

Service *Manual*

MODEL: PBM 8.250/500



www.proaudio.com

Version 1.0

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1. Introduction

The PBM8.250/500 is professional, powerful mixer, which provides the state of the art digital amplifier technology specifically. You will get the smooth, accurate more natural and open sound from this apparatus, it is really ideal for large gigs, recording and fixed PA installations.

The PBM8.250/500 8-channel stereo powered mixer with DSP is packed with some key features. For example: there is six MIC/line inputs which provided with ultra low noise microphone pre-amplifiers and phantom power at +48V plus two stereo inputs, each of them features a 3-band equalizer, two AUX sends, pan and level control. The master section includes stereo return, 2-track input/output for playing back stereo devices for recording your mix, sweet equalizers for main and monitor, 256 position multi-effect and built-in feedback terminator and so on.

2. Specifications

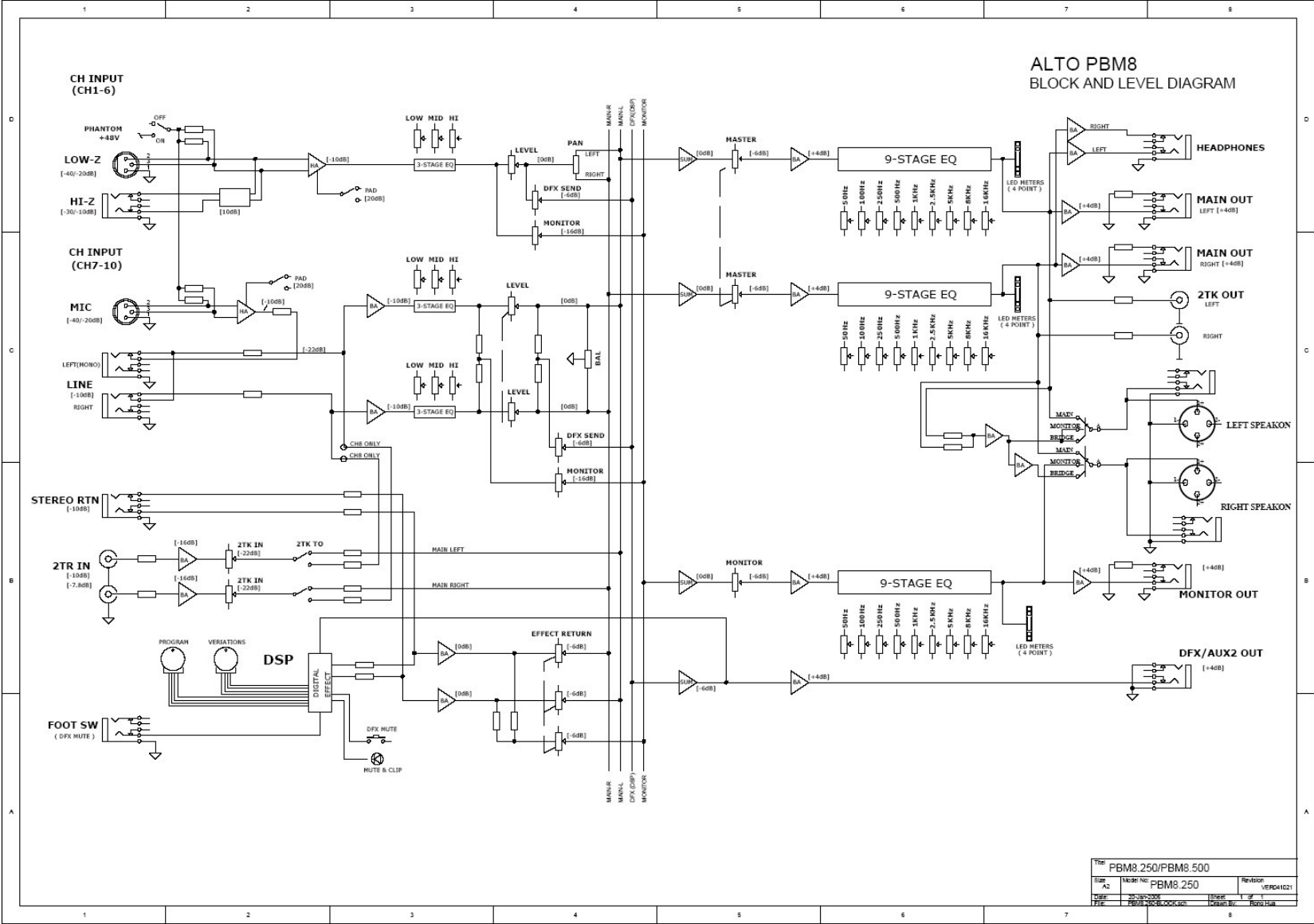
Features: (MODEL NO:PBM8.250)

- 2X250 Watts at 4 Ohms RMS EIAJ
- One stereo and one mono graphic EQ
- Digital effects with 256 effects
- Feedback locator on both MAIN and MONITOR output
- 8 XLR inputs with 48 Volt phantom power
- One tape input channel assign-able to MAIN or to CH9-10
- Each channel has 3-band EQ, one monitor, one effect send, one line, and one XLR input
- Two stereo channels
- Stereo or Monitor/Main mode
- RCA L/R tape in and L/R tape out

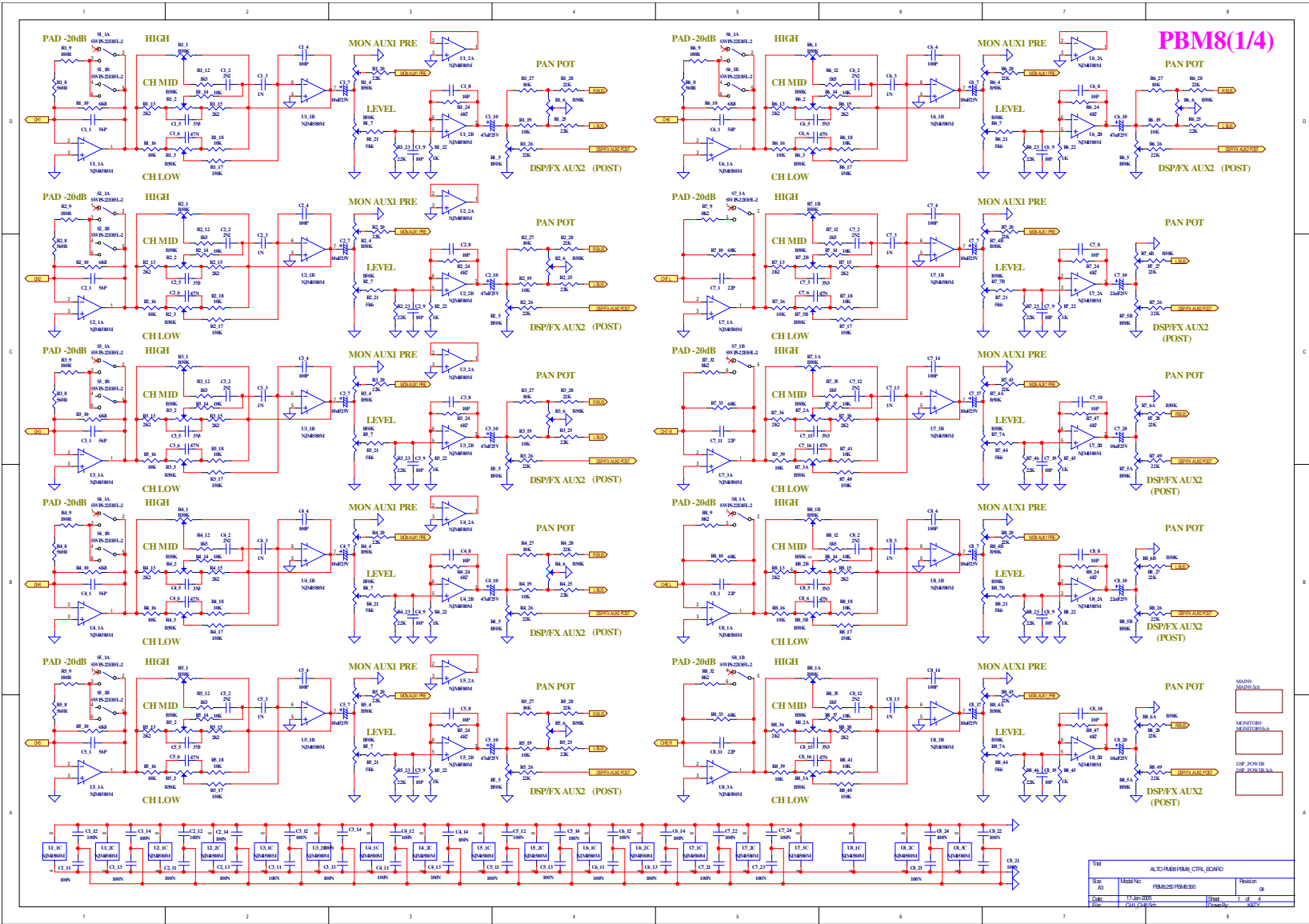
Features: (MODEL NO:PBM8.500)

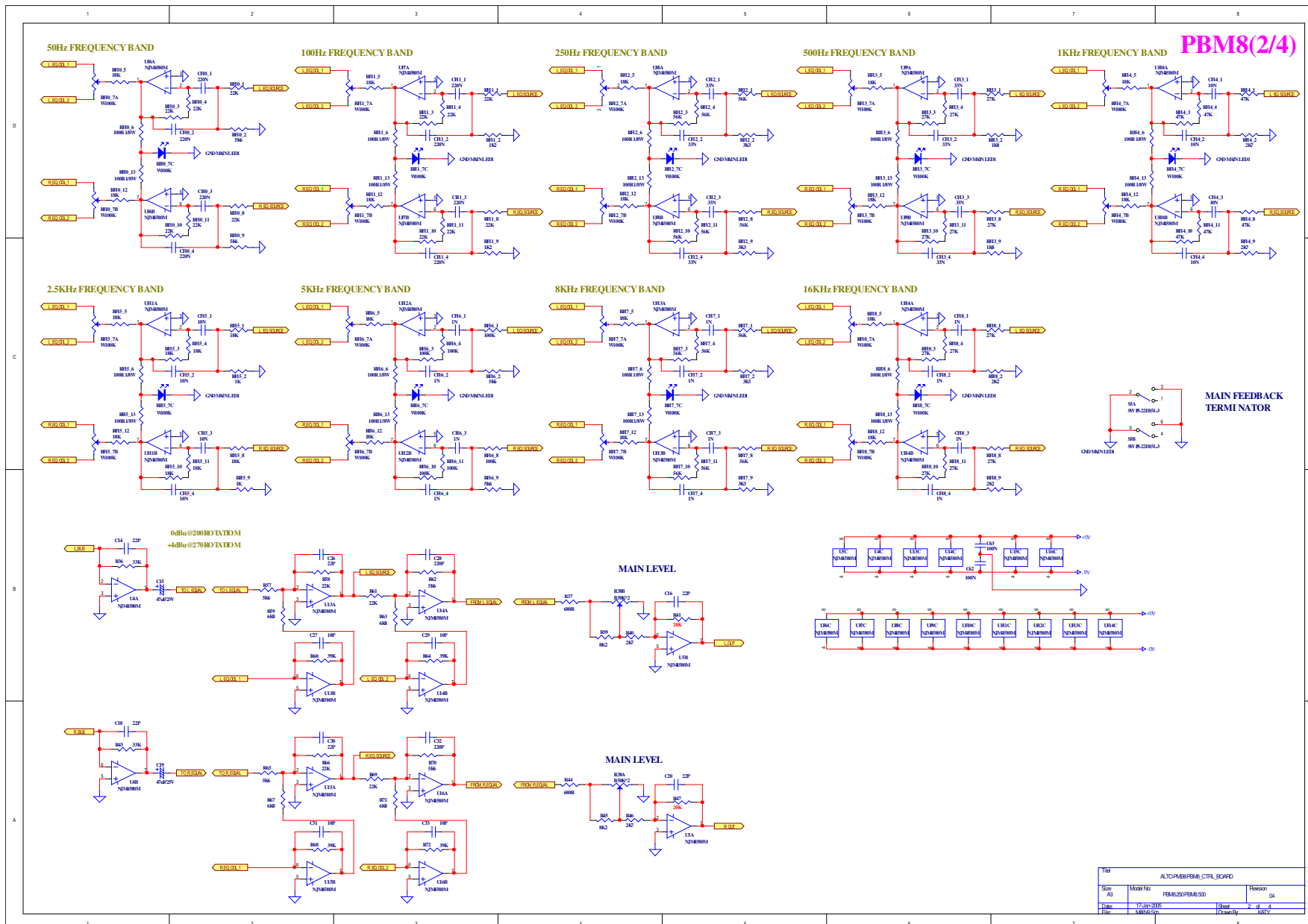
- 2X500 Watts at 4 Ohms RMS EIAJ
- One stereo and one mono graphic EQ
- Digital effects with 256 effects
- Feedback locator on both MAIN and MONITOR output
- 8 XLR inputs with 48 Volt phantom power
- One tape input channel assign-able to MAIN or to CH9-10
- Each channel has 3-band EQ, one monitor, one effect send, one line, and one XLR input
- Two stereo channels
- Stereo or Monitor/Main mode
- RCA L/R tape in and L/R tape out

3. Block Diagram



4. Schematic Diagram

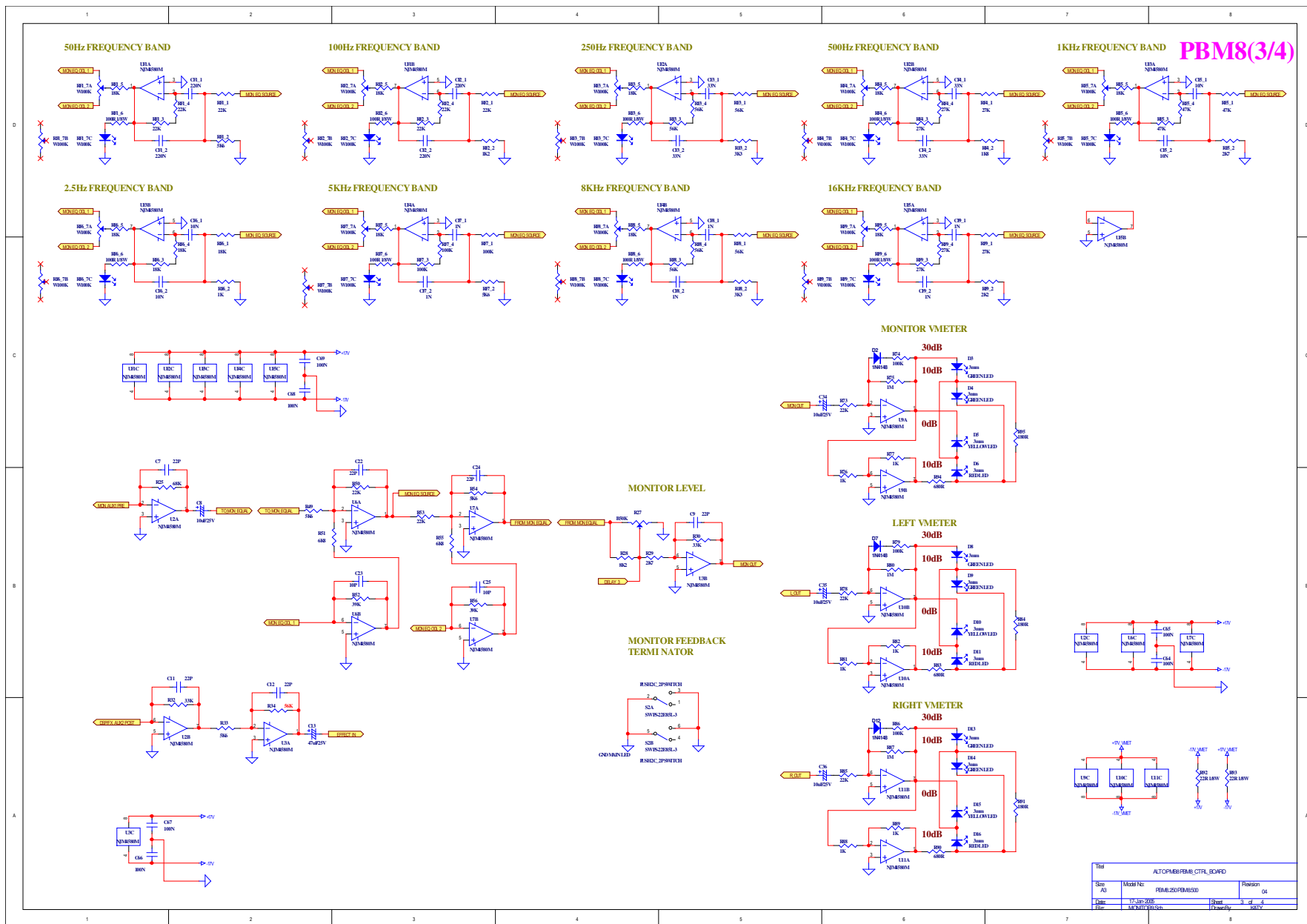




PBM8(2/4)

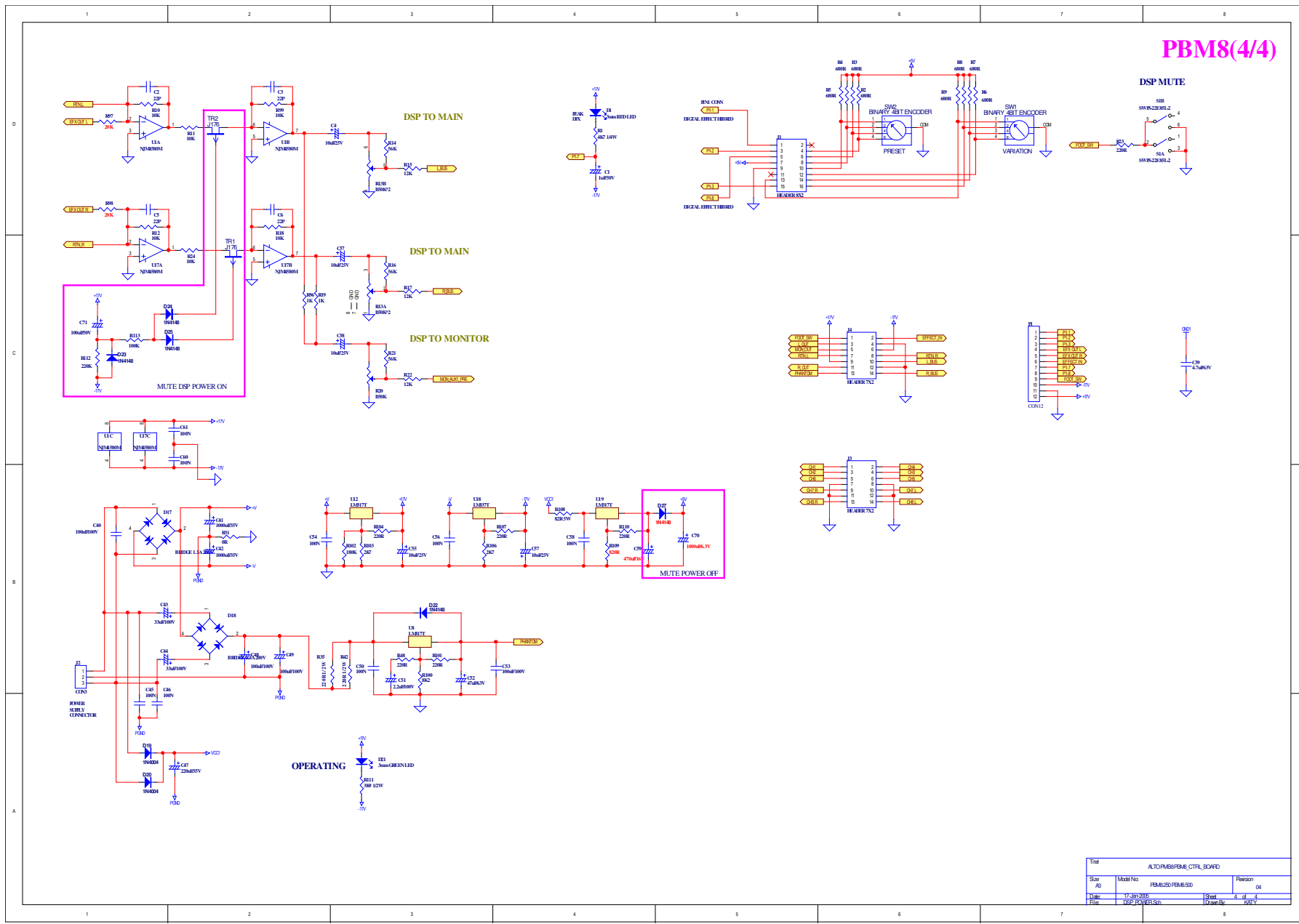
MAIN FEEDBACK TERMINATOR

Title				ALTO PBM8 PFM_CTRL_BOARD				
Sheet	AC	Module No	PBM820PFM8.00				Revision	04
Date	17/07/2005	Drawn	2 of 4				Checked	
File	ALTO0505	Project No	5000					



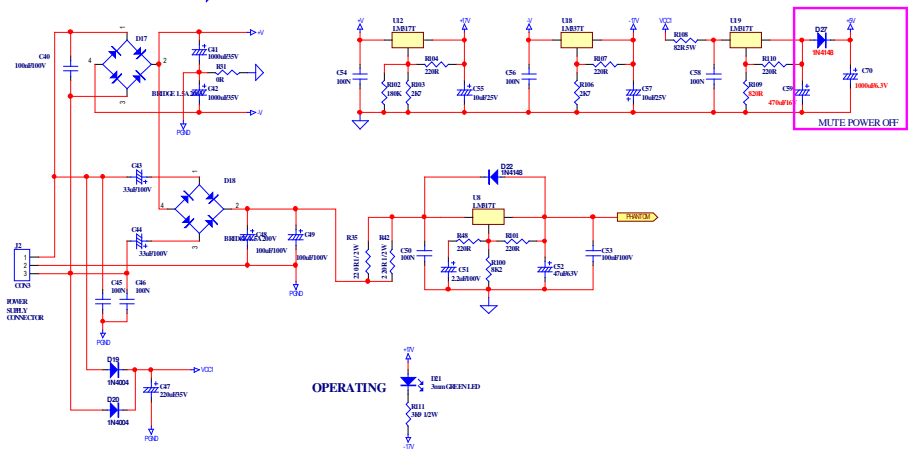
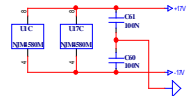
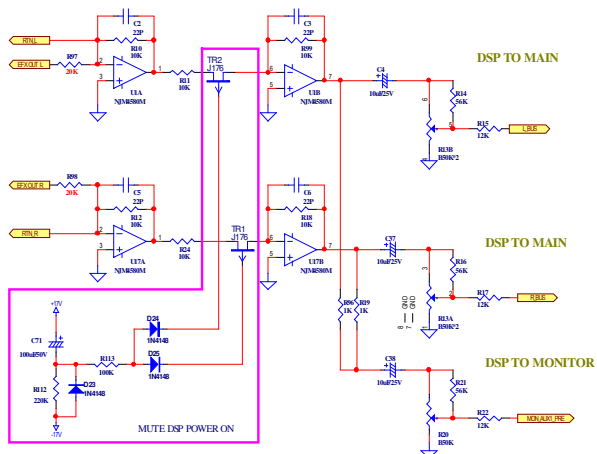
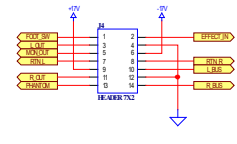
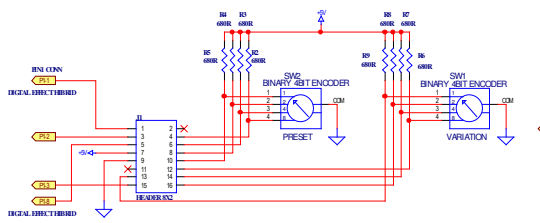
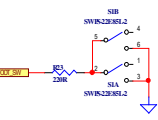
PBM8(3/4)

Title			
ALTOPMBI FEM1 CTRL BOARD			
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01	01	FEM1.001	01
Date	11/15/2008	Drawn	3 of 3
Doc	1000010001	Assembly	01/11

