5
73	518-1CE-9435	MOSFET CE9435A SO8		2
74	528-2BA-T54C	SMD Diode BAT54C SOT23		1
75	528-ASZ-5248B	SMD Zener 18V PEC MMSZ5248B		1
76	528-R1N-4148	Diode 1N4148 SOT-34 SMD		1
77	529-350-09R1	Zener Diode 9.1V		1
78	558-352-5000	SMD Fuse 1206 24V 5A		1
79	630-030-B000	FTC-W30P+1.25mm		1
80	780-103-3000	SMD Bead SBK160808300Y0603 30Ω		8
81	780-103-3000B	FBM-10-160808-300T/KTNG Core		3
82	780-104-6010	FB 0805/600ohm 100mHZ		6
83	780-107-121K50	Bead 120ohm 1206 5A FBM-11		5
84	780-112-8000	SMD Bead 6A 80ohm 1812		1
85	281-035-1224	RES 1.2K 5% 1/10W 0603 SMD		1
86	381-681-032554	SMD CC 680PF25V NPO 0603 +-5%		1

87	506-XXP-2781	IC P2781/Pules Core SOIC-8		1
88	381-682-032564	SMD CAP 6800PF 25V NPO 0603		1
89	281-035-2204	RES 22ohm 5% 1/10W 0603 SMD		1
90	003-H03-ALL9	All ICT OK Label 8*8MM(White)		1
91	851-00M-AY765-S2	MRT VP2 M/B FPR 765 DIP For EMI		1
92	120-001-M780	LCD BM780IC 296Pin		1
93	210-330-0256	R-CF. 33 ohm 1/2W +-5%		1
94	531-110-49US	11.0592MHZ HC 49US Crystal		1
