

Service Manual

MODEL: APM80.1000/APM80.1500



www.altoproaudio.com

Version 1.0

CONTENT

1. INTRODUCTION.....	1
2. TECHNICAL SPECIFICATION.....	3
3. BLOCK DIAGRAM.....	5
4. SCHEMATIC DIAGRAM.....	6
5. WIRING DIAGRAM.....	13
6. PCB LAYOUT.....	14
7. TEST PROCEDURE.....	21
8. EXPLODED VIEW & MECHANICAL PARTS LIST.....	28
9. BOM.....	32

1. INTRODUCTION

APM80.1000

The APM80.1000 8-channel stereo powered mixer with DSP is designed for professional application. It provides the following features:

- Digital amplifier technology, offering high power and a very dynamic sound
- 9-band graphic EQ for MAIN / MONITOR
- Built-in feedback terminator
- 6 MIC/line input channels with gold plated XLRs and balanced LINE inputs
- 2 Stereo input channels with balanced TRS jacks
- Ultra-low noise discrete MIC preamps with +48V phantom power
- Extremely high headroom offering more dynamic range
- 3-band equalizer on input channels
- Each input channel with -20dB PAD, PAN and level control
- 2 AUX sends for built-in or external effects, on-stage monitor mix, or headphone mixing
- 256 position multieffect
- 2-track recording IN/OUT (phono)
- Headphone output
- 2x500 watt EIAJ amplifiers (For APM80.1000)
- Output connector: 6.3 ϕ jack + 4 way-speaker

APM80.1500

The APM80.1500 8-channel stereo powered mixer with DSP is designed for professional application. It provides the following features:

- Digital amplifier technology, offering high power and a very dynamic sound
- 9-band graphic EQ for MAIN / MONITOR
- Built-in feedback terminator
- 6 MIC/line input channels with gold plated XLRs and balanced LINE inputs
- 2 Stereo input channels with balanced TRS jacks
- Ultra-low noise discrete MIC preamps with +48V phantom power
- Extremely high headroom offering more dynamic range
- 3-band equalizer on input channels
- Each input channel with -20dB PAD, PAN and level control
- 2 AUX sends for built-in or external effects, on-stage monitor mix, or headphone mixing
- 256 position multieffect
- 2-track recording IN/OUT (phono)
- Headphone output
- 2x750 watt EIAJ amplifiers (For APM80.1500)
- Output connector: 6.3 ϕ jack + 4 way-speakon

2. TECHNICAL SPECIFICATION

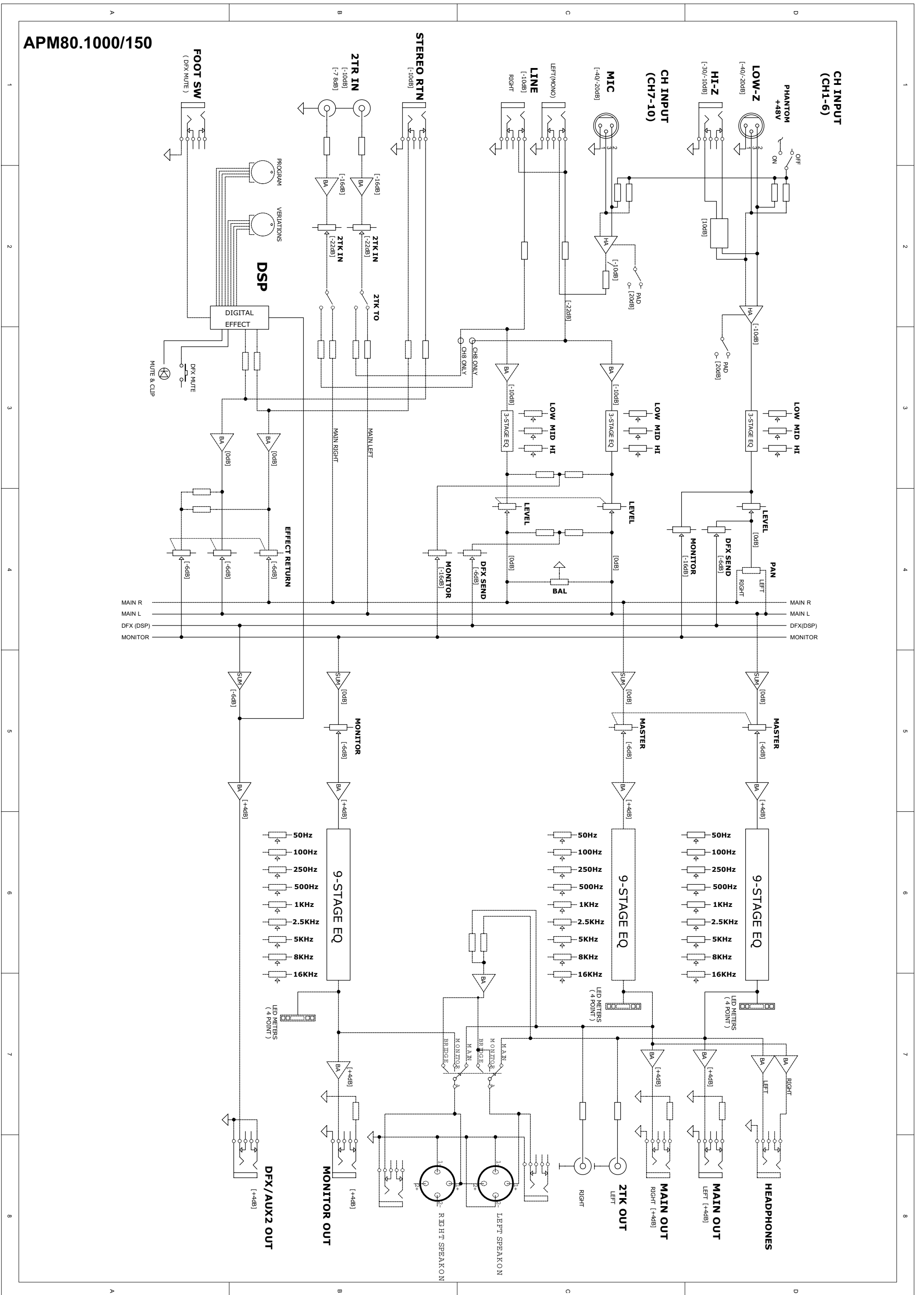
APM80.1000

Mono input channels		
	Microphone input	electronically balanced, discrete input configuration
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.006% at +4dBu, 1kHz
	Gain	50dB (MIC)
	SNR (Signal to Noise Ratio)	>90dB
	Line input	electronically balanced
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.04% at +4dBu, 1kHz
	Gain	30dB
Stereo input channels		
	Line input	Unbalanced
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.006% at +4dBu, 1kHz
Impedances		
	Microphone input	1.4kOhm
	Channel Insert return	2.5kOhm
	All other inputs	10kOhm or greater
	Tape out	1kOhm
	All other output	120Ohm
Equalization		
	Hi shelving	+/- 15dB @12kHz
	Mid bell	+/- 15dB @2.5kHz
	Low shelving	+/- 15dB @ 80Hz
DSP Section		
	A/D and D/A converters	24 bit
	DSP resolution	24 bit
	Type of effects	Hall, Room, Vocal & Plate REVERBS Mono & Stereo DELAY (max DELAY TIME 650ms) Chorus, Flanger & Reverb MODULATIONS REVERB+DELAY, REVERB+CHORUS, REVERB+FLANGER combinations
	Presets	256
	Controls	16-position PRESET Selector 16-position VARIATION selector CLIP LED MUTE SWITCH with LED indicator
Main Mix Section		
	Noise (Bus noise)	Fader 0 dB, channels muted: - 85dBr (ref.:+4dBu) Fader 0dB, all input channels assigned and set to UNITY gain: - 71dBr (ref.:+4dBu)
	Max output	+27dBu balanced , +22dBu unbalanced, 1/4" jacks
	AUX Sends max out	+22dBu

APM80.1500

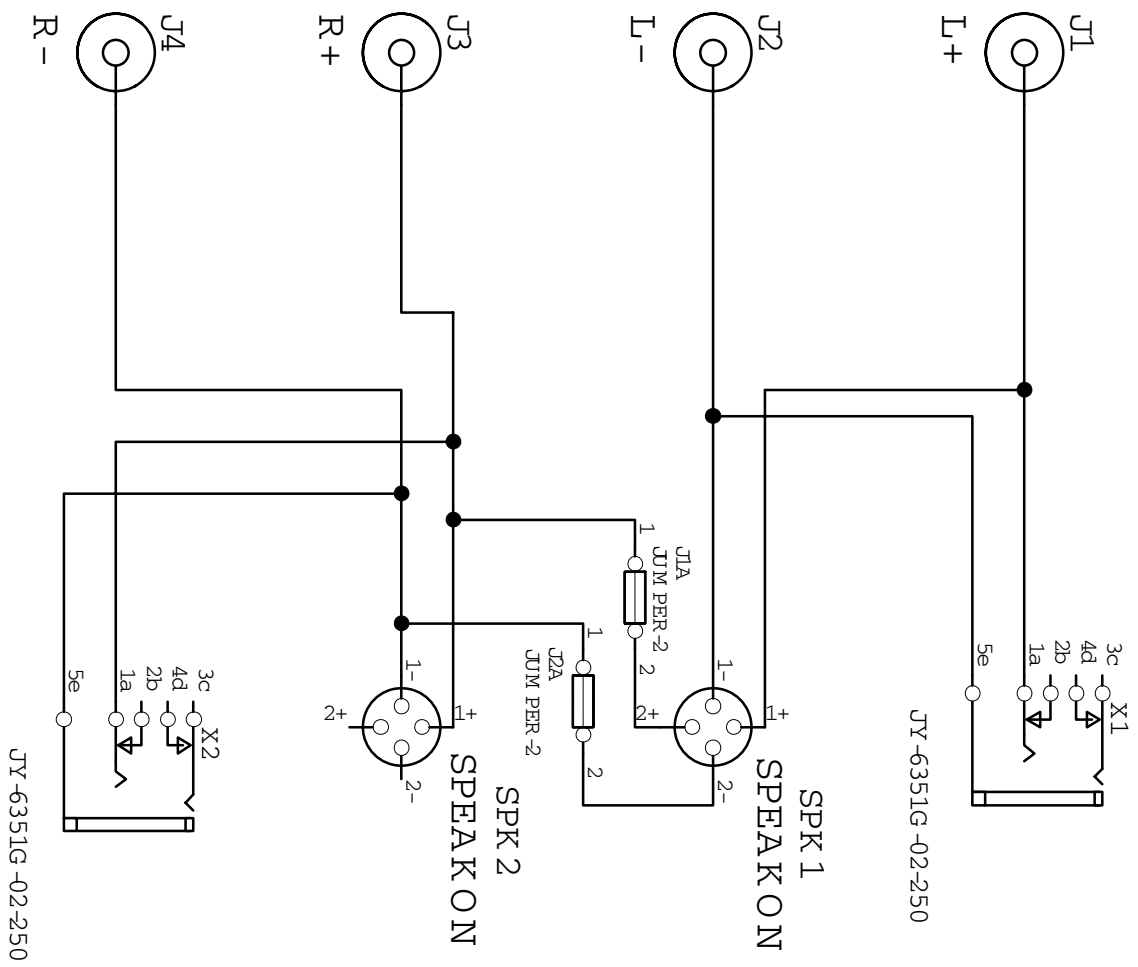
Mono input channels		
	Microphone input	electronically balanced, discrete input configuration
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.006% at +4dBu, 1kHz
	Gain	50dB (MIC)
	SNR (Signal to Noise Ratio)	>90dB
	Line input	electronically balanced
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.04% at +4dBu, 1kHz
	Gain	30dB
Stereo input channels		
	Line input	Unbalanced
	Frequency response	10Hz to 55kHz, +/- 3dB
	Distortion (THD & N)	0.006% at +4dBu, 1kHz
Impedances		
	Microphone input	1.4kOhm
	Channel Insert return	2.5kOhm
	All other inputs	10kOhm or greater
	Tape out	1kOhm
	All other output	120Ohm
Equalization		
	Hi shelving	+/- 15dB @12kHz
	Mid bell	+/- 15dB @2.5kHz
	Low shelving	+/- 15dB @ 80Hz
DSP Section		
	A/D and D/A converters	24 bit
	DSP resolution	24 bit
	Type of effects	Hall, Room, Vocal & Plate REVERBS
		Mono & Stereo DELAY (max DELAY TIME 650ms)
		Chorus, Flanger & Reverb MODULATIONS
		REVERB+DELAY, REVERB+CHORUS,
		REVERB+FLANGER combinations
	Presets	256
	Controls	16-position PRESET Selector
		16-position VARIATION selector
		CLIP LED
		MUTE SWITCH with LED indicator
Main Mix Section		
	Noise (Bus noise)	Fader 0 dB, channels muted: - 85dBr (ref.:+4dBu)
		Fader 0dB, all input channels assigned and set to
		UNITY gain: - 71dBr (ref.:+4dBu)
	Max output	+27dBu balanced ,
		+22dBu unbalanced, 1/4" jacks
	AUX Sends max out	+22dBu