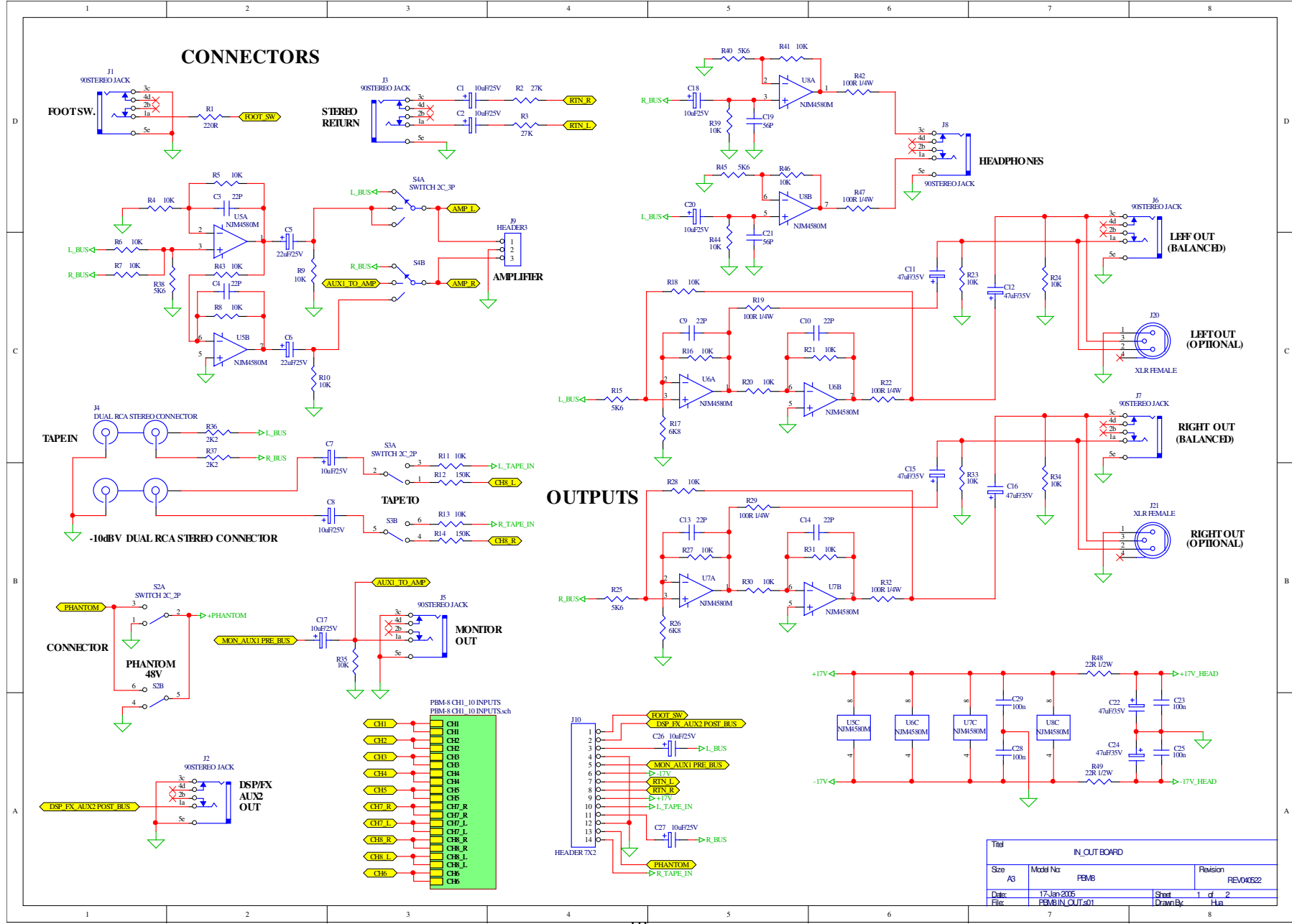


PBM8(4/4)

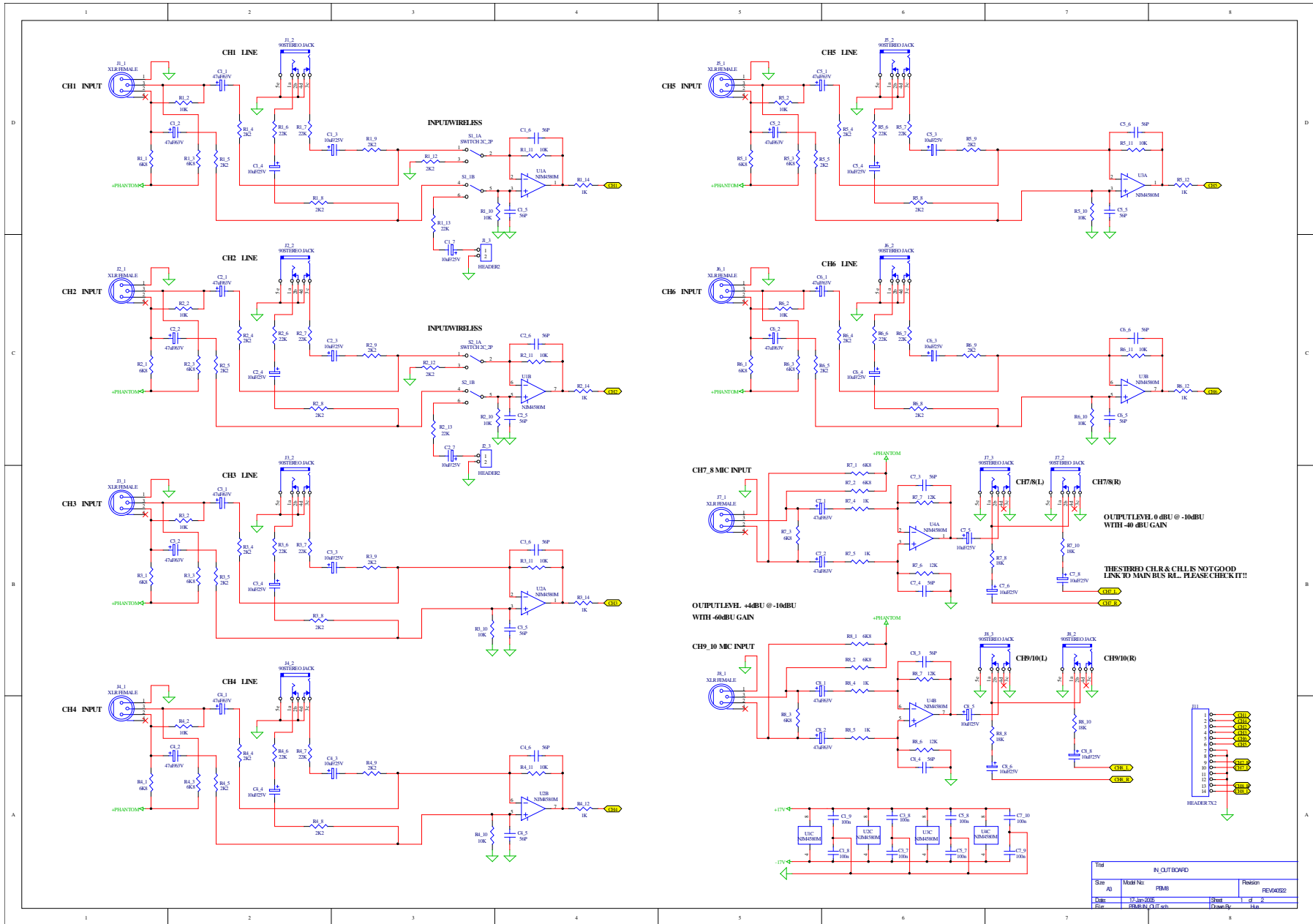
DSP MUTE

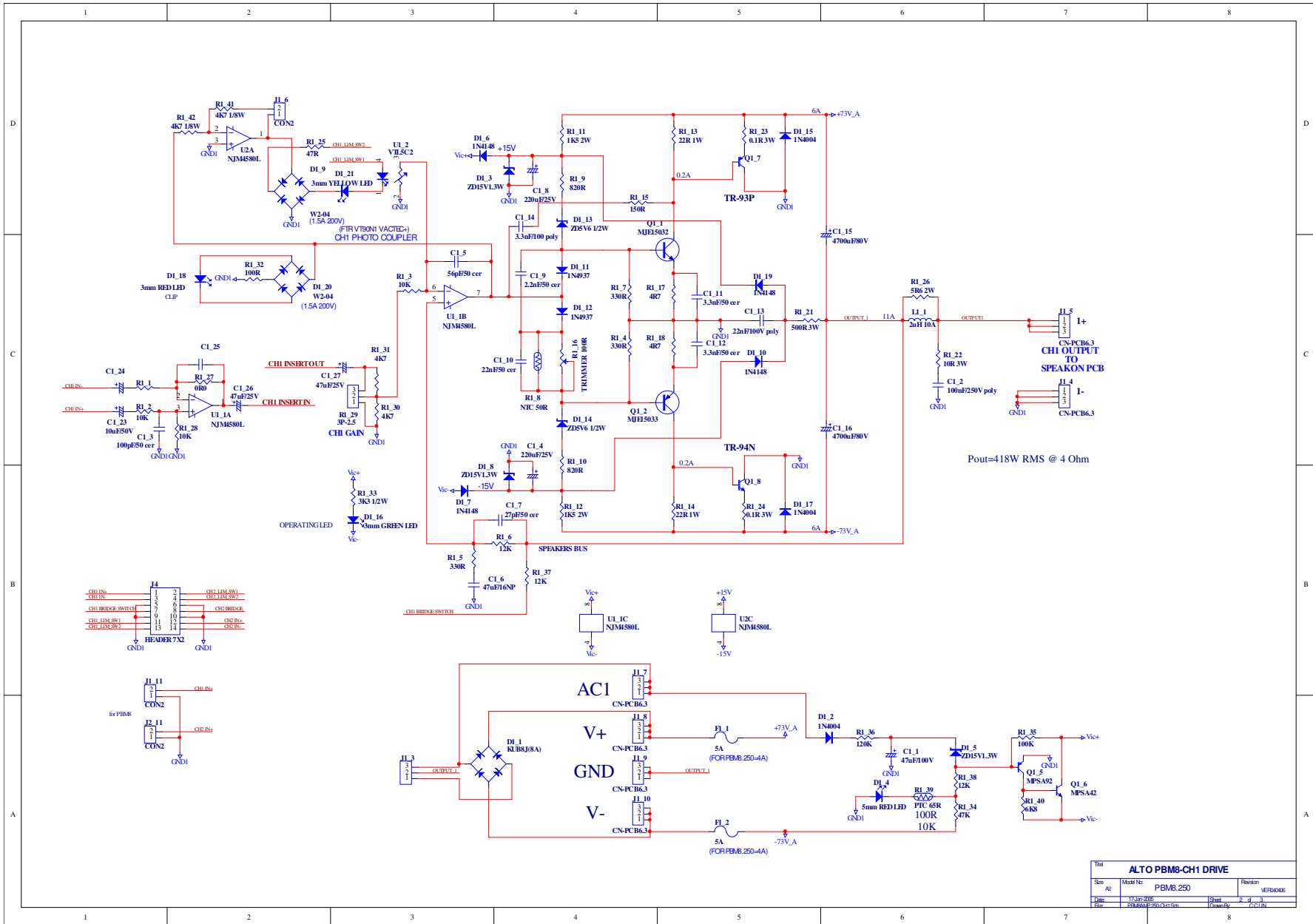


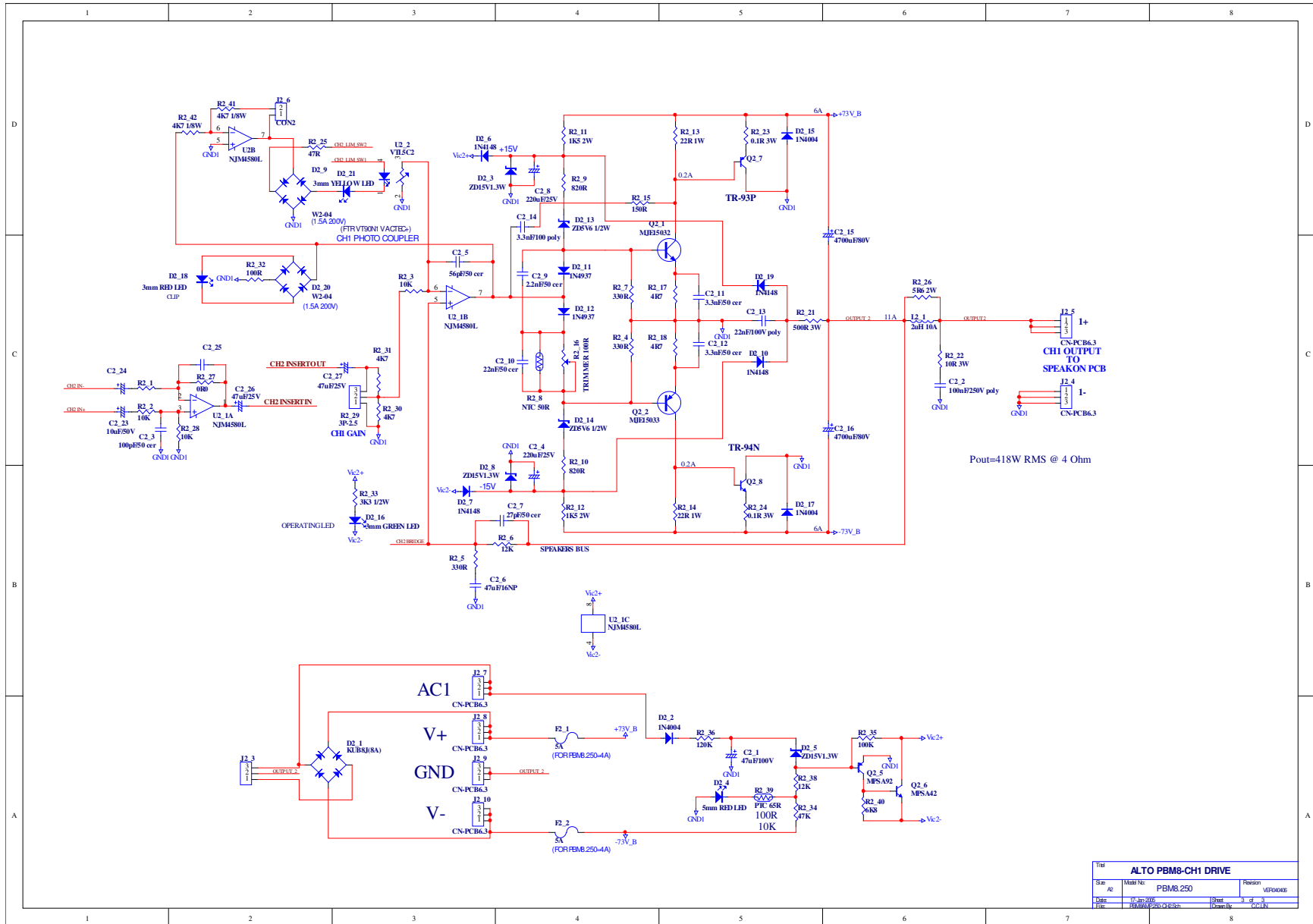
Title			
ALTOPE8/PBM8_CTRL_BOARD			
Sta	Modl No	Revision	04
AG	PBM8(4/4)		
Doc	C:\P2010	Sheet	4 of 6
File	DSP_POWER.Sh	Drawn By	WV



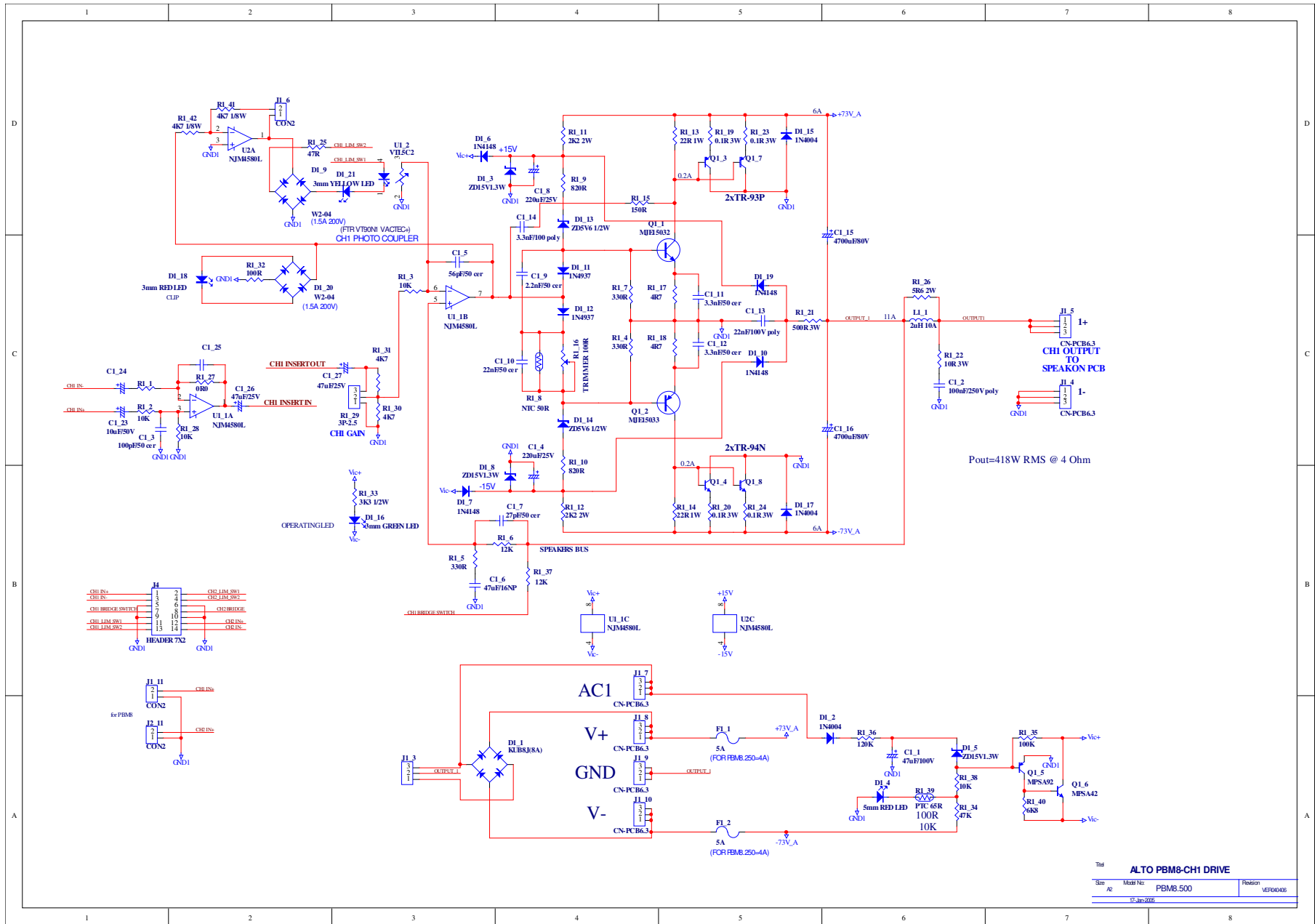
IN_OUT BOARD		
Size	Model No.	Revision
A3	PEM8	REV00022
Date:	17-Jan-2005	Sheet 1 of 2
File:	PEM8_IN_OUT.s01	Drawn By: H.a

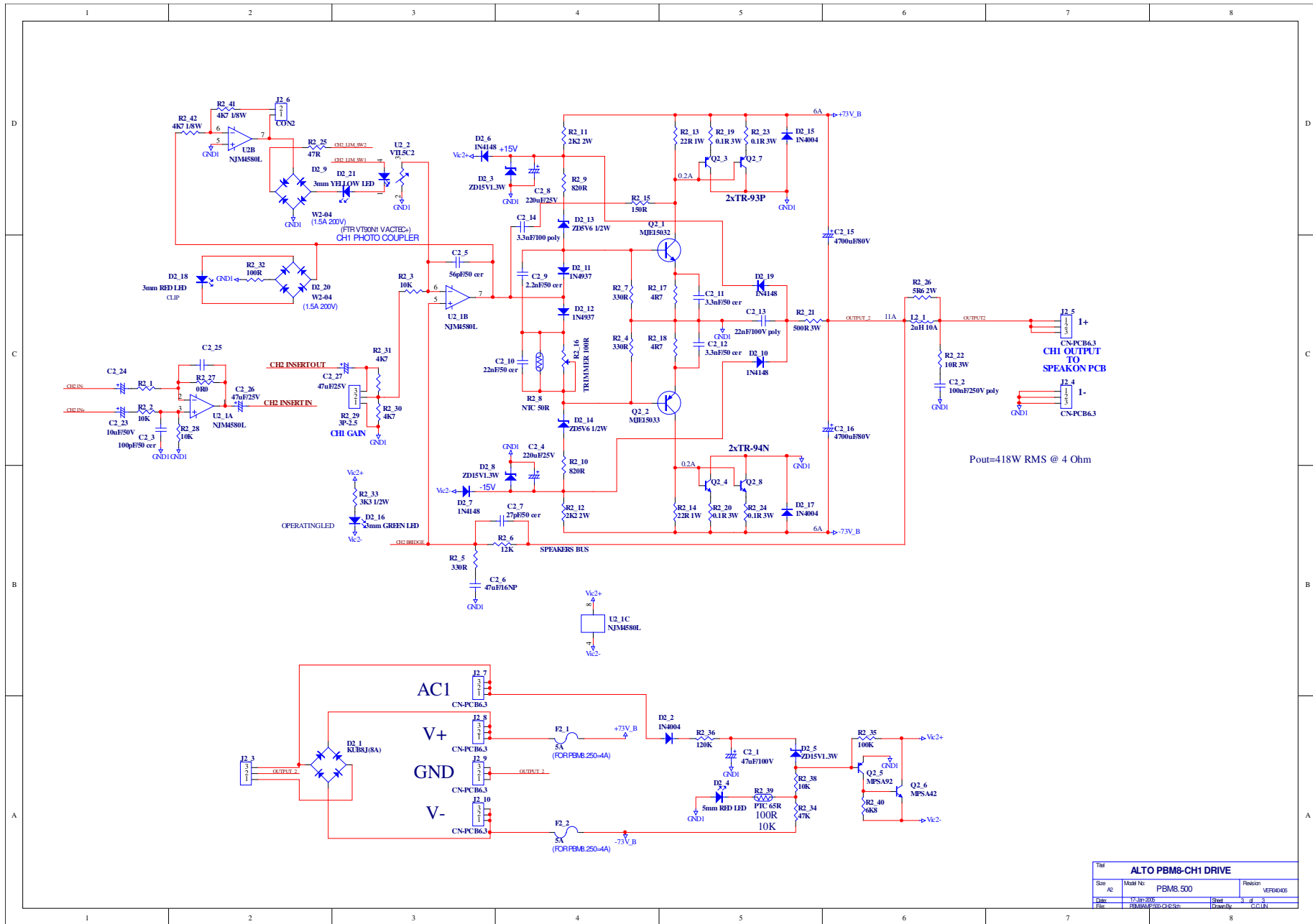






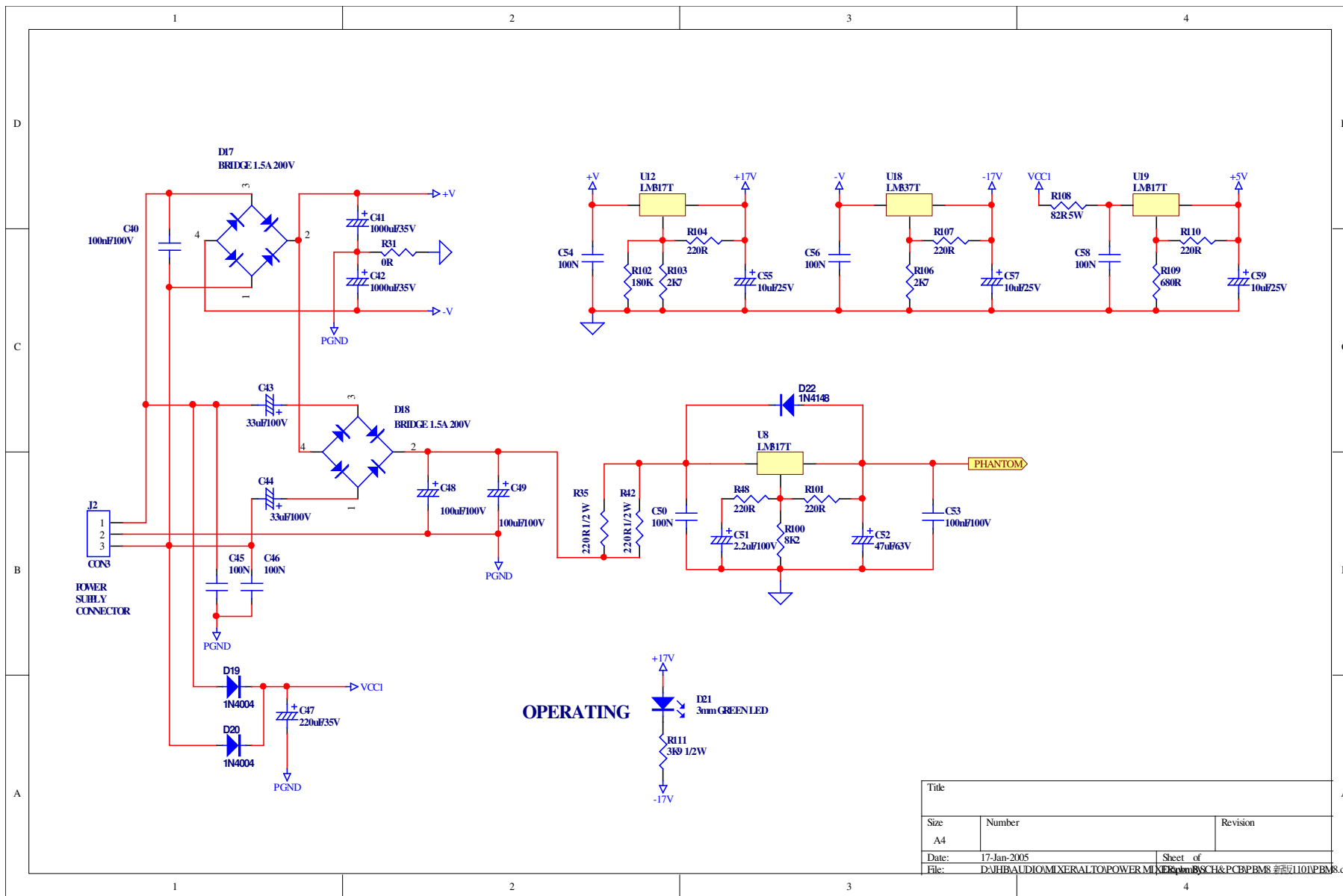
ALTO PBMB-CH1 DRIVE			
REV	001	DATE	02/20/2016
REV	001	DATE	02/20/2016
REV	001	DATE	02/20/2016