95	531-120-49US	12MHZ HC 49US CRYSTAL 30PPM		1
96	630-002-1008	Base 2pin JWT A2001 PITCH=2mm		2
97	630-008-C001	JST 1.5mm Header ZR S8B-ZR		1
98	745-330-2072	Choke 5A 33uH 20%		1
99	409-001-0201	DC Power Jack		1
100	409-005-1101	Phone Jack SCJ-374R5*2		1
101	630-006-1008	JWT A2001 PITCH 2.00mm		1
102	630-006-1009	Base 6P		1
103	630-015-1001	HI DEN R/A 15PIN		1
104	200-K01-AU01	Phone Jack Board		1
105	151-001-C7Y30	Rear Cabinet 532C Audio		1
106	121-005-AY765-A	Audio Brackey		1
107	123-005-AY765	Shield Cover T=0.3mm		1
108	100-006-3062	Screw R3*6mm TP+ISO		6
109	100-008-3012	Screw R3*8mm TP1.		2
110	107-008-3032	B M3xL8		4
111	107-008-3073	B 3*8 TP4		2
112	151-A00-C8A54	Glass 877C		1
113	154-016-AY565-A	Cover OSD Knob 532C		1
114	154-012-AY565	OSD Knob 5326 ABS HB		1
115	154-03R-Y8A54-A	Decoration Net R		1
116	154-03L-Y8A54-A	Decoration Net L		1
117	154-002-AY565-A	Knob OSD D4 AV/TV		1
118	154-007-AY566	R/C Tuner Module Cover 532C		1
119	610-151-15TM-2	Signal cable 1.5M UL20276	White Color	1