3. BLOCK DIAGRAM



4. SCHEMATIC DIAGRAM

APM80.1000/1500



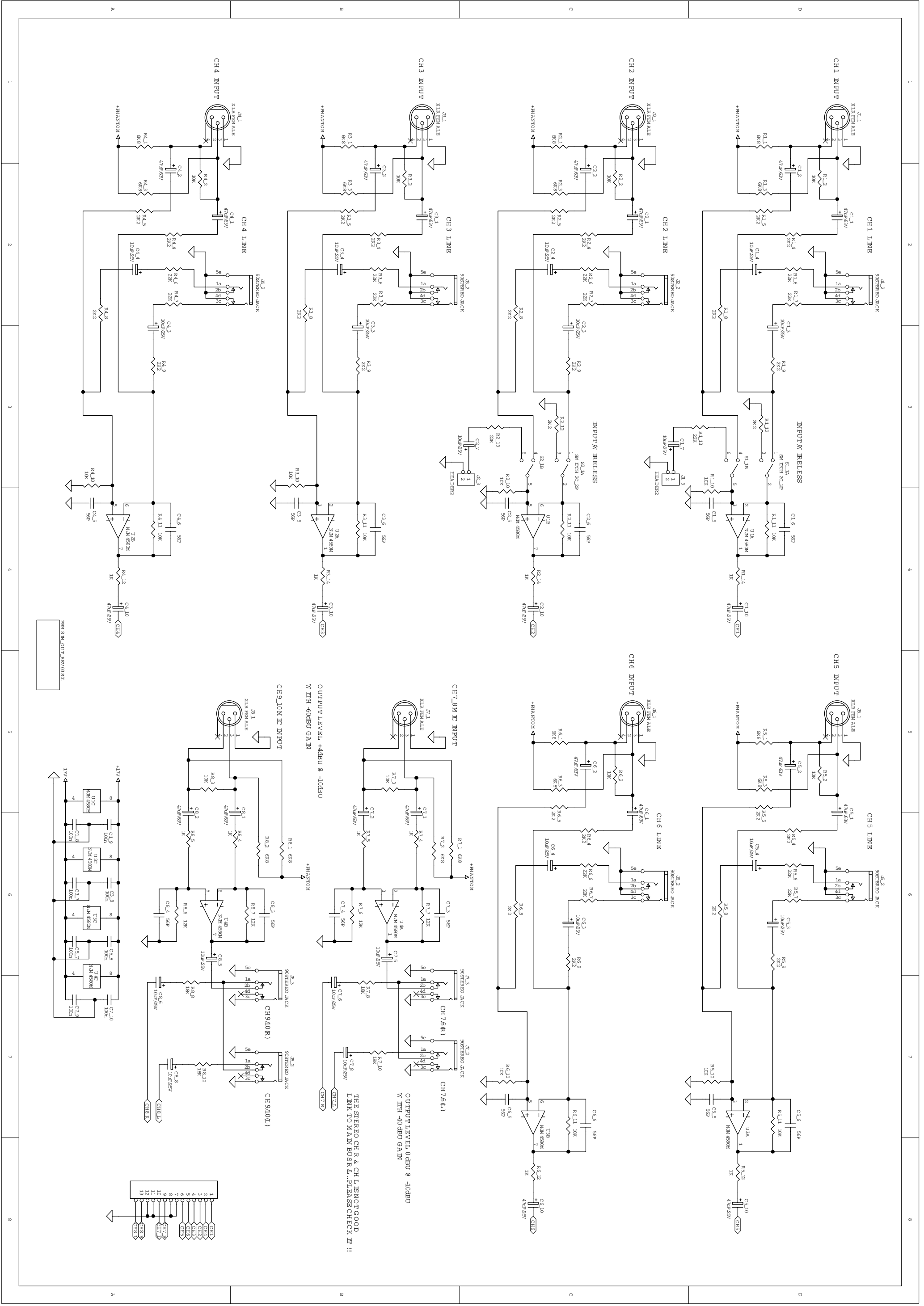
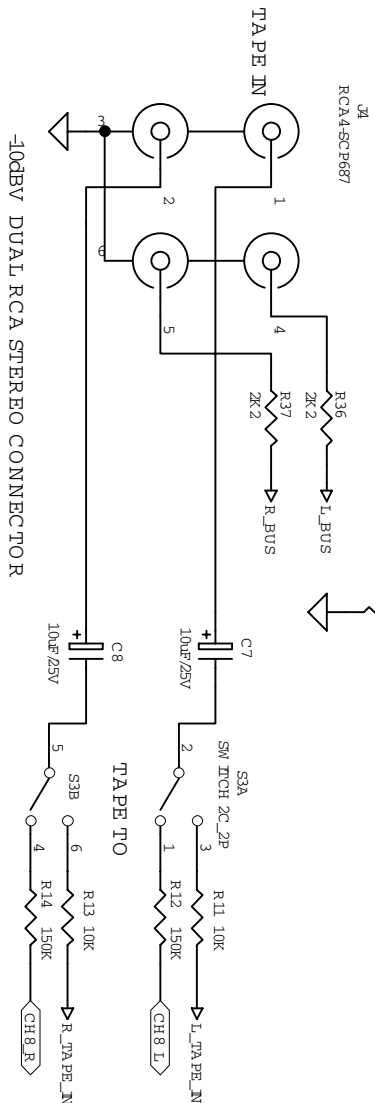
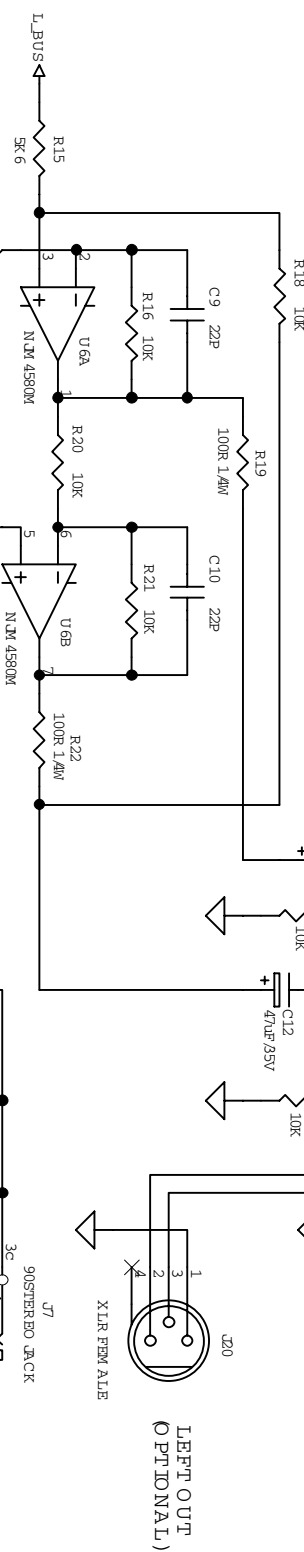
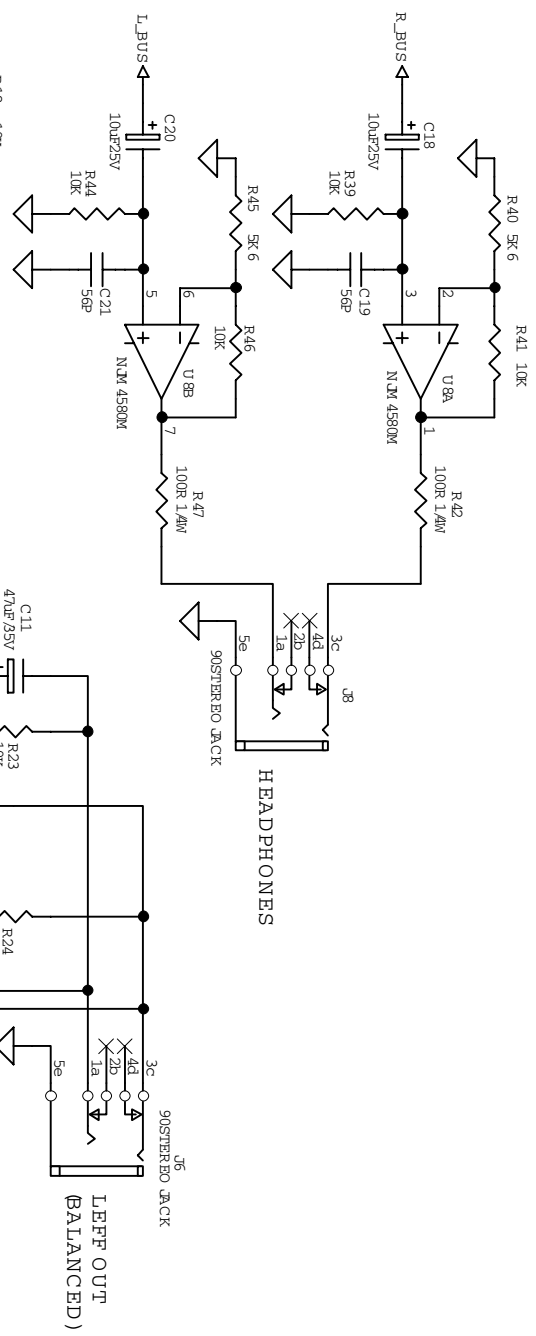
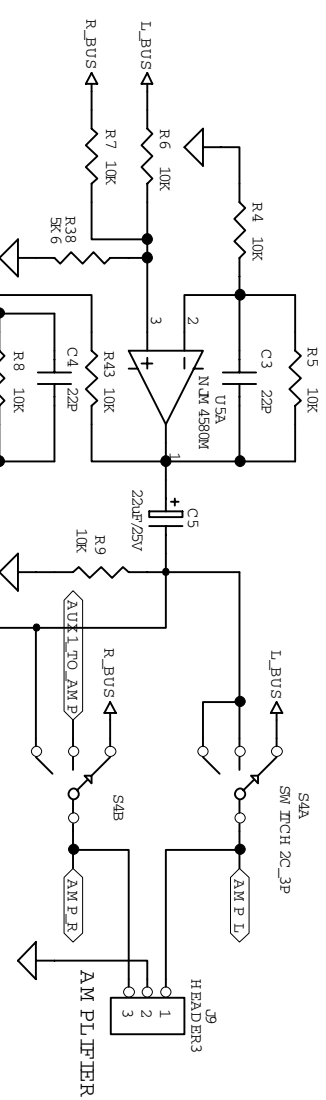
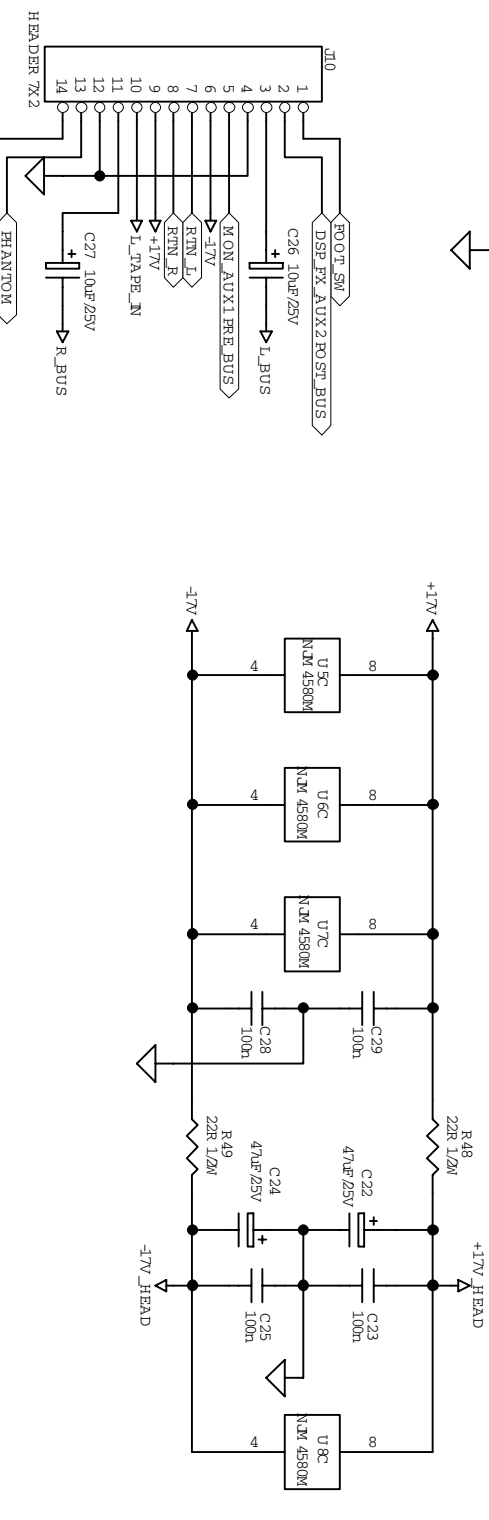
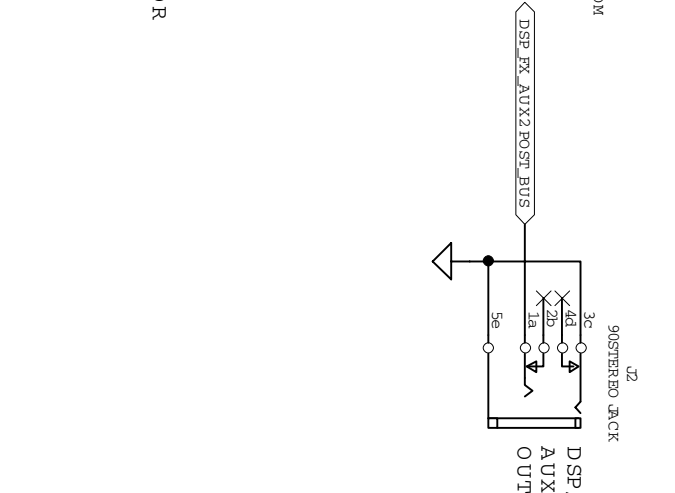
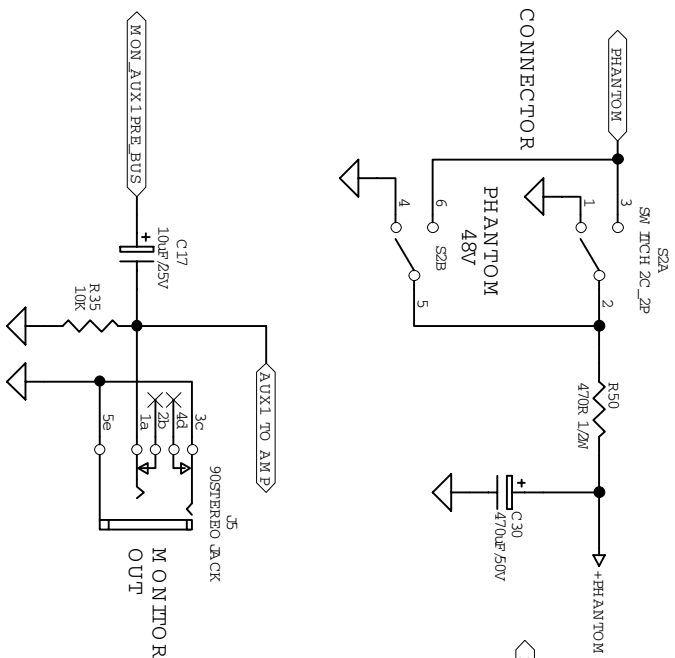
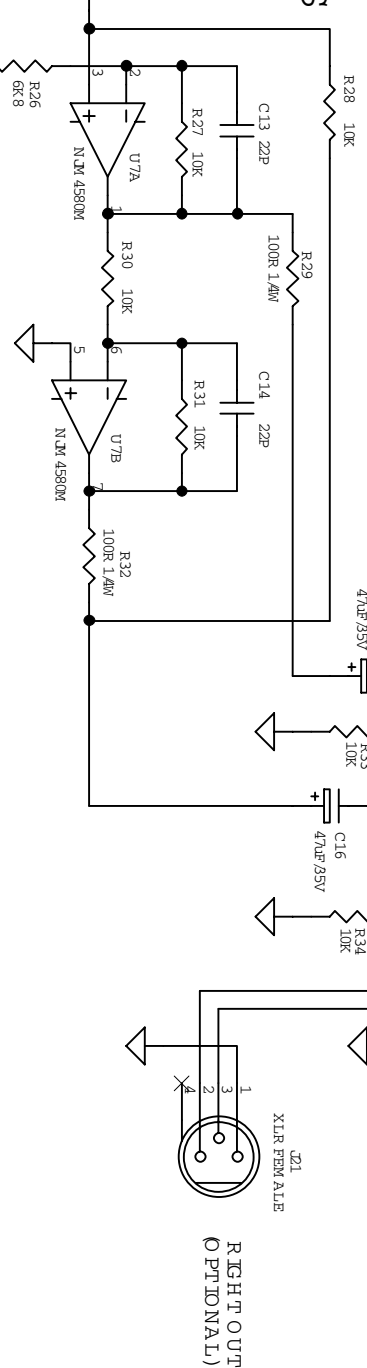


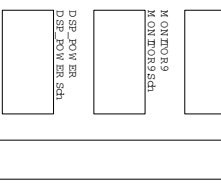
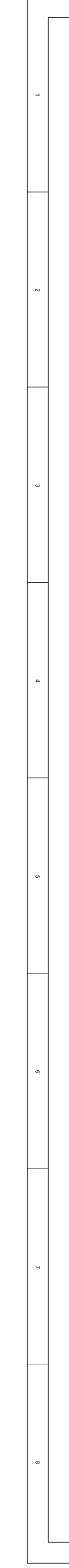
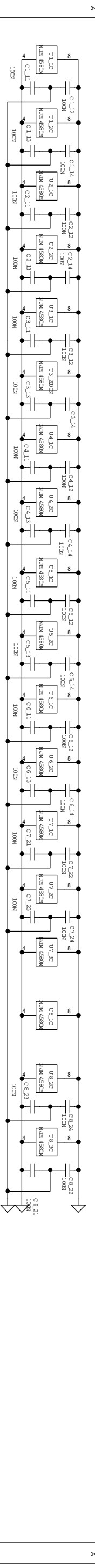
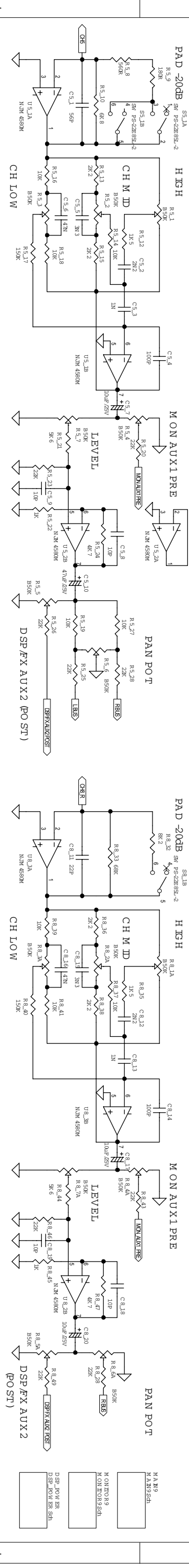
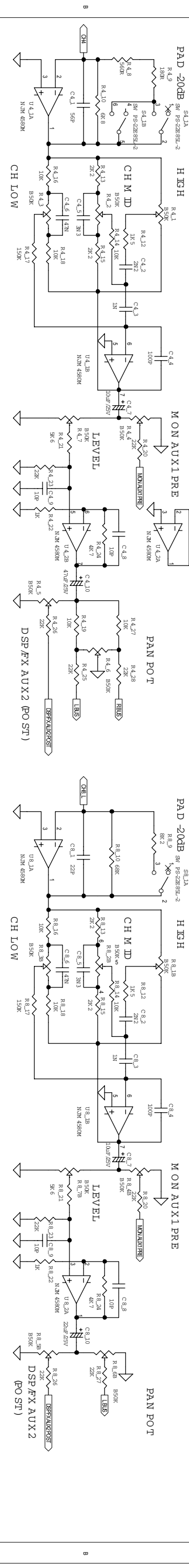
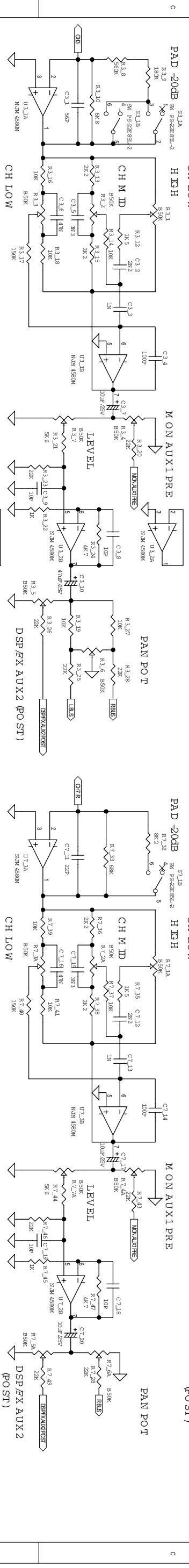
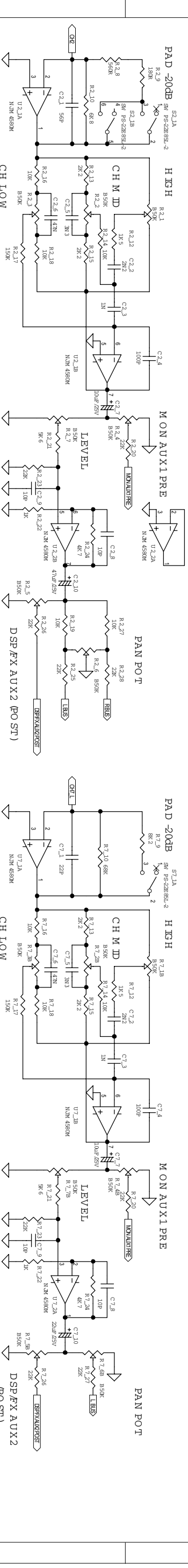
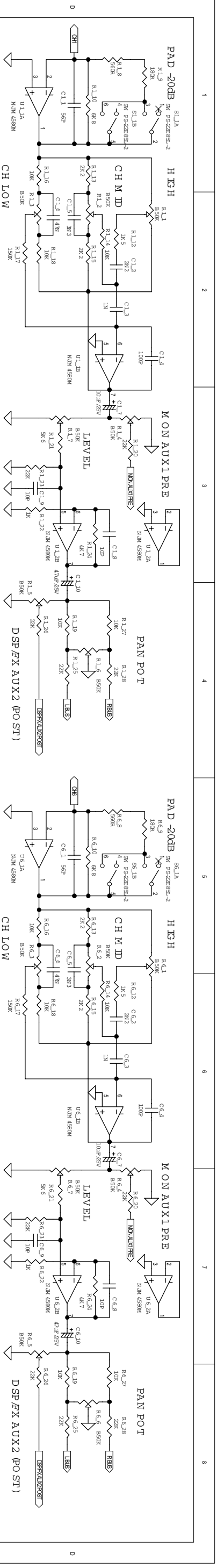
FIG. 8 8N. 402P. REV.03.80