Pout=418W RMS @ 4 Ohm

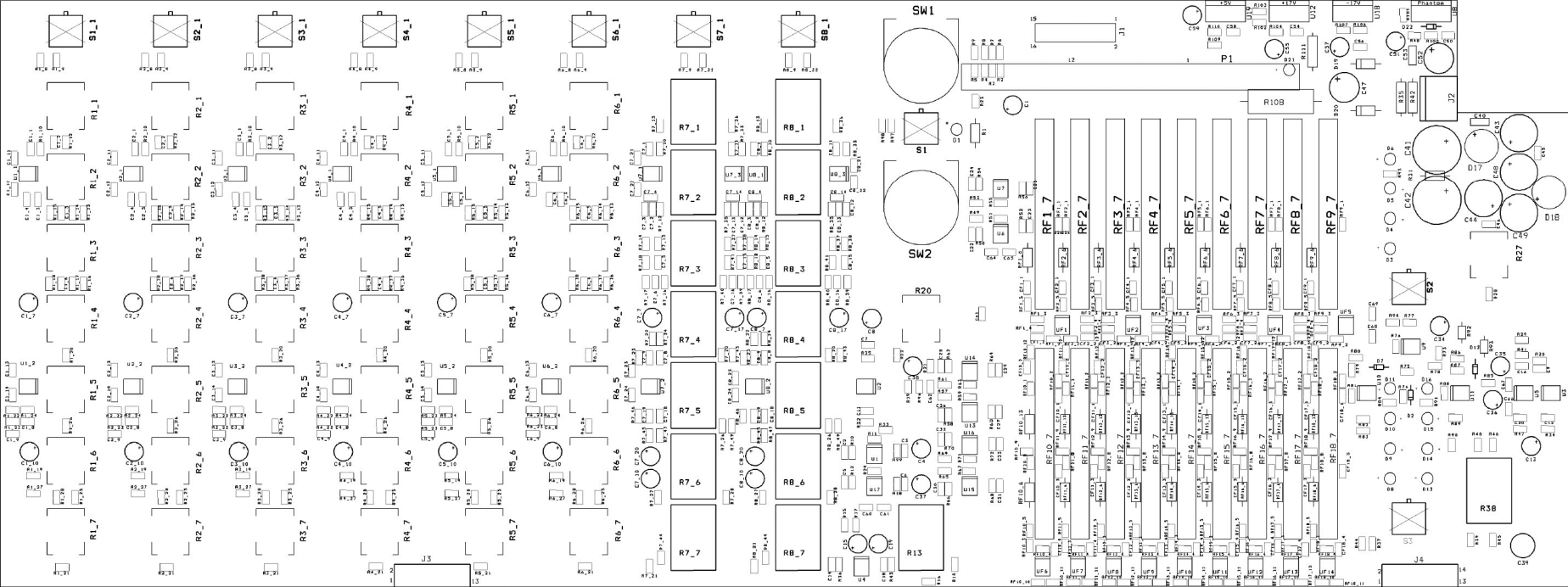
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Size	Modl No:	Revision	
AC	PBMB.500	VF000005	
Date:	17.06.2005	Sheet	5 of 5
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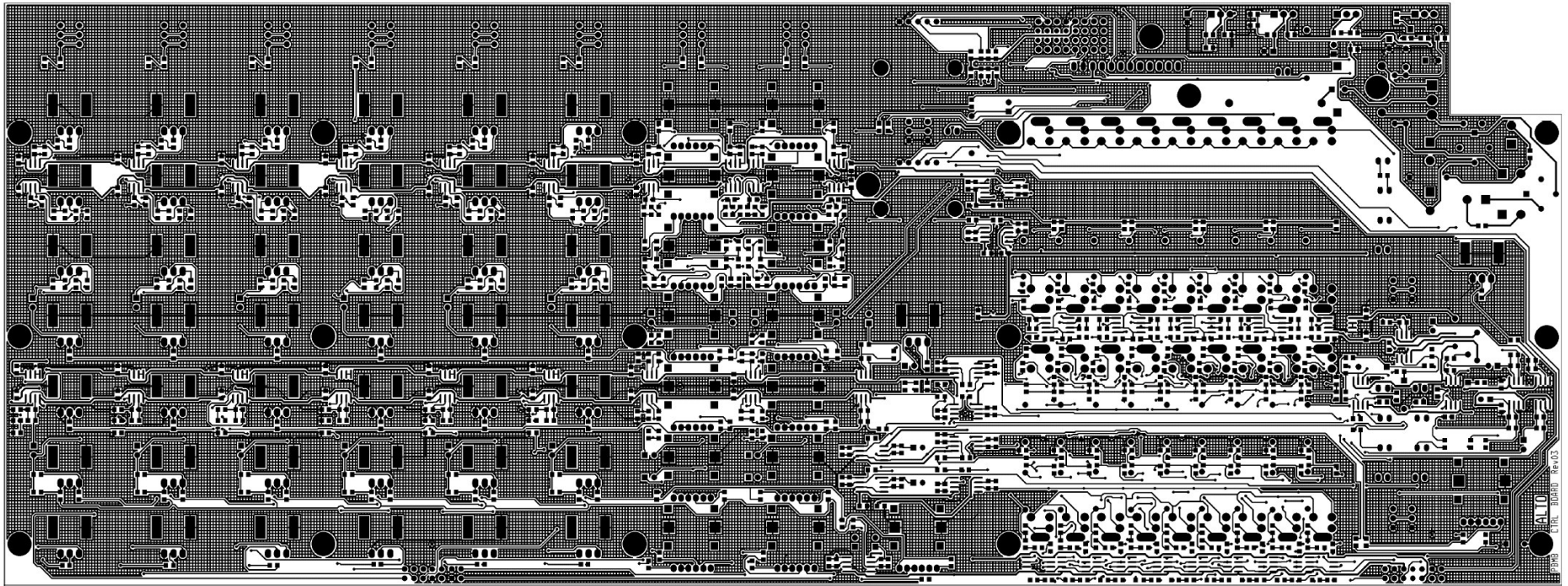
OPERATING

Title		
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File:	D:\JHBAUDIO\MIXER\ALTOPOWER MIXER\BSCHEM\PCBPBMS 新带1101\PBMS.dtb	

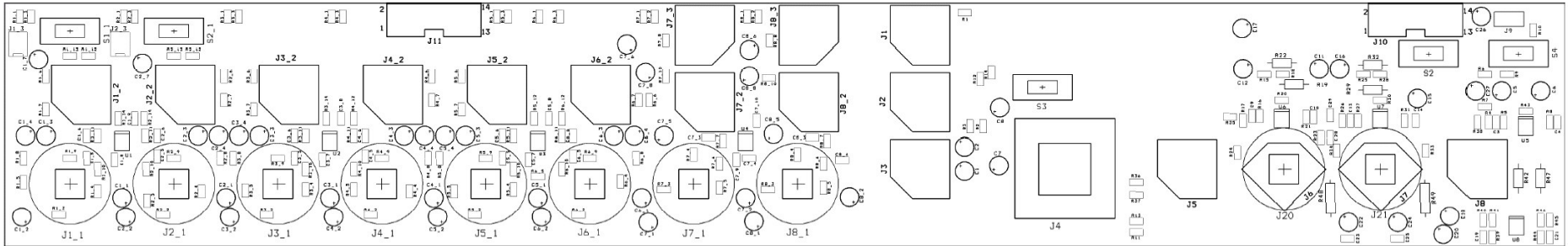
5. PCB Layout



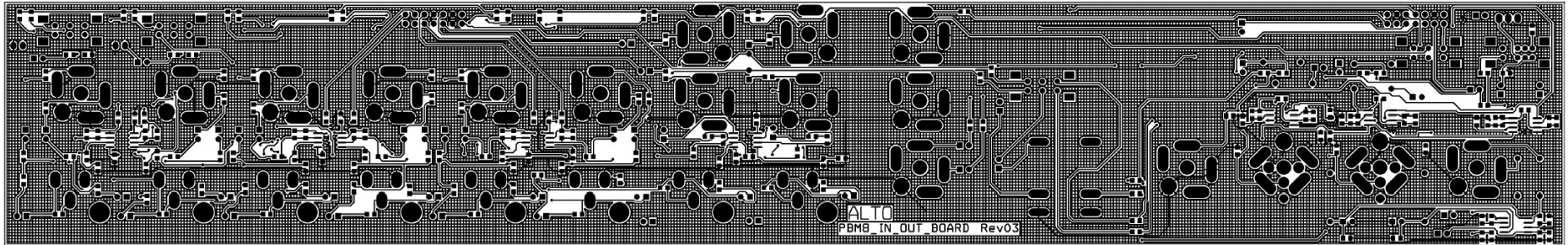
PCB : PBM8_CTRL_BOARD Top Overlay



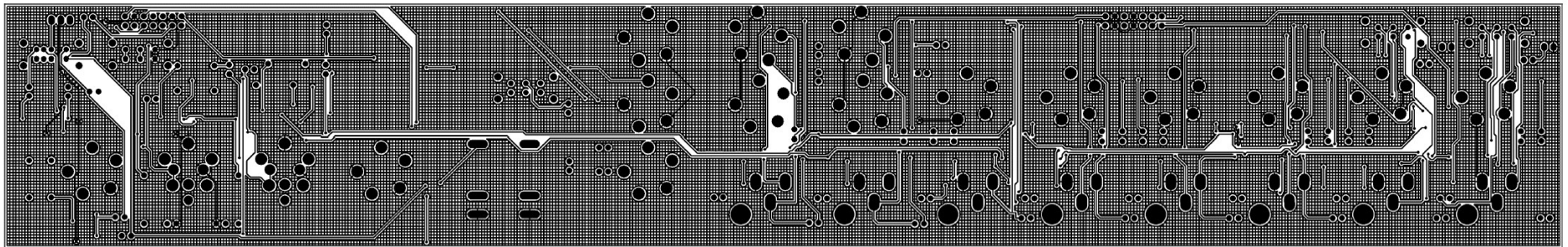
PCB : PBM8_CTRL_BOARD Top Layer



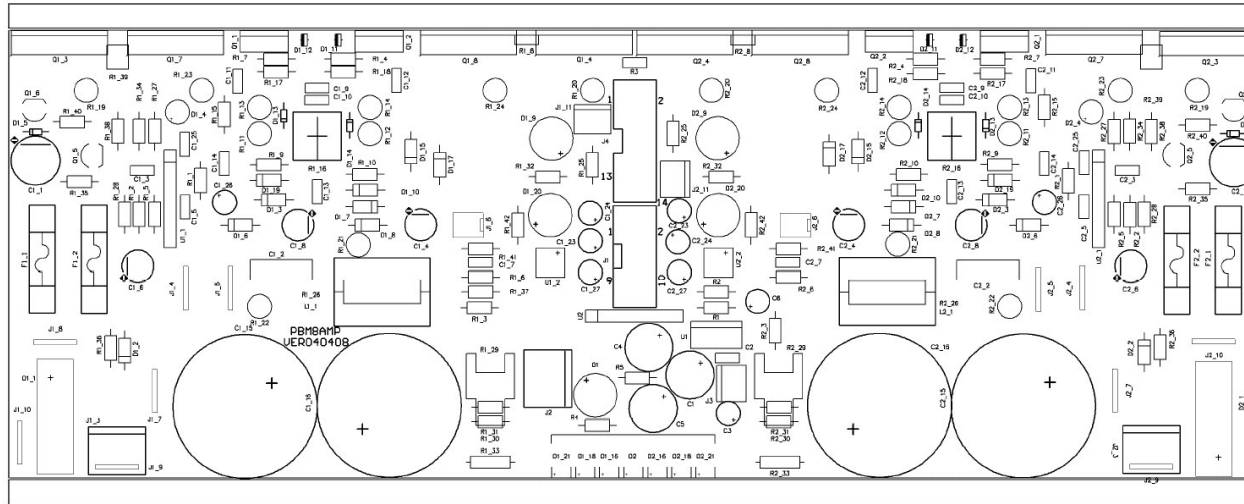
PCB : PBM8_IN_OUT_BOARD Top Overlay



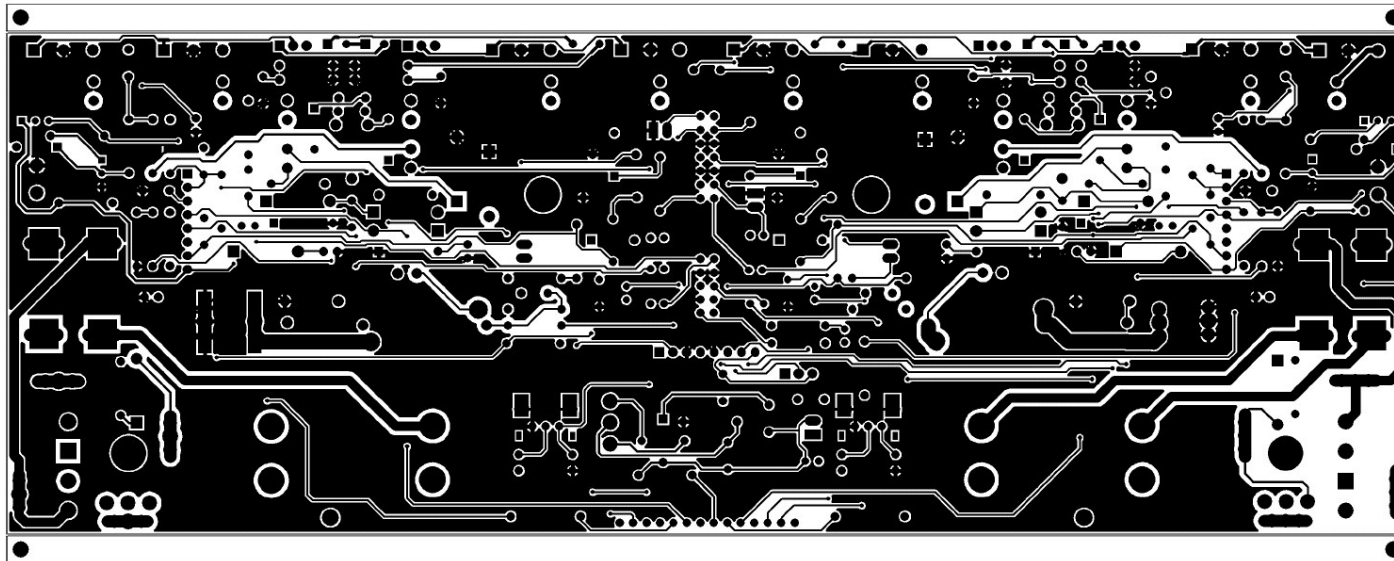
PCB : PBM8_IN_OUT_BOARD Top Layer



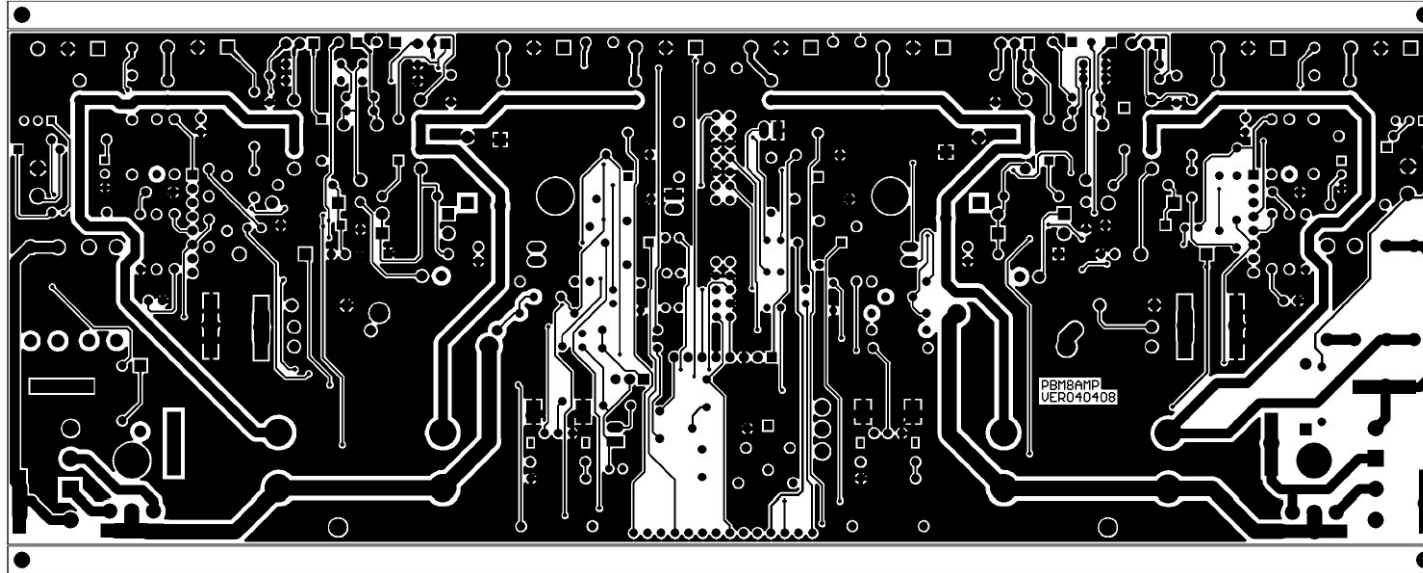
PCB : PBM8_IN_OUT_BOARD Bottom Layer



PCB : PBM8AMP_VER040408 Top overlay



PCB: PBM8AMP_VER040408 Top Layer



PCB: PBM8AMP_VER040408 Bottom Layer

6. TEST PROCEDURE

PCB test procedure.

1. Assemble the unit according to the sample, turn the power switch on the panel to ON, when there is no signal between CH1 (J1-11) and CH2(J2-11), these three LED indicators (D2, D1-16, D2-16) light up. Then D1-4 and D2-4 are lunar, use the multimeter to check the voltages on R1-11, R2-11(+15V),R2-12, R1-12(-15V).
2. Bias adjust : no signal input , adjust R1-16(CH1), R2-16(CH2) to make sure the voltage of R1-17/R2-17is $125\pm 2\text{mV(PBM8.250)}$ / $130\pm 2\text{mV(PBM8.500)}$;
3. Follow the second step, input a signal at 1KHz, -6dB, the output voltage should be $26\pm 0.5\text{V(PBM8.250)}$ / $37\text{V}\pm 0.5\text{V(PBM8.250)}$, at this time ,distortion factor should be less than 1%, use the multimeter to test these two terminals of J3, at the beginning, the voltage of J3 is about 12V, then use a heat gun to blow R3, the voltage will go up to about 26V. Over-heating protection will be active when use a tweezer to make R1-38(CH1)/R2-38(CH2) short-circuit. (no signal output)
4. LED indicators on amp circuit board
 - The middle green LED (D2) lights up, indicating the PCB power is turned on.
 - LED D1-16, LED D2-16 (green) light up, indicating respectively CH1 and CH2 are at operating status.
 - LED D1-18 and LED D2-18(yellow) light up, indicating the limiter function is normal.
 - LED D1-21 and LED D2-21(red) light up, indicating the clip function is normal.
5. Set the limiter switch at ON position, (J1-6,J2-6 in short circuit), when input a signal at 1KHz /+10dB, LEDs (D1-18 and D2-18)for LIMITER on the panel will be illuminated (bright yellow), and no clip caused on the output signal
6. When the output is MAX., LEDs for limiter on the panel will light up, in protection, the assumed power is less than 150W(PBM8.500/PBM8.250)
7. S/N ratio is more than 90dB(A weighted is more than 100dB)
8. Test compressor function: turn the limiter switch to ON(J1-6, J 2-6 in short circuit), when input a signal at 1KHz / +10dB, LEDs for limiter on the panel will light up (bright yellow), and no clip caused on the output signal
9. Adjust VR output voltage to 2V(4Ω),verify frequency response that is much better than 25Hz-20KHz+/-1dB.(CH1/CH2)
10. Press BRIDGE switch, input a signal at 1KHz to CH1(turn the volume of CH2 to MIN.), connect a 8Ω load to the output terminal, verify bridge full load output voltage is more than 50V(PBM8.250/ 70V PBM 8.500), the distortion rate is less than 1%.
11. Remove the input signal, then the consumed power is less than 50W

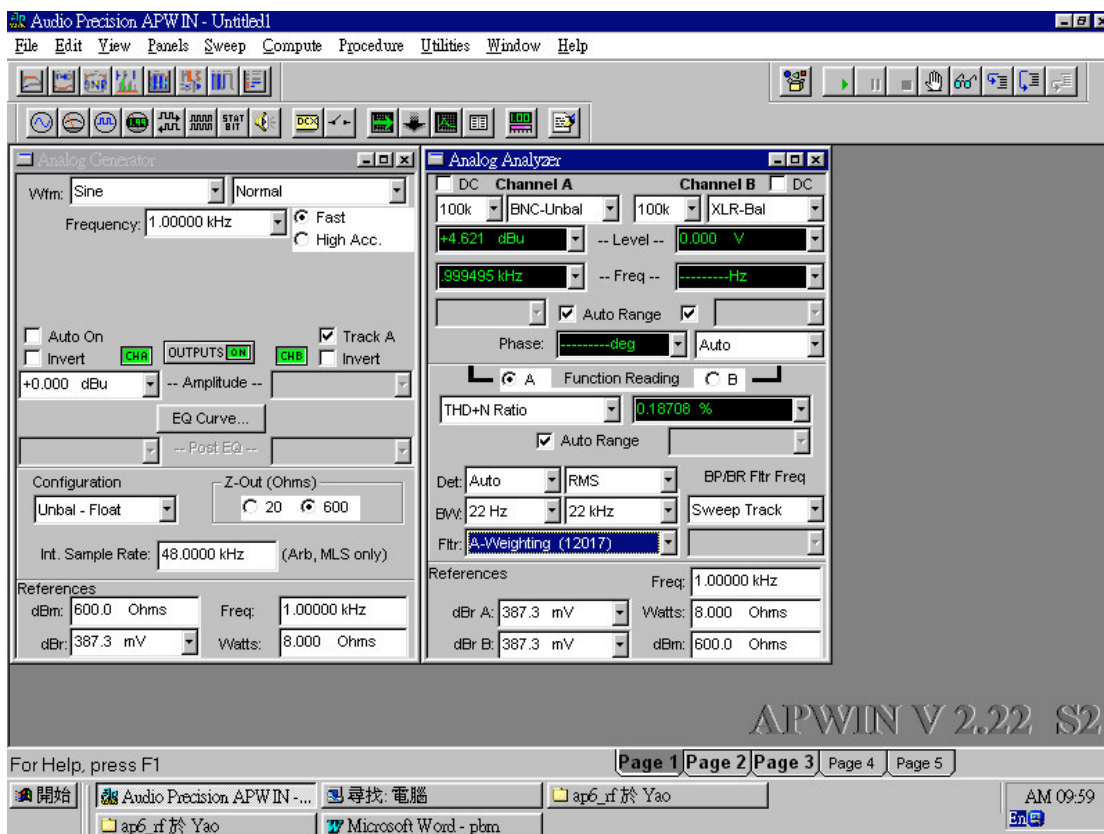
Finished Product Test Procedures

1). Instrument: Audio Precision (AP) Tester; the load of 4ohm/8ohm

2). PBM8.250/500 Setting

All knobs are set at middle position, EQ faders at "O" position, PAD switches at down position.