120	600-151-0400	Power cord,150cm,	Black Color	
121	151-707-AY565	Stand Front Cover 5326 H		1
122	110-3R0-20644	Screw M3*H6*Φ5.0mm		2
123	110-3R0-20641	Screw 4.6*4 M3.0mm		1
124	151-710-AY765	Stand Base 532C		1
125	151-711-AY765	Stand Base Cover 532C		1
126	151-704-AY765	AY765 Stand Base Cover		1
127	151-717-AY565	Stand Front Cover (532C)		1
128	151-718-AY565	Stand Rear Cover (532C)		1
129	154-015-AY565	Cover Code 532C		1
130	101-005-3033	Screw M3*5		10

131	106-010-3073	Screw M3*10 TP4	5
132	107-006-3032	LT380M B M3xL6	3
133	108-S10-4032	B/WS M4*10 ISO	4
134	111-014-0200	Rubber Washer 20*7*2.5	4
135	121-002-AY565	Bracket Rotate T:3	1
136	121-003-AY565	Bracket Rotate SPCC T:3mm	1
137	123-004-AY765	Base Cover SECC T=3.0mm	1
138	126-014-AY765	AY765 Hinge T=1.5	1
139	003-H01-LCD	LCD CPU Label 15mmx15mm	1
140	104-006-3032	Screw R/W3*6mm ISO. 79203061	1
141	105-008-3012	Screw T3*8mm TP1	5
142	105-010-3013	T 3*10 TP1	2
143	107-010-3073	B 3*10 TP4	10
144	103-006-3033A	Screw F3*6	2
145	123-004-AY865A-D	LCD Frame LG/SANYO	1