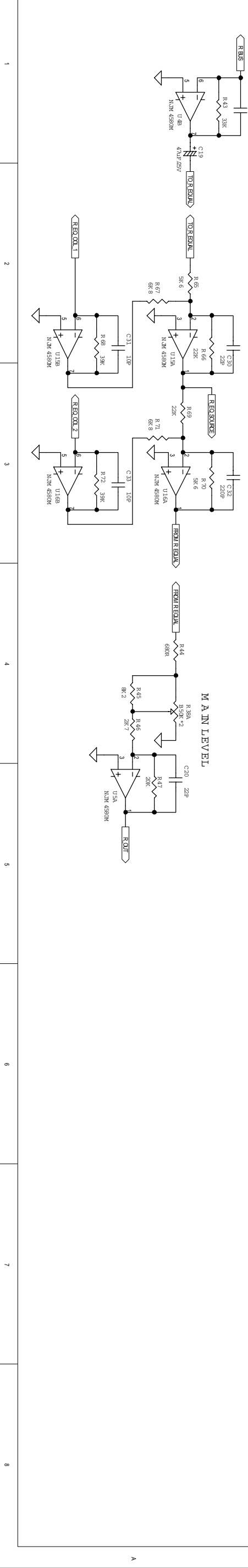
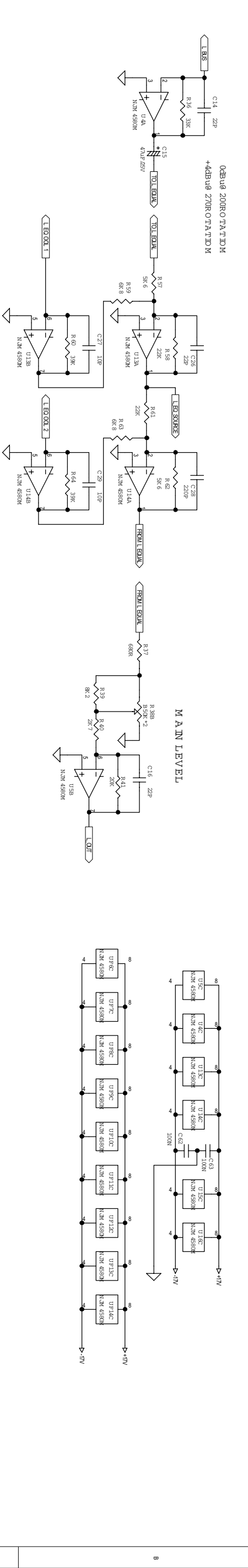
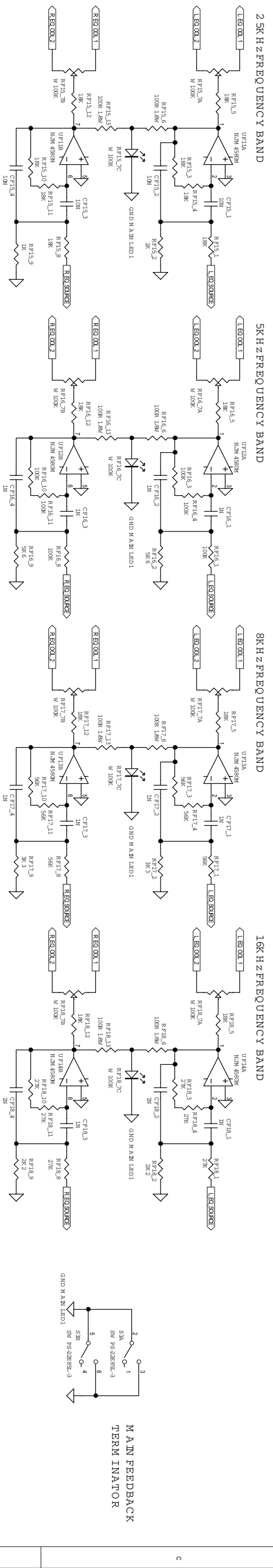
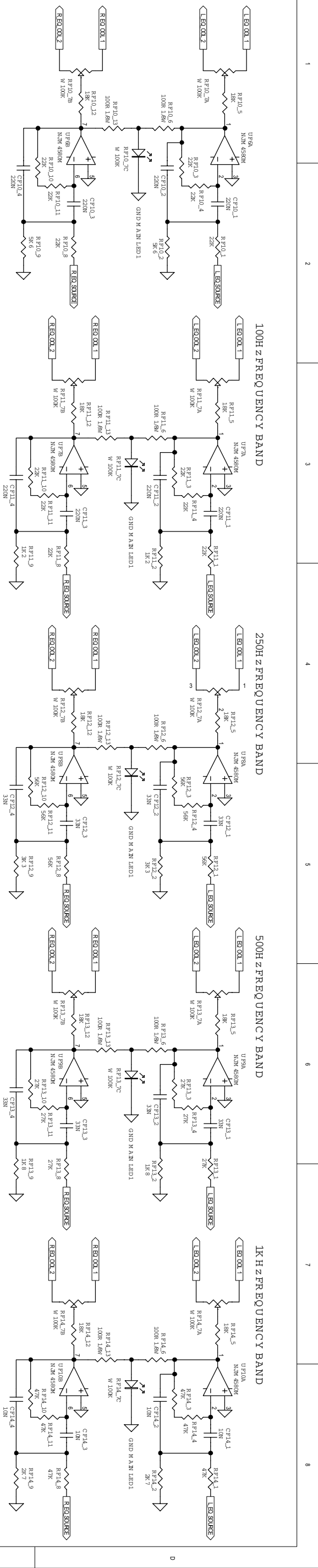
CONNECTORS

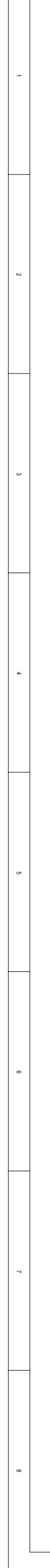
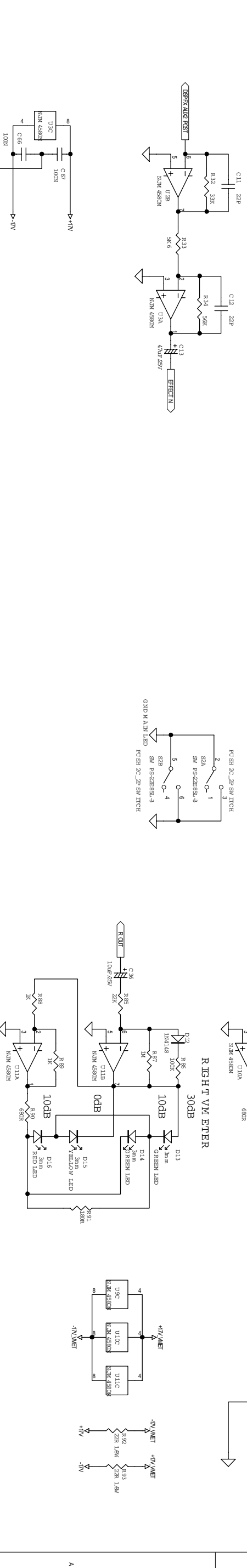
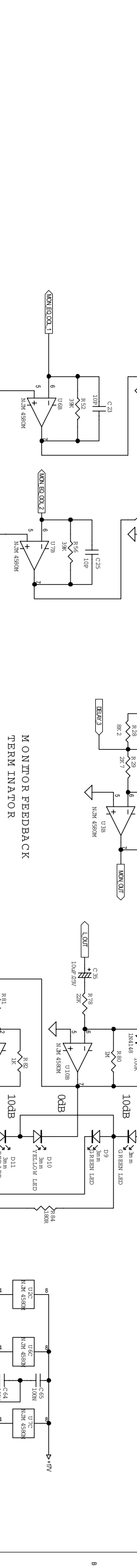
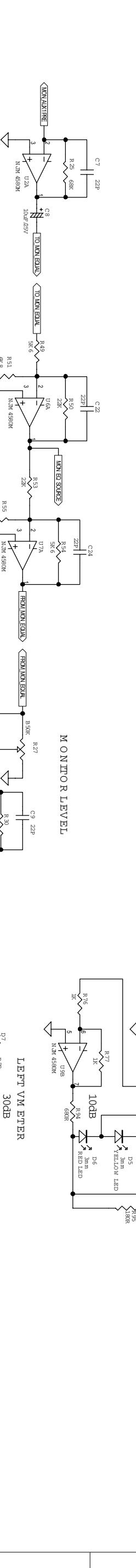
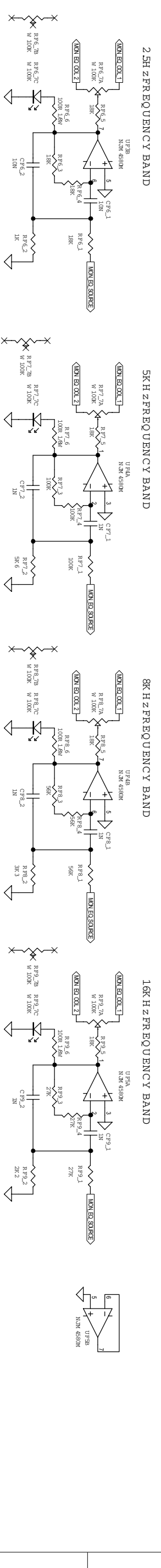
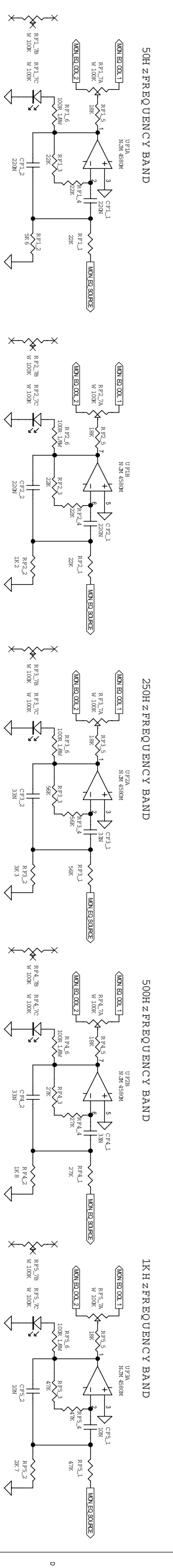