3). Input 0dBu from unbalanced input socket, input impedance is 600ohm. Then, the indicator of MAIN OUT and MONITOR will be lighted gradually until the third LED (yellow), the setting of AP is as follows:



4). Output signal test (CH1-6):

MONITOR OUT:	-1.4dBu (+/-3dBu)	THD < 0.2%
MAIN OUT LEFT:	4dBu (+/-3dBu)	THD < 0.2%
MAIN OUT RIGHT:	4dBu (+/-3dBu)	THD < 0.2%

HEAD PHONE OUT:	9.1dBu (+/-3dBu)	THD < 0.2%
AUX2 OUT:	0dBu (+/-dBu)	THD < 0.08%

5). Output signal test (CH7-8, CH9-10), when input from RIGHT IN,

MONITOR OUT:	8.5dBu (+/-3dBu)	THD < 0.1%
MAIN OUT LEFT:	4dBu (+/-3dBu)	THD < 0.2%
MAIN OUT RIGHT:	4dBu (+/-3dBu)	THD < 0.2%
HEAD PHONE OUT:	9dBu (+/-3dBu)	THD < 0.2%
AUX2 OUT:	10dBu (+/-3dBu)	THD < 0.08%

6). Output signal test (CH7-8, CH9-10), when input from LEFT IN,

MONITOR OUT:	3dBu (+/-3dBu)	THD < 0.1%
MAIN OUT LEFT:	4dBu (+/-3dBu)	THD < 0.2%
HEAD PHONE OUT:	9dBu (+/-3dBu)	THD < 0.2%
AUX2 OUT:	5dBu (+/-3dBu)	THD < 0.08%

7). When set the TAPE TO switch to CH9-10, and input signal from TAPE LEFT & RIGHT:

MAIN OUT LEFT:	3dBu (+/-3dBu)	THD < 0.2%
MAIN OUT RIGHT:	3dBu (+/-3dBu)	THD < 0.1%
MONITOR OUT:	3dBu (+/-3dBu)	THD < 0.1%

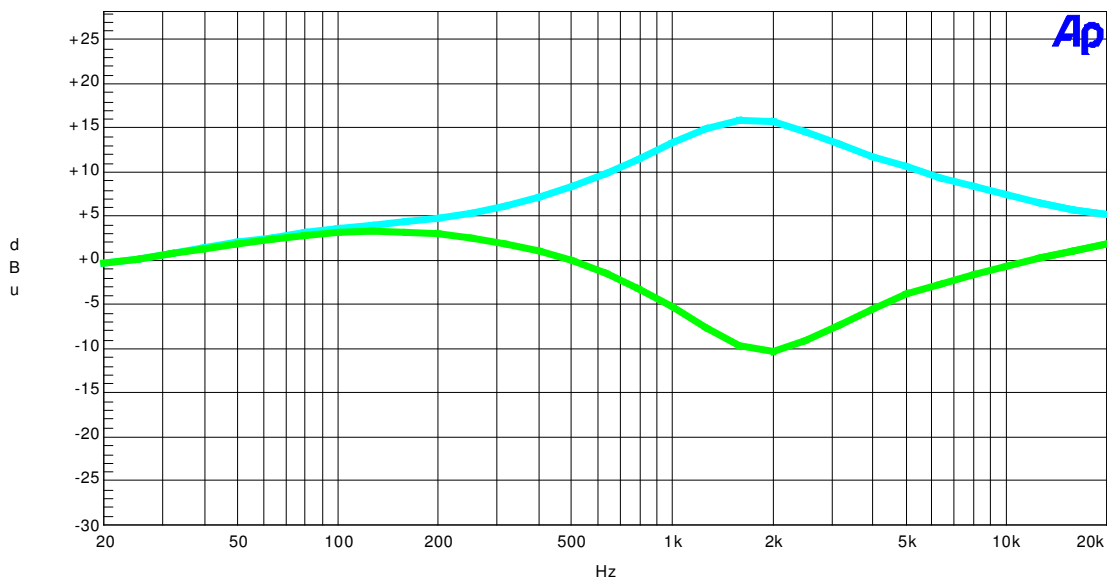
8). When set the TAPE TO switch to MAIN, and input signal from TAPE LEFT & RIGHT:

MAIN OUT:	3dBu (+/-3dBu)	THD < 0.1%
MONITOR:	3dBu (+/-3dBu)	THD < 0.1%

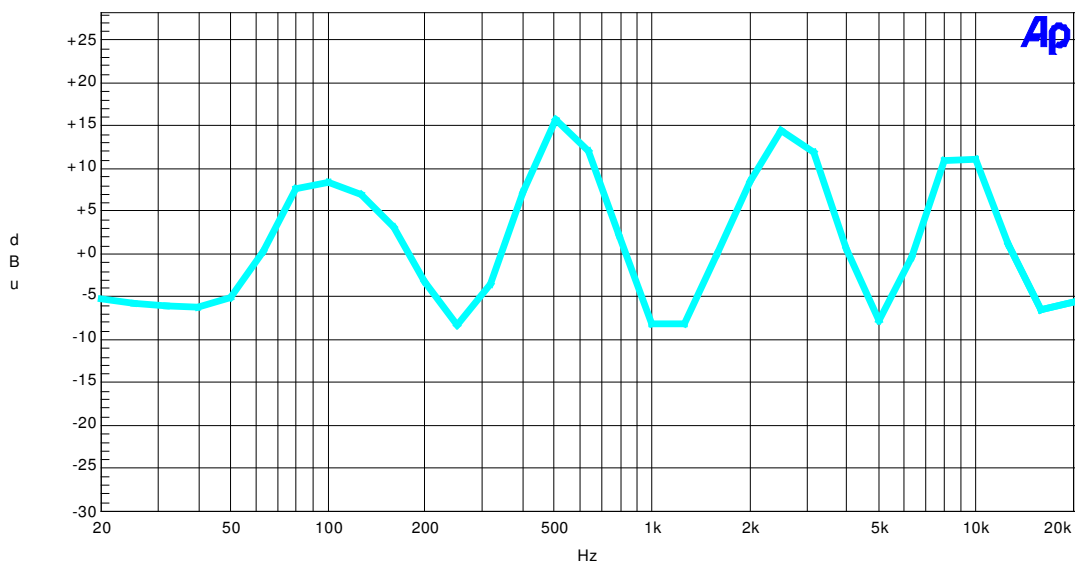
9). When input signal from STEREO RTN:

MONITOR OUT:	3dBu (+/-3dBu)	THD < 0.1%
MAIN OUT LEFT:	4dBu (+/-3dBu)	THD < 0.2%
HEAD PHONE OUT:	9dBu (+/-3dBu)	THD < 0.2%
AUX2 OUT:	5dBu (+/-3dBu)	THD < 0.08%

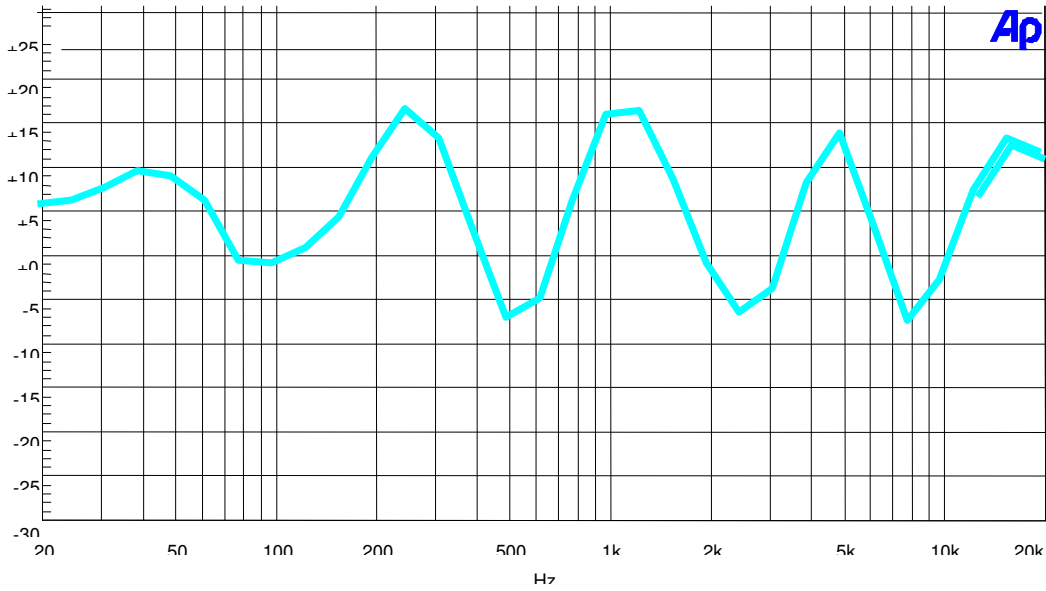
10). When the MID knob was set at the MAX and MIN, the curve scanned as follows:



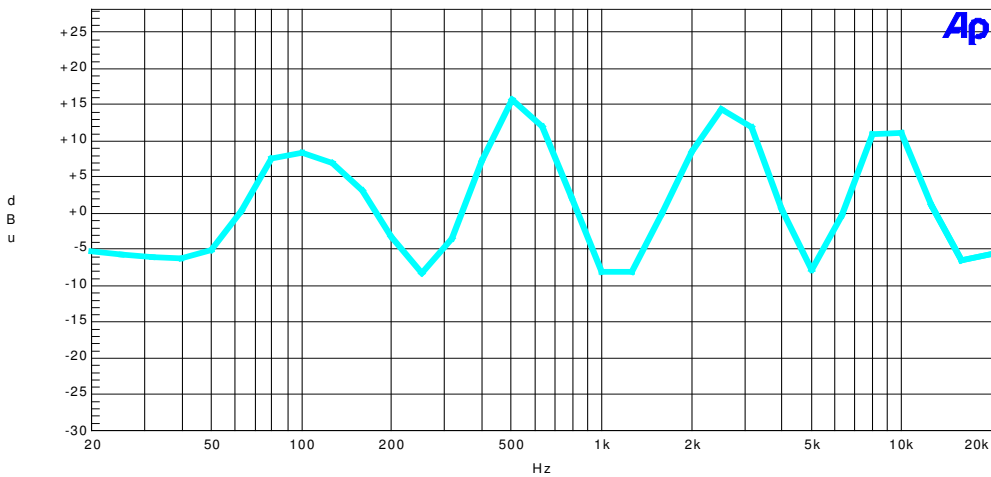
11). When set the EQ faders of 50, 250, 1K, 5K and 16K at the lowest position, while the faders of 100, 500, 2k5 and 8k at the highest position, then, the curve is as follows (MAIN status):



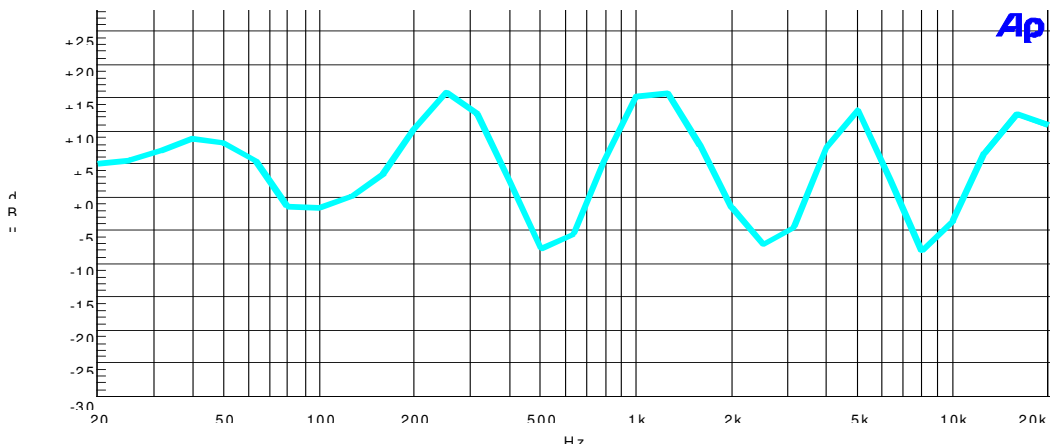
12). When set the EQ faders of 50, 250, 2k, 5k and 16k at the highest position, while the faders of 100, 500, 2k5 and 8k at the lowest position, then, the curve is as follows (MAIN status):



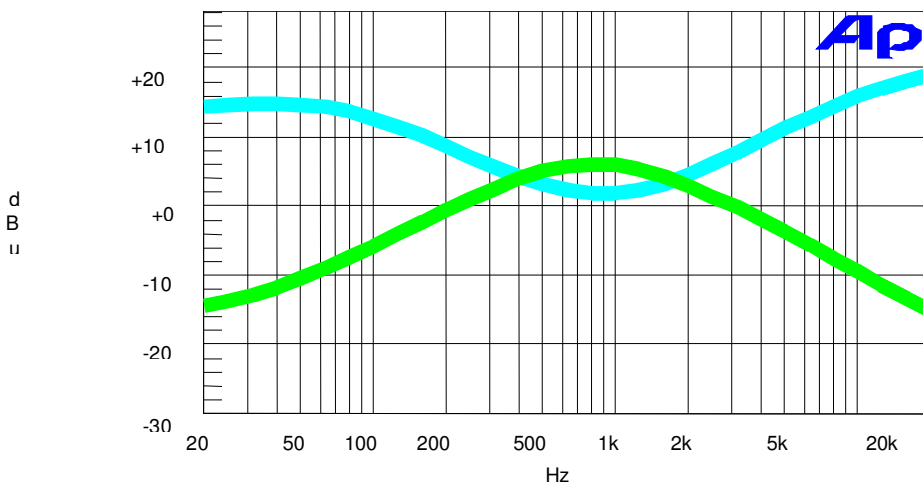
13). When set the EQ faders of 50, 250, 1K, 5K and 16K at the lowest position, while the faders of 100, 500, 2k5 and 8k at the highest position, then, the curve is as follows (MONO status):



14). When set the EQ faders of 50, 250, 2k, 5k and 16k at the highest position, while the faders of 100, 500, 2k5 and 8k at the lowest position, then, the curve is as follows (MONO status):



15). When adjust the EQ of HIGH/LOW to the MAX and MIN, the curve is as follows:



16). PBM8. 500 AMP test is as follows:

When set the AMPLIFIER MODE at the MAIN+MAIN position, and the load is 4ohm, then the output of amplifier is 335W, THD is 0.9%.

While set the AMPLIFIER MODE at the MAIN+MONO position, and the load is 4ohm, then the output of amplifier is 335W, THD is 0.9%.

Set the AMPLIFIER MODE at the BRIDGE position, the load is 8ohm, then output of amplifier is 640W,

THD is 0.9%.

PBM8. 250 AMP test is as follows:

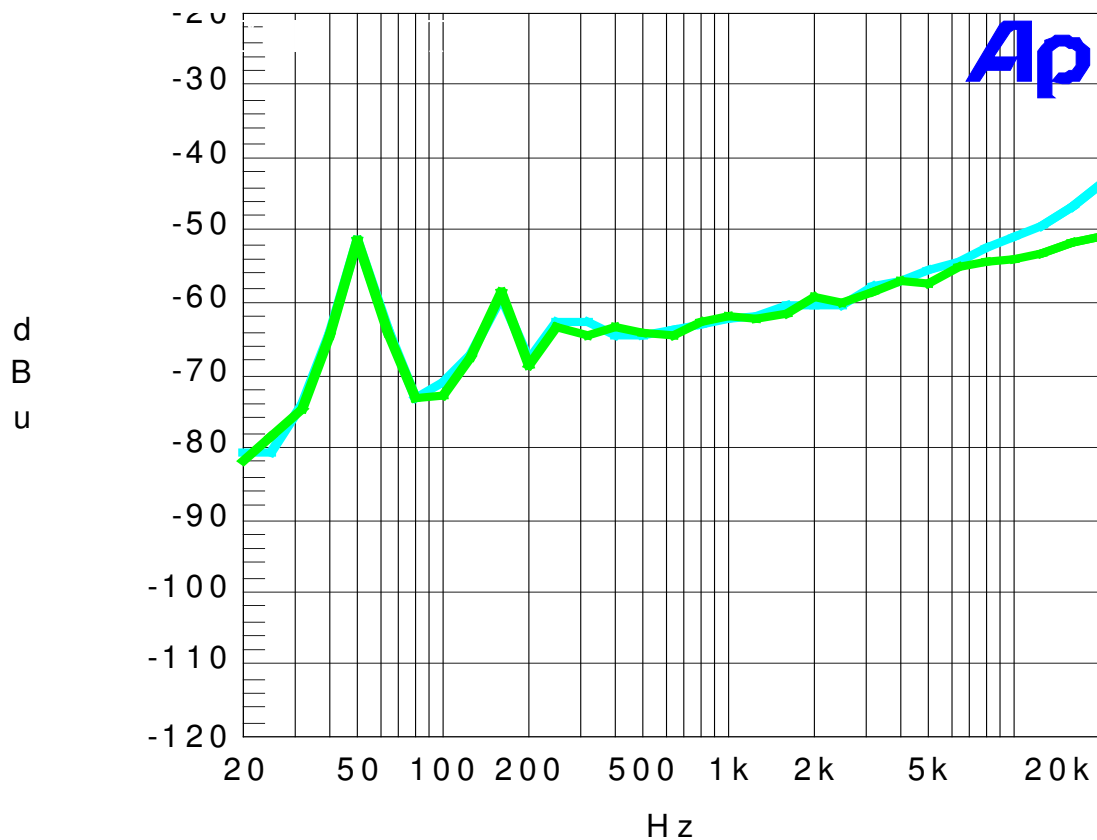
When set the AMPLIFIER MODE at the MAIN+MAIN position, and the load is 4ohm, then the output of amplifier is 187W, THD is 1.0%.

While set the AMPLIFIER MODE at the MAIN+MONO position, and the load is 4ohm, then the output of amplifier is 187W, THD is 1.0%.

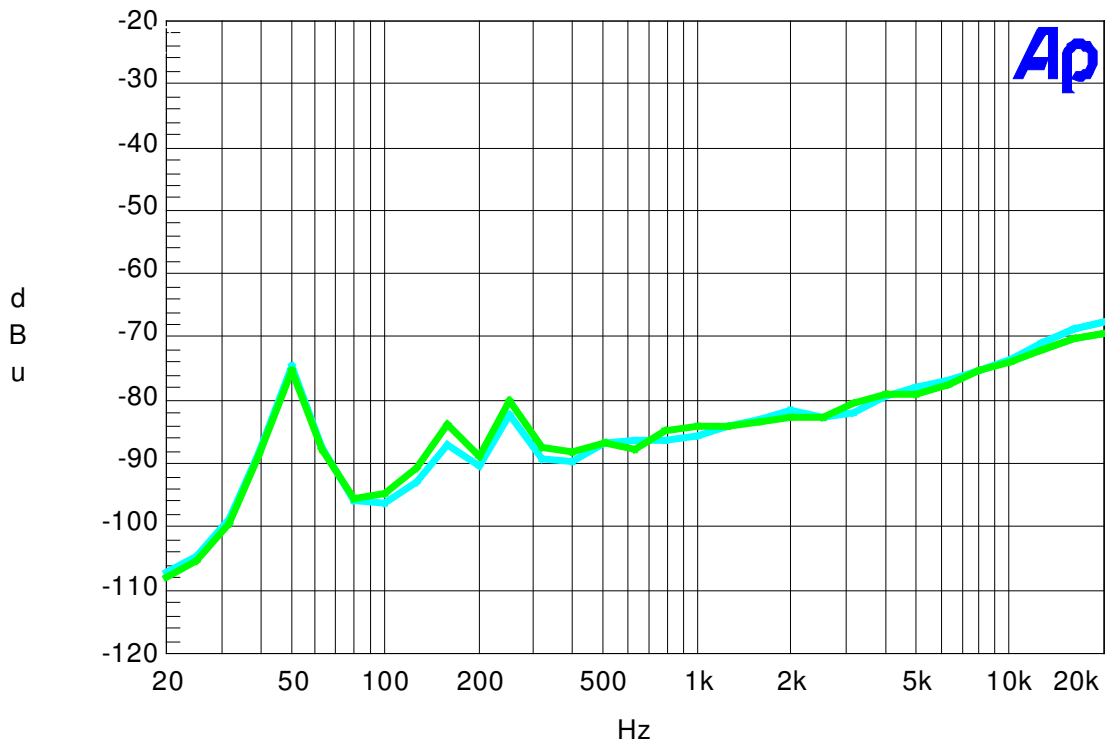
Set the AMPLIFIER MODE at the BRIDGE position, the load is 8ohm, then output of amplifier is 347W, THD is 1.0%.

17). Noise test

Set all LEVEL GAIN controls at the MIN, the GAIN knobs of MAIN and MONITOR at MAX position, then the curve of amp output (L&R) is as follows:



18). Curve of MAIN MIXER (L&R) output is as follows:



I12.at2

19). Sound test

Connect high quality speaker, set the MAIN LEVEL and MONITOR LEVEL controls to MIN, and set all the controls of each channel to the MAX:

- The output noise of amplifier and MAIN can't be more than the sample.
- Turn on the PHANTOM power (note: the MAIN LEVEL and MONITOR LEVEL controls must be set to MIN), the output noise of amplifier and MAIN can't be increased. (refer to the sample).

20). End

7. BOM (PBM8.250 BOM)

NO	Parts NO	Description	Specification	Remark
1	MA05057	panel	PBM8.250 ALTO_V1.2	
2	MA05058	panel	PBM-8	
3	MA04492	panel	PBM-8 1.5t*460*255	
4	MJ00088	iron board	1.5*2135*1220 30.67kg	
5	MB03361	rear board	PBM8.250 ALTO_V1.1	
6	MB03020	rear board	PBM-8	
7	MB03021	rear board	PBM-8 1.5t*460*141	
8	MJ00088	iron board	1.5*2135*1220 30.67kg	
9	MJ01257	side board	PBM-8	
10	MJ01258	side board	PBM-8 1.5t*279*200	
11	MJ00088	iron board	1.5*2135*1220 30.67kg	
12	NI02795	side cover	PBM-8 286*210.6*55 black_V1.1	
13	NI02796	fixed bolt	PBM-8 ϕ 14*17.6 black	
14	NI02797	bracket	PBM-8 16*12	
15	NI02798	fixed foot cushion	PBM-8 150*28*25	
16	NI02732	handle	13*56.94*218.23 PS 4HA black	
17	NI02733	handle cover	10.8*34*147 PS 4HA black	
18	NC00201	side board	PBM-8_V1.2	
19	MI02128	fixed bracket	PBM-8 L type_V1.0	
20	MI02129	fixed bracket	PBM-8 L type_V1.0	
21	MJ00058	iron board	1*2135*1220 20.45kg	
22	MI02130	fixed bracket	PBM-8_V1.0	
23	MI02131	fixed bracket	PBM-8_V1.0	
24	MJ00088	iron board	1.5*2135*1220 30.67kg	
25	MI02132	fixed bracket	PBM-8 L short type_V1.0	
26	MI02133	fixed bracket	PBM-8 L short type_V1.0	
27	MJ00088	iron board	1.5*2135*1220 30.67kg	
28	MI01876	fixed bracket	PBM-8 1.5t*110*60*120_V1.2	
29	MJ00069	iron board	1.5*2135*1220 30.67kg	
30	MG00248	copper pillar	M3*15*0.5PHdouble plane	
31	MG00363	copper pillar	M3*14*0.5PH	
32	MG00243	copper pillar	M3*5*0.5PH	
33	MG00161	screw	M3*6	
34	MF00014	washer	ϕ 3* ϕ 6.5*0.5t	
35	MG00326	screw	3*4	
36	MG00041	screw	M3*6	
37	MG00061	screw	M3*10	
38	MG00361	screw	M4*20mm	
39	MG00063	screw	M3*12	
40	MG00437	screw	M3*16	
41	MG00042	screw	M3*10	
42	MG00172	screw	M4*10	
43	MG00173	screw	M4*20	
44	ME00015	nut	3m/m	
45	ME00016	nut	4m/m	
46	MF00037	washer	ϕ 3* ϕ 5*1t	
47	MF00038	washer	ϕ 4* ϕ 7*1t	
48	MF00048	washer	ϕ 4* ϕ 8*0.5t	
49	MG00220	screw	M8*78	
50	ME00026	nut	8m/m	
51	MF00041	washer	ϕ 8* ϕ 13.5*2t	
52	MF00055	washer	ϕ 8* ϕ 18*1.5t	
53	NI00437	rubber coil	ϕ 20* ϕ 120*2tB	
54	MJ00229	partition	PBM-8_V1.3	