146	121-001-AY865-A	Rear Bracket AV/TV SECC	1
147	126-016-ALP9	Aluminum foil L300*W30mm	2
148	126-030-ALP7	Aluminum foil W30*L900mm	2
149	126-030-ALP1	Aluminum foil 80*16mm	2
150	126-030-ALP3	Aluminum foil 120*30mm	4
151	126-020-ALP2	Aluminum foil L300*W20mm	2
152	131-030-2120	D -sub screw	2
153	506-1SM-89516	SYNCMOS SM89516C25J 44Pin PLCC	1
154	631-006-7013C	SIRE HARDNESS 6PIN 2.0 190mm+ Core	1
155	631-006-7014-T	AY865 100mm 2.0 24AWG	1
156	631-008-G005-WA	AY765 260mm Core+Braid & GND	1
157	650-003-0081	Cable Tie ALT-0.85S	1
158	650-004-1231	PRO98 Cable Tie 4.0*123mm	1
159	824-003-AY765L	Speaker Box 20*40 2W 8ohm.(L)	1
160	824-003-AY765R	Speaker Box 20*40 2W 8ohm.(R)	1
161	760-300-0026	LCD Ferrite Core K5A 16*5*9mm	2
162	831-B10-0300	Conductor pad 10*20mm	3
163	831-B15-0300	Conductor pad L20*W15*H15mm	7
164	831-B105-0306	Conductor pad L20*W10*H5mm	1
165	200-701-AY565	MAG AY565 Key Board	1
166	401-170-0200	Tact Switch HOR (H=5mm)	5
167	520-005-5302	LT5302 23 DIP	1