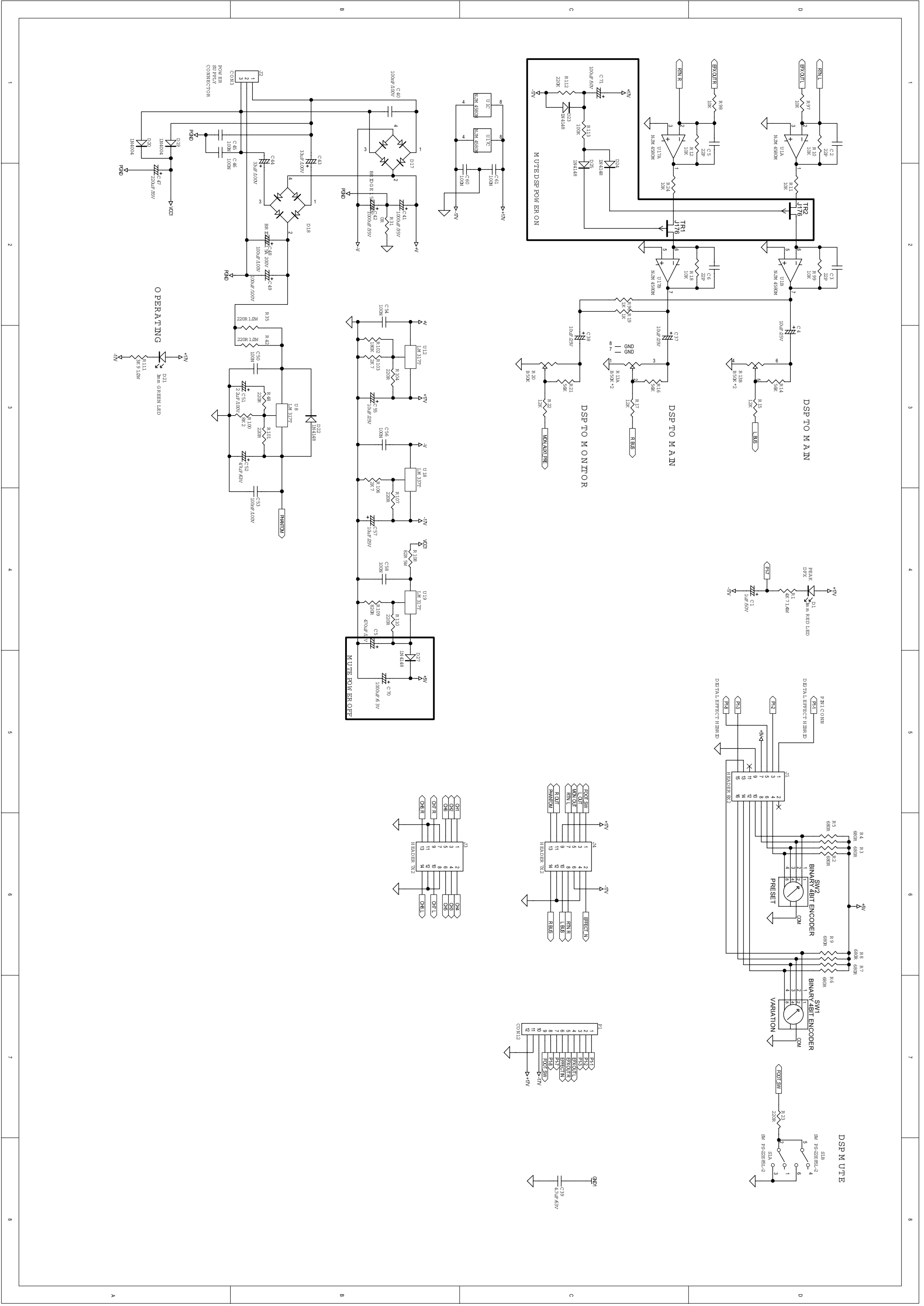
OUTPUTS



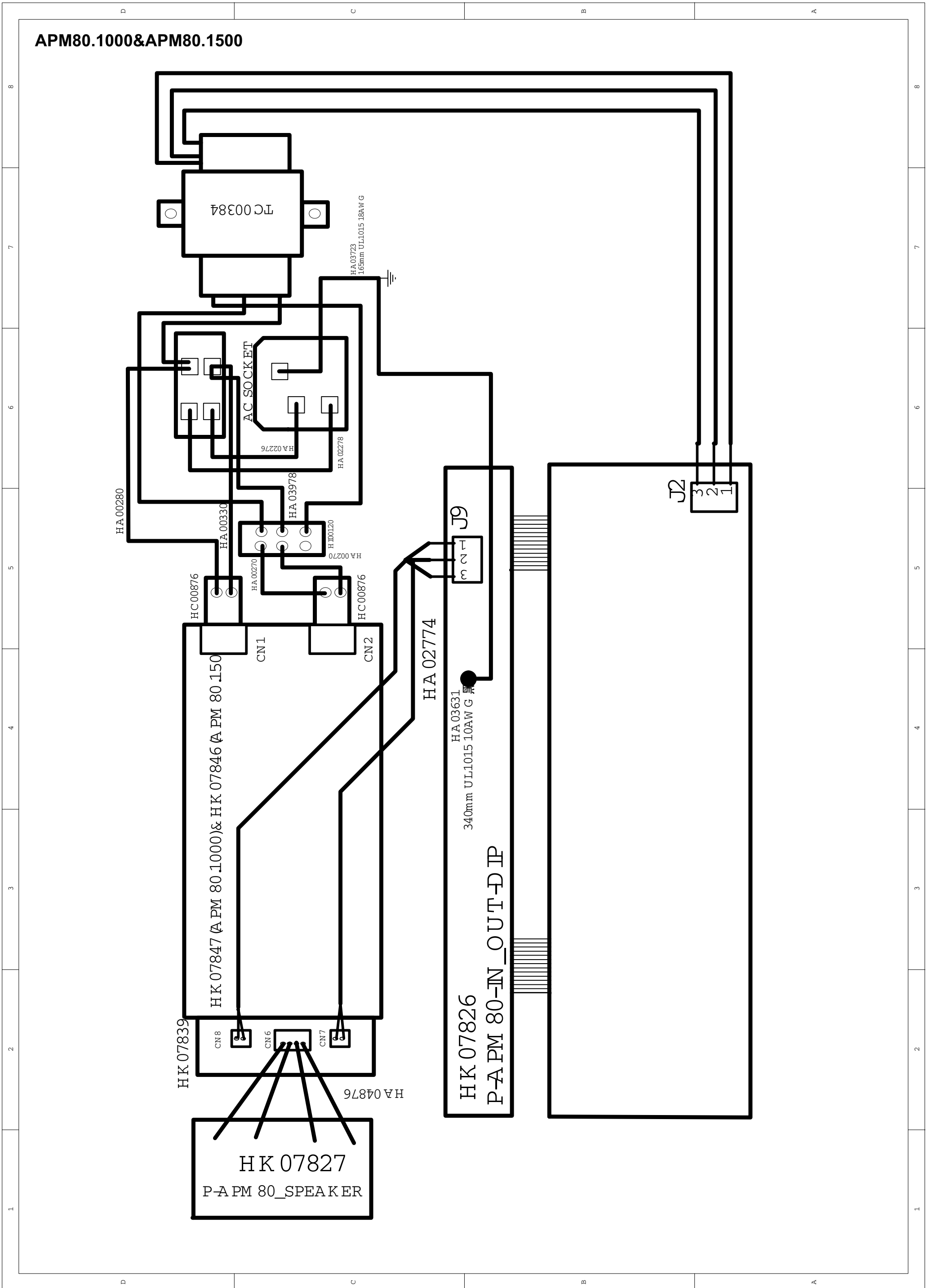






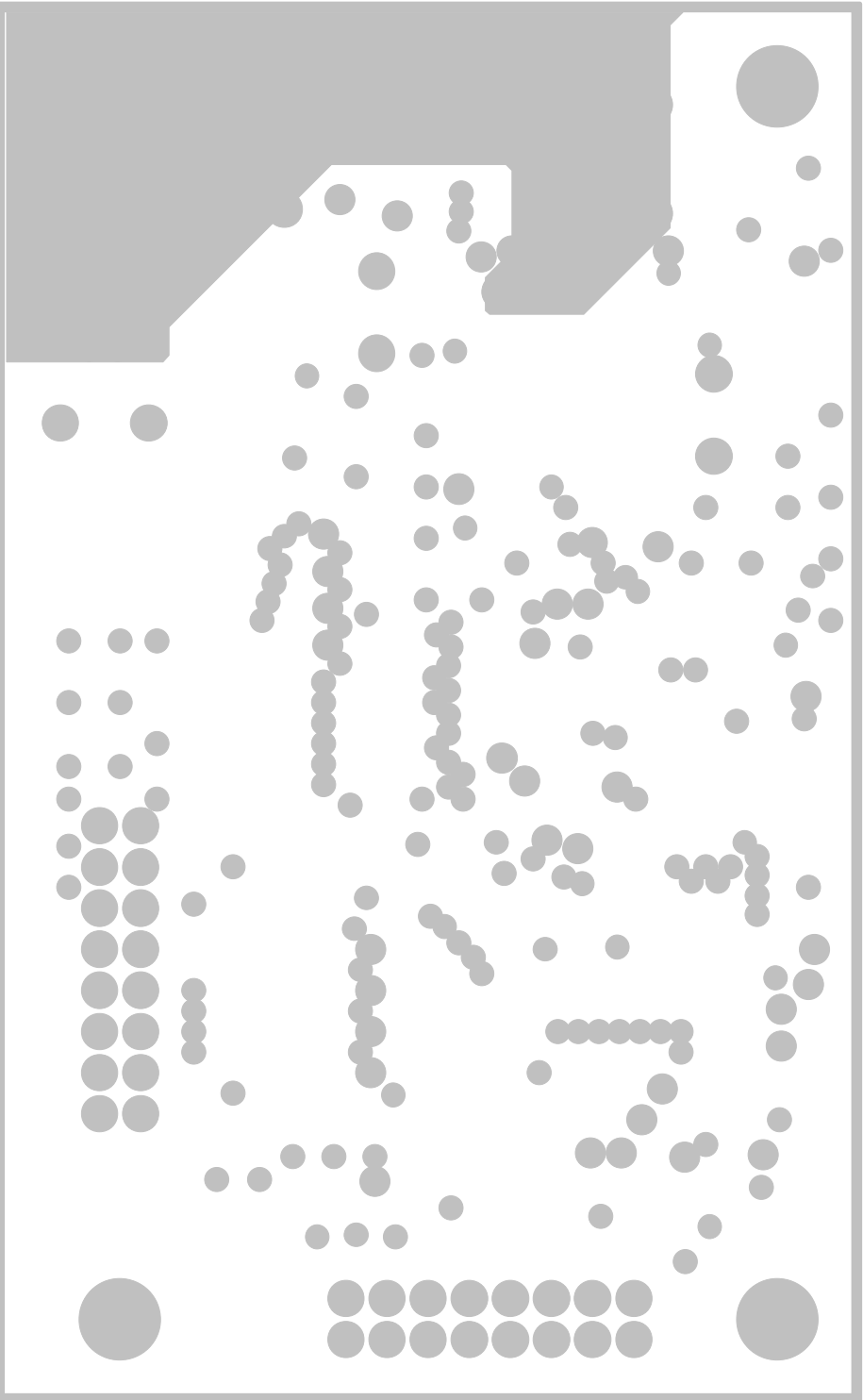


5. WIRING DIAGRAM

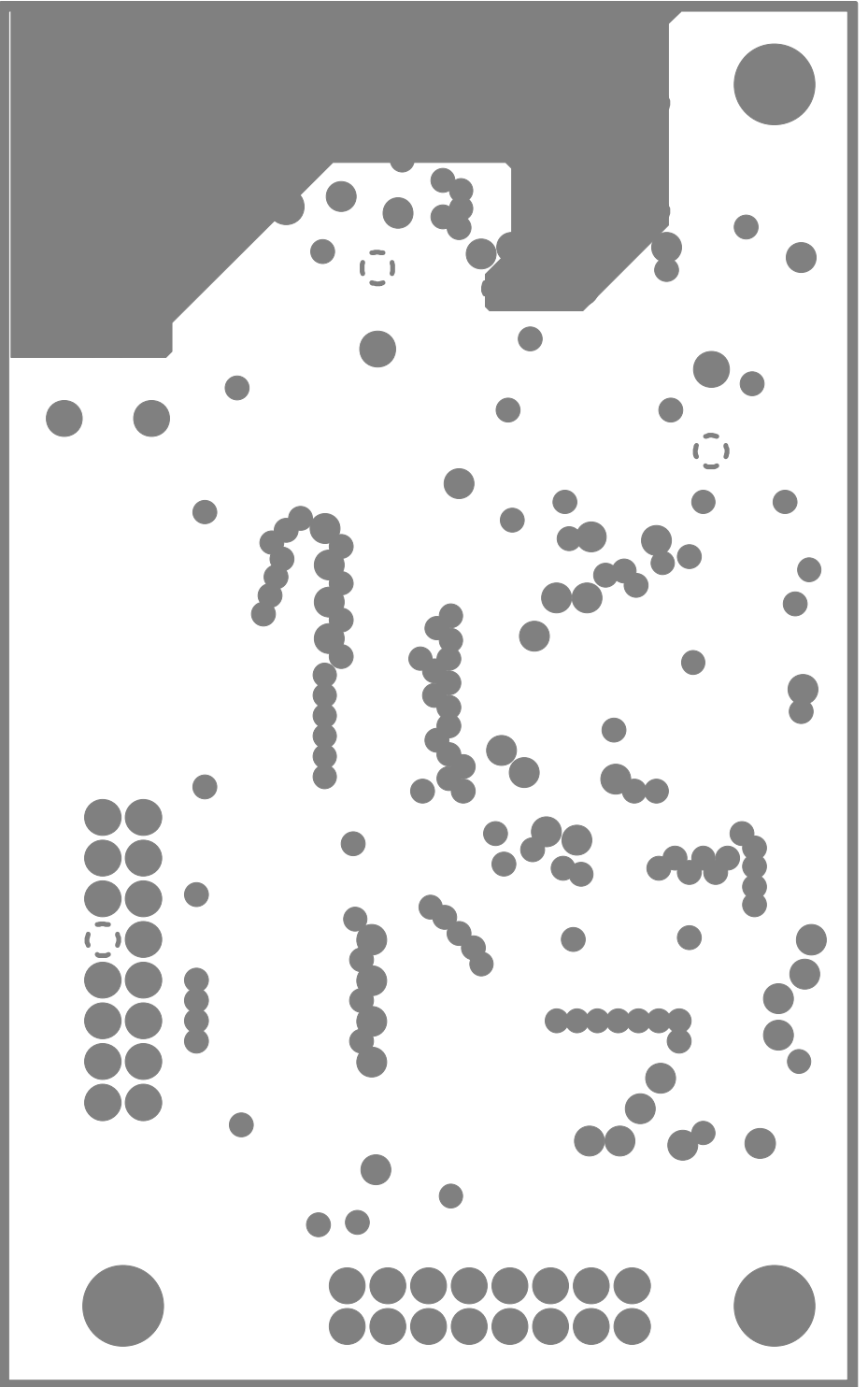


6. PCB LAYOUT

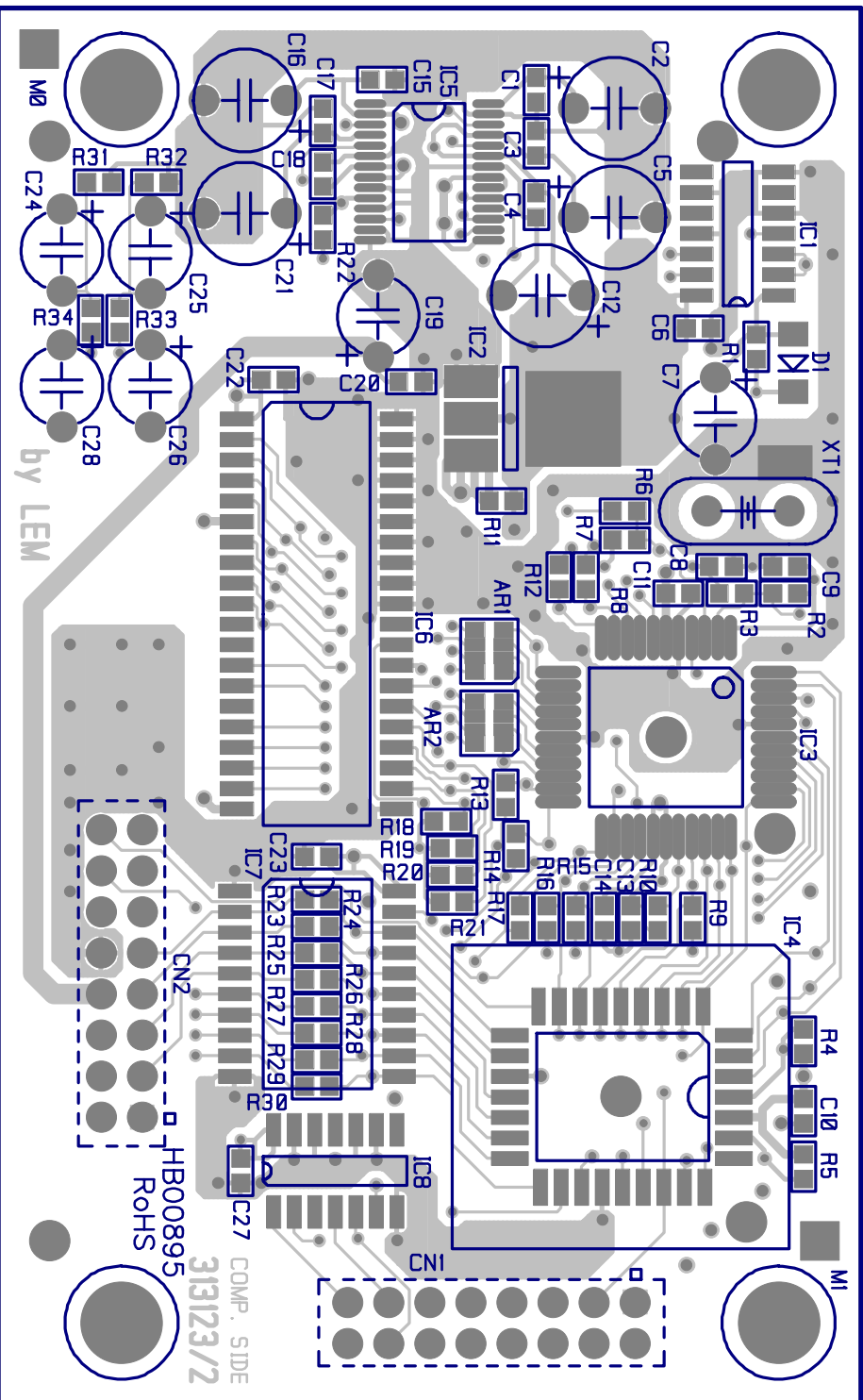
313123/2 II - INTERNAL LAYER VCC



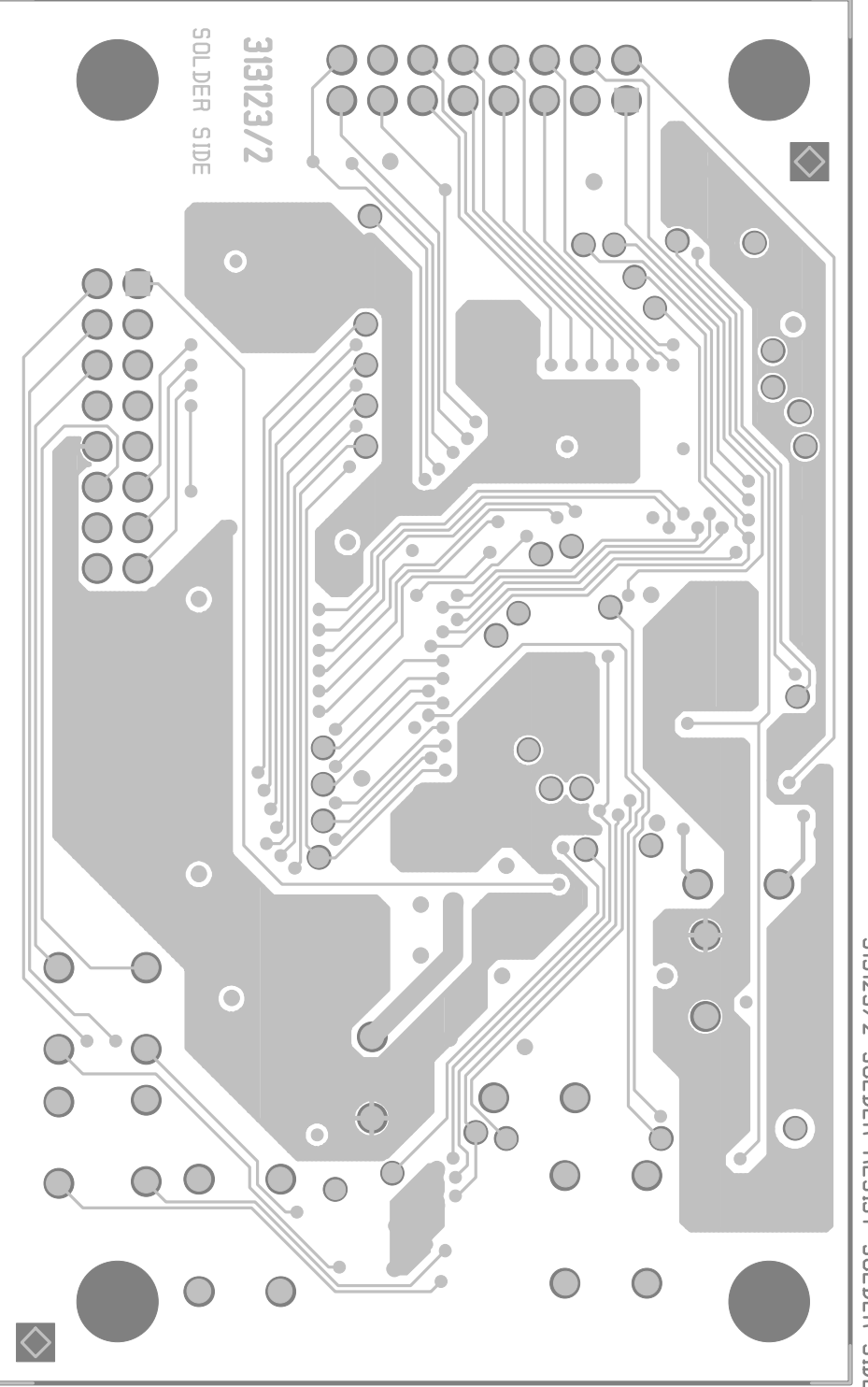
313123/2 I - INTERNAL LAYER GND

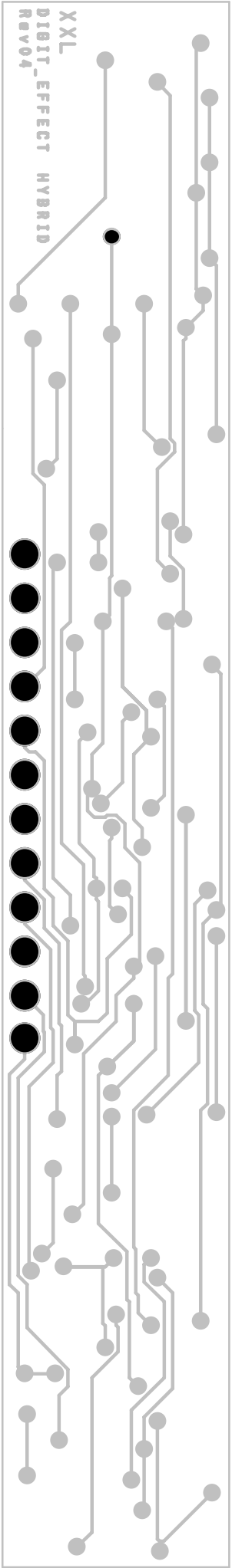


313123/2 TOP SOLDER RESIST COMP. SIDE

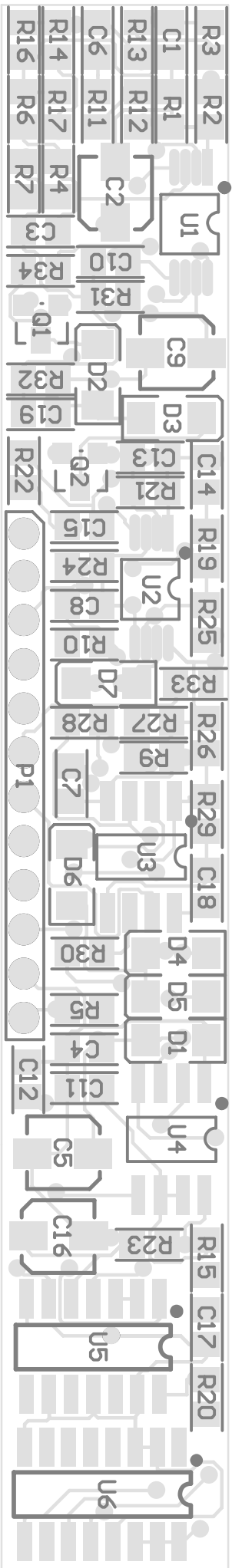


313123/2 SOLDER RESIST SOLDER SIDE

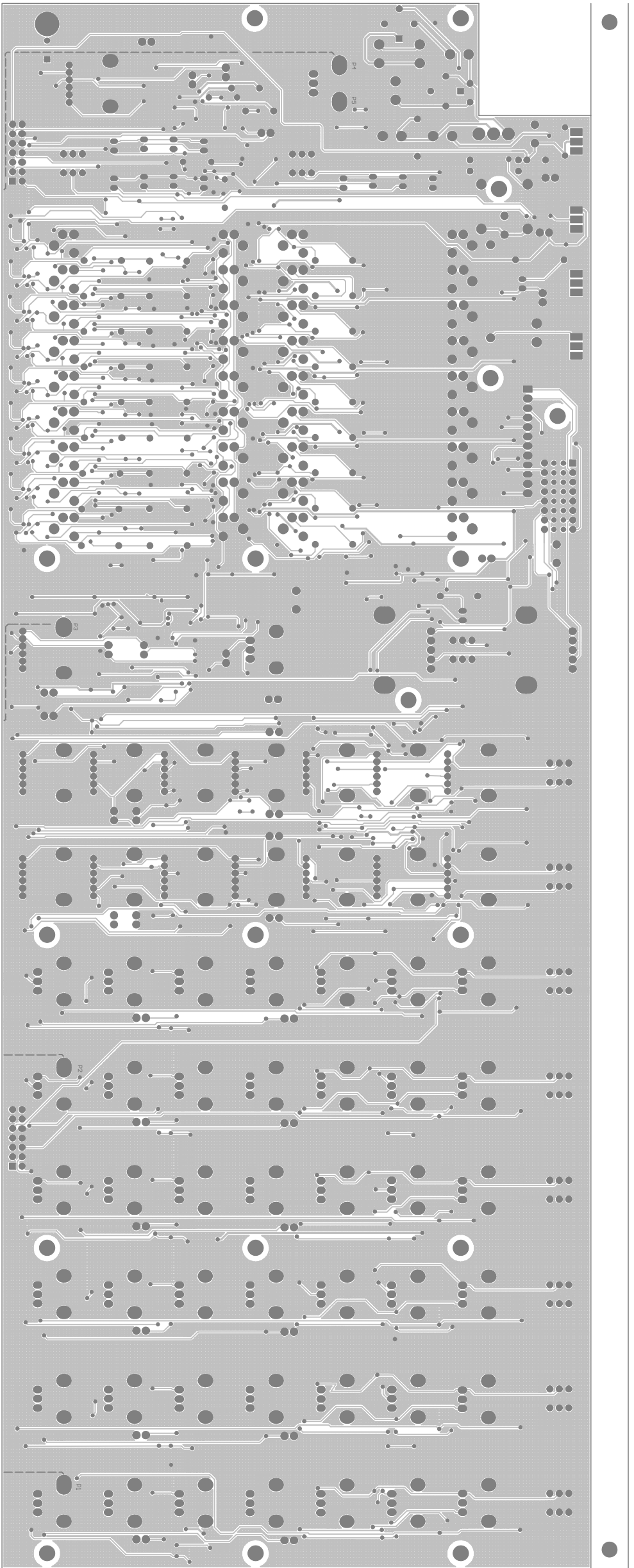




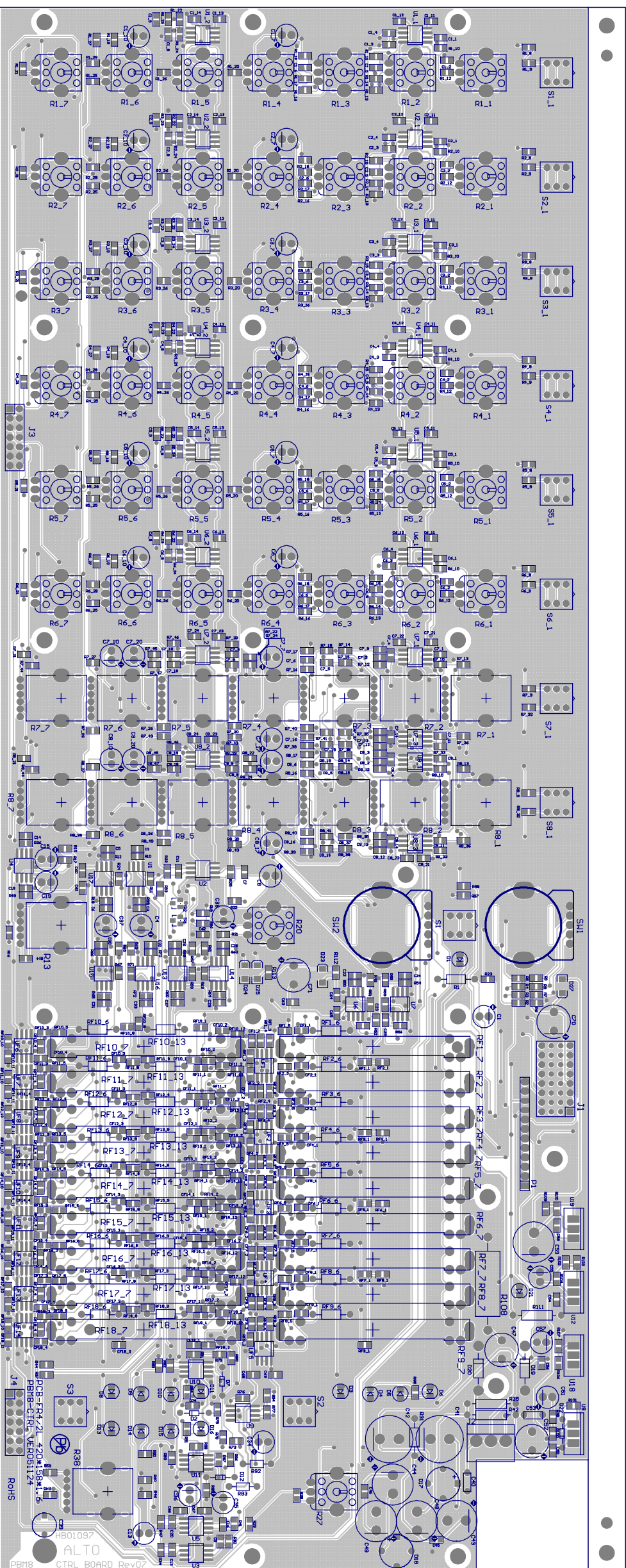
HB01092 DIGIT_EFFECT_REV04
BOTTOM LAYER BOTTOM SOLDER