NO	Parts NO	Description	Specification	Remark
55	MJ00087	iron board	0.3*200*3000 1.431kg	
56	HE00045	fan-JF0615S2H-000	DC24V/0.13A 60*60*15 350mm 350mm JST2P	
57	HD00071	ceramic tube fuse	3.15A 250V ϕ 5.2*20mm CSA/S/T/UL/VDE	
58	HI00022	power switch	4p black frame red key	
59	TD00254	transformer	PT-PBM8.250_230V	
60	NI02620	insulation board	1*86.5*53 L-8	
61	NC00010	insulator	0.65M*60M*1t	
62	ND00325	EV bubble sponge	5.0t*150*20mm_V1.0	
63	MI02121	separating shade	PBM-8_V1.0	
64	MJ00999	AL board	1*2000*1000 5.44kg	
65	ME00060	nut	JY-6351G-02-250	
66	MF00061	washer	JY-6351G-02-250	
67	NI02957	knob	9.8*5.5*11.2mm black_V1.0	
68	NI00359	knob	ϕ 10*16.5	
69	NI00399	knob	ϕ 11*19mm	
70	NI02386	konb	ϕ 14*13mm	
71	NI02252	knob cover	ϕ 7*3.5 072C	
72	NI01147	knob cover	ϕ 7*3.5	
73	NI02100	knob cover	ϕ 7*3.5 222C	
74	NI02692	knob cover	ϕ 7*3.5 black	
75	NI02101	knob cover	ϕ 8.5*4 222C	
76	NI02677	knob cover	ϕ 8.5*4 534C blue	
77	HA00861	power cord Europe 3P	LT-312+LT-501	
78	NI01627	fixed bracket	CM-19S	
79	NI00218	cable tie-black	ALT-102SB	
80	HJ00006	desiccant	30g	
81	NA00137	clip-chain bag	5*7	
82	NA00135	PE bag	0.05t*610*500mm	
83	NE00840	label	SOLTON	
84	NH00115	paper	0.045*1M	
85	NI00015	membrane	0.04*1M	
86	NE02717	label	MADE IN CHINA	
87	NH00038	paper	0.115*1M	
88	NI00028	membrane	0.110*1M	
89	NF00061	assurance card	ALTO	
90	NE11347	label	ALTO PI	
91	NH00334	cone paper	0.040*1m	
92	NE12753	label	PBM8.250_V1.0	
93	NH00012	bond paper	0.04*1M	
94	NI00014	membrane	0.035*1M	
95	NB02956	cushion	PBM8.500 left_V1.0	
96	NB02957	cushion	PBM8.500 right_V1.0	
97	NF01736	instruction	PBM8.250/PBM8.500 ALTO_V1.1	
98	NH00149	paper	889*640mm	
99	NB02901	box	PBM8.250 ALTO_V1.0	
100	NB02912	box	PBM8.250/PBM8.500 ALTO_V1.1	
101	HK04256	PC board	P-PBM8_SPEAKER	
102	HB01216	PCB	PBM8_SPEAK_VER040306	
103	HC00442	speaker holder	NL4MP (NEUTRIK)	
104	HC00371	MIC jack	SCJ-0658-1-Y	
105	MJ00942	fixed board	CS12/600	
106	MJ00061	Zn-plated board	1*2135*1220 20.45kg	
107	HA01209	quick terminal wiring	450 black 450 red (PC250C)	
108	HK00758	PC board	P-PBM8_CTRL-DIP	
109	CB00009	electrolytic capacitor	1uF/50V ϕ 4*7mm	C1

NO	Parts NO	Description	Specification	Remark
110	CB00199	electrolytic capacitor	10uF/25V ϕ 4*7mm	C4,C8,C1-7,C2-7,C34,C35,C36,C3-7,C37,C38,C4-7,C55,C5-7,C57,C6-7,C7-7,C8-7,C1-10,C2-10,C3-10,C4-10,C5-10,C6-10,C7-10,C7-17,C7-20,C8-10,C8-17,C8-20
111	CB00039	electrolytic capacitor	47uF/25V ϕ 5*11mm	C13,C15,C19
112	CB00139	electrolytic capacitor	4.7uF/63V NP ϕ 6.3*11mm	C39
113	CF00032	metal-film capacitor MSC	0.1uF/100V 5% CASE01	C53,C40
114	CB00073	electrolytic capacitor	1000uF/35V ϕ 13*20mm	C41,C42
115	CB00186	electrolytic capacitor	33uF/100V ϕ 8*11.5mm	C44,C43
116	CB00058	electrolytic capacitor	220uF/35V ϕ 10*12mm	C47
117	CB00187	electrolytic capacitor	100uF/100V ϕ 10*20mm	C48,C49
118	CB00137	electrolytic capacitor	2.2uF/100V ϕ 5*11mm	C51
119	CB00127	electrolytic capacitor	47uF/63V ϕ 6*11mm	C52
120	SA00053	L.E.D high intensity	3m/m round(red)long foot 26mm	D1,D6,D11,D16
121	SA00093	rectifier diode	1N4148 0.5A	D2,D7,D12,D22
122	SA00052	L.E.D high intensity	3m/m round(green)long foot 26	D3,D4,D8,D9,D13,D14,D21
123	SA00054	L.E.D high intensity	3m/m round(yellow)long foot 26	D5,D10,D15
124	NI01786	LED spacer support	LEDS-12 12mm	
125	SA00167	bridge rectifier	2A W2-04	D18,D17
126	SA00098	rectifier diode	1A/400V IN4004	D19,D20
127	HC00644	row-wire header(male)	3P 3.96mm 90°	J2
128	HC00473	row pin header(double)	2.45mm 180° 2*8P B25-2*8BG1(B)H=5mm	J1
129	HA02076	header wiring	14P-14P 30mm PH=1.27mm	J4,J3
130	RC00365	potentiometer	W100K Ω RA3072-20R-9.5LC-W100K-C04	RF1-7,RF2-7,RF3-7,RF4-7,RF5-7,RF6-7,RF7-7,RF8-7,RF9-7,RF10-7,RF11-7,RF12-7,RF13-7,RF14-7,RF15-7,RF16-7,RF17-7,RF18-7
131	RA00231	fixed resistor 1/4W	4.7K Ω M type	R1
132	RC00358	potentiometer	B50K Ω -RD09F113A223-50K2BT(SAS1);30F-C	R1-1,R1-2,R1-3,R1-4,R1-5,R1-6,R1-7,R20,R2-1,R2-2,R2-3,R2-4,R2-5,R2-6,R2-7,R27,R3-1,R3-2,R3-3,R3-4,R3-5,R3-6,R3-7,R4-1,R4-2,R4-3,R4-4,R4-5,R4-6,R4-7,R5-1,R5-2,R5-3,R5-4,R5-5,R5-6,R5-7,R6-1,R6-2,R6-3,R6-4,R6-5,R6-6,R6-7
133	RC00360	potentiometer	B50K Ω RD12L12CA23A-50K3BT*2(SAS1);30F-C	R13,R38,R7-1,R7-2,R7-3,R7-4,R7-5,R7-6,R7-7,R8-1,R8-2,R8-3,R8-4,R8-5,R8-6,R8-7
134	RA00119	fixed resistor 1/2W	220 Ω M type	R35,R42
135	RA00324	fixed resistor 1/8W	22 Ω M type	R92,R93
136	RA00955	metal-oxide-film resistor 5W	82 Ω P type	R108
137	RA00139	fixed resistor 1/2W	3.9K Ω M type	R111
138	RA00330	fixed resistor 1/8W	100 Ω M type	RF1-6,RF2-6,RF3-6,RF4-6,RF5-6,RF6-6,RF7-6,RF8-6,RF9-6,RF10-6,RF11-6,RF12-6,RF13-6,RF14-6,RF15-6,RF16-6,RF17-6,RF18-6,RF10-13,RF11-13,RF12-13,RF13-13,RF14-13,RF15-13,RF16-13,RF17-13,RF18-13
139	HI00195	rotary encode	SDB161PVB15.5F-1-4-16-16PC	SW1,SW2
140	HI00238	push-button switch	2 stage 6P PS-9226A(NON-LOCK)	S1
141	HI00236	push-button switch	2-stage 6P PS-9226A(SELF-LOCK)	S2,S3,S1-1,S2-1,S3-1,S4-1,S5-1,S6-1,S7-1,S8-1
142	SD00032	integrated circuit	LM317T	U8,U12,U19
143	SD00033	integrated circuit	LM337SP(1.5A)(TO-220)	U18
144	NI00863	insulate bean	TO220B	
145	ME00015	nut	3m/m	
146	MF00037	washer	ϕ 3* ϕ 5*1t	
147	MG00166	screw	M3*10	
148	MG00243	copper pillar	M3*5*0.5PH	
149	MG00326	screw	3*4	
150	MI02137	heat simk	PBM-8_V1.0	
151	MJ00055	AL board	2*2000*1000 10.88kg	
152	HK00756	PC board	P-PBM8_CTRL-SMD	
153	HB01097	PCB	PBM8-CTRL_REV06	
154	C100146	SMD ceramic capacitor 0805	0.22uF/50V X7R \pm 10%	CF1-1,CF1-2,CF2-1,CF2-2,CF10-1,CF10-2,CF10-3,CF10-4,CF11-1,CF11-2,CF11-3,CF11-4
155	C100098	SMD ceramic capacitor 0805	0.033uF/50V X7R \pm 10%	CF3-1,CF3-2,CF4-1,CF4-2,CF12-1,CF12-2,CF12-3,CF12-4,CF13-1,CF13-2,CF13-3,CF13-4
156	C100112	SMD ceramic capacitor 0805	0.01uF/50V X7R \pm 10%	CF5-1,CF5-2,CF6-1,CF6-2,CF14-1,CF14-2,CF14-3,CF14-4,CF15-1,CF15-2,CF15-3,CF15-4

NO	Parts NO	Description	Specification	Remark
157	CI00021	SMD ceramic capacitor 0805	0.001uF/50V NPO ±5%	C1-3,C2-3,C3-3,C4-3,C5-3,C6-3,CF7-1,CF7-2,C7-3,CF8-1,CF8-2,C8-3,CF9-1,CF9-2,CF16-1,CF16-2,CF16-3,CF16-4,CF17-1,CF17-2,CF17-3,CF17-4,CF18-1,CF18-2,CF18-3,CF18-4,C7-13,C8-13
158	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C2,C3,C5,C6,C7,C9,C11,C12,C14,C16,C18,C20,C22,C24,C26,C30,C7-1,C8-1,C7-11,C8-11
159	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C1-1,C2-1,C3-1,C4-1,C5-1,C6-1
160	CI00024	SMD ceramic capacitor 0805	0.0022uF/50V X7R ±10%	C1-2,C2-2,C3-2,C4-2,C5-2,C6-2,C7-2,C8-2,C7-12,C8-12
161	CI00016	SMD ceramic capacitor 0805	100PF/50V NPO	C1-4,C2-4,C3-4,C4-4,C5-4,C6-4,C7-4,C8-4,C7-14,C8-14
162	CI00026	SMD ceramic capacitor 0805	0.0033uF/50V X7R ±10%	C1-5,C2-5,C3-5,C4-5,C5-5,C6-5,C7-5,C8-5,C7-15,C8-15
163	CI00133	SMD ceramic capacitor 0805	0.047uF/-50V X7R ±10%	C1-6,C2-6,C3-6,C4-6,C5-6,C6-6,C7-6,C8-6,C7-16,C8-16
164	CI00001	SMD ceramic capacitor 0805	10PF/50V NPO	C1-8,C1-9,C23,C25,C27,C2-8,C2-9,C29,C31,C33,C3-8,C3-9,C4-8,C4-9,C5-8,C5-9,C6-8,C6-9,C7-8,C7-9,C8-8,C8-9,C7-18,C7-19,C8-18,C8-19
165	CI00018	SMD ceramic capacitor 0805	220PF/50V NPO ±5%	C28,C32
166	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R ±10%	C45,C46,C54,C58,C60,C61,C62,C63,C64,C65,C66,C67,C68,C1-11,C1-12,C1-13,C1-14,C2-11,C2-12,C2-13,C2-14,C3-11,C3-12,C3-13,C3-14,C4-11,C4-12,C4-13,C4-14,C5-11,C5-12,C5-13,C5-14,C6-11,C6-12,C6-13,C6-14,C7-21,C7-22,C7-23,C7-24,C8-21,C8-22,C8-23,C8-24,C69,C50,C56
167	RD00038	SMD fixed resistor 1/10W	22K Ω ±5% 0805	RF1-1,RF1-3,RF1-4,RF2-1,RF2-3,RF2-4,R50,R53,R58,R61,R66,R69,R73,R78,R85,RF10-1,RF10-3,RF10-4,RF10-8,RF11-1,RF11-3,RF11-4,RF11-8,R1-20,R1-23,R1-25,R1-26,R1-28,R2-20,R2-23,R2-25,R2-26,R2-28,R3-20,R3-23,R3-25,R3-26,R3-28,R4-20,R4-23,R4-25,R4-26,R4-28,R5-20,R5-23,R5-25,R5-26,R5-28,R6-20,R6-23,R6-25,R6-26,R6-28,R7-20,R7-23,R7-26,R7-27,R7-28,R7-43,R7-46,R7-49,R8-20,R8-23,R8-26,R8-27,R8-28,R8-43,R8-46,R8-49,RF10-10,RF10-11,RF11-10,RF11-11
168	RD00028	SMD fixed resistor 1/10W	5.6K Ω ±5% 0805	RF1-2,R33,R49,R54,R57,R62,R65,R70,RF7-2,RF10-2,RF10-9,R1-21,RF16-2,RF16-9,R2-21,R3-21,R4-21,R5-21,R6-21,R7-21,R7-44,R8-21,R8-44
169	RD00036	SMD fixed resistor 1/10W	18K Ω ±5% 0805	RF1-5,RF3-5,RF4-5,RF5-5,RF6-1,RF6-3,RF6-4,RF6-5,RF7-5,RF8-5,RF9-5,RF10-5,RF11-5,RF12-5,RF13-5,RF14-5,RF15-1,RF15-3,RF15-4,RF15-5,RF15-8,RF16-5,RF17-5,RF18-5,RF10-12,RF11-12,RF12-12,RF13-12,RF14-12,RF15-10,RF15-11,RF15-12,RF16-12,RF17-12,FR18-12
170	RD00019	SMD fixed resistor 1/10W	1.2K Ω ±5% 0805	RF2-2,RF11-2,RF11-9
171	RD00046	SMD fixed resistor 1/10W	56K Ω ±5% 0805	R14,R16,R21,RF3-1,RF3-3,RF3-4,RF8-1,RF8-3,RF8-4,RF12-1,RF12-3,RF12-4,RF12-8,RF17-1,RF17-3,RF17-4,RF17-8,RF12-10,RF12-11,RF17-10,RF17-11,R34
172	RD00025	SMD fixed resistor 1/10W	3.3K Ω ±5% 0805	RF3-2,RF8-2,RF12-2,RF12-9,RF17-2,RF17-9
173	RD00040	SMD fixed resistor 1/10W	27K Ω ±5% 0805	RF4-1,RF4-3,RF4-4,RF9-1,RF9-3,RF9-4,RF13-1,RF13-3,RF13-4,RF13-8,RF18-1,RF18-3,RF18-4,RF18-8,RF13-10,RF13-11,RF18-10,RF18-11
174	RD00021	SMD fixed resistor 1/10W	1.8K Ω ±5% 0805	RF4-2,RF13-2,RF13-9
175	RD00044	SMD fixed resistor 1/10W	47K Ω ±5% 0805	RF5-1,RF5-3,RF5-4,RF14-1,RF14-3,RF14-4,RF14-8,RF14-10,RF14-11
176	RD00454	SMD fixed resistor 1/10W	2.7K Ω ±5% 0805	R29,R40,R46,RF5-2,R103,R106,RF14-2,RF14-9
177	RD00018	SMD fixed resistor 1/10W	1.0K Ω ±5% 0805	R19,RF6-2,R76,R77,R81,R82,R88,R89,R96,R1-22,RF15-2,RF15-9,R2-22,R3-22,R4-22,R5-22,R6-22,R7-22,R7-45,R8-22,R8-45
178	RD00049	SMD fixed resistor 1/10W	100K Ω ±5% 0805	RF7-1,RF7-3,RF7-4,R74,R79,R86,RF16-1,RF16-3,RF16-4,RF16-8,RF16-10,RF16-11
179	RD00023	SMD fixed resistor 1/10W	2.2K Ω ±5% 0805	RF9-2,R1-13,R1-15,RF18-2,RF18-9,R2-13,R2-15,R3-13,R3-15,R4-13,R4-15,R5-13,R5-15,R6-13,R6-15,R7-13,R7-15,R7-36,R7-38,R8-13,R8-15,R8-36,R8-38
180	RD00016	SMD fixed resistor 1/10W	680 Ω ±5% 0805	R2,R3,R4,R5,R6,R7,R8,R9,R37,R44,R83,R90,R94
181	RD00015	SMD fixed resistor 1/10W	560 Ω ±5% 0805	R1-8,R2-8,R3-8,R4-8,R5-8,R6-8
182	RD00479	SMD fixed resistor 1/10W	180 Ω ±5% 0805	R1-9,R2-9,R3-9,R4-9,R5-9,R6-9,R84,R91,R95
183	RD00032	SMD fixed resistor 1/10W	10K Ω ±5% 0805	R10,R11,R12,R18,R24,R99,R1-14,R1-16,R1-18,R1-19,R1-27,R2-14,R2-16,R2-18,R2-19,R2-27,R3-14,R3-16,R3-18,R3-19,R3-27,R4-14,R4-16,R4-18,R4-19,R4-27,R5-14,R5-16,R5-18,R5-19,R5-27,R6-14,R6-16,R6-18,R6-19,R6-27,R7-14,R7-16,R7-18,R7-37,R7-39,R7-41,R8-14,R8-16,R8-18,R8-37,R8-39,R8-41,R97,R98
184	RD00033	SMD fixed resistor 1/10W	12K Ω ±5% 0805	R15,R17,R22
185	RD00009	SMD fixed resistor 1/10W	220 Ω ±5% 0805	R23,R48,R101,R104,R107,R110
186	RD00480	SMD fixed resistor 1/10W	68K Ω ±5% 0805	R25,R7-10,R7-33,R8-10,R8-33
187	RD00481	SMD fixed resistor 1/10W	8.2K Ω ±5% 0805	R28,R39,R45,R7-9,R8-9,R100,R7-32,R8-32
188	RD00042	SMD fixed resistor 1/10W	33K Ω ±5% 0805	R32,R36,R43
189	RD00043	SMD fixed resistor 1/10W	39K Ω ±5% 0805	R52,R56,R60,R64,R68,R72
190	RD00056	SMD fixed resistor 1/10W	1.0M Ω ±5% 0805	R75,R80,R87
191	RD00030	SMD fixed resistor 1/10W	6.8K Ω ±5% 0805	R1-10,R2-10,R3-10,R4-10,R5-10,R6-10,R51,R55,R59,R63,R67,R71
192	RD00020	SMD fixed resistor 1/10W	1.5K Ω ±5% 0805	R1-12,R2-12,R3-12,R4-12,R5-12,R6-12,R7-35,R8-35,R7-12,R8-12
193	RD00050	SMD fixed resistor 1/10W	150K Ω ±5% 0805	R1-17,R2-17,R3-17,R4-17,R5-17,R6-17,R7-17,R7-40,R8-17,R8-40
194	RD00027	SMD fixed resistor 1/10W	4.7K Ω ±5% 0805	R1-24,R2-24,R3-24,R4-24,R5-24,R6-24,R7-24,R7-47,R8-47,R8-24

NO	Parts NO	Description	Specification	Remark
195	RD00051	SMD fixed resistor 1/10W	180K Ω \pm 5% 0805	R102
196	SG00122	SMD integrated circuit	NJM4580M-TE3	UF1,U1,UF2,U2,UF3,U3,UF4,U4,UF5,U5,UF6,U6,UF7,U7,UF8,U9,U9,UF10,U10,UF11,U11,UF12,U12,UF13,U13,UF14,U14,U15,U15,U16,U16,U17,U17,U18,U18,U19,U19,U20,U20,U21,U21,U22,U22,U23,U23,U24,U24,U25,U25,U26,U26,U27,U27,U28,U28,U29,U29,U30,U30
197	RD00037	SMD fixed resistor 1/10W	20K Ω \pm 5% 0805	R109
198	RD00017	SMD fixed resistor 1/10W	820 Ω \pm 5% 0805	R112
199	RD00052	SMD fixed resistor 1/10W	220K Ω \pm 5% 0805	D23,D24,D25,D27
200	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	TR1,TR2
201	SF00051	SMD field effect transistor	SST176(S6)(SOT-23)/(VISHAY)	P1
202	HK00669	PC board	P-DIGIT_EFFECTD_REV04-DIP(RX700)	P1
203	HC00618	row pin (single)#1100	2.54 90° 12P 3.0/11mm	P1
204	HK00668	PC board	P-DIGIT_EFFECTD_REV04-SMD	
205	HB01092	PCB	DIGIT_EFFECT_REV04	
206	CI00026	SMD ceramic capacitor 0805	0.0033uF/50V X7R \pm 10%	C1,C6
207	CJ00005	SMD AL electrolytic capacitor	10uF/16V CASE4 ϕ	C2,C5,C9
208	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C3,C10
209	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R \pm 10%	C4,C7,C8,C12,C17,C18,C19
210	CI00146	SMD ceramic capacitor 0805	0.22uF/50V X7R \pm 10%	C11
211	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C15,C13
212	CI00145	SMD ceramic capacitor 0805	0.0015uF/50V X7R \pm 10%	C14
213	CJ00002	SMD AL electrolytic capacitor	1uF/50V CASE4 ϕ	C16
214	SE00016	SMD zener diode	1/2W 5.1V(RLZ5.1B) LL-34	D1
215	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D2,D3,D4,D5,D6,D7
216	SF00051	SMD field effect transistor	SST176(S6)(SOT-23)/(VISHAY)	Q1,Q2
217	RD00003	SMD fixed resistor 1/10W	10 Ω \pm 5% 0805	R1,R9,R10,R11
218	RD00032	SMD fixed resistor 1/10W	10K Ω \pm 5% 0805	R2,R3,R12,R13,R19,R20,R22,R25,R29
219	RD00042	SMD fixed resistor 1/10W	33K Ω \pm 5% 0805	R4,R14
220	RD00018	SMD fixed resistor 1/10W	1.0K Ω \pm 5% 0805	R5
221	RD00030	SMD fixed resistor 1/10W	6.8K Ω \pm 5% 0805	R6,R16,R27
222	RD00034	SMD fixed resistor 1/10W	15K Ω \pm 5% 0805	R7,R17
223	RD00056	SMD fixed resistor 1/10W	1.0M Ω \pm 5% 0805	R15,R26,R34
224	RD00023	SMD fixed resistor 1/10W	2.2K Ω \pm 5% 0805	R21,R31,R32
225	RD00049	SMD fixed resistor 1/10W	100K Ω \pm 5% 0805	R23
226	RD00267	SMD fixed resistor 1/10W	820K Ω \pm 5% 0805	R24
227	RD00057	SMD fixed resistor 1/10W	2.2M Ω \pm 5% 0805	R28
228	RD00009	SMD fixed resistor 1/10W	220 Ω \pm 5% 0805	R30
229	RD00038	SMD fixed resistor 1/10W	22K Ω \pm 5% 0805	R33
230	SG00200	SMD integrated circuit	NJM4580V-TE1/(JRC)	U1,U2
231	SG00005	SMD integrated circuit	BA10393F/(FOHM)	U3
232	SG00094	SMD integrated circuit	NE555DT/(ST)	U4
233	SG00068	SMD integrated circuit	74HC14DT	U5
234	SG00164	SMD integrated circuit	74HC109D	U6
235	RA00157	fixed resistor 1/4W	0.0 Ω	R31
236	CB00050	electrolytic capacitor	100uF/50V ϕ 8*11mm	C71
237	CB00069	electrolytic capacitor	1000uF/6.3V ϕ 8*11mm	C70
238	CB00064	electrolytic capacitor	470uF/16V ϕ 10*12mm	C59
239	HK00759	PC board	P-PBM8-IN_OUT-DIP	
240	CB00199	electrolytic capacitor	10uF/25V ϕ 4*7mm	C1,C2,C7,C8,C1-3,C1-4,C1-7,C17,C18,C20,C2-3,C2-4,C26,C2-7,C27,C3-3,C3-4,C4-3,C4-4,C5-3,C5-4,C6-3,C6-4,C7-5,C7-6,C7-8,C8-5,C8-6,C8-8
241	CB00033	electrolytic capacitor	22uF/25V ϕ 6*7mm	C5,C6
242	CB00203	electrolytic capacitor	47uF/35V ϕ 5*11mm	C11,C12,C15,C16,C22,C24
243	CB00127	electrolytic capacitor	47uF/63V ϕ 6*11mm	C1-1,C1-2,C2-1,C2-2,C3-1,C3-2,C4-1,C4-2,C5-1,C5-2,C6-1,C6-2,C7-1,C7-2,C8-1,C8-2
244	HC00371	MIC jack	SCJ-0658-1-Y	J1,J2,J3,J5,J6,J7,J8,J1-2,J2-2,J3-2,J4-2,J5-2,J6-2,J7-2,J7-3,J8-2,J8-3