168	630-008-C001	JST 1.5mm Header ZR	1
169	232-R01-505T	DIP WR-C-5W 0.010ohm 5%	1
170	330-100-16275	EC 10uF 16V H7mm	10
171	330-100-25275	EC. 10uF/25V Elec.radial 5*7	1
172	330-101-16275	EC.100uF/16V Elec.radial 6*7	5
173	330-102-06205	MINI EC 1000uF/6.3V TP SK	1
174	330-220-16275	EC. 22uF/16V Elec.radial 5*11	2

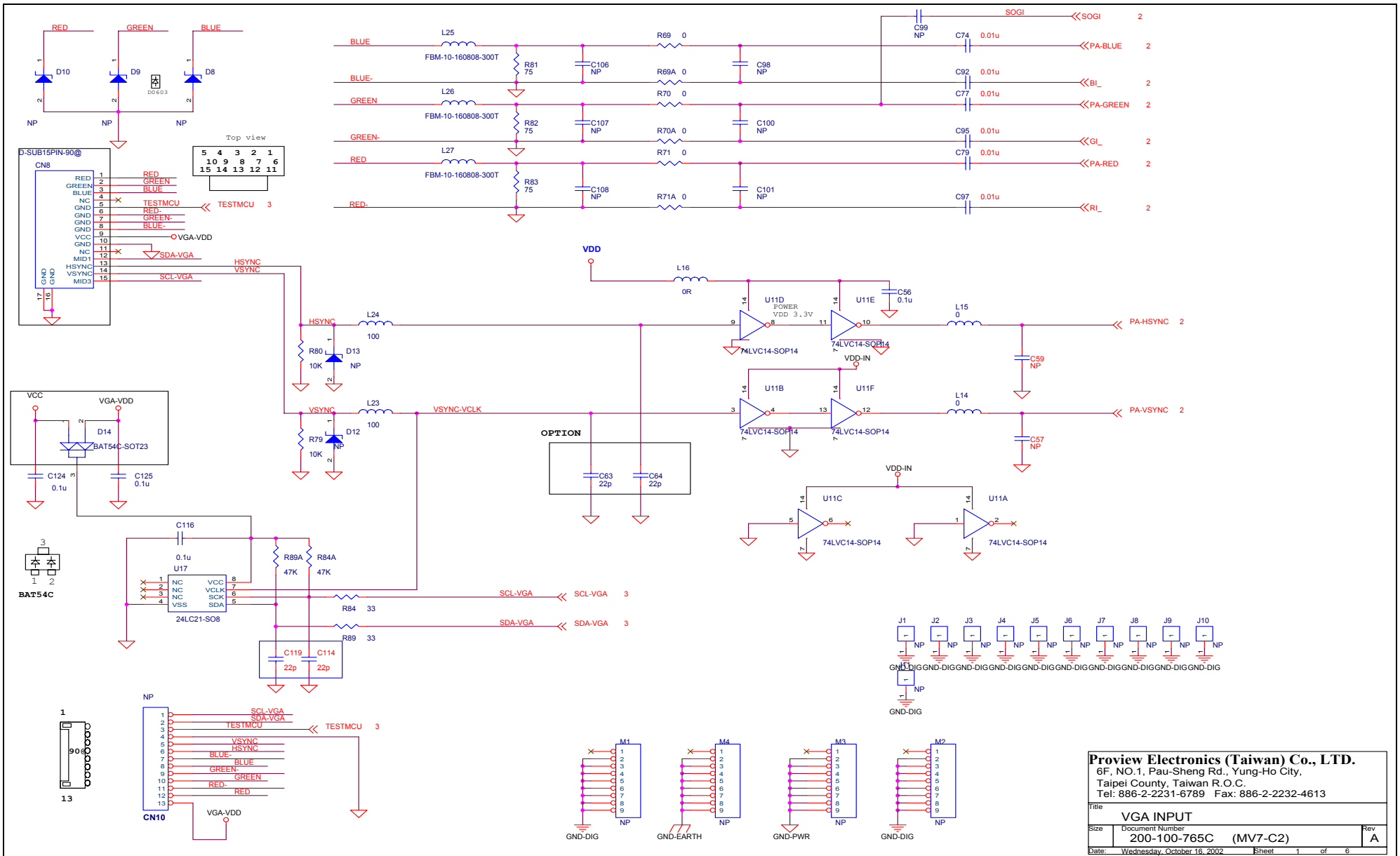
175	330-220-25275	E.CAP 22UF/25V 6X7mm 105C		2
176	330-470-16275	EC. 47uF/16V Elec.radial 5*7		3
177	330-471-16205	E.CAP 470UF/16V +-20% 105C		9
178	504-000-MCP101	Reset IC MCP101-450HI/TO TO92		1
179	504-A00-8227	Audio AMT IC TA8227P/UTC		1
180	520-007-L431	Diode TL431CLP TC92		1
181	522-030-B340-T	SCHTTKY SB340 T		1

I. BLOCK DIAGRAM



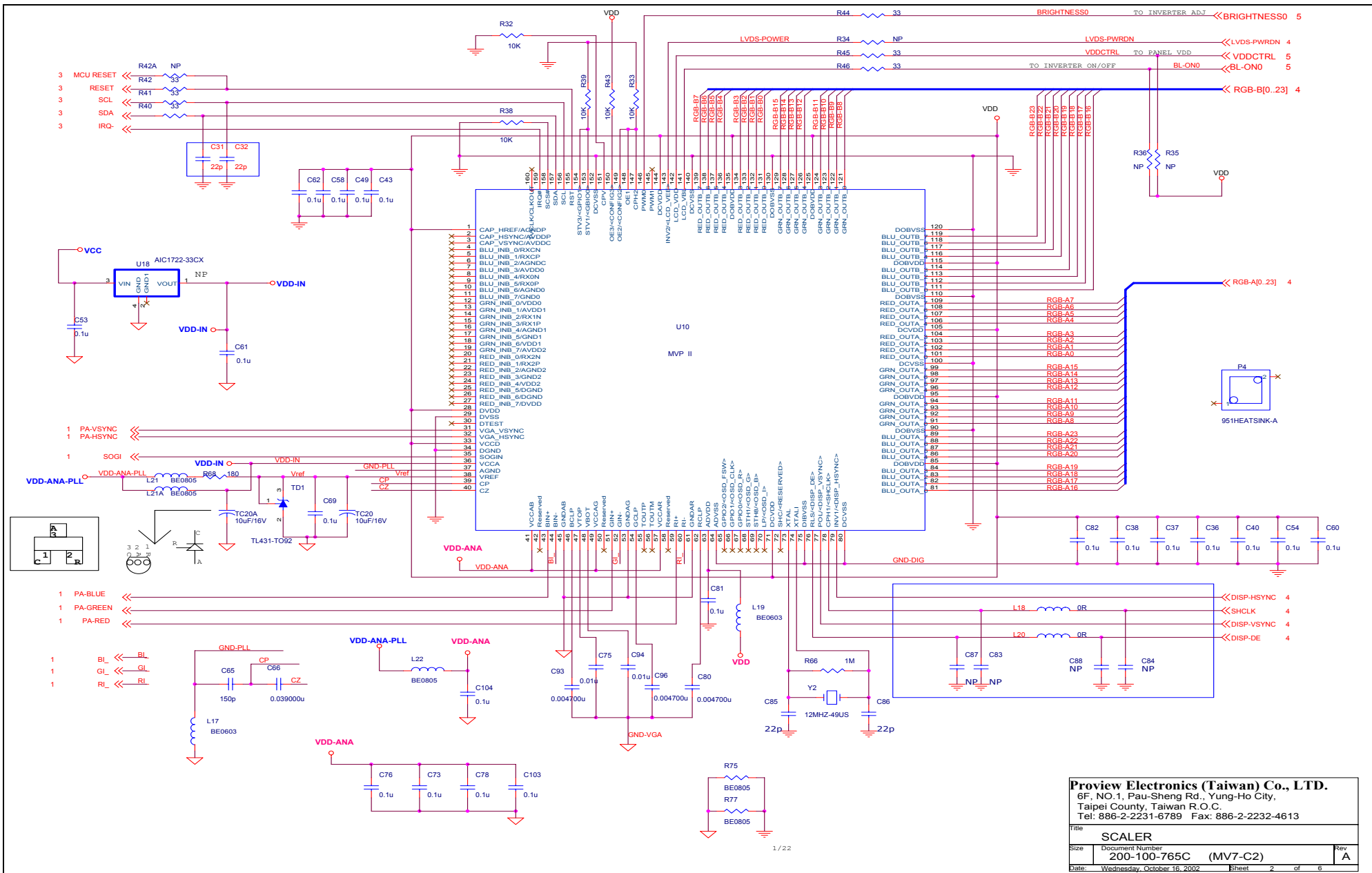
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Size	Document Number	Rev
B	ORION	B
Date:	Tuesday, October 23, 2001	Sheet 1 of 1

J. SCHEMATIC DIAGRAM



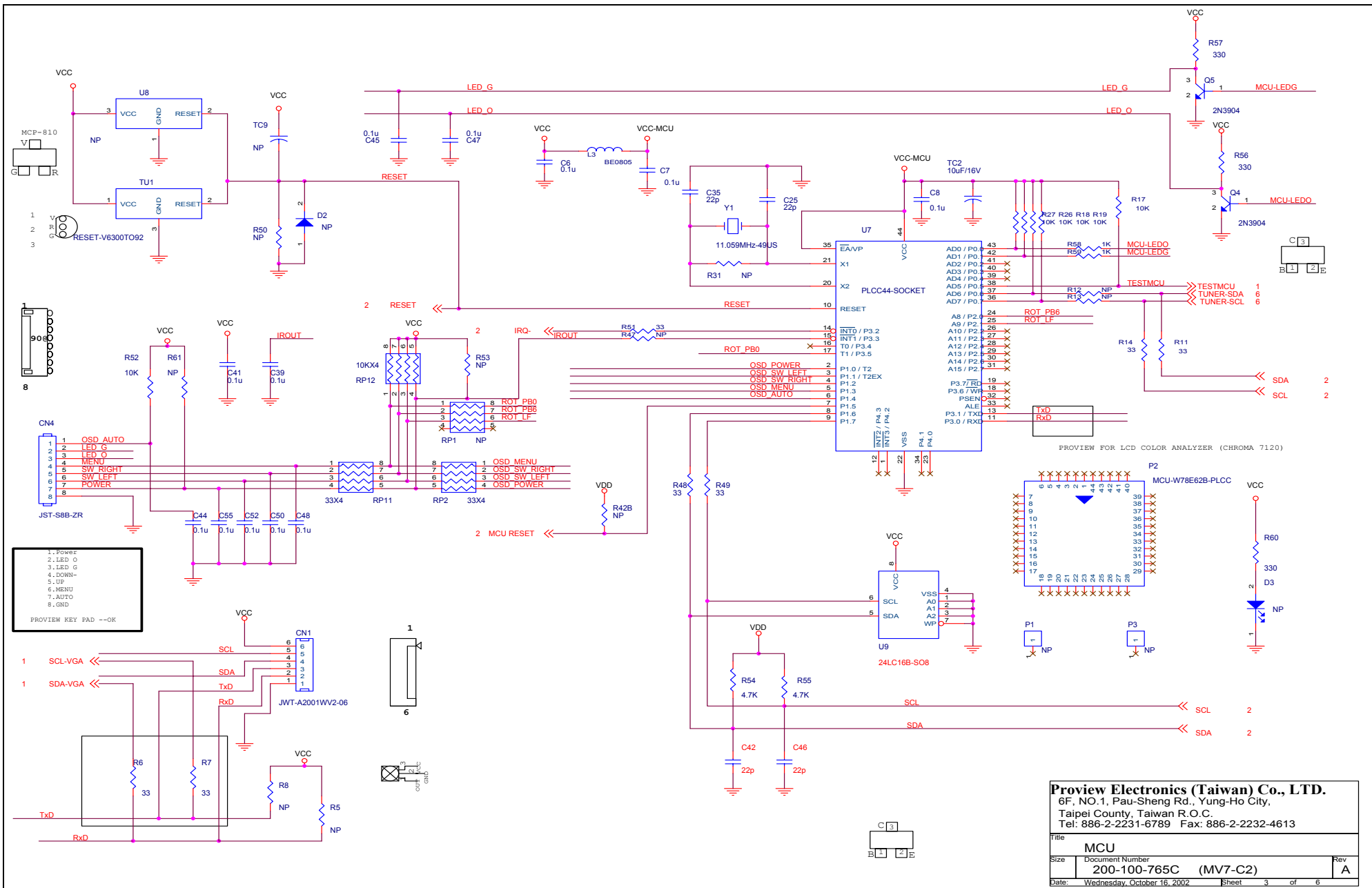
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 Taipei County, Taiwan R.O.C.