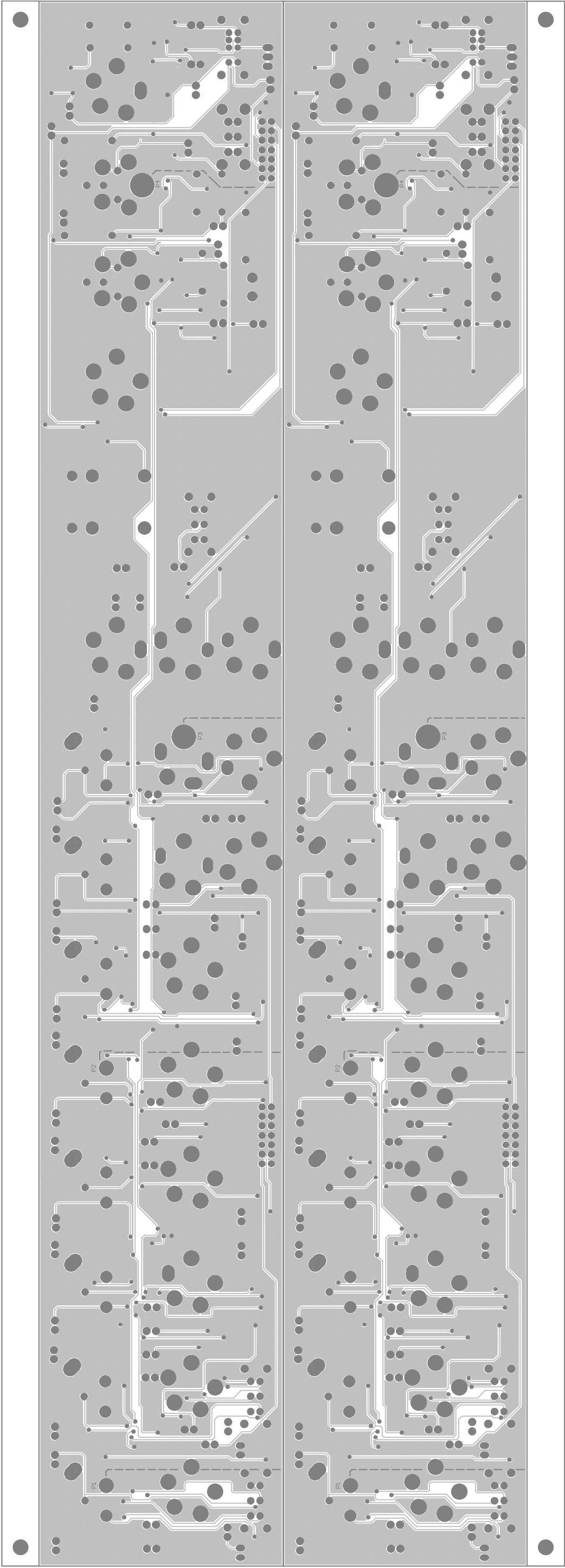
HB01092 DIGIT_EFFECT_REV04
 TOP LAYER TOP OVERLAY TOP SOLDER



HB01097
 PBM8-CTRL
 VER051124
 BOTTOM
 LAYER
 BOTTOM
 SOLDER

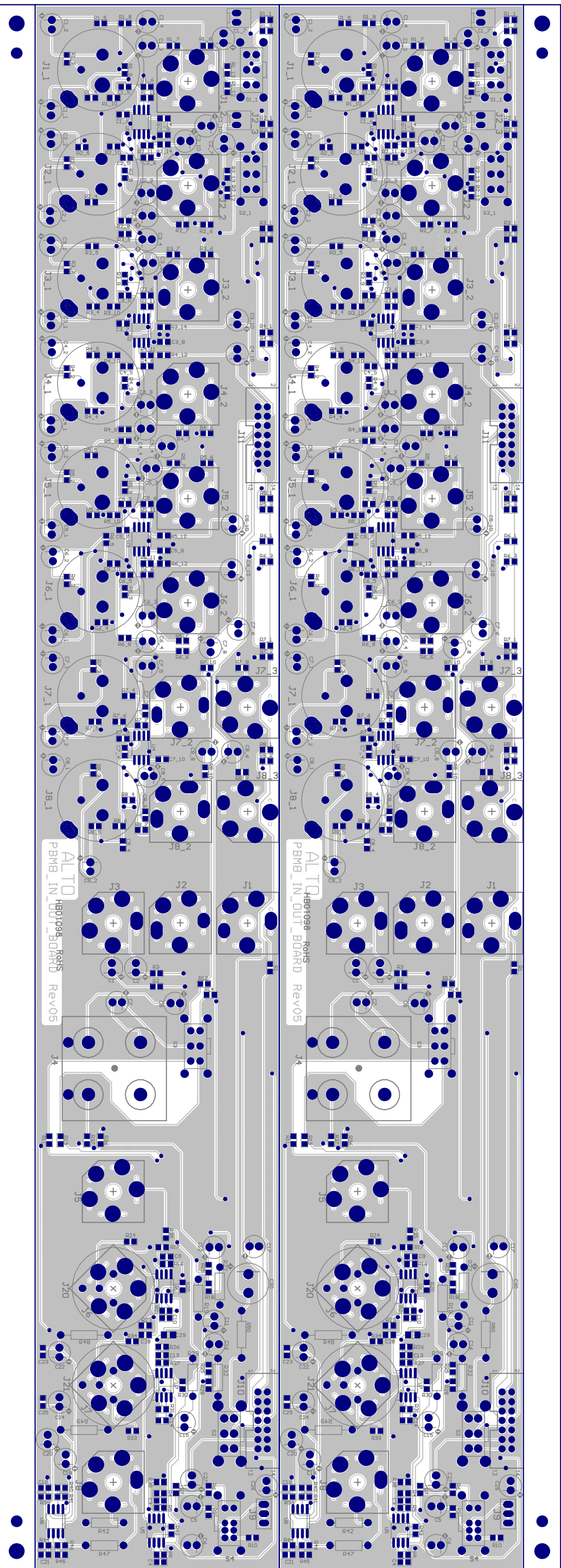


HB01097
 PBM8-CTRL
 VER051124
 TOP LAYER
 TOP
 OVERLAY
 TOPSOLDER



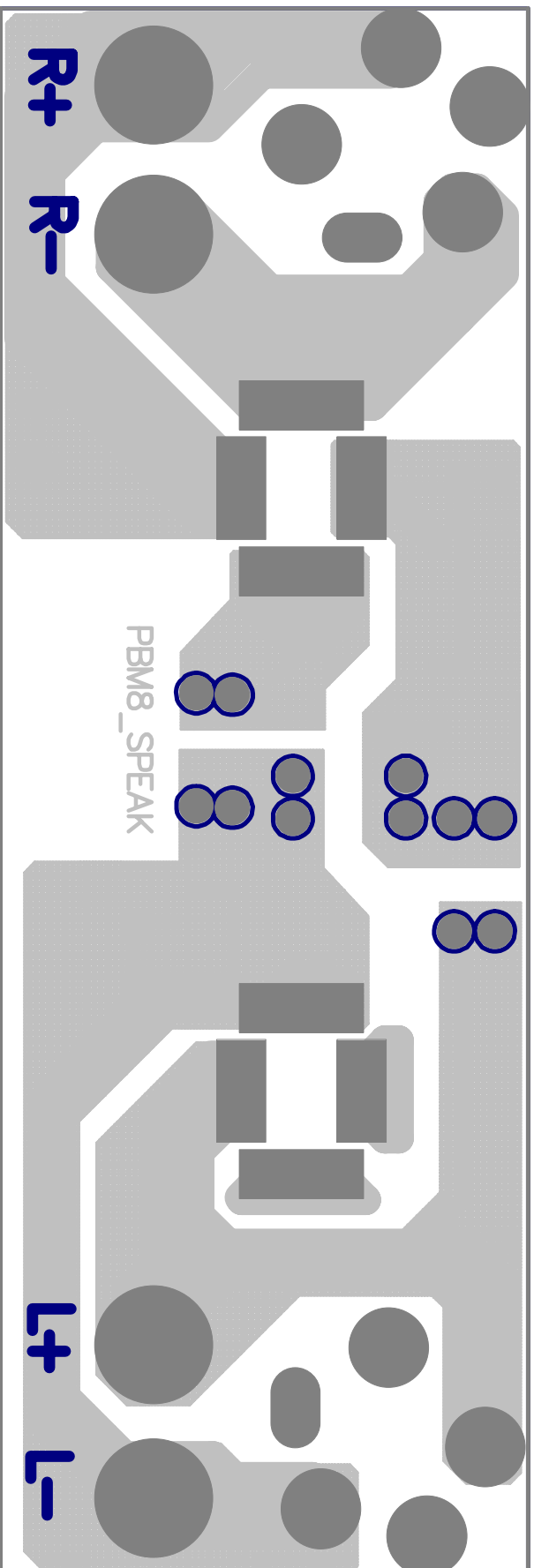
HB01098-PB
M8-IN_OUT_
REV05

BOTTOM
LAYER
BOTTOM
SOLDER

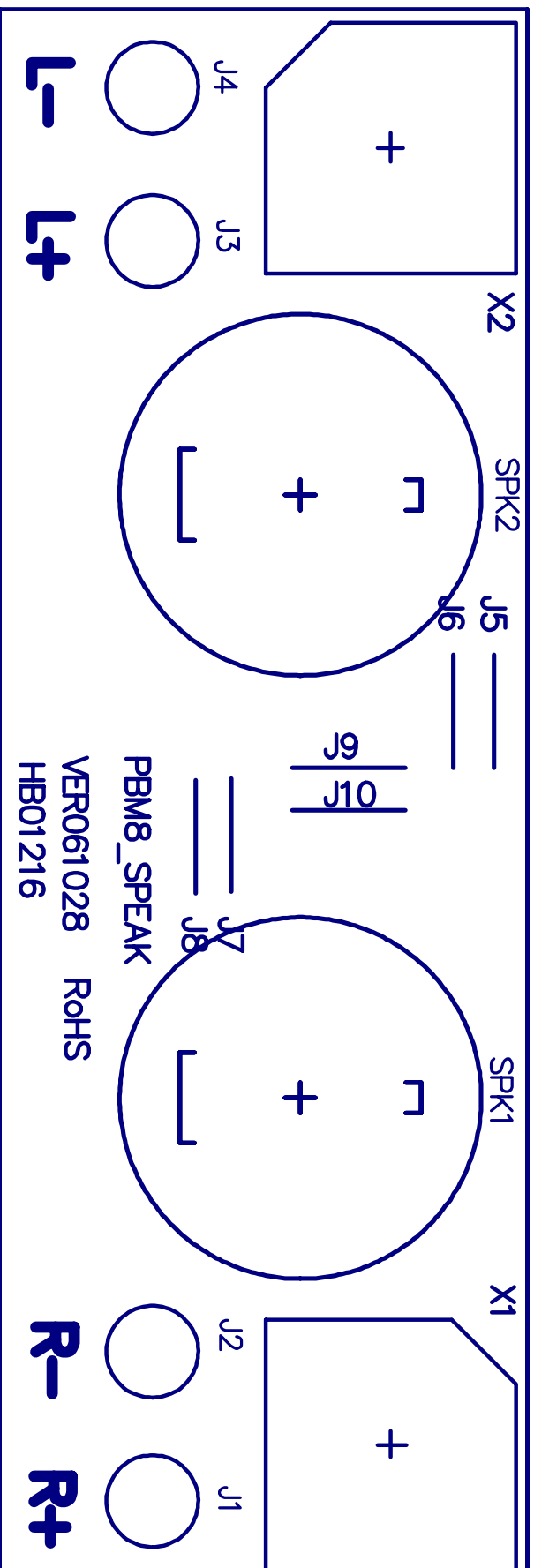


HB01098-PBM
8-IN_OUT_RE
V05

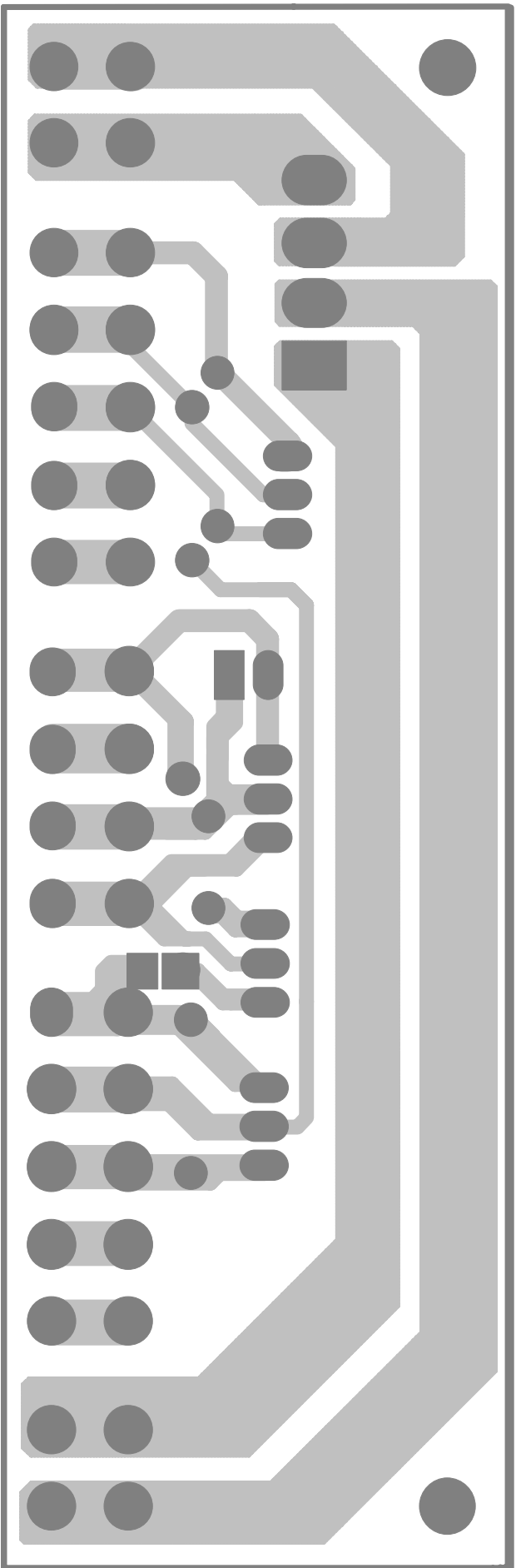
TOP LAYER
TOP
OVERLAY
TOPSOLDER



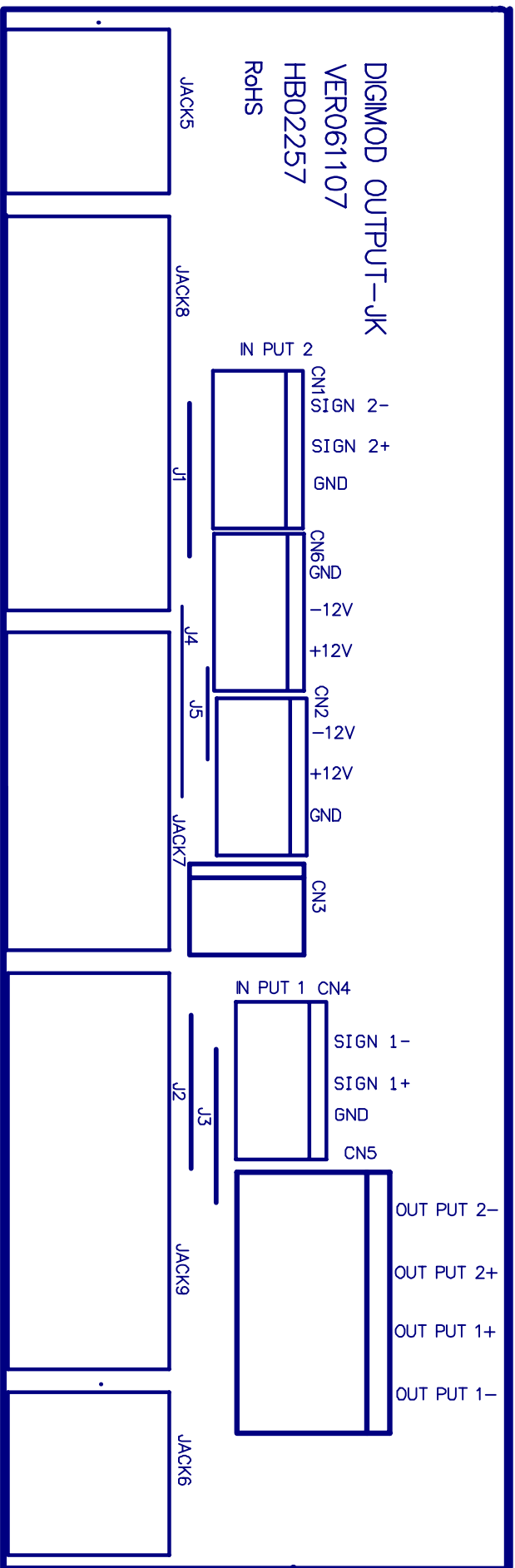
HB01216
 PBM8_SPEAK_VER061028
 BOTTOM LAYER
 BOTTOM OVERLAY
 BOTTOM SOLDER



HB01216
 PBM8_SPEAK_VER061028
 TOP OVERLAY



HB02257
 DIGMOD
 OUTPUT-JK_VER
 061107
 BOTTOM LAYER
 BOTTOM
 SOLDER



HB02257
 DIGMOD
 OUTPUT-JK_VER
 061107
 TOP OVERLAY

7. TEST PROCEDURE

Finished Product TEST PROCEDURE (APM80.1000&APM80.1500)