NO	Parts NO	Description	Specification	Remark
245	HC00403	RCA jack	SCP6873NS3232T2 4P	J4
246	HC00077	row-wire header(male)	3P 2.5mm 180°	J9
247	HC00126	XLR MIC jack	JY-5042-030G female plug 180°	J1-1,J2-1,J3-1,J4-1,J5-1,J6-1,J7-1,J8-1
248	HC00076	row-wire header(male)	2P 2.5mm 180°	J1-3,J2-3
249	HC00365	row-wire header(male)	14P 2.54mm 180°(C03-14AG1)	J10,J11
250	RA00184	fixed resistor 1/4W	100Ω M type	R19,R22,R29,R32,R42,R47
251	RA00103	fixed resistor 1/2W	22Ω M type	R48,R49
252	HI00246	slide switch	2 stages 6P SS-22H23-G14(2P2T)	S2,S3
253	HI00247	slide switch	3 stages 8P SS-23D14-G14(2P3T)	S4
254	HA01918	jumper wire	4mm	S1-1,S2-1
255	HK00760	PC board	P-PBM8-IN_OUT-SMD	
256	HB01098	PCB	PBM8-IN_OUT_REV05	
257	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C3,C4,C9,C10,C13,C14
258	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C1-5,C1-6,C19,C21,C2-5,C2-6,C3-5,C3-6,C4-5,C4-6,C5-5,C5-6,C6-5,C6-6,C7-3,C7-4,C8-3,C8-4
259	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R ±10%	C1-8,C1-9,C23,C25,C28,C29,C3-7,C3-8,C5-7,C5-8,C7-9,C7-10
260	RD00009	SMD fixed resistor 1/10W	220Ω ±5% 0805	R1
261	RD00040	SMD fixed resistor 1/10W	27KΩ ±5% 0805	R2,R3
262	RD00032	SMD fixed resistor 1/10W	10KΩ ±5% 0805	R4,R5,R6,R7,R8,R9,R10,R11,R1-2,R13,R16,R18,R20,R21,R2-2,R23,R24,R27,R28,R30,R31,R3-2,R33,R34,R35,R39,R41,R4-2,R43,R44,R46,R5-2,R6-2,R7-3,R8-3,R1-10,R1-11,R2-10,R2-11,R3-10,R3-11,R4-10,R4-11,R5-10,R5-11,R6-10,R6-11
263	RD00030	SMD fixed resistor 1/10W	6.8KΩ ±5% 0805	R1-1,R1-3,R17,R2-1,R2-3,R26,R3-1,R3-3,R4-1,R4-3,R5-1,R5-3,R6-1,R6-3,R7-1,R7-2,R8-1,R8-2
264	RD00023	SMD fixed resistor 1/10W	2.2KΩ ±5% 0805	R1-4,R1-5,R1-8,R1-9,R2-4,R2-5,R2-8,R2-9,R3-4,R3-5,R36,R37,R3-8,R3-9,R4-4,R4-5,R4-8,R4-9,R5-4,R5-5,R5-8,R5-9,R6-4,R6-5,R6-8,R6-9,R1-12,R2-12,R1-13
265	RD00038	SMD fixed resistor 1/10W	22KΩ ±5% 0805	R1-6,R1-7,R2-6,R2-7,R3-6,R3-7,R4-6,R4-7,R5-6,R5-7,R6-6,R6-7,R2-13
266	RD00050	SMD fixed resistor 1/10W	150KΩ ±5% 0805	
267	RD00028	SMD fixed resistor 1/10W	5.6KΩ ±5% 0805	R15,R25,R38,R40,R45
268	RD00018	SMD fixed resistor 1/10W	1.0KΩ ±5% 0805	R7-4,R7-5,R8-4,R8-5,R1-14,R2-14,R3-14,R4-12,R5-12,R6-12
269	RD00033	SMD fixed resistor 1/10W	12KΩ ±5% 0805	R7-6,R7-7,R8-6,R8-7
270	RD00036	SMD fixed resistor 1/10W	18KΩ ±5% 0805	R7-8,R8-8,R7-10,R8-10
271	SG00122	SMD integrated circuit	NJM4580M-TE3	U1,U2,U3,U4,U5,U6,U7,U8
272	CB00040	electrolytic capacitor	47uF/25V φ 5*11mm	C1-10,C2-10,C3-10,C4-10,C5-10,C6-10
273	RA00125	fixed resistor 1/2W	470Ω M type	R50
274	CB00217	electrolytic capacitor	470uF/50V φ 10*20mm	C30
275	HK02100	PC board	P-PBM8AMP(PBM8.250)	
276	RA00138	fixed resistor 1/2W	3.3KΩ M type	R1-33,R2-33
277	RA00007	metal-oxide-film resistor 1W	22Ω P type	R1-13,R1-14,R2-13,R2-14
278	RA00051	metal-oxide-film resistor 2W	5.6Ω P type	R1-26,R2-26
279	RA00045	metal-oxide-film resistor 2W	1.5KΩ P type	R1-11,R1-12,R2-11,R2-12
280	RA00071	metal-oxide-film resistor 3W	0.1Ω RSS P type	R1-23,R1-24,R2-23,R2-24
281	RA01106	metal-oxide-film resistor 3W	10Ω RSS P type	R1-22,R2-22
282	RA00722	metal-oxide-film resistor 3W	500Ω P type	R1-21,R2-21
283	CB00009	electrolytic capacitor	1uF/50V φ 4*7mm	
284	CB00043	electrolytic capacitor	47uF/100V φ 10*12mm	C1-1,C2-1
285	CB00056	electrolytic capacitor	220uF/25V φ 8*11mm	C1-4,C2-4,C1-8,C2-8
286	CB00067	electrolytic capacitor	470uF/35V φ 10*20mm	C4,C5
287	CB00217	electrolytic capacitor	470uF/50V φ 10*20mm	C1
288	CB00093	electrolytic capacitor	4700uF/80V LCM φ 25*50mm	C1-15,C1-16,C2-15,C2-16
289	CF00033	metal-film capacitor MEF	0.1uF/250V	C1-2,C2-2
290	SA00167	bridge rectifier	2A W2-04	D1,D1-9,D2-9,D1-20,D2-20
291	SA00026	L.E.D	5m/m circle red B1115	D1-4,D2-4
292	SA00002	high speed diode	1A/600V 1N4937	D1-11,D1-12,D2-11,D2-12
293	HC00504	row-wire header(male)	10P 2.54mm 180°	J1
294	HC00172	row-wire header(male)	3P 3.96mm 180°	J2,J1-9,J2-9

NO	Parts NO	Description	Specification	Remark
295	HC00365	row-wire header(male)	14P 2.54mm 180°(C03-14AG1)	J4
296	HC00076	row-wire header(male)	2P 2.5mm 180°	J1-11,J2-11,J3
297	HA01933	jumper wire	2.5mm	R1-29,R2-29,J1-6,J2-6
298	HC00324	terminal	6.5m/m (PC250)	J1-4,J1-5,J2-4,J2-5
299	CN00060	fixed inductance	2uH 10A(CSAF-302824)(φ 1.5mm*12 1/2T)	L1-1,L2-1
300	SB00042	transistor	MJE15032	Q1-1,Q2-1
301	SB00044	transistor	MJE15033	Q1-2,Q2-2
302	SB00135	transistor	TR-93P	Q1-7,Q2-7
303	SB00136	transistor	TR-94N	Q1-8,Q2-8
304	SB00129	transistor	MPSA92(TO92)/(PHI)	Q1-5,Q2-5
305	SB00130	transistor	MPSA42(PHILIPS)	Q1-6,Q2-6
306	RH00017	thermistor	50 Ω (TDC05A050J)	R1-8,R2-8
307	RH00018	thermistor	100 Ω (PDBS8101MS)	R1-39,R2-39
308	RC00319	resistor	B100 Ω PT1030-V1B101-C1- H10	R1-16,R2-16
309	SD00032	integrated circuit	LM317T	U1
310	SD00173	integrated circuit	NJM4580L(JRC)	U2,U1-1,U2-1
311	HC00064	FUSE holder	JEF-503B (5.2mm)	F1-1,F1-2,F2-1,F2-2
312	HD00019	glass tube fuse	4A 250V φ 5.2*20mm CSA/S/UL/VDE	
313	NC00005	silicone insulator	TO-220 square type	
314	MF00030	washer	φ 3* φ 8*0.8t	
315	MF00037	washer	φ 3* φ 5*1t	
316	MG00171	screw	M3*14	
317	MI02014	heat-sink	9*83*40*260mm MISTRAL900	
318	MI01956	fixed bracket	MISTRAL900 1.5t*130*5*16mm left	
319	MJ00069	iron board	1.5*2135*1220 30.67kg	
320	NC00182	insulator	MISTRAL900 1.6t*130*16mm	
321	NC00041	red foil white board	1.6t*0.65M*70M	
322	MJ01200	spacer	MISTRAL4000 14.5*30.5*2t	
323	MJ01201	spacer	MISTRAL4000 14.5*30.5*2t	
324	MJ01154	iron board	2.0t*1850*950mm 27.6kg	
325	HC00034	connector	NO.2700 2.54mm/6mm OPEN	
326	SA00052	L.E.D high intensity	3m/m round(green)long foot 26	D2,D1-16,D2-16
327	SA00053	L.E.D high intensity	3m/m round(red)long foot 26mm	D1-18,D2-18
328	SA00054	L.E.D high intensity	3m/m round(yellow)long foot 26	D1-21,D2-21
329	NI02384	spacer support	LEDS-4 4mm	
330	SA00007	bridge rectifier	8A KBU-806 comb type	D1-1,D2-1
331	HK02231	coupling	P-photosensitive resistance+ φ 5LLED	U1-2,U2-2
332	RH00020	photosensitive resistance	VT90N1	
333	SA00201	L.E.D	φ 5 red(LI3330/A)	
334	NI02779	sleeve	φ 9*30mm	
335	NI00274	sleeve	φ 9*1000mm	
336	RH00021	thermistor	500 Ω (TDC5C150L)	R3
337	MI02134	fixed bracket	PBM-8 L long type_V1.0	
338	MI02135	fixed bracket	PBM-8 I long type_V1.0	
339	MJ00058	iron board	1*2135*1220 20.45kg	
340	ME00051	iron pillar	M3*12	
341	MG00041	screw	M3*6	
342	HK04557	PC board	P-PBM8AMP(PBM8.250)-AI	
343	RA00157	fixed resistor 1/4W	0.0 Ω	R5,R1-27,R2-27
344	RA01259	fixed resistor 1/4W	47 Ω	R1-25,R2-25,R2
345	RA01112	fixed resistor 1/4W	100 Ω	R1-32,R2-32

NO	Parts NO	Description	Specification	Remark
346	RA01273	fixed resistor 1/4W	150 Ω	R1-15,R2-15
347	RA01283	fixed resistor 1/4W	330 Ω	R1-5,R2-5
348	RA01238	precise resistor 1/4W	6.8K Ω	R1-40,R2-40
349	RA01234	precise resistor 1/4W	4.7K Ω	R1-30,RR-31,R2-30,R2-31,R1-41,R1-42,R2-41,R2-42
350	RA01122	fixed resistor 1/4W	47K Ω	R1-34,R2-34
351	RA01111	fixed resistor 1/4W	100K Ω	R1-35,R2-35
352	RA01288	fixed resistor 1/4W	120K Ω	R1-36,R2-36
353	RA01270	fixed resistor 1/4W	3.3K Ω	R1,R4
354	CA00079	ceramic capacitor	100PF SL	C1-3,C2-3
355	CA00082	ceramic capacitor	0.1uF SL	C2
356	CB00234	electrolytic capacitor	10uF/50V φ 6*7mm	C1-23,C2-23,C6
357	CB00188	electrolytic capacitor	10uF/63V φ 5*11mm 2.5mm	C3
358	CB00194	electrolytic capacitor	47uF/25V φ 5*11mm	C1-26,C1-27,C2-26,C2-27
359	CF00148	metal-film capacitor	0.0033uF/100V 5% CASE01	C1-14,C2-14
360	SA00093	rectifier diode	1N4148 0.5A	D1-6,D1-7,D2-6,D2-7,D1-10,D1-19,D2-10,D2-19
361	SA00098	rectifier diode	1A/400V IN4004	D1-2,D2-2,D1-15,D1-17,D2-15,D2-17
3692	RA01325	fixed resistor 1/8W	4.7 Ω	R1-17,R1-18,R2-17,R2-18
363	RA01327	fixed resistor 1/8W	820 Ω	R1-9,R2-9,R1-10,R2-10
364	RA01326	fixed resistor 1/8W	390 Ω	R1-4,R1-7,R2-4,R2-7
365	CA00097	ceramic capacitor	27PF NPO	C1-7,C2-7
366	CA00098	ceramic capacitor	56PF NPO	C1-5,C2-5
367	CA00099	ceramic capacitor	0.0033uF	C1-11,C1-12,C2-11,C2-12
368	CA00100	ceramic capacitor	0.022uF/50V±20% Y5U	C1-10,C2-10
369	CB00262	electrolytic capacitor	47uF/16V NP φ 6.3*11mm	C1-6,C2-6
370	CF00154	metal-film capacitor MSC	0.0022uF/63V 5% CASE01	C1-9,C2-9
371	CF00153	metal-film capacitor MSC	0.022uF/63V 5% CASE01	C1-13,C2-13
372	SA00256	zener diode	1W 15V IN4744	D1-3,D1-5,D1-8,D2-3,D2-5,D2-8
373	SA00257	zener diode	1/2W 3.9V	D1-13,D1-14,D2-13,D2-14
374	RA01113	fixed resistor 1/4W	10K Ω	R1-2,R1-3,R2-2,R2-3,R1-28,R2-28
375	RA01328	fixed resistor 1/8W	12K Ω	R1-6,R2-6,R1-37,R1-38,R2-38
376	HB01263	PCB	PBM8AMP_VER041118	
377	HK01409	PC board	P-313123-DIP(AMX-140FX)	
378	SC00004	quartz crystalloid	16.00MHZ LP-3.5S(HC-49US)	XT1
379	HC00484	row pin (single)#2200	2.54 180° 2*8P 13.5/19mm	CN2
380	SG00193	SMD integrated circuit	AT27LV010A-90JC/L-8	IC4
381	SG00139	SMD integrated circuit	AT27LV010A-90JC	
382	HK04041	PC board	P-313123-AI(L-8)	
383	HK03894	PC board	P-313123-SMD(L-8)	
384	HB00895	PCB	313123/2(1*6)	
385	C100049	SMD ceramic capacitor 0603	15PF/50V NPO ±5%	C8,C9
386	C100075	SMD ceramic capacitor 0603	0.1uF/50V Y5V +80,-20%	C17,C15,C18,C6,C10,C22,C20,C13,C14,C1,C3,C4,C11
387	RD00061	SMD fixed resistor 1/10W	10 Ω ±5% 0603	R22
388	RD00068	SMD fixed resistor 1/10W	100 Ω ±5% 0603	R12,R14,R7,R8,R34,R17,R13,R33
389	RD00073	SMD fixed resistor 1/10W	220 Ω ±5% 0603	R3
390	RD00085	SMD fixed resistor 1/10W	1.5K Ω ±5% 0603	R16,R15,R21,R20,R4,R19,R10,R18,R9,R5
391	RD00088	SMD fixed resistor 1/10W	2.2K Ω ±5% 0603	R28,R27,R23,R24,R29,R30,R25,R26
392	RD00101	SMD fixed resistor 1/10W	10K Ω ±5% 0603	R32,R31,R1
393	RD00125	SMD fixed resistor 1/10W	1.0M Ω ±5% 0603	R2
394	RE00006	SMDrow resistor1/16W	100 Ω *4 ±5% 8P 0603	AR1,AR2
395	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D1
396	SG00068	SMD integrated circuit	74HC14DT	IC1
397	SG00138	SMD integrated circuit	AS4LC256K16EO-60JC	IC6
398	SG00166	SMD integrated circuit	TY-2 ALTO(GMCODE:105022)	IC3
399	SG00147	SMD integrated circuit	CHEF DSP(GMCODE:105022)	
400	SG00037	SMD integrated circuit	LD1117DT33C(TO-252)	IC2

NO	Parts NO	Description	Specification	Remark
401	HC00233	IC socket (SMD)	PLCC32 (D03-32T.A.4)	IC4
402	SG00016	SMD integrated circuit	UDA1345TS (Philips)	IC5
403	CB00165	electrolytic capacitor	10uF/16V φ 4*5mm	C7
404	CB00166	electrolytic capacitor	100uF/16V φ 6*5mm	C19,C12,C5,C24,C16,C21,C25,C26,C28,C2
405	NE11475	label	L-8	
406	NH00035	bond paper	0.06*1M	
407	NI00017	membrane	0.055*1M	
408	HA01315	single terminal wiring CF:W56	100 green/yellow	
409	HA02774	wire	3P-2P/2P 500mm UL1185 26AWG blue/red	
410	HA02278	wire	90mm	
411	HA02276	wire	90mm	
412	NI00252	sleeve	φ 4*20mm	
413	NI00248	sleeve	φ 4*1000mm	
414	MI02202	fixed bracket	PBM-8 L type_V1.0	
415	MJ00063	Zn-plated board	1.2*2135*1220 24.54kg	
416	MI02203	fixed bracket	PBM-8 L type_V1.0	
417	MJ00063	Zn-plated board	1.2*2135*1220 24.54kg	
418	HA01825	wire	100 red	
419	HA01828	P.V.C single wave wired UL1015	230 green	
420	MJ00326	partition	PBM-8_V1.2	
421	MJ00092	AL board	1.5*2000*1000 8.16kg	
422	NC00131	washer	1* φ 11.3* φ 15.3 red	
423	MG00167	screw	M3*10	
424	HC00008	AC socket	3515 A TYPE(RF-2004-C-4.8)	
425	NA00279	clip-chain bag	0.04t*100*150mm_V1.0	
426	AD00012	twin adhesive	90*120mm_V1.0	

PBM8.500 BOM

NO	Parts NO	Description	Specification	Remark
1	MA05061	panel	PBM8.500 ALTO_V1.2	
2	MA05058	panel	PBM-8	
3	MA04492	panel	PBM-8 1.5t*460*255	
4	MJ00088	iron board	1.5*2135*1220 30.67kg	
5	MB03362	rear board	PBM8.500 ALTO_V1.2	
6	MB03516	bottom board	PBM-8.500	
7	MB03525	bottom board	PBM-8.500_V1.0	
8	MJ00088	iron board	1.5*2135*1220 30.67kg	
9	ME00097	screw pillar	M3*10*0.5PH	
10	MJ01257	side board	PBM-8	
11	MJ01258	side board	PBM-8 1.5t*279*200	
12	MJ00088	iron board	1.5*2135*1220 30.67kg	
13	NI02795	side cover	PBM-8 286*210.6*55 black_V1.1	
14	NI02796	fixed bolt	PBM-8 φ 14*17.6 black	
15	NI02797	bracket	PBM-8 16*12	
16	NI02798	fixed foot cushion	PBM-8 150*28*25	
17	NI02732	handle	13*56.94*218.23 PS 4HA black	
18	NI02733	handl cover	10.8*34*147 PS 4HA black	
19	NC00201	side board	PBM-8_V1.2	
20	MI02128	fixed bracket	PBM-8 L type_V1.0	
21	MI02129	fixed bracket	PBM-8 L type_V1.0	
22	MJ00058	iron board	1*2135*1220 20.45kg	

NO	Parts NO	Description	Specification	Remark
23	MI02130	fixed bracket	PBM-8_V1.0	
24	MI02131	fixed bracket	PBM-8_V1.0	
25	MJ00088	iron board	1.5*2135*1220 30.67kg	
26	MI02132	fixed bracket	PBM-8 L short type_V1.0	
27	MI02133	fixed bracket	PBM-8 L short type_V1.0	
28	MJ00088	iron board	1.5*2135*1220 30.67kg	
29	MI01876	fixed bracket	PBM-8 1.5t*110*60*120_V1.2	
30	MJ00069	iron board	1.5*2135*1220 30.67kg	
31	MG00248	copper pillar	M3*15*0.5PHdouble plane	
32	MG00363	copper pillar	M3*14*0.5PH	
33	MG00243	copper pillar	M3*5*0.5PH	
34	MG00161	screw	M3*6	
35	MF00014	washer	ϕ 3* ϕ 6.5*0.5t	
36	MG00326	screw	3*4	
37	MG00041	screw	M3*6	
38	MG00061	screw	M3*10	
39	MG00361	screw	M4*20mm	
40	MG00437	screw	M3*16	
41	MG00042	screw	M3*10	
42	MG00172	screw	M4*10	
43	MG00173	screw	M4*20	
44	ME00015	nut	3m/m	
45	ME00016	nut	4m/m	
46	MF00037	washer	ϕ 3* ϕ 5*1t	
47	MF00038	washer	ϕ 4* ϕ 7*1t	
48	MF00048	washer	ϕ 4* ϕ 8*0.5t	
49	MG00020	screw	M3*8	
50	ME00026	nut	8m/m	
51	MF00041	washer	ϕ 8* ϕ 13.5*2t	
52	MF00055	washer	ϕ 8* ϕ 18*1.5t	
53	NI00437	rubber coil	ϕ 20* ϕ 120*2tB	
54	MJ00229	partition	PBM-8_V1.3	
55	MJ00087	iron board	0.3*200*3000 1.431kg	
56	HE00049	fan	24V/0.21A 80*80*25mm 360mm JST2P	
57	HD00017	glass tube fuse	10A ϕ 5*20mm VDE	
58	HI00022	power switch	4p black frame red key	
59	TD00256	transformer	PT-PBM8.500_115V	
60	NI02620	insulation board	1*86.5*53 L-8	
61	NC00010	insulator	0.65M*60M*1t	
62	ND00325	EV bubble sponge	5.0t*150*20mm_V1.0	
63	MI02121	separating shade	PBM-8_V1.0	
64	MJ00999	AL board	1*2000*1000 5.44kg	
65	ME00060	nut	JY-6351G-02-250	
66	MF00061	washer	JY-6351G-02-250	
67	NI02957	knob	9.8*5.5*11.2mm black_V1.0	
68	NI00359	knob	ϕ 10*16.5	
69	NI00399	knob	ϕ 11*19mm	
70	NI02386	konb	ϕ 14*13mm	
71	NI02252	knob cover	ϕ 7*3.5 072C	
72	NI01147	knob cover	ϕ 7*3.5	
73	NI02100	knob cover	ϕ 7*3.5 222C	
74	NI02692	knob cover	ϕ 7*3.5 black	
75	NI02101	knob cover	ϕ 8.5*4 222C	
76	NI02677	knob cover	ϕ 8.5*4 534C blue	
77	HA00841	power cord(America 3P)	LT-202+18A*3C(SVT) 6FT+LT-	

NO	Parts NO	Description	501 Specification	Remark
78	NI01627	fixed bracket	CM-19S	
79	NI00218	cable tie-black	ALT-102SB	
80	HJ00006	desiccant	30g	
81	NA00137	clip-chain bag	5*7	
82	NA00135	PE bag	0.05t*610*500mm	
83	NE00840	label	SOLTON	
84	NH00115	paper	0.045*1M	
85	NI00015	membrane	0.04*1M	
86	NE02717	label	MADE IN CHINA	
87	NH00038	paper	0.115*1M	
88	NI00028	membrane	0.110*1M	
89	NF00061	assurance card	ALTO	
90	NE11347	label	ALTO PI	
91	NH00334	cone paper	0.040*1m	
92	NE12754	label	PBM8.500_V1.0	
93	NH00012	bond paper	0.04*1M	
94	NI00014	membrane	0.035*1M	
95	NB02956	cushion	PBM8.500 left_V1.0	
96	NB02957	cushion	PBM8.500 right_V1.0	
97	NF01736	instruction	PBM8.250/PBM8.500 ALTO_V1.1	
98	NH00149	paper	889*640mm	
99	NB02961	box	PBM8.500 ALTO_V1.0	
100	NB02912	box	PBM8.250/PBM8.500 ALTO_V1.1	
101	HK04256	PC board	P-PBM8_SPEAKER	
102	HB01216	PCB	PBM8_SPEAK_VER040306	
103	HC00442	speaker holder	NL4MP (NEUTRIK)	
104	HC00371	MIC jack	SCJ-0658-1-Y	
105	MJ00942	fixed board	CS12/600	
106	MJ00061	Zn-plated board	1*2135*1220 20.45kg	
107	HA01209	quick terminal wiring	450 black 450 red (PC250C)	
108	HK00758	PC board	P-PBM8_CTRL-DIP	
109	CB00009	electrolytic capacitor	1uF/50V φ 4*7mm	
110	CB00199	electrolytic capacitor	10uF/25V φ 4*7mm	C4,C8,C1-7,C2-7,C34,C35,C36,C3-7,C37,C38,C4-7,C55,C5-7,C57,C6-7,C7-7,C8-7,C1-10,C2-10,C3-10,C4-10,C5-10,C6-10,C7-10,C7-17,C7-20,C8-10,C8-17,C8-20
111	CB00039	electrolytic capacitor	47uF/25V φ 5*11mm	
112	CB00139	electrolytic capacitor	4.7uF/63V NP φ 6.3*11mm	
113	CF00032	metal-film capacitor MSC	0.1uF/100V 5% CASE01	
114	CB00073	electrolytic capacitor	1000uF/35V φ 13*20mm	
115	CB00186	electrolytic capacitor	33uF/100V φ 8*11.5mm	
116	CB00058	electrolytic capacitor	220uF/35V φ 10*12mm	
117	CB00187	electrolytic capacitor	100uF/100V φ 10*20mm	
118	CB00137	electrolytic capacitor	2.2uF/100V φ 5*11mm	
119	CB00127	electrolytic capacitor	47uF/63V φ 6*11mm	
120	SA00053	L.E.D high intensity	3m/m round(red)long foot 26mm	
121	SA00093	rectifier diode	1N4148 0.5A	
122	SA00052	L.E.D high intensity	3m/m round(green)long foot 26	
123	SA00054	L.E.D high intensity	3m/m round(yellow)long foot 26	
124	NI01786	LED spacer support	LEDS-12 12mm	
125	SA00167	bridge rectifier	2A W2-04	
126	SA00098	rectifier diode	1A/400V IN4004	
127	HC00644	row-wire header(male)	3P 3.96mm 90°	
128	HC00473	row pin header(double)	2.45mm 180° 2*8P B25-2*8BG1(B)H=5mm	
129	HA02076	header wiring	14P-14P 30mm PH=1.27mm	
130	RC00365	potentiometer	W100K Ω RA3072-20R-9.5LC-W100K-C04	RF1-7,RF2-7,RF3-7,RF4-7,RF5-7,RF6-7,RF7-7,RF8-7,RF9-7,RF10-7,RF11-7,RF12-7,RF13-7,RF14-7,RF15-7,RF16-7,RF17-7,RF18-7