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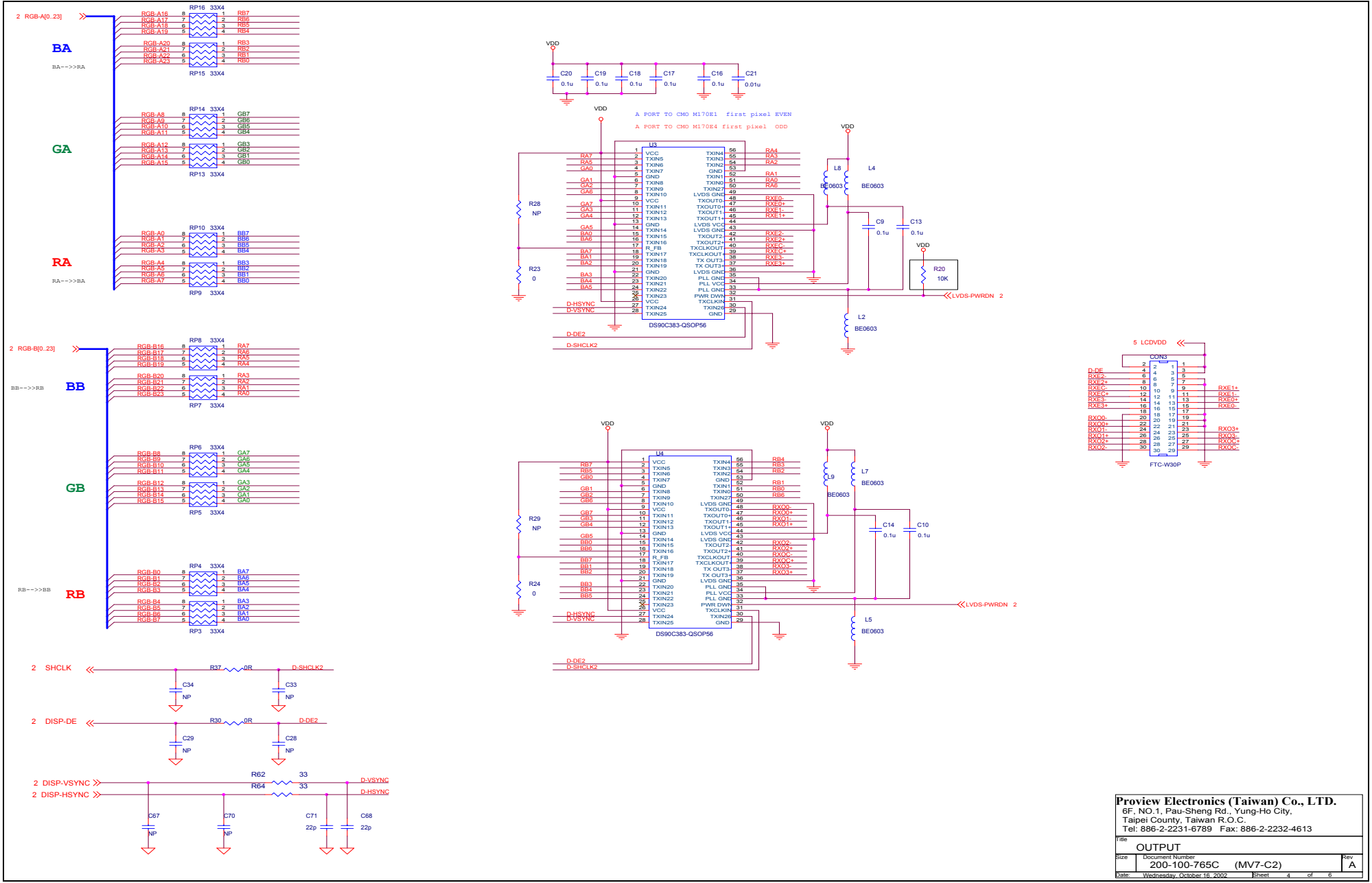
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