INSTRUMENT REQUIREMENT:

- 1) AP tester
- 2) 4 ohms high power loads
- 3) DVD player

THE SETTING OF APM80.1000&APM80.1500:

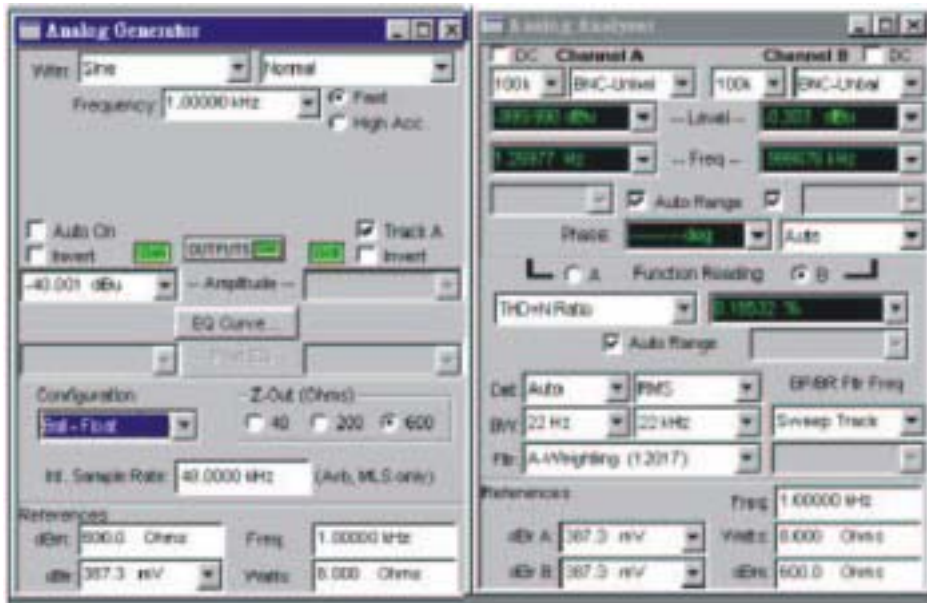
- a) Set all the knobs to the center position; adjust the potentiometers to the 0 position. The PAD switch is springing, the DSP turns off and the phantom power turns on.

1. Phantom Power Test

Use UV-meter to test the MIC sockets' pin 1 and pin 2 of each channel from CH1 to CH9/10 respectively. The voltage between pin1 and pin3 is 48V+/-3V .Turn down the 48V switch after finished testing.

2. Signal Input and Output Test

- a). The AP setting is as follows:



- b). The Range Test of Each Output Channel:

Input -40dBu, 1 kHz signal to MIC socket of CH1, the output range level of each output channel is as follows:

AUX2 OUT: 6dBu (± 3 dBu) THD+N :< 0.3%

MONITOR OUT: -5dBu (± 3 dBu) THD+N<0.3%

MAIN OUT LEFT: 0dBu (± 3 dBu) THD+N :< 0.3%

MAIN OUT RIGHT: 0dBu (± 3 dBu) THD+N :< 0.3%

HEAD PHONE OUT: 4dBu (± 3 dBu) THD+N :< 0.3%

TAPE LEFT OUT: -3dBu (± 3 dBu) THD+N :< 0.3%.

TAPE RIGHT OUT: -4dBu (± 3 dBu) THD+N :< 0.3%.

- c). The Input Sensitivity Test of Each Channel

Thereinafter is the corresponding input sensitivity of each input channel when the MAIN

OUT is equal to 0dBu and THD+N : <0.2%.

Press the PAD switch for one time when testing; see whether the output range has 20dBu variation.

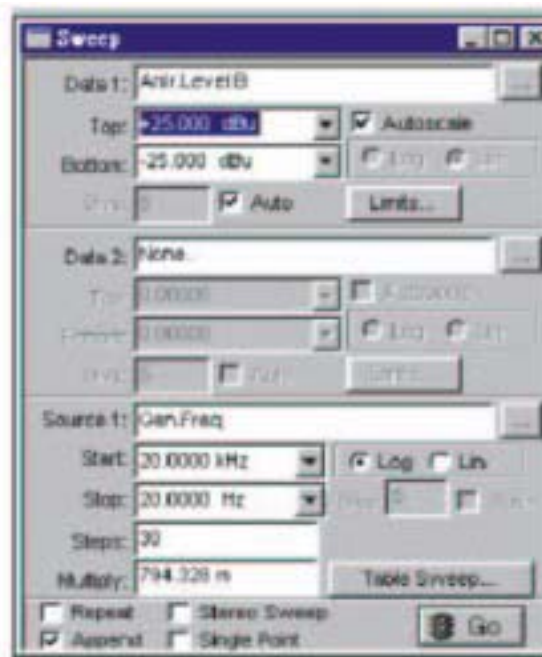
1. CH1~CH6 MIC Socket:-40dBu (± 3 dBu).
2. CH7-8, CH9-10 MIC Socket:-37dBu (± 3 dBu).
3. CH1~CH6 LINE Socket:-20dBu (± 3 dBu). Note: The AP output is balanced.
4. CH7-8 Left and Right LINE Socket, CH9-10 Left and Right LINE Socket: -17dBu (± 3 dBu).

Pay attention to this point, when input from the RIGHT, the MAIN LEFT and RIGHT all have outputs; When input from the LEFT, only the MAIN LEFT has output (Note: The AP output is unbalanced.)

5. STEREO RTN: 7dBu (± 3 dBu).
The AP output is unbalanced.
6. TAPE IN at CH9-10: 0dBu (± 3 dBu).
7. TAPE IN at MAIN:-20dBu (± 3 dBu).

3. 3-BAND EQ TEST of Each Channel

Input -40dBu BAL signal from each channel respectively, adjust the LEVEL and make the MAIN OUT is equal to 0dBu, the AP scan setting is as follows:

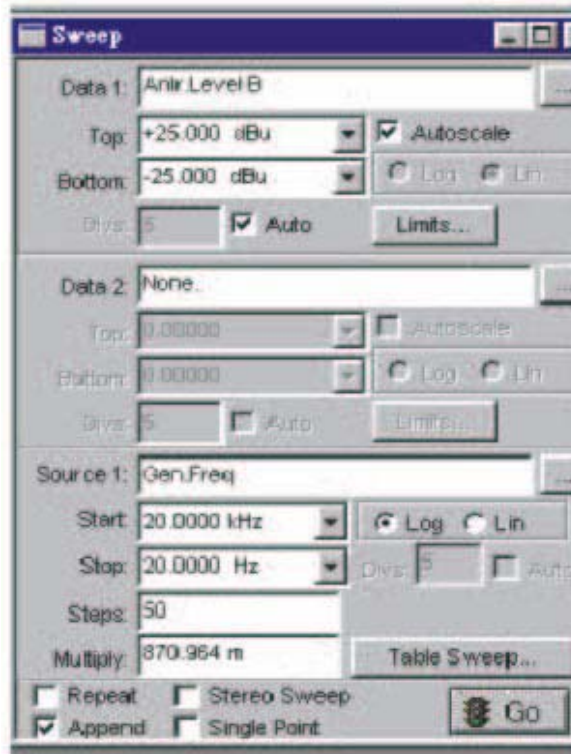


1. When the HIGH, MID and LOW are turned to the midpoint, the curve is as shown in the following figure 1.
2. When the LOW and HIGH are minimum, the MID is maximum, the curve is as shown in the following figure 2.
3. When the LOW and HIGH are maximum, the MID is minimum, the curve is as shown in figure 3.

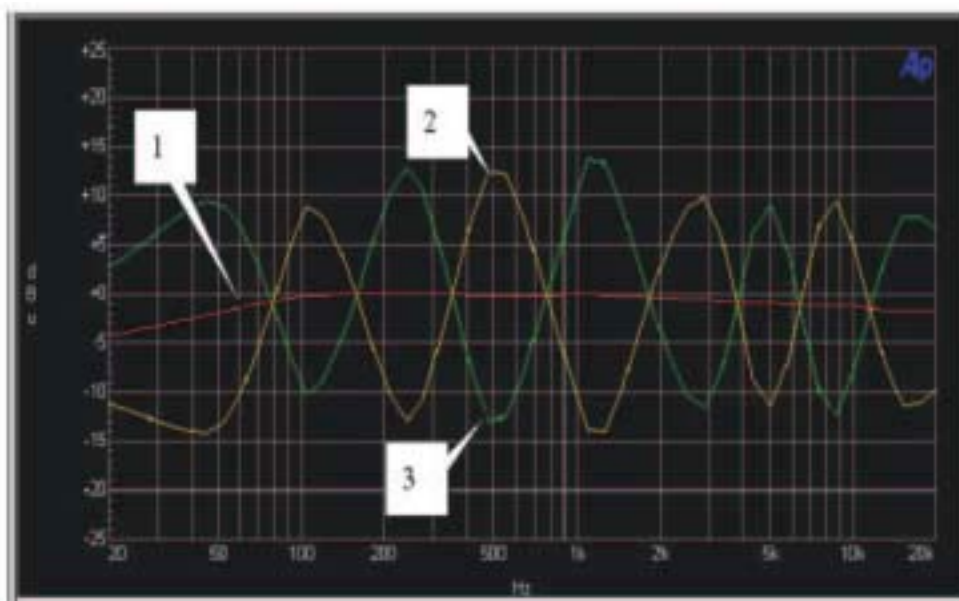
The error of the above test is +/-3dBu, among them the LEFT and RIGHT of CH7-8 and CH9-10 all need to be tested.

4. MAIN 9-BAND EQ TEST

Input -40dBu BAL signal form the CH1, adjust the LEVEL and make the MAIN OUT is equal to 0dBu, the AP scan setting is as follows:



1. When all the sliders are turned to the midpoints, the curve is as shown in the following figure 1.
2. When the sliders of 50, 250, 1K, 5K and 16K are turned to the bottom, and 100, 500, 2K5, 8K to the top, the curve is as shown in the following figure 2.
3. When the sliders of 50, 250, 1K, 5K and 16K are turned to the top, and 100, 500, 2K5, 8K to the bottom, the curve is as shown in the following figure 3.

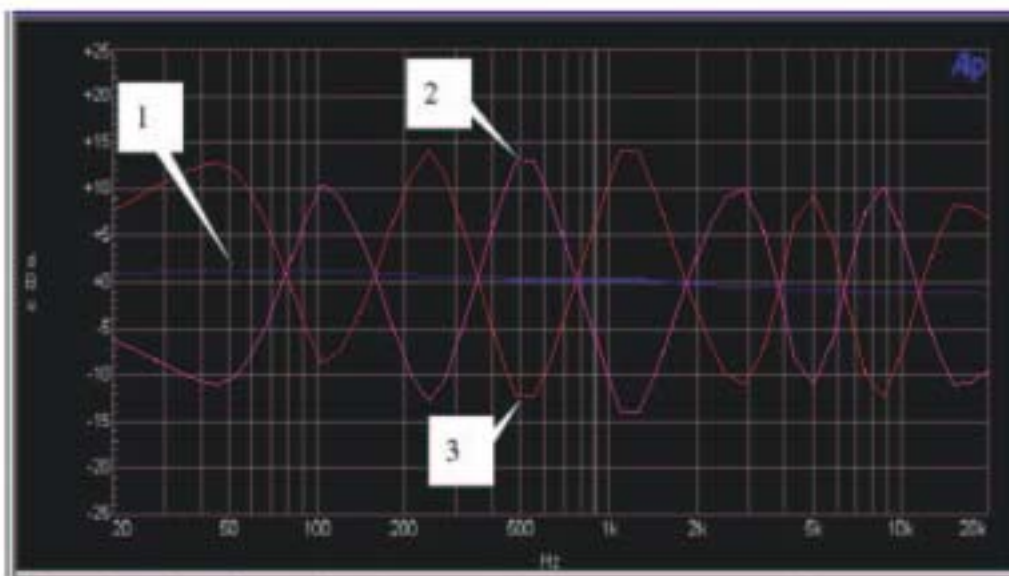


The error of the above test is +/-3dBu, the LEFT and RIGHT all need to be tested.

5: MONITOR 9-BAND EQ TEST:

Keep the constant input condition, plug the AP input wire to the MONITOR OUT, then adjust the LEVEL and make The MONITOR OUT is equal to 0dBu.

1. When all the sliders are turned to the midpoints, the curve is as shown in the following figure 1.
2. When the sliders of 50, 250, 1K, 5k and 16K are turned to the bottom, and 100, 500, 2K5, 8K to the top, the curve is as shown in the following figure 2.
3. When the sliders of 50, 250, 1K, 5k and 16K are turned to the bottom, and 100, 500, 2K5, 8K to the top, the curve is as shown in the following figure 3.



The error of the above test is +/-3dBu.

6. EQ LEDs Test

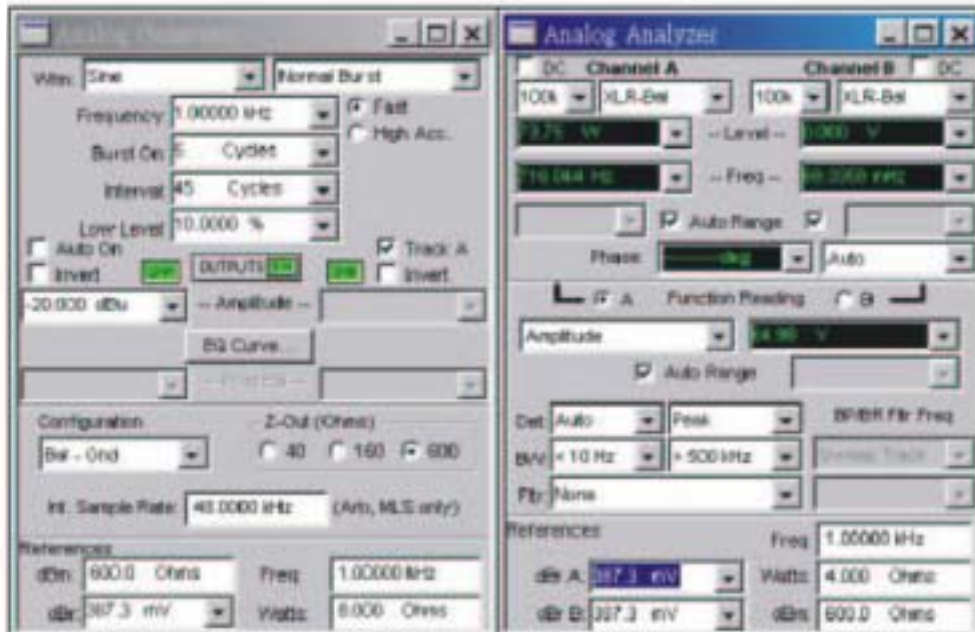
Push down the FEEDBACK switch, adjust all the EQ sliders of the MAIN and MONITOR to the center position, change the output to -20dBu and other conditions keep constant, at that time, the LED of 1K turns on. Press F9 for scanning, the LEDs from 16K to 50Hz of the MAIN and MONITOR turn on gradually. Spring the FEEDBACK switch, all the LEDs turn out.

7. FOOT SW, DSP MUTE Test:

Plug the FOOT switch and operate, DSP MUTE lights should turn on and turn down gradually. Operate DSP MUTE switches, DSP MUTE lights should turn on and turn off gradually.