NO	Parts NO	Description	Specification	Remark
131	RA00231	fixed resistor 1/4W	4.7K Ω M type	
132	RC00358	potentiometer	B50K Ω -RD09F113A223-50K2BT(SAS1);30F-C	R1-1,R1-2,R1-3,R1-4,R1-5,R1-6,R1-7,R20,R2-1,R2-2,R2-3,R2-4,R2-5,R2-6,R2-7,R27,R3-1,R3-2,R3-3,R3-4,R3-5,R3-6,R3-7,R4-1,R4-2,R4-3,R4-4,R4-5,R4-6,R4-7,R5-1,R5-2,R5-3,R5-4,R5-5,R5-6,R5-7,R6-1,R6-2,R6-3,R6-4,R6-5,R6-6,R6-7
133	RC00360	potentiometer	B50K Ω RD12L12CA23A-50K3BT*2(SAS1);30F-C	R13,R38,R7-1,R7-2,R7-3,R7-4,R7-5,R7-6,R7-7,R8-1,R8-2,R8-3,R8-4,R8-5,R8-6,R8-7
134	RA00119	fixed resistor 1/2W	220 Ω M type	R35,R42
135	RA00324	fixed resistor 1/8W	22 Ω M type	R92,R93
136	RA00955	metal-oxide-film resistor 5W	82 Ω P type	R108
137	RA00139	fixed resistor 1/2W	3.9K Ω M type	R111
138	RA00330	fixed resistor 1/8W	100 Ω M type	RF1-6,RF2-6,RF3-6,RF4-6,RF5-6,RF6-6,RF7-6,RF8-6,RF9-6,RF10-6,RF11-6,RF12-6,RF13-6,RF14-6,RF15-6,RF16-6,RF17-6,RF18-6,RF10-13,RF11-13,RF12-13,RF13-13,RF14-13,RF15-13,RF16-13,RF17-13,RF18-13
139	HI00195	rotary encode	SDB161PVB15.5F-1-4-16-16PC	SW1,SW2
140	HI00238	push-button switch	2 stage 6P PS-9226A(NON-LOCK)	S1
141	HI00236	push-button switch	2-stage 6P PS-9226A(SELF-LOCK)	S2,S3,S1-1,S2-1,S3-1,S4-1,S5-1,S6-1,S7-1,S8-1
142	SD00032	integrated circuit	LM317T	U8,U12,U19
143	SD00033	integrated circuit	LM337SP(1.5A)(TO-220)	U18
144	NI00863	insulate bean	TO220B	
145	ME00015	nut	3m/m	
146	MF00037	washer	ϕ 3* ϕ 5*1t	
147	MG00166	screw	M3*10	
148	MG00243	copper pillar	M3*5*0.5PH	
149	MG00326	screw	3*4	
150	MI02137	heat simk	PBM-8_V1.0	
151	MJ00055	AL board	2*2000*1000 10.88kg	
152	HK00756	PC board	P-PBM8_CTRL-SMD	
153	HB01097	PCB	PBM8-CTRL_REV06	
154	CI00146	SMD ceramic capacitor 0805	0.22uF/50V X7R \pm 10%	CF1-1,CF1-2,CF2-1,CF2-2,CF10-1,CF10-2,CF10-3,CF10-4,CF11-1,CF11-2,CF11-3,CF11-4
155	CI00098	SMD ceramic capacitor 0805	0.033uF/50V X7R \pm 10%	CF3-1,CF3-2,CF4-1,CF4-2,CF12-1,CF12-2,CF12-3,CF12-4,CF13-1,CF13-2,CF13-3,CF13-4
156	CI00112	SMD ceramic capacitor 0805	0.01uF/50V X7R \pm 10%	CF5-1,CF5-2,CF6-1,CF6-2,CF14-1,CF14-2,CF14-3,CF14-4,CF15-1,CF15-2,CF15-3,CF15-4
157	CI00021	SMD ceramic capacitor 0805	0.001uF/50V NPO \pm 5%	C1-3,C2-3,C3-3,C4-3,C5-3,C6-3,CF7-1,CF7-2,C7-3,CF8-1,CF8-2,C8-3,CF9-1,CF9-2,CF16-1,CF16-2,CF16-3,CF16-4,CF17-1,CF17-2,CF17-3,CF17-4,CF18-1,CF18-2,CF18-3,CF18-4,C7-13,C8-13
158	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C2,C3,C5,C6,C7,C9,C11,C12,C14,C16,C18,C20,C22,C24,C26,C30,C7-1,C8-1,C7-11,C8-11
159	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C1-1,C2-1,C3-1,C4-1,C5-1,C6-1
160	CI00024	SMD ceramic capacitor 0805	0.0022uF/50V X7R \pm 10%	C1-2,C2-2,C3-2,C4-2,C5-2,C6-2,C7-2,C8-2,C7-12,C8-12
161	CI00016	SMD ceramic capacitor 0805	100PF/50V NPO	C1-4,C2-4,C3-4,C4-4,C5-4,C6-4,C7-4,C8-4,C7-14,C8-14
162	CI00026	SMD ceramic capacitor 0805	0.0033uF/50V X7R \pm 10%	C1-5,C2-5,C3-5,C4-5,C5-5,C6-5,C7-5,C8-5,C7-15,C8-15
163	CI00133	SMD ceramic capacitor 0805	0.047uF/-50V X7R \pm 10%	C1-6,C2-6,C3-6,C4-6,C5-6,C6-6,C7-6,C8-6,C7-16,C8-16
164	CI00001	SMD ceramic capacitor 0805	10PF/50V NPO	C1-8,C1-9,C23,C25,C27,C2-8,C2-9,C29,C31,C33,C3-8,C3-9,C4-8,C4-9,C5-8,C5-9,C6-8,C6-9,C7-8,C7-9,C8-8,C8-9,C7-18,C7-19,C8-18,C8-19
165	CI00018	SMD ceramic capacitor 0805	220PF/50V NPO \pm 5%	C28,C32
166	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R \pm 10%	C45,C46,C54,C58,C60,C61,C62,C63,C64,C65,C66,C67,C68,C1-11,C1-12,C1-13,C1-14,C2-11,C2-12,C2-13,C2-14,C3-11,C3-12,C3-13,C3-14,C4-11,C4-12,C4-13,C4-14,C5-11,C5-12,C5-13,C5-14,C6-11,C6-12,C6-13,C6-14,C7-21,C7-22,C7-23,C7-24,C8-21,C8-22,C8-23,C8-24,C69,C50,C56
167	RD00038	SMD fixed resistor 1/10W	22K Ω \pm 5% 0805	RF1-1,RF1-3,RF1-4,RF2-1,RF2-3,RF2-4,R50,R53,R58,R61,R66,R69,R73,R78,R85,RF10-1,RF10-3,RF10-4,RF10-8,RF11-1,RF11-3,RF11-4,RF11-8,RF1-20,R1-23,R1-25,R1-26,R1-28,R2-20,R2-23,R2-25,R2-26,R2-28,R3-20,R3-23,R3-25,R3-26,R3-28,R4-20,R4-23,R4-25,R4-26,R4-28,R5-20,R5-23,R5-25,R5-26,R5-28,R6-20,R6-23,R6-25,R6-26,R6-28,R7-20,R7-23,R7-26,R7-27,R7-28,R7-43,R7-46,R7-49,R8-20,R8-23,R8-26,R8-27,R8-28,R8-43,R8-46,R8-49,RF10-10,RF10-11,RF11-10,RF11-11
168	RD00028	SMD fixed resistor 1/10W	5.6K Ω \pm 5% 0805	RF1-2,R33,R49,R54,R57,R62,R65,R70,RF7-2,RF10-2,RF10-9,R1-21,RF16-2,RF16-9,R2-21,R3-21,R4-21,R5-21,R6-21,R7-21,R7-44,R8-21,R8-44
169	RD00036	SMD fixed resistor 1/10W	18K Ω \pm 5% 0805	RF1-5,RF2-5,RF3-5,RF4-5,RF5-5,RF6-1,RF6-3,RF6-4,RF6-5,RF7-5,RF8-5,RF9-5,RF10-5,RF11-5,RF12-5,RF13-5,RF14-5,RF15-1,RF15-3,RF15-4,RF15-5,RF15-8,RF16-5,RF17-5,RF18-5,RF10-12,RF11-12,RF12-12,RF13-12,RF14-12,RF15-10,RF15-11,RF15-12,RF16-12,RF17-12,RF18-12

NO	Parts NO	Description	Specification	Remark
170	RD00019	SMD fixed resistor 1/10W	1.2KΩ ±5% 0805	RF2-2,RF11-2,RF11-9
171	RD00046	SMD fixed resistor 1/10W	56KΩ ±5% 0805	R14,R16,R21,RF3-1,RF3-3,RF3-4,RF8-1,RF8-3,RF8-4,RF12-1,RF12-3,RF12-4,RF12-8,RF17-1,RF17-3,RF17-4,RF17-8,RF12-10,RF12-11,RF17-10,RF17-11,R34
172	RD00025	SMD fixed resistor 1/10W	3.3KΩ ±5% 0805	RF3-2,RF8-2,RF12-2,RF12-9,RF17-2,RF17-9
173	RD00040	SMD fixed resistor 1/10W	27KΩ ±5% 0805	RF4-1,RF4-3,RF4-4,RF9-1,RF9-3,RF9-4,RF13-1,RF13-3,RF13-4,RF13-8,RF18-1,RF18-3,RF18-4,RF18-8,RF13-10,RF13-11,RF18-10,RF18-11
174	RD00021	SMD fixed resistor 1/10W	1.8KΩ ±5% 0805	RF4-2,RF13-2,RF13-9
175	RD00044	SMD fixed resistor 1/10W	47KΩ ±5% 0805	RF5-1,RF5-3,RF5-4,RF14-1,RF14-3,RF14-4,RF14-8,RF14-10,RF14-11
176	RD00454	SMD fixed resistor 1/10W	2.7KΩ ±5% 0805	R29,R40,R46,RF5-2,R103,R106,RF14-2,RF14-9
177	RD00018	SMD fixed resistor 1/10W	1.0KΩ ±5% 0805	R19,RF6-2,R76,R77,R81,R82,R88,R89,R96,R1-22,RF15-2,RF15-9,R2-22,R3-22,R4-22,R5-22,R6-22,R7-22,R7-45,R8-22,R8-45
178	RD00049	SMD fixed resistor 1/10W	100KΩ ±5% 0805	RF7-1,RF7-3,RF7-4,R74,R79,R86,RF16-1,RF16-3,RF16-4,RF16-8,RF16-10,RF16-11
179	RD00023	SMD fixed resistor 1/10W	2.2KΩ ±5% 0805	RF9-2,R1-13,R1-15,RF18-2,RF18-9,R2-13,R2-15,R3-13,R3-15,R4-13,R4-15,R5-13,R5-15,R6-13,R6-15,R7-13,R7-15,R7-36,R7-38,R8-13,R8-15,R8-36,R8-38
180	RD00016	SMD fixed resistor 1/10W	680Ω ±5% 0805	R2,R3,R4,R5,R6,R7,R8,R9,R37,R44,R83,R90,R94
181	RD00015	SMD fixed resistor 1/10W	560Ω ±5% 0805	R1-8,R2-8,R3-8,R4-8,R5-8,R6-8
182	RD00479	SMD fixed resistor 1/10W	180Ω ±5% 0805	R1-9,R2-9,R3-9,R4-9,R5-9,R6-9,R84,R91,R95
183	RD00032	SMD fixed resistor 1/10W	10KΩ ±5% 0805	R10,R11,R12,R18,R24,R99,R1-14,R1-16,R1-18,R1-19,R1-27,R2-14,R2-16,R2-18,R2-19,R2-27,R3-14,R3-16,R3-18,R3-19,R3-27,R4-14,R4-16,R4-18,R4-19,R4-27,R5-14,R5-16,R5-18,R5-19,R5-27,R6-14,R6-16,R6-18,R6-19,R6-27,R7-14,R7-16,R7-18,R7-37,R7-39,R7-41,R8-14,R8-16,R8-18,R8-37,R8-39,R8-41,R97,R98
184	RD00033	SMD fixed resistor 1/10W	12KΩ ±5% 0805	R15,R17,R22
185	RD00009	SMD fixed resistor 1/10W	220Ω ±5% 0805	R23,R48,R101,R104,R107,R110
186	RD00480	SMD fixed resistor 1/10W	68KΩ ±5% 0805	R25,R7-10,R7-33,R8-10,R8-33
187	RD00481	SMD fixed resistor 1/10W	8.2KΩ ±5% 0805	R28,R39,R45,R7-9,R8-9,R100,R7-32,R8-32
188	RD00042	SMD fixed resistor 1/10W	33KΩ ±5% 0805	R32,R36,R43
189	RD00043	SMD fixed resistor 1/10W	39KΩ ±5% 0805	R52,R56,R60,R64,R68,R72
190	RD00056	SMD fixed resistor 1/10W	1.0MΩ ±5% 0805	R75,R80,R87
191	RD00030	SMD fixed resistor 1/10W	6.8KΩ ±5% 0805	R1-10,R2-10,R3-10,R4-10,R5-10,R6-10,R51,R55,R59,R63,R67,R71
192	RD00020	SMD fixed resistor 1/10W	1.5KΩ ±5% 0805	R1-12,R2-12,R3-12,R4-12,R5-12,R6-12,R7-35,R8-35,R7-12,R8-12
193	RD00050	SMD fixed resistor 1/10W	150KΩ ±5% 0805	R1-17,R2-17,R3-17,R4-17,R5-17,R6-17,R7-17,R7-40,R8-17,R8-40
194	RD00027	SMD fixed resistor 1/10W	4.7KΩ ±5% 0805	R1-24,R2-24,R3-24,R4-24,R5-24,R6-24,R7-24,R7-47,R8-47,R8-24
195	RD00051	SMD fixed resistor 1/10W	180KΩ ±5% 0805	R102
196	SG00122	SMD integrated circuit	NJM4580M-TE3	UF1,U1,UF2,U2,UF3,U3,UF4,U4,UF5,U5,UF6,U6,UF7,U7,UF8,U9,U9,UF10,U10,UF11,U1-1,U11,UF12,U1-2,UF13,U13,UF14,U14,U15,U16,U17,U2-1,U2-2,U3-1,U3-2,U4-1,U4-2,U5-1,U5-2,U6-1,U6-2,U7-1,U7-2,U7-3,U8-1,U8-2,U8-3
197	RD00037	SMD fixed resistor 1/10W	20KΩ ±5% 0805	R41,R47,R30
198	RD00017	SMD fixed resistor 1/10W	820Ω ±5% 0805	R109
199	RD00052	SMD fixed resistor 1/10W	220KΩ ±5% 0805	R112
200	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D23,D24,D25,D27
201	SF00051	SMD field effect transistor	SST176(S6)(SOT-23)/(VISHAY)	TR1,TR2
202	HK00669	PC board	P-DIGIT_EFFECTD_REV04-DIP(RX700)	P1
203	HC00618	row pin (single)#1100	2.54 90° 12P 3.0/11mm	P1
204	HK00668	PC board	P-DIGIT_EFFECTD_REV04-SMD	
205	HB01092	PCB	DIGIT_EFFECT_REV04	
206	CI00026	SMD ceramic capacitor 0805	0.0033uF/50V X7R ±10%	C1,C6
207	CJ00005	SMD AL electrolytic capacitor	10uF/16V CASE4 φ	C2,C5,C9
208	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C3,C10
209	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R ±10%	C4,C7,C8,C12,C17,C18,C19
210	CI00146	SMD ceramic capacitor 0805	0.22uF/50V X7R ±10%	C11
211	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C15,C13
212	CI00145	SMD ceramic capacitor 0805	0.0015uF/50V X7R ±10%	C14
213	CJ00002	SMD AL electrolytic capacitor	1uF/50V CASE4 φ	C16
214	SE00016	SMD zener diode	1/2W 5.1V(RLZ5.1B) LL-34	D1
215	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D2,D3,D4,D5,D6,D7

NO	Parts NO	Description	Specification	Remark
216	SF00051	SMD field effect transistor	SST176(S6)(SOT-23)/(VISHAY)	Q1,Q2
217	RD00003	SMD fixed resistor 1/10W	10Ω ±5% 0805	R1,R9,R10,R11
218	RD00032	SMD fixed resistor 1/10W	10KΩ ±5% 0805	R2,R3,R12,R13,R19,R20,R22,R25,R29
219	RD00042	SMD fixed resistor 1/10W	33KΩ ±5% 0805	R4,R14
220	RD00018	SMD fixed resistor 1/10W	1.0KΩ ±5% 0805	R5
221	RD00030	SMD fixed resistor 1/10W	6.8KΩ ±5% 0805	R6,R16,R27
222	RD00034	SMD fixed resistor 1/10W	15KΩ ±5% 0805	R7,R17
223	RD00056	SMD fixed resistor 1/10W	1.0MΩ ±5% 0805	R15,R26,R34
224	RD00023	SMD fixed resistor 1/10W	2.2KΩ ±5% 0805	R21,R31,R32
225	RD00049	SMD fixed resistor 1/10W	100KΩ ±5% 0805	R23
226	RD00267	SMD fixed resistor 1/10W	820KΩ ±5% 0805	R24
227	RD00057	SMD fixed resistor 1/10W	2.2MΩ ±5% 0805	R28
228	RD00009	SMD fixed resistor 1/10W	220Ω ±5% 0805	R30
229	RD00038	SMD fixed resistor 1/10W	22KΩ ±5% 0805	R33
230	SG00200	SMD integrated circuit	NJM4580V-TE1/(JRC)	U1,U2
231	SG00005	SMD integrated circuit	BA10393F/(FOHM)	U3
232	SG00094	SMD integrated circuit	NE555DT/(ST)	U4
233	SG00068	SMD integrated circuit	74HC14DT	U5
234	SG00164	SMD integrated circuit	74HC109D	U6
235	RA00157	fixed resistor 1/4W	0.0Ω	R31
236	CB00050	electrolytic capacitor	100uF/50V φ 8*11mm	C71
237	CB00069	electrolytic capacitor	1000uF/6.3V φ 8*11mm	C70
238	CB00064	electrolytic capacitor	470uF/16V φ 10*12mm	C59
239	HK00759	PC board	P-PBM8-IN_OUT-DIP	
240	CB00199	electrolytic capacitor	10uF/25V φ 4*7mm	C1,C2,C7,C8,C8-1,C8-2,C8-3,C8-4,C8-5,C8-6,C8-7,C8-8,C8-9,C8-10,C8-11,C8-12,C8-13,C8-14,C8-15,C8-16,C8-17,C8-18,C8-19,C8-20,C8-21,C8-22,C8-23,C8-24,C8-25,C8-26,C8-27,C8-28,C8-29,C8-30,C8-31,C8-32,C8-33,C8-34,C8-35,C8-36,C8-37,C8-38,C8-39,C8-40,C8-41,C8-42,C8-43,C8-44,C8-45,C8-46,C8-47,C8-48,C8-49,C8-50,C8-51,C8-52,C8-53,C8-54,C8-55,C8-56,C8-57,C8-58,C8-59,C8-60,C8-61,C8-62,C8-63,C8-64,C8-65,C8-66,C8-67,C8-68,C8-69,C8-70,C8-71,C8-72,C8-73,C8-74,C8-75,C8-76,C8-77,C8-78,C8-79,C8-80,C8-81,C8-82,C8-83,C8-84,C8-85,C8-86,C8-87,C8-88,C8-89,C8-90,C8-91,C8-92,C8-93,C8-94,C8-95,C8-96,C8-97,C8-98,C8-99,C8-100
241	CB00033	electrolytic capacitor	22uF/25V φ 6*7mm	C11,C12,C15,C16,C22,C24
242	CB00203	electrolytic capacitor	47uF/35V φ 5*11mm	
243	CB00127	electrolytic capacitor	47uF/63V φ 6*11mm	C1-1,C1-2,C2-1,C2-2,C3-1,C3-2,C4-1,C4-2,C5-1,C5-2,C6-1,C6-2,C7-1,C7-2,C8-1,C8-2
244	HC00371	MIC jack	SCJ-0658-1-Y	J1,J2,J3,J5,J6,J7,J8,J1-2,J2-2,J3-2,J4-2,J5-2,J6-2,J7-2,J7-3,J8-2,J8-3
245	HC00403	RCA jack	SCP6873NS3232T2 4P	J4
246	HC00077	row-wire header(male)	3P 2.5mm 180°	J9
247	HC00126	XLR MIC jack	JY-5042-030G female plug 180°	J1-1,J2-1,J3-1,J4-1,J5-1,J6-1,J7-1,J8-1
248	HC00076	row-wire header(male)	2P 2.5mm 180°	J1-3,J2-3
249	HC00365	row-wire header(male)	14P 2.54mm 180°(C03-14AG1)	J10,J11
250	RA00184	fixed resistor 1/4W	100Ω M type	R19,R22,R29,R32,R42,R47
251	RA00103	fixed resistor 1/2W	22Ω M type	R48,R49
252	HI00246	slide switch	2 stages 6P SS-22H23-G14(2P2T)	S2,S3
253	HI00247	slide switch	3 stages 8P SS-23D14-G14(2P3T)	S4
254	HA01918	jumper wire	4mm	S1-1,S2-1
255	HK00760	PC board	P-PBM8-IN_OUT-SMD	
256	HB01098	PCB	PBM8-IN_OUT_REV05	
257	C100007	SMD ceramic capacitor 0805	22PF/50V NPO	C3,C4,C9,C10,C13,C14
258	C100013	SMD ceramic capacitor 0805	56PF/50V NPO	C1-5,C1-6,C19,C21,C2-5,C2-6,C3-5,C3-6,C4-5,C4-6,C5-5,C5-6,C6-5,C6-6,C7-3,C7-4,C8-3,C8-4
259	C100100	SMD ceramic capacitor 0805	0.1uF/50V X7R ±10%	C1-8,C1-9,C23,C25,C28,C29,C3-7,C3-8,C5-7,C5-8,C7-9,C7-10
260	RD00009	SMD fixed resistor 1/10W	220Ω ±5% 0805	R1
261	RD00040	SMD fixed resistor 1/10W	27KΩ ±5% 0805	R2,R3
262	RD00032	SMD fixed resistor 1/10W	10KΩ ±5% 0805	R4,R5,R6,R7,R8,R9,R10,R11,R1-2,R13,R16,R18,R20,R21,R2-2,R23,R24,R27,R28,R30,R31,R3-2,R33,R34,R35,R39,R41,R4-2,R43,R44,R46,R5-2,R6-2,R7-3,R8-3,R1-10,R1-11,R2-10,R2-11,R3-10,R3-11,R4-10,R4-11,R5-10,R5-11,R6-10,R6-11
263	RD00030	SMD fixed resistor 1/10W	6.8KΩ ±5% 0805	R1-1,R1-3,R17,R2-1,R2-3,R26,R3-1,R3-3,R4-1,R4-3,R5-1,R5-3,R6-1,R6-3,R7-1,R7-2,R8-1,R8-2
264	RD00023	SMD fixed resistor 1/10W	2.2KΩ ±5% 0805	R1-4,R1-5,R1-8,R1-9,R2-4,R2-5,R2-8,R2-9,R3-4,R3-5,R36,R37,R3-8,R3-9,R4-4,R4-5,R4-8,R4-9,R5-4,R5-5,R5-8,R5-9,R6-4,R6-5,R6-8,R6-9,R1-12,R2-12,R1-13