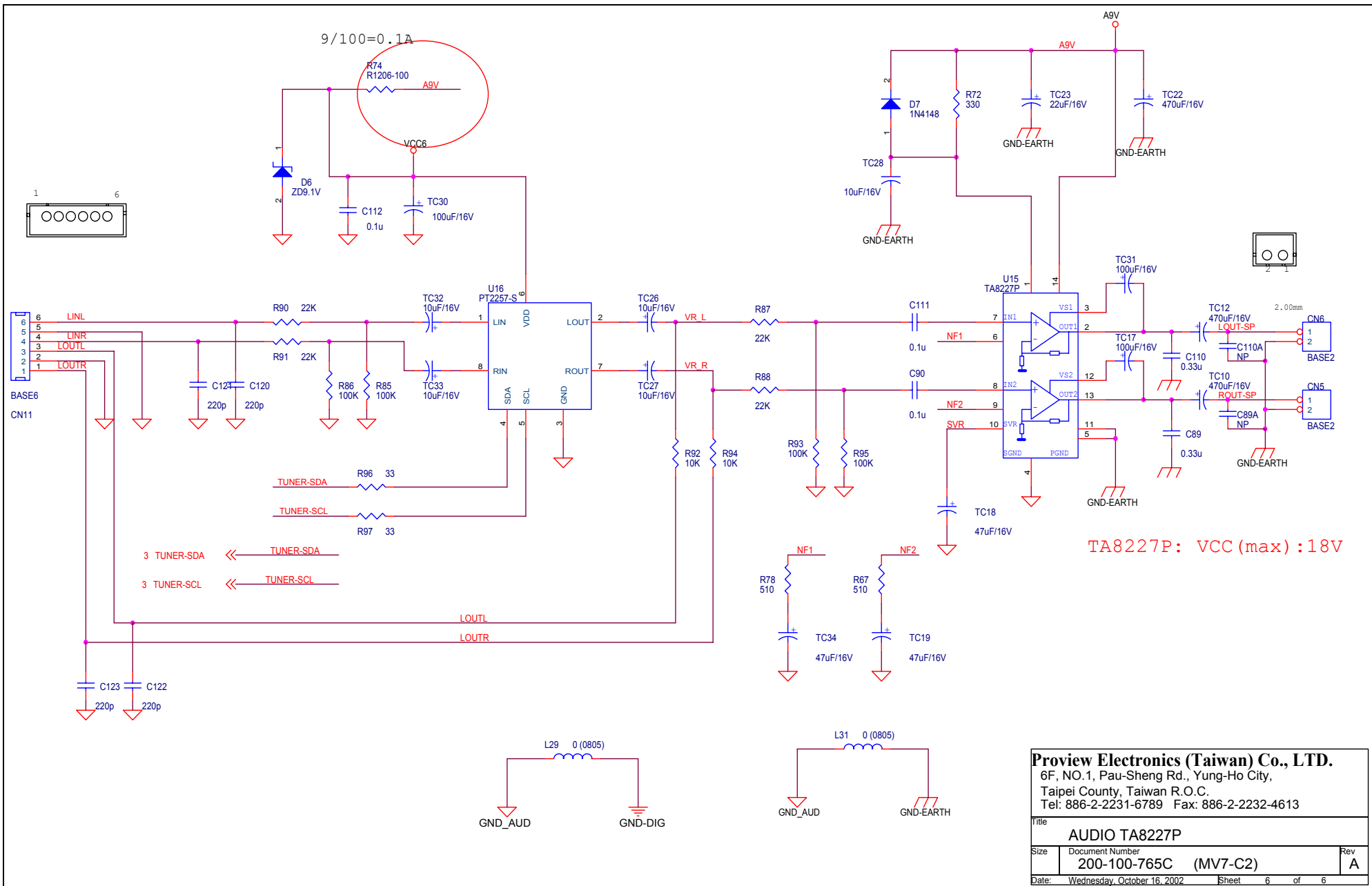
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	200-100-765C (MV7-C2)	A

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