8. AMP80.1000&APM80.1500 Test of Amplifier section

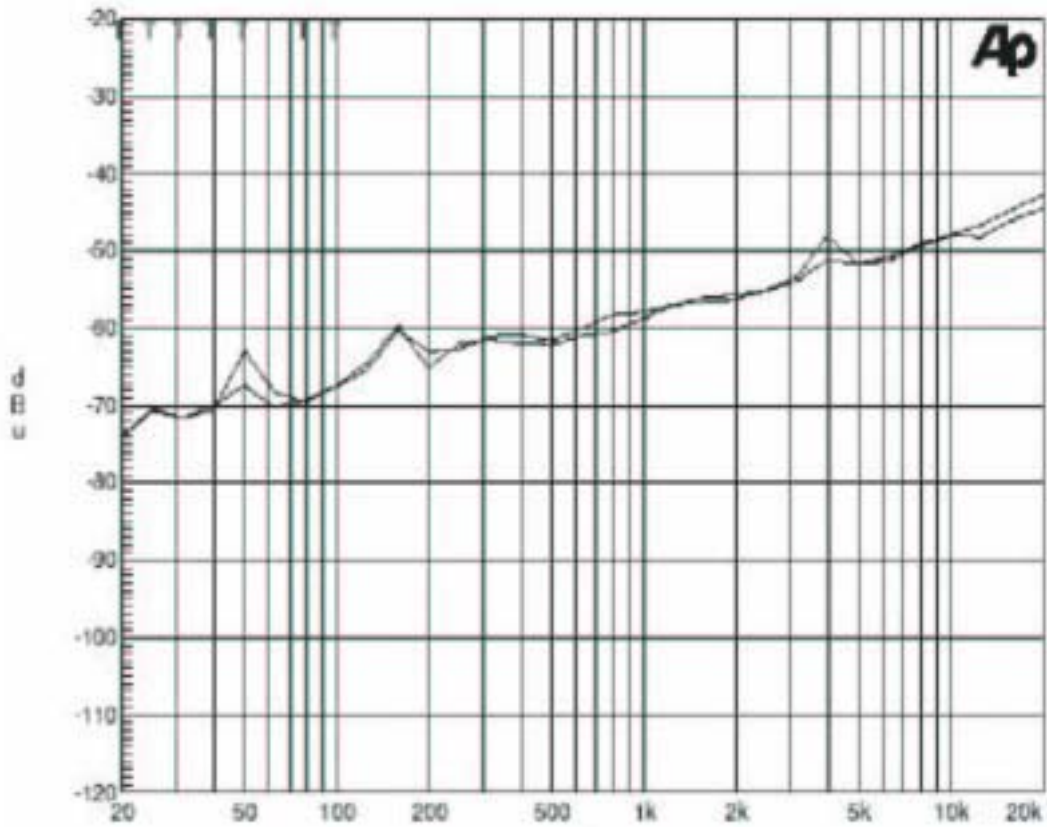
The AP setting is as follows:



- a). Adjust the AC voltage, make AC output is equal to 230V, the power supply switching switch indicates the 230V position, two output channels of the amplifier connection with 4 ohms loads, input -20dBu signal from CH1, adjust the LEVEL and the waveform of the oscilloscope undistorted, at that time to test the maximum value of the amplifier can output.
 - b). Adjust the AC voltage, make AC output is equal to 115V, the power supply switch indicates the 115V position, two output channels of the amplifier connection with 4 loads, input -20dBu signal from CH1, adjust the LEVEL, make the waveform of the oscilloscope undistorted, at that time to test the maximum value of the amplifier can output.
1. AMPLIFIER MODE is the MAIN+MAIN status, the outputs of the amplifier are:
 - APM80.1000: >60V. (Amplitude value)
 - APM80.1500: >68V. (Amplitude value)
 2. AMPLIFIER MODE is the MAIN+ MONITOR status, the outputs of the amplifier are:
 - APM80.1000: >60V. (Amplitude value)
 - APM80.1500: >68V. (Amplitude value)
 3. AMPLIFIER MODE is in the bridge status, at that time, the load is 8 ohms.
 - APM80.1000: >108V. (Amplitude value)
 - APM80.1500: >128V. (Amplitude value)

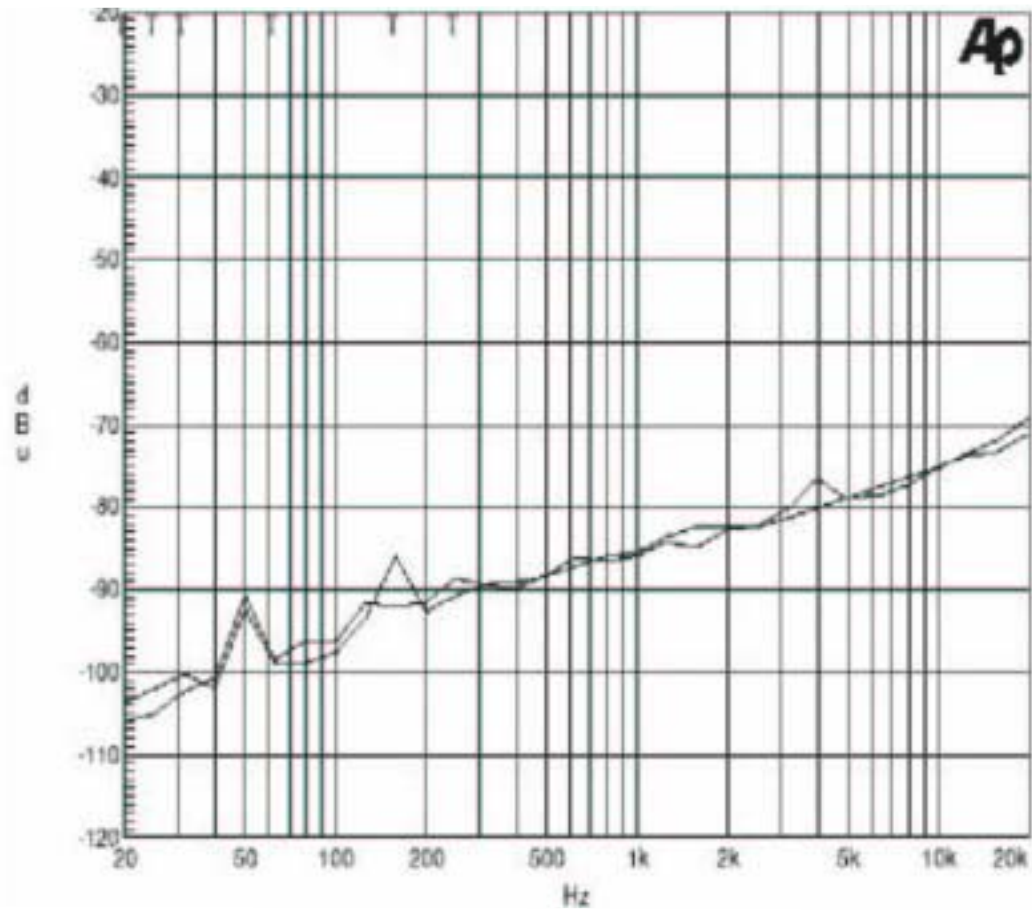
9. Signal Noise Test:

- a). Turn all the LEVEL GAIN to the minimum, and turn the GAIN of the MAIN and MONITOR knobs to the maximum, at this point, the curve of the amplifier output (LEFT, RIGHT) is as follows:



The signal noise is requested to be lower than -40dBu.

- b). Alter AP input to the MAIN LEFT and RIGHT outputs of the MIXER, the curve is as follows:



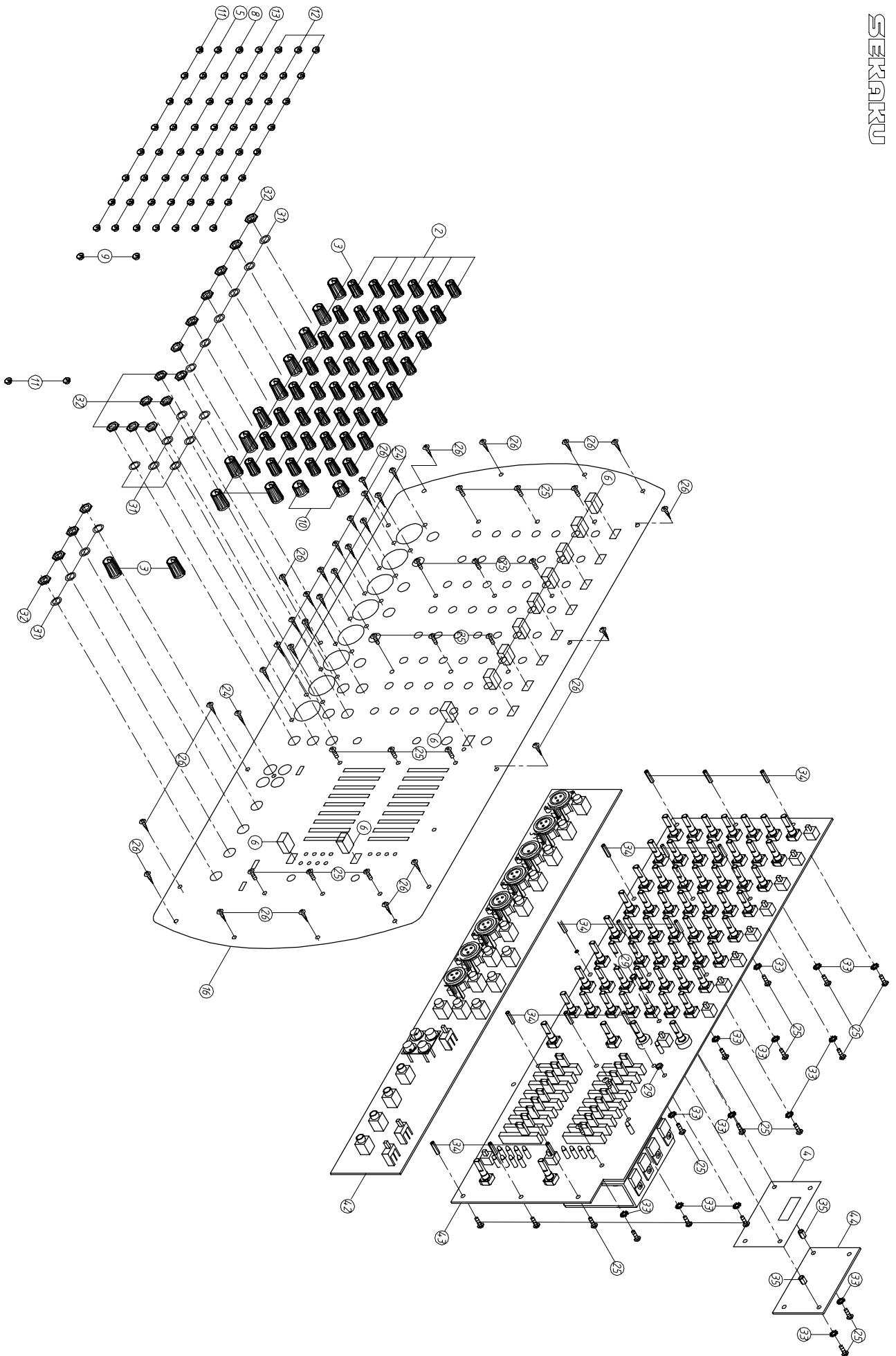
The signal noise is requested to be lower than -65dBu.

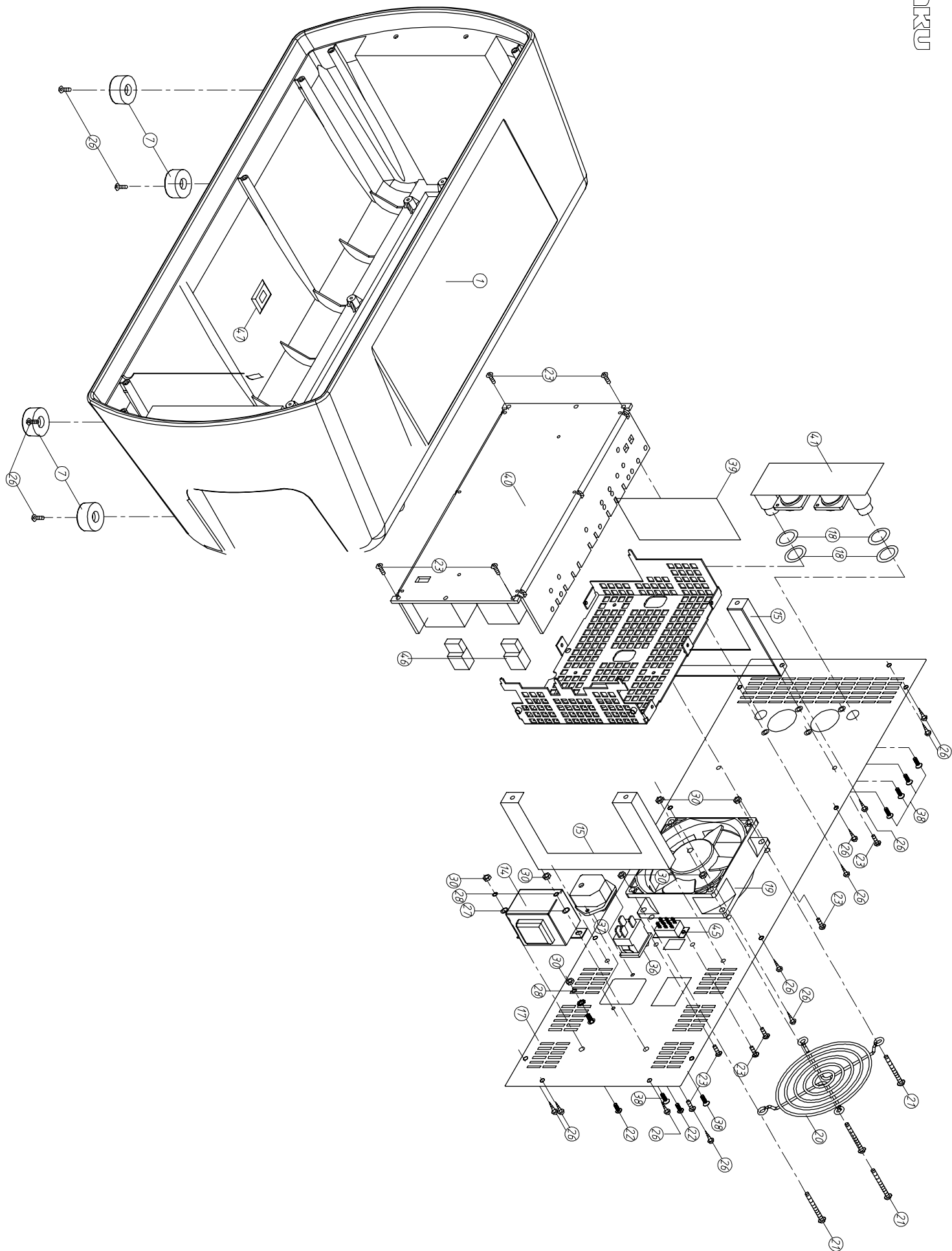
10. Listening Test

- a). Adjust AC voltage, make AC input is equal to 230V; the power supply switch indicates the 230V position. Connect to the high quality cabinets, connect the signal of the DVD player to the input of each channel, adjust the LEVEL MAIN and MONITOR LEVEL to the appropriate volume, operate the switch and knob of each channel respectively (from minimum to maximum). During the operation, there should be not occurred big sonic boom, and also doesn't have the noise of turning the potentiometers, the noise of the listening amplifier output and MAIN output can not bigger than the sample. Turn on the PHANTOM power (Note: Before turning on the PHANTOM power, you should turn the MAIN LEVEL and MONITOR LEVEL to the minimum), the noise of the listening amplifier output and MAIN output can not become bigger (refer to the sample).
- b). Adjust the AC voltage, make the AC output is equal to 115V, the power switch indicates the 115V position, according to the above method to do the Listening Test.

8. EXPLODED VIEW & MECHANICAL PARTS LIST

SEKARU





MECHANICAL PARTS LIST

APM80.1000

No.	Parts No.	Description	Specification	PCS
1	NI03760	back cover	553.3*275.6*208 PBM8.250 MK II black V1.0	1
2	NI00359	plastic knob	φ10*16.5 COOL GRAY 8C	48
3	NI00399	plastic knob	φ11*19mm COOL GRAY 8C	12
4	NI02620	ZD-insulated panel	1*86.5*53 L-8 V1.3	1
5	NI02692	knob cover	φ7*3.5 black	8
6	NI02957	button	9.8*5.5*11.2mm black V1.0	11
7	NI02728	plastic pin	φ9.5*14 black	4
8	NI02100	knob cover	φ7*3.5 222C	8
9	NI02101	knob cover	φ8.5*4 222C	2
10	NI02386	plastic knob	φ14*13mm discolor(cold grey8C inner 072C bl	2
11	NI02677	knob cover	φ8.5*4 534C blue	10
12	NI02252	knob cover	φ7*3.5 072Cblue	24
13	NI01147	knob cover	φ7*3.5 white	8
14	TC00384	transformer	XPI57F3608002C3-120V/230V	1
15	MI03954	ZD-fixed bracket	APM80.1000 70*12*15 V1.0	2
16	MA06499	ZC-panel	APM80.1000 ALTO V1.0	1
17	MB05216	ZC-rear panel	APM80.1000 ALTO V1.0	1
18	NC00131	T-wooden washer	1* φ11.3* φ15.3 red	4
19	HE00125	fan	DC24V/0.14A 80*80*15 175mm JST2P	1
20	MD00444	fan protection cover	80*80mm(K-G08A05-4HA)	1
21	MG00403	screw	M4*23	4
22	MG00172	screw	M4*10	2
23	MG00518	screw	M3*7*0.5PH	10
24	MG00061	screw	M3*10	17
25	MG00041	screw	M3*6	32
26	MG00437	screw	M3*16	32
27	MF00018	ZE-washer	φ4* φ10*1t V1.0	2
28	MB05201	D-rear panel	APM80.1000 1.5t*460*164 V1.0	1
29	MA06465	D-panel	APM80.1000 1.5t*536.7*257.4 V1.0	1
30	MI03954	ZD-fixef bracket	APM80.1000 122*72*12 V1.0	2
31	MA06500	ZC-panel	APM80.1500 ALTO V1.0	1
32	MB05217	ZC-rear paenl	APM80.1500 ALTO V1.0	1
33	TC00384	transformer	XPI57F3608002C3-120/230V	1
34	NB05186	outter box	APM80.1000/1500ALTO V1.0	1
35	NE17032	ZC-label	APM80.1500 bar code V1.0	1

APM80.1500

No.	Parts No.	Description	Specification	PCS
1	NI03760	back cover	553.3*275.6*208 PBM8.250 MK black_V1.0	1
2	NI00359	plastic knob	310*16.5 COOL GRAY 8C	48
3	NI00399	plastic knob	311*19mm COOL GRAY 8C	12
4	NI02620	ZD-insulated panel	1*86.5*53 L-8_V1.3	1
5	NI02692	knob cover	37*3.5 black	8
6	NI02957	button	9.8*5.5*11.2mm black_V1.0	11
7	NI02728	plastic pin	329.5*14 black	4
8	NI02100	knob cover	37*3.5 222C	8
9	NI02101	knob cover	38.5*4 222C	2
10	NI02386	plastic knob	314*13mm discolor(cold grey8C inner 072C blue)	2
11	NI02677	knob cover	38.5*4 534C blue	10
12	NI02252	knob cover	37*3.5 072Cblue	24
13	NI01147	knob cover	37*3.5 white	8
14	TC00384	transformer	XPI57F3608002C3-120V/230V	1
15	MI03954	ZD-fixed bracket	APM80.1000 70*12*15_V1.0	2
16	MA06499	ZC-panel	APM80.1000 ALTO_V1.0	1
17	MB05216	ZC-rear panel	APM80.1000 ALTO_V1.0	1
18	NC00131	T-wooden washer	1* 311.3* 315.3 red	4
19	HE00125	fan	DC24V/0.14A 80*80*15 175mm JST2P	1
20	MD00444	fan protection cover	80*80mm(K-G08A05-4HA)	1
21	MG00403	screw	M4*23	4
22	MG00172	screw	M4*10	2
23	MG00518	screw	M3*7*0.5PH	10
24	MG00061	screw	M3*10	17
25	MG00041	screw	M3*6	32
26	MG00437	screw	M3*16	32
27	MF00018	ZE-washer	34* 310*1t_V1.0	2
28	MB05201	D-rear panel	APM80.1000 1.5t*460*164_V1.0	1
29	MA06465	D-panel	APM80.1000 1.5t*536.7*257.4_V1.0	1
30	MI03954	ZD-fixef bracket	APM80.1000 122*72*12_V1.0	2
31	MA06499	ZC-panel	APM80.1000 ALTO_V1.0	1
32	MB05216	ZC-rear paenl	APM80.1000 ALTO_V1.0	1
33	TC00384	transformer	XPI57F3608002C3-120/230V	1
34	NB05186	outter box	APM80.1000/1500ALTO_V1.0	1
35	NE17033	ZC--label	APM80.1000 bar code_V1.0	1