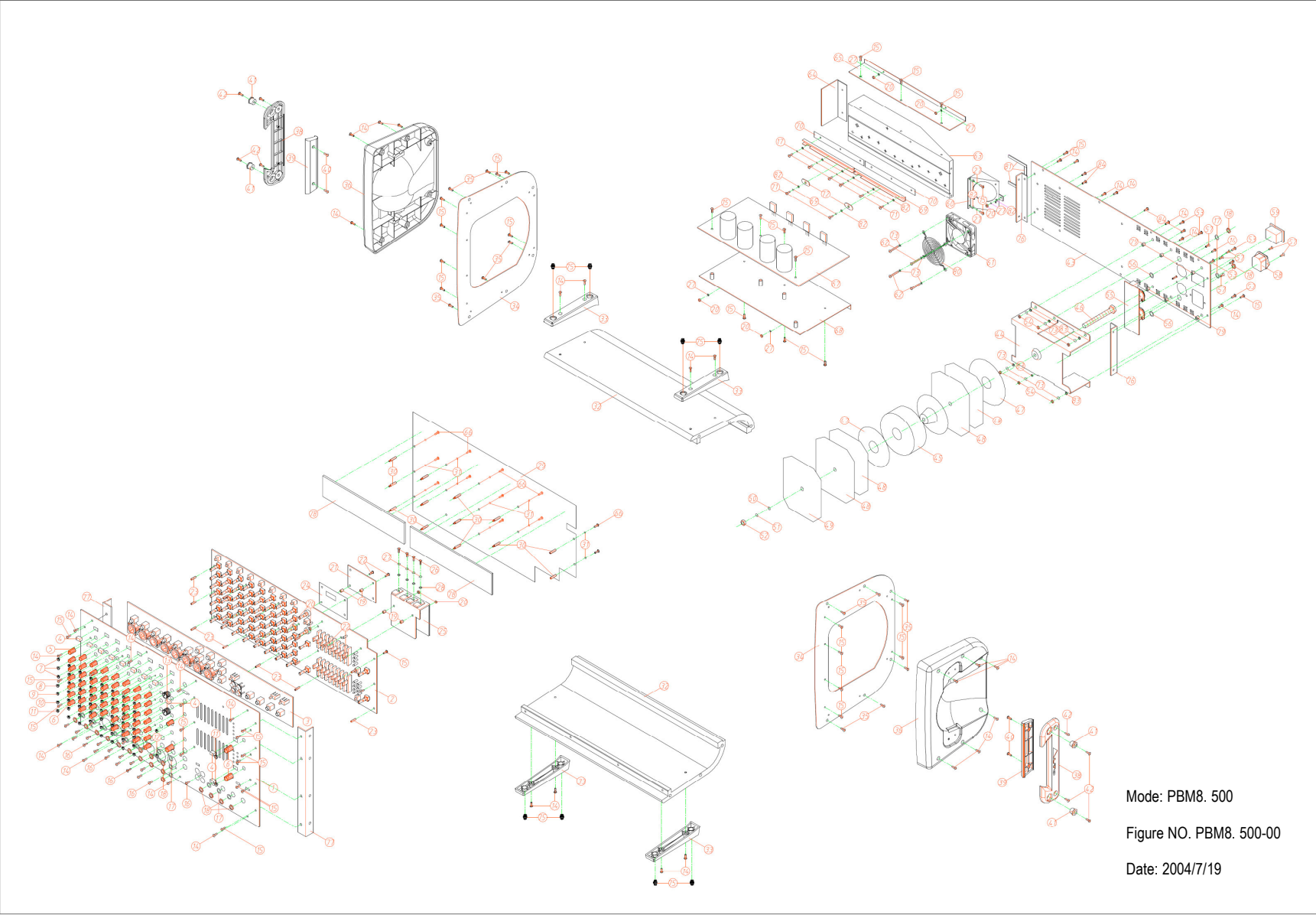
NO	Parts NO	Description	Specification	Remark
265	RD00038	SMD fixed resistor 1/10W	22K Ω \pm 5% 0805	R1-6,R1-7,R2-6,R2-7,R3-6,R3-7,R4-6,R4-7,R5-6,R5-7,R6-6,R6-7,R2-13
266	RD00050	SMD fixed resistor 1/10W	150K Ω \pm 5% 0805	R12,R14
267	RD00028	SMD fixed resistor 1/10W	5.6K Ω \pm 5% 0805	R15,R25,R38,R40,R45
268	RD00018	SMD fixed resistor 1/10W	1.0K Ω \pm 5% 0805	R7-4,R7-5,R8-4,R8-5,R1-14,R2-14,R3-14,R4-12,R5-12,R6-12
269	RD00033	SMD fixed resistor 1/10W	12K Ω \pm 5% 0805	R7-6,R7-7,R8-6,R8-7
270	RD00036	SMD fixed resistor 1/10W	18K Ω \pm 5% 0805	R7-8,R8-8,R7-10,R8-10
271	SG00122	SMD integrated circuit	NJM4580M-TE3	U1,U2,U3,U4,U5,U6,U7,U8
272	CB00040	electrolytic capacitor	47uF/25V ϕ 5*11mm	C1-10,C2-10,C3-10,C4-10,C5-10,C6-10
273	RA00125	fixed resistor 1/2W	470 Ω M type	R50
274	CB00217	electrolytic capacitor	470uF/50V ϕ 10*20mm	C30
275	HK02114	PC board	P-PBM8AMP(PBM8.500)	
276	RA00138	fixed resistor 1/2W	3.3K Ω M type	R1-33,R2-33
277	RA00007	metal-oxide-film resistor 1W	22 Ω P type	R1-13,R1-14,R2-13,R2-14
278	RA00051	metal-oxide-film resistor 2W	5.6 Ω P type	R1-26,R2-26
279	RA00046	metal-oxide-film resistor 2W	2.2K Ω P type	R1-11,R1-12,R2-11,R2-12
280	RA00071	metal-oxide-film resistor 3W	0.1 Ω RSS P type	R1-19,R1-20,R1-23,R1-24,R2-19,R2-20,R2-23,R2-24
281	RA01106	metal-oxide-film resistor 3W	10 Ω RSS P type	R1-22,R2-22
282	RA00722	metal-oxide-film resistor 3W	500 Ω P type	R1-21,R2-21
283	CB00009	electrolytic capacitor	1uF/50V ϕ 4*7mm	
284	CB00043	electrolytic capacitor	47uF/100V ϕ 10*12mm	C1-1,C2-1
285	CB00056	electrolytic capacitor	220uF/25V ϕ 8*11mm	C1-4,C2-4,C1-8,C2-8
286	CB00067	electrolytic capacitor	470uF/35V ϕ 10*20mm	C4,C5
287	CB00217	electrolytic capacitor	470uF/50V ϕ 10*20mm	C1
288	CB00093	electrolytic capacitor	4700uF/80V LCM ϕ 25*50mm	C1-15,C1-16,C2-15,C2-16
289	CF00033	metal-film capacitor MEF	0.1uF/250V	C1-2,C2-2
290	SA00167	bridge rectifier	2A W2-04	D1,D1-9,D2-9,D1-20,D2-20
291	SA00026	L.E.D	5m/m circle red B1115	D1-4,D2-4
292	SA00002	high speed diode	1A/600V 1N4937	D1-11,D1-12,D2-11,D2-12
293	HC00504	row-wire header(male)	10P 2.54mm 180°	J1
294	HC00172	row-wire header(male)	3P 3.96mm 180°	J2,J1-9,J2-9
295	HC00365	row-wire header(male)	14P 2.54mm 180°(C03-14AG1)	J4
296	HC00076	row-wire header(male)	2P 2.5mm 180°	J1-11,J2-11,J3
297	HA01933	jumper wire	2.5mm	R1-29,R2-29,J1-6,J2-6
298	HC00324	terminal	6.5m/m (PC250)	J1-4,J1-5,J2-4,J2-5
299	CN00060	fixed inductance	2uH 10A(CSAF-302824)(ϕ 1.5mm*12 1/2T)	L1-1,L2-1
300	SB00042	transistor	MJE15032	Q1-1,Q2-1
301	SB00044	transistor	MJE15033	Q1-2,Q2-2
302	SB00023	power transistor	2SA1943-O	Q1-3,Q1-7,Q2-3,Q2-7
303	SB00021	power transistor	2SC5200	Q1-4,Q1-8,Q2-4,Q2-8
304	SB00129	transistor	MPSA92(TO92)/(PHI)	Q1-5,Q2-5
305	SB00130	transistor	MPSA42(PHILIPS)	Q1-6,Q2-6
306	RH00017	thermistor	50 Ω (TDC05A050J)	R1-8,R2-8
307	RH00018	thermistor	100 Ω (PDBS8101MS)	R1-39,R2-39
308	RC00319	resistor	B100 Ω PT1030-V1B101-C1-H10	R1-16,R2-16
309	SD00032	integrated circuit	LM317T	U1
310	SD00173	integrated circuit	NJM4580L(JRC)	U2,U1-1,U2-1
311	HC00064	FUSE holder	JEF-503B (5.2mm)	F1-1,F1-2,F2-1,F2-2
312	HD00070	ceramic tube fuse	5A 250V ϕ 5.2*20mm CSA/S/T/UL/VDE	
313	NC00005	silicone insulator	TO-220 square type	
314	MF00030	washer	ϕ 3* ϕ 8*0.8t	
315	MF00037	washer	ϕ 3* ϕ 5*1t	

NO	Parts NO	Description	Specification	Remark
316	MG00171	screw	M3*14	
317	MI02293	fixed bracket	9*83*40*260_V1.0	
318	MI01956	fixed bracket	MISTRAL900 1.5t*130*5*16mm left	
319	MJ00069	iron board	1.5*2135*1220 30.67kg	
320	NC00182	insulator	MISTRAL900 1.6t*130*16mm	
321	NC00041	red foil white board	1.6t*0.65M*70M	
322	MJ01200	spacer	MISTRAL4000 14.5*30.5*2t	
323	MJ01201	spacer	MISTRAL4000 14.5*30.5*2t	
324	MJ01154	iron board	2.0t*1850*950mm 27.6kg	
325	HC00034	connector	NO.2700 2.54mm/6mm OPEN	
326	SA00052	L.E.D high intensity	3m/m round(green)long foot 26	D2,D1-16,D2-16
327	SA00053	L.E.D high intensity	3m/m round(red)long foot 26mm	D1-18,D2-18
328	SA00054	L.E.D high intensity	3m/m round(yellow)long foot 26	D1-21,D2-21
329	NI02384	spacer support	LEDS-4 4mm	
330	SA00007	bridge rectifier	8A KBU-806 comb type	D1-1,D2-1
331	HK02231	coupling	P-photosensitive resistance+ ϕ 5LLED	U1-2,U2-2
332	RH00020	photosensitive resistance	VT90N1	
333	SA00201	L.E.D	ϕ 5 red(LI3330/A)	
334	NI02779	sleeve	ϕ 9*30mm	
335	NI00274	sleeve	ϕ 9*1000mm	
336	RH00021	thermistor	500 Ω (TDC5C150L)	
337	MI02134	fixed bracket	PBM-8 L long type_V1.0	
338	MI02135	fixed bracket	PBM-8 I long type_V1.0	
339	MJ00058	iron board	1*2135*1220 20.45kg	
340	ME00051	iron pillar	M3*12	
341	MG00041	screw	M3*6	
342	HK04558	PC board	P-PBM8AMP(PBM8.500)-AI	
343	RA00157	fixed resistor 1/4W	0.0 Ω	R5,R1-27,R2-27
344	RA01259	fixed resistor 1/4W	47 Ω	R1-25,R2-25,R2
345	RA01112	fixed resistor 1/4W	100 Ω	R1-32,R2-32
346	RA01273	fixed resistor 1/4W	150 Ω	R1-15,R2-15
347	RA01283	fixed resistor 1/4W	330 Ω	R1-5,R2-5
348	RA01238	precise resistor 1/4W	6.8K Ω	R1-40,R2-40
349	RA01234	precise resistor 1/4W	4.7K Ω	R1-30,RR-31,R2-30,R2-31,R1-41,R1-42,R2-41,R2-42
350	RA01122	fixed resistor 1/4W	47K Ω	R1-34,R2-34
351	RA01111	fixed resistor 1/4W	100K Ω	R1-35,R2-35
352	RA01288	fixed resistor 1/4W	120K Ω	R1-36,R2-36
353	RA01270	fixed resistor 1/4W	3.3K Ω	R1,R4
354	CA00079	ceramic capacitor	100PF SL	C1-3,C2-3
355	CA00082	ceramic capacitor	0.1uF SL	C2
356	CB00234	electrolytic capacitor	10uF/50V ϕ 6*7mm	C1-23,C2-23,C6
357	CB00188	electrolytic capacitor	10uF/63V ϕ 5*11mm 2.5mm	C3
358	CB00194	electrolytic capacitor	47uF/25V ϕ 5*11mm	C1-26,C1-27,C2-26,C2-27
359	CF00148	metal-film capacitor	0.0033uF/100V 5% CASE01	C1-14,C2-14
360	SA00093	rectifier diode	1N4148 0.5A	D1-6,D1-7,D2-6,D2-7,D1-10,D1-19,D2-10,D2-19
361	SA00098	rectifier diode	1A/400V IN4004	D1-2,D2-2,D1-15,D1-17,D2-15,D2-17
3692	RA01325	fixed resistor 1/8W	4.7 Ω	R1-17,R1-18,R2-17,R2-18
363	RA01327	fixed resistor 1/8W	820 Ω	R1-9,R2-9,R1-10,R2-10
364	RA01326	fixed resistor 1/8W	390 Ω	R1-4,R1-7,R2-4,R2-7
365	CA00097	ceramic capacitor	27PF NPO	C1-7,C2-7
366	CA00098	ceramic capacitor	56PF NPO	C1-5,C2-5
367	CA00099	ceramic capacitor	0.0033uF	C1-11,C1-12,C2-11,C2-12
368	CA00100	ceramic capacitor	0.022uF/50V \pm 20% Y5U	C1-10,C2-10

NO	Parts NO	Description	Specification	Remark
369	CB00262	electrolytic capacitor	47uF/16V NP ϕ 6.3*11mm	C1-6,C2-6
370	CF00154	metal-film capacitor MSC	0.0022uF/63V 5% CASE01	C1-9,C2-9
371	CF00153	metal-film capacitor MSC	0.022uF/63V 5% CASE01	C1-13,C2-13
372	SA00256	zener diode	1W 15V IN4744	D1-3,D1-5,D1-8,D2-3,D2-5,D2-8
373	SA00257	zener diode	1/2W 3.9V	D1-13,D1-14,D2-13,D2-14
374	RA01113	fixed resistor 1/4W	10K Ω	R1-2,R1-3,R2-2,R2-3,R1-28,R1-38,R2-28,R2-38
375	RA01328	fixed resistor 1/8W	12K Ω	R1-6,R2-6,R1-37
376	HB01263	PCB	PBM8AMP_VER041118	
377	HK01409	PC board	P-313123-DIP(AMX-140FX)	
378	SC00004	quartz crystalloid	16.00MHZ LP-3.5S(HC-49US)	XT1
379	HC00484	row pin (single)#2200	2.54 180° 2*8P 13.5/19mm	CN2
380	SG00193	SMD integrated circuit	AT27LV010A-90JC/L-8	IC4
381	SG00139	SMD integrated circuit	AT27LV010A-90JC	
382	HK04041	PC board	P-313123-AI(L-8)	
383	HK03894	PC board	P-313123-SMD(L-8)	
384	HB00895	PCB	313123/2(1*6)	
385	CI00049	SMD ceramic capacitor 0603	15PF/50V NPO \pm 5%	C8,C9
386	CI00075	SMD ceramic capacitor 0603	0.1uF/50V Y5V +80,-20%	C17,C15,C18,C6,C10,C22,C20,C13,C14,C1,C3,C4,C11
387	RD00061	SMD fixed resistor 1/10W	10 Ω \pm 5% 0603	R22
388	RD00068	SMD fixed resistor 1/10W	100 Ω \pm 5% 0603	R12,R14,R7,R8,R34,R17,R13,R33
389	RD00073	SMD fixed resistor 1/10W	220 Ω \pm 5% 0603	R3
390	RD00085	SMD fixed resistor 1/10W	1.5K Ω \pm 5% 0603	R16,R15,R21,R20,R4,R19,R10,R18,R9,R5
391	RD00088	SMD fixed resistor 1/10W	2.2K Ω \pm 5% 0603	R28,R27,R23,R24,R29,R30,R25,R26
392	RD00101	SMD fixed resistor 1/10W	10K Ω \pm 5% 0603	R32,R31,R1
393	RD00125	SMD fixed resistor 1/10W	1.0M Ω \pm 5% 0603	R2
394	RE00006	SMD row resistor1/16W	100 Ω *4 \pm 5% 8P 0603	AR1,AR2
395	SE00011	SMD rectifier diode	RLS4148 0.5A (LL-34)	D1
396	SG00068	SMD integrated circuit	74HC14DT	IC1
397	SG00138	SMD integrated circuit	AS4LC256K16EO-60JC	IC6
398	SG00166	SMD integrated circuit	TY-2 ALTO(GMCODE:105022)	IC3
399	SG00147	SMD integrated circuit	CHEF DSP(GMCODE:105022)	
400	SG00037	SMD integrated circuit	LD1117DT33C(TO-252)	IC2
401	HC00233	IC socket (SMD)	PLCC32 (D03-32T.A.4)	IC4
402	SG00016	SMD integrated circuit	UDA1345TS (Philips)	IC5
403	CB00165	electrolytic capacitor	10uF/16V ϕ 4*5mm	C7
404	CB00166	electrolytic capacitor	100uF/16V ϕ 6*5mm	C19,C12,C5,C24,C16,C21,C25,C26,C28,C2
405	NE11475	label	L-8	
406	NH00035	bond paper	0.06*1M	
407	NI00017	membrane	0.055*1M	
408	NI00252	sleeve	ϕ 4*20mm	
409	NI00248	sleeve	ϕ 4*1000mm	
410	HA01315	single terminal wiring CF:W56	100 green/yellow	
411	HA02276	wire	90mm	
412	HA02278	wire	90mm	
413	HA02774	wire	3P-2P/2P 500mm UL1185 26AWG blue/red	
414	MI02202	fixed bracket	PBM-8 L type_V1.0	
415	MJ00063	Zn-plated board	1.2*2135*1220 24.54kg	
416	MI02203	fixed bracket	PBM-8 L type_V1.0	
417	MJ00063	Zn-plated board	1.2*2135*1220 24.54kg	
418	NE13118	label	250V T10A_V1.0	
419	NI00024	membrane	0.09*1M	
420	NH00019	bond paper	0.095*1M	
421	HA01825	wire	100 red	
422	HA01828	P.V.C single wave wired UL1015	230 green	

NO	Parts NO	Description	Specification	Remark
423	MJ00326	partition	PBM-8_V1.2	
424	MJ00092	AL board	1.5*2000*1000 8.16kg	
425	NC00131	washer	1* φ 11.3* φ 15.3 red	
426	MG00167	screw	M3*10	
427	HC00008	AC socket	3515 A TYPE(RF-2004-C-4.8)	
428	MF00018	washer	φ 4* φ 10*1t	
429	MF00023	washer	φ 3* φ 10*1t	
430	ND00388	EV bubble sponge	2.0t*88*6_V1.0	
431	MG00526	screw	M6*75*1.0PH	
432	MG00111	screw	pill 4*30	
433	MI02294	fixed bracket	PBM8.500_V1.0	
434	MJ00059	iron board	1.2*2135*1220 24.54kg	
435	MD00444	protecting cover	80*80mm(K-G08A05-4HA)	
436	MG00527	copper pillar	M4*8*0.7PH	
437	NA00279	clip-chain bag	0.04t*100*150mm_V1.0	
438	AD00012	twin adhesive	90*120mm_V1.0	

8. Exploded Views & Mechanical Parts List



Mode: PBM8. 500
Figure NO. PBM8. 500-00
Date: 2004/7/19

Parts List

Item	Parts NO	Description	Specification	Qty.	Material	Remark	Item	Parts NO	Description	Specification	Qty.	Material	Remark
1	MA05061	Panel	PBM8.250 ALTO_V1.0	1	1.5t plate		47	NI00437	Elastic band	φ 20* φ 120*2IB			
2	HK00758	PCB	P-PBM8-CTRL-DIP	1			48	MJ00229	Partition	140*140*0.3t			
3	HK00759	PCB	P-PBM8IN-OUT DIP	1			49	MJ00326	Partition	140*140*1.5t			
4	NI02957	Button	9.8*5.5*11.2 black	11	ABS		50	MF00055	Zn-washer	φ 8* φ 18*1.5t			
5	NI00359	Plastic knob	φ 10*16.5 COOL GRAY 8C	49	ABS		51	MF00041	Spring washer	φ 8* φ 13.5*2t			
6	NI00399	Plastic knob	φ 11*19 COOL GRAY 8C	11	ABS		52	ME00026	Zn-nut	M8			
7	NI02252	Knob cover	φ 7*3.5 072C blue	24	ABS	EQ	53	MG00173	Ni-plated nut	M4*20			
8	NI01147	Knob cover	φ 7*3.5 white	8	ABS	AUX1	54	ME00016	Colored nut	4mm			
9	NI02100	Knob cover	φ 7*3.5 222C	9	ABS	DSP SEND	55	HK04256	PCB	P-PBM8-SPEAKER			
10	NI02692	Knob cover	φ 7*3.5 black	8	ABS	PAN	56	MF00061	T-MIC washer	round			
11	NI02677	Knob cover	φ 8.5*4 534C blue	10	ABS	LEVEL	57	MG00042	Black-plated screw	M3*10			
12	NI02101	Knob cover	φ 8.5*4 222C	1	ABS	DSP	58	HC00331	AC Inlet	RF-2004			
13	NI02386	Plastic knob	φ 14*13	2	ABS		59	HI00022	Power switch	4P			
14	MG00437	Black-plated screw	M3*16	36	Iron		60	MI02294	Bracket	PBM-8.500 V1.0			
15	MG00041	Black-plated screw	M3*6	54	Iron		61	HE00049	Fan	24V/0.21A 80*80*25			
16	MG00061	Black-plated screw	M3*10	17	Iron		62	MG00111	Colored screw	M4*30			
17	MG00061	MIC washer	round JY-6351G-02-250	19	Iron		63	MI02293	Heat sink	9*83*40*260_V1.0			
18	ME00060	MIC nut	hexagon	19	Iron		64	MI02132	Bracket	PBM-8			
19	MG00243	Copper pole	M3*5*0.5PH	4	copper		65	MI02128	Bracket	PBM-8			
20	ME00015	Colored nut	3mm	7	Iron		66	MG00161	Ni-screw	M3*6			
21	HK03893	PCB	P-313123-DIP(L-8)	1			67	HK02114	PCB	P-PBM8AMP(PBM8.500)			
22	MG00326	Black-plated screw	M3*4	4	Iron		68	MI02134	Bracket	PBM-8 L			
23	MG00248	Copper pole	M3*15*0.5PH	15	copper		69	MI01956	Bracket	MISTRAL900 1.5*130*5*16			
24	NI02620	Insulator	1*86.5*53 L-8	1	bakelite		70	NC00182	Spacer	MISTRAL400 1.6*130*16			
25	MJ02137	Heat sink	2t*26*70*73	1	2t Al		71	MG00171	Ni-screw	M3*14			
26	MG00166	Ni screw	M3*10	4	Iron		72	MJ01201	Spacer	MISTRAL400 14.5*30.5*2t			
27	MF00037	Spring washer	φ 3* φ 5*1t	13	Iron		73	MF00038	Spring washer	Φ 4* Φ 7*1t			
28	NI02249	Spacer	TW-1(TO-220)	4			74	MF00048	Washer	Φ 4* Φ 8*0.5t			
29	MI02121	Partition	0.8t*223*420	1	zn		75	NI02796	Fixed bolt	Φ 14*17.6			
30	MG00363	Copper pole	M3*14*0.5PH	13	copper		76	MI02203	Fixed bolt	11*10*106.2*1.2T			
31	MF00014	Washer	φ 3* φ 6.5*0.5t	13	Iron		77	MI02202	Bracket	11*10*216.2*1.2T			
32	NC00201	Flank	462*203.73*64	2	shaving board		78	ND00325	EV sponge	5.0T*150*20			
33	NI02798	Pad	PBM-8 150*28*25	4	PE207		79	MG00527	Copper pole	M4*8			
34	MJ01257	Flank	PBM-8	1	1.5t plate		80	MD00444	Protecting cover for fan	80*80(K-G08a05-4HA)			
35	MG00075	Black-plated screw	M4*16	12	Iron		81	ND00388	Black EV-sponge	2.0t*88*6			
36	NI02795	Flank	PBM-8 286*210.6*55	2	ABS		82	MF00030	Ni-washer	φ 3* φ 8*0.8t			
38	NI02845	Handle	13*56.94*218.3 PBM-8	2	ABS		83	MF00018	Colored washer	φ 4* φ 10*1t			
39	NI02846	Handle cap	10.8*34*.148 PBM-8	2	ABS		84	MG00167	Ni-screw	M3*10*0.5PH			
40	MG00351	Black-plated screw	M4*16	4	Iron		85						
41	MB03525	Screw supporter	16*12	4	ABS		86						
42	MI01876	Black-plated screw	M4*20	8	Iron		87						
43	TD00255	Rear panel	PBM8.500	1	1.5t plate		88						
44	MG00526	Bracket	PBM-8 1.5*170*96.5*16.5	1	1.5ZN		89						
45	NI00437	Ring-transformer	PT-PBM8.500_230V	1									
46	MJ00229	Zn-screw -T	M8*84*1.25PH	1	Iron								