9. BOM

NO.	Part No.	Description	Specification	Remark
1	NI03760	rear cover	553.3*275.6*208 PBM8.250 MK black V1.0	
2	NI00359	knob	φ10*16.5	
3	NI00399	knob	φ11*19mm	
4	NI01627	fixed bracket	CM 19S	
5	NI00218	cable tie	ALT 102SB	
6	NI02692	knob cover	φ7*3.5 black	
7	NI02957	knob	9.8*5.5*11.2mm black V1.0	
8	NI02728	rubber foot	φ29.5*14 black	
9	NI02100	knob cover	φ7*3.5 222C	
10	NI02101	knob cover	φ8.5*4 222C	
11	NI02386	knob	φ14*13mm	
12	NI02677	knob cover	φ8.5*4 534C blue	
13	NI02252	knob cover	φ7*3.5 072C	
14	NI01147	knob cover RS	φ7*3.5 V1.3	
15	NE11347	label	ALTO PI	
16	NH00334	cone paper	0.040*1m	
17	NF00061	assurance card	ALTO	
18	NE00840	label	SOLTON	
19	NH00115	paper	0.045*1M	
20	NI00015	membrane	0.04*1M	
21	NB02912	carton	PBM8.250/PBM8.500 ALTO V1.1	
22	NB05186	inner case RS	APM80.1000/1500/QUAD ALTO V1.1	
23	NB04045	cushion	PBM8.500MK V1.0	
24	HI00120	slide switch	L21 22A	
25	NI03205	protective cover	0.5*44*15 V1.0	
26	MG00518	screw	M3*7*0.5PH	
27	TC00384	transformer RS	XPI57F3608002C3 120V/230V	
28	NE17033	lable RS	APM80.1000 V1.0	
29	NI00014	membrane	0.035*1M	
30	NH00012	bond paper	0.04*1M	
31	MI03954	fixed bracket RS	APM80.1000 122*72*12 V1.0	
32	MJ00069	iron board	1.5*2135*1220 30.67kg	
33	MA06499	panel RS	APM80.1000 ALTO V1.0	
34	MA06466	panel RS	APM80.1000	
35	AE00055	solvent	solvent	
36	AE00060	paint RS	4534	
37	MA06465	panel RS	APM80.1000 1.2t*536.7*257.4 V1.1	
38	MJ00059	single light board	1.2*2135*1220 24.54kg	
39	MB05216	rear board RS	APM80.1000 ALTO V1.2	
40	MB05202	rear board RS	APM80.1000	
41	AE00343	solvent RS	NO.330	
42	AE00177	paint RS	4866	
43	MB05201	rear board RS	APM80.1000 1.5t*460*164 V1.0	
44	ME00001	screw pillar	M4*10*0.7PH	
45	MJ00088	single light board	1.5*2135*1220 30.67kg	
46	NC00131	washer	1*φ11.3*φ15.3 red	
47	NI00268	sleeve	φ6*20mm	
48	NI00266	sleeve	φ6*1000mm	
49	NI00252	sleeve	φ4*20mm	
50	NI00248	sleeve	φ4*1000mm	
51	NA00122	PE bag	0.04t*350*230mm	
52	NA00136	PE bag	0.05t*820*540mm	
53	NA00137	clip chain bag	5*7	
54	HE00125	fan RS	DC24V/0.14A 80*80*15 175mm JST2P	

NO.	Part No.	Description	Specification	Remark
55	MD00444	protective cover	80*80mm(K G08A05 4HA)	
56	MG00403	screw	M4*23	
57	MG00172	screw	M4*10	
58	MF00018	washer	u4*u10*1t V1.0	
59	MF00105	washer	u4*u10*1t V1.0	
60	MJ00058	single light board	1*2135*1220 20.45kg	
61	MG00042	screw	M3*10	
62	MG00041	screw	M3*6	
63	MG00061	screw RS	M3*10	
64	MG00437	screw	M3*16	
65	MF00038	washer	u4*u7*1t	
66	MF00048	washer	u4*u8*0.5t	
67	ME00015	color nut	3m/m	
68	ME00016	color nut	4m/m	
69	MF00061	MIC jack	u9.6*u13*0.5t	
70	MF00132	MIC jack	u3*u8*0.8t v1.0	
71	MF00030	washer	u3.5*u8*0.8t V1.0	
72	MJ00067	single light board	0.8*2135*1220mm 18.69kg	
73	MF00014	washer	u3*u6.5*0.5t	
74	ME00060	MIC jack	JY 6351G 02 250	
75	MG00248	copper pillar	M3*15*0.5PHdouble plane	
76	MG00243	copper pillar	M3*5*0.5PH	
77	HJ00006	dessicant	30g	
78	HI00022	power switch RS	4p black frame red key	
79	HD00011	glass tube fuse	5A 250V u5.2*20mm CSA/S/UL/VDE	
80	HD00079	ceramic tube fuse	4A250V u5.2*20mm CSA/S/T/UL/VDE	
81	HC00008	AC socket	3515 A TYPE(RF 2004 C 4.8)	
82	HA00861	power cord Europe 3P	LT 312+LT 501	
83	HA01825	wire RS	90mm red L5R5	
84	HA01828	wire RS	220mm L5R5	
85	HA02276	wire RS	70mm 0.75A*3C(H05VV F)	
86	HA02278	wire RS	70mm 0.75A*3C(H05VV F)	
87	HA00280	wire	180mm black L5R5	
88	HA00330	wire RS	170mm red L5R5	
89	HA00270	wire	150mm grey L5R5	
90	HA03978	P.V.C single wave wired UL1007	200mm blue L5R3	
91	HA03631	wire RS	340mm UL1015 10AWG black	
92	HA03723	wire	165mm UL1015 18AWG	
93	HA02774	wire RS	3P 2P/2P 500mm UL1185 26AWG	
94	NI02620	insulation board	1*86.5*53 L 8 V1.3	
95	NC00010	insulation board	0.65M*60M*1t	
96	HC00876	terminal block RS	7ESDP 02P	
97	HK07839	PC board	P APM80.1000 OUTPUT CN	
98	HC00174	connector(male)	4P 3.96mm 180°	CN6
99	HC00076	connector(male)	2P 2.5mm 180°	CON7,CON8
100	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
101	HA01925	jump	10mm	J1,J2
102	HA02249	wire	u0.6	
103	HC00945	terminal block RS	2ESDCR 02P PH5.08mm	CON1,CON5
104	HC00947	terminal block RS	2ESDCR 05P PH5.08mm	CON2,CON4
105	HB02257	PCB RS	DIGMOD OUTPUT JK VER061107	
106	HK07847	PC board	P DIGIMOD1000(APM120) DIP	
107	SD00066	integrated circuit	L7812CV(TO220)/(ST)	U13/B
108	NI00280	sleeve	u15*25mm	

NO.	Part No.	Description	Specification	Remark
109	NI00278	sleeve	ϕ15*1000mm	
110	MG00161	screw	M3*6	
111	HC00359	connector	2.54 180° 4P(gold plated) 6/11.6mm	CN17,CN18
112	HC00389	connector(male)	16P 2.54mm180°	CN13
113	HC00082	connector(male)	8P 2.5mm 180°	CN16
114	HC00276	connector(male)	3P 2.54mm 180°	CN4,CN10
115	HC00034	short circuit connector	NO.2700 2.54mm/6mm OPEN	JR1,JR2,JR3,JR4
116	CF00022	metal film capacitor MSC	0.022uF/100V 5% CASE01	C14,C20,C99,C100
117	CF00016	metal film capacitor MSC	0.01uF/100V 5% CASE01	C10
118	HA01919	jump	5mm	JP5
119	HA02249	wire	ϕ0.6	
120	CB00038	electrolytic capacitor	47uF/16V ϕ5*7mm	C84,C85
121	CH00027	laminated capacitor	0.1uF/100V X7R PH5mm	
122	MB04575	chassis	DigiMod 3.0t*51*122*216(ME000155) V1.1	MEC1
123	MB04577	chassis	DigiMod	
124	MB04654	chassis	DigiMod 3.0t*51*122*216(ME000155) V1.1	
125	MJ00057	AL plate RS	3.0t*2000*1000mm 16.32kg	
126	ME00220	iron pillar	M4*8*0.7PH V1.0	
127	ME00221	iron pillar	M3*4*0.8PH V1.0	
128	MK00115	spring RS C	1.0T*7.6*13*34.2(ML00004) V 1.2	ML1,ML2,ML3,ML4,ML5,ML6, ML7,ML8
129	MC00801	top cover	DigiMod 1.0t*48*116*136.8(ME000156) V1.1	MEC2
130	MJ01323	hot gradual zinc	1.0t*2135*1220 20.45kg V1.0	
131	ME00222	iron pillar	M3*4*0.5PH	
132	HC00859	terminal block RS	2P 7EHDV 02P male	CN1,CN2
133	HC00858	terminal block RS	2P 2EHDV 02P male	CN3,CN7
134	HC00857	terminal block RS	4P 2EHDV 04P male	CN14
135	HC00856	terminal block RS	5P 2EHDV 05P male	CN11,CN12
136	CB00322	electrolytic capacitor RS	820uF/35V 105 WL ϕ 10*30mm(JAMICON)	C47,C49,C50
137	HC00866	row wire header(MICRO EDGE)	72P 1.27mm 180°(AMP:5822021 4)	CN8
138	NC00980	Silicone insulator RS	1.0t*25mm*30mm	GAPAD1
139	CN00180	common inductance RS	1.90uH~2.30uH/T50 2(TO000061)	L1,L2
140	RA01614	chassis bracket 5W	4.7_ ±5% SQM type	R73,R79
141	HC00879	connector(male) RS	2*5P 3.0mm 180°(C3030WV F 2*5P)	CN15
142	SD00318	integrated circuit RS C	TC4423EPA(PDIP8)/(MICROCHIP)	U7,U8,U9,U10,U15
143	SD00317	integrated circuit	NJM7912FA(TO220F)/(JRC)	U14/B
144	SA00309	high speed diode RS	BYW51FP 200(TO220AB)/(ST)	D11,D12,D13
145	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
146	MG00692	screw RS	M3*12*0.5PH	VT3,VT4,VT7,VT8,VT13,VT14, VT15,VT16,VT20,VT24,VT28
147	ME00226	screw RS	M3*0.5PH	DD2,DD3,DD4,DD5,DD6,DD7, DD8,DD9,DD10,DD11,DD12
148	MG00694	screw RS	M2.9*9.5	VT2,VT6,VT11,VT18,VT22,VT26
149	MG00693	screw RS	M3*6*0.5PH	VT1,VT5,VT9,VT10,VT17,VT21,VT29,VT30
150	SA00316	bridge rectifier RS	8A GBU 8K(PANJIT)	D1
151	NE16112	lable	K SERIES V1.0	
152	NI00020	membrane	0.07*1M	
153	NH00015	bond paper	0.075*1M	
154	NC01179	insulator spacer RS	0.13t*40mm*55mm(HI FLOW 625)	SPAD1,SPAD2,SPAD3
155	NI04389	plastic washer RS	TW 20N	
156	CF00226	metal film capacitor RS MKP	0.33uF/160V±5%(BFC237934334)	C63,C64,C65,C66
157	SB00226	transistor RS CT	IRFP260NPBF(TO247)/(IR)	Q3,Q4,Q5,Q6
158	CG00079	X1/Y2 capacitor RS	0.0047uF/250V(S472M59Z5US63K7)	C8,C9,C7,C6

NO.	Part No.	Description	Specification	Remark
159	CG00078	X2 capacitor RS MKT	1.0uF/275V ±5%(BFC233620105)	C1
160	CF00224	metal film capacitor RS MKP	0.1uF/630V±5%(BFC238320104)	C4,C5
161	CF00222	metal film capacitor RS MKT	1.0uF/250V ±5%(BFC237341105)	C67,C68
162	SB00221	transistor RS CT	BD237(SOT32)/(ST)	Q7
163	SB00222	transistor RS CT	HGTG12N60A4D(TO247)/(FAIRCHILD)	Q1,Q2
164	RA01654	wirewound resistor 5W	0.1_ ±5%/(AC05000001007JAC00)	R69,R70,R75,R76
165	RH00032	thermistor RS NTC	10K±5%(NTCLE100E3103JB0)	R43,R44
166	SB00227	Pohtotriode RS CT	CNY17F 2BNC(DIP6)/(FAIRCHILD)	U16
167	CN00200	common inductance RS CT	2.3mH/4A EV28 4.0 02 2M3/(SCHAFFNER)	T1,T2
168	CB00342	electrolytic capacitor RS ACT	220uF/200V μ 18*31.5mm (NICHICON)	C24,C25,C26,C27,C28,C29
169	CB00343	electrolytic capacitor RS ACT	390uF/100V μ 16*31.5mm/(NICHICON)	C51,C52,C53,C54
170	RA01659	metal oxide film resistor RS 1	240K±5% VR37(VR37000002403JA100)	R1
171	CG00081	Y type capacitor RS ACT	S20 K300(B72220301K101)/ (EPCOS)	RV1
172	HC00941	fuse drawer RS ACT	520101(5.2mm) PCB style LITTLEFUSE	F1
173	CG00082	X2 capacitor RS ACT	0.1uF/275V±20% R46 KI3100 JP M1M(ARC)	C137
174	NE16636	lable RS	POWERMODII350/65 V1.0	
175	NI00017	membrane	0.055*1M	
176	NI00039	adhesive label	0.06*1M	
177	NE16634	lable RS CT	DIGIMOD1000 V1.1	
178	NI00039	adhesive label	0.06*1M	
179	NI00017	membrane	0.055*1M	
180	RH00034	thermistor RS CT	2.5_ B57237S259M/(EPCOS)	R10
181	HK07157	PC board	P DGM1000(PowerSoft) SMD	
182	SE00025	SMD diode	0.45A/85V BAV99	D18,D19,D20,D21,D26
183	RD00255	SMD precise resistor 1/4W	100K_ ±1% 1206	R14,R15,R16,R17,R18,R19,R51,R52,R53,R54,R84,R85,R88,R89
184	RD00245	SMD precise resistor 1/4W	1.00K_ ±1% 1206	R25,R28,R29,R49,R34,R50,R87
185	RD00399	SMD precise resistor 1/4W	10.0K_ ±1% 1206	R11,R47,R48,R57
186	RD00140	SMD fixed resistor 1/4W	4.7K_ ±5% 1206	R12
187	CI00095	SMD ceramic capacitor 1206	0.1uF/50V X7R	C31,C33,C34,C39
188	CI00103	SMD ceramic capacitor 1206	100PF/50V NPO ±5%	C136
189	CI00042	SMD ceramic capacitor 1206	0.001uF/50V NPO	C73,C74,C75,C76,C80,C81,C82,C83,C92,C93,C94,C95
190	CI00135	SMD ceramic capacitor 1206	33PF/50V NPO ±5%	C44
191	CI00046	SMD ceramic capacitor 1206	1uF/16V Y5V 1206(3216)	C30,C37,C38,C41,C42,C45,C55,C56,C57,C58,C78,C79,C90,C91,C96, C97,C98,C129,C130,C131,C132,C133,C134
192	CI00041	SMD ceramic capacitor 1206	470PF/50V NPO	C43
193	HB01989	PCB RS	DGMMAIN19 VER060411	CS1
194	CI00263	SMD ceramic capacitor RS 1206	0.0047uF/200V X7R ±10%	C12,C13,C15,C18,C19,C21
195	RD00615	SMD precise resistor RS 1/8W	1.50_ ± 5% 0805	R22,R23,R45
196	RD00607	SMD precise resistor RS 1/4W	330_ ± 1% 1206	R26,R27,R30,R31,R32,R33,R35,R36,R80,R81,R82,R83
197	RD00605	SMD precise resistor RS 1/4W	4.70_ ± 1% 1206	R58,R59,R60,R61
198	RD00608	SMD precise resistor RS 1/4W	33.0K_ ± 1% 1206	R13
199	RD00606	SMD precise resistor RS 1/4W	15.0_ ± 1% 1206	R20,R21
200	RD00604	SMD precise resistor RS 1/4W	47.0_ ± 1% 1206	R86
201	SG00465	SMD integrated circuit RS	M24C16WMN6TP(SO8)/(ST)	U12

NO.	Part No.	Description	Specification	Remark
202	AE00449	solder material without lead	9308/Sn Ag Cu	
203	SG00466	SMD integrated circuit RS ACT	HCPL 0611#060(SO8)/(AGILENT)	U3,U4,U5,U6
204	SE00089	SMD zener diode RS	1/2W 5.1V(MMSZ5231B)(SOD 123)/(PANJIT)	D14,D15,D16,D17
205	SF00101	voltage stabilized transistor	L4941BDT TR PB FREE(DPAK)/(ST)	U11
206	SG00495	SMD integrated circuit RS CT	IR2156SPBF(SO14)/(IR)	U1
207	SE00095	SMD diode RS CT	ES3D(DO214AB)/(VISHAY)	D8,D9,D10
208	SE00097	SMD diode RS CT	1A/400V US1G(DO214AC)/(VISHAY)	D3,D4,D22,D23,D24,D25,D28
209	CI00279	SMD ceramic capacitor RS 1206	0.0022uF/200Vx7R±10%	
210	SE00098	SMD zener diode RS C	1W 15V DL4744A MELF/(SJ)	D2,D27
211	CO00138	SMD fixed inductance RS CT	4*0.47mH(B82792 C2474 N315/(EPCOS)	T10
212	TC00330	transformer RS	EE42/20(TO000068)	T3
213	NI04468	creel stand RS ACT	FE0252(MILES PLATTS)	
214	TC00386	transformer RS	EE42/20(TO000068)	
215	HK07198	PC board RS	P DGMFIL14(TO000062)	SM1,SM2
216	HC00855	connector RS	2.54 90° 2*2P (gold plated) 6/14.4/19.5	J1,J2
217	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
218	NI00218	cable tie	ALT 102SB	
219	CN00179	common inductance RS	25.344uH±15%/T130 2(TO000062)	
220	HB02094	PCB RS	DGMFIL14 VER060411	
221	NE16887	lable RS	POWERMOD V1.0	
222	NI00015	membrane	0.04*1M	
223	NH00013	bond paper	0.045*1M	
224	HK07158	PC board	P DGM500 1000/CNTRL17 DIP	
225	SC00319	crystal oscillator	12.288MHZ	Y1
226	HK07274	Photodiode	P photosensitive resistance+u3lled	D5,D105
227	RH00020	photosensitive resistance	VT90N1	
228	SA00305	L.E.D RS	u3 circle red high intensity	D5,D105
229	NI02405	sleeve	u5*15mm	GU1,GU2
230	NI00258	sleeve	u5*1000mm	
231	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
232	HK07159	PC board	P DGM500 1000/CNTRL17 SMD	
233	SG00045	SMD integrated circuit	BU4081BF(SOT73)/(PHI)	U6/B
234	SF00030	SMD transistor RS ACT	BC817(SOT23)/(PHI)	Q1,Q2/B
235	RD00298	SMD precise resistor 1/10W	47.0_ ±1% 0603	R17,R19,R22,R34,R41,R87,R117,R119,R134,R141,R187
236	RD00201	SMD precise resistor 1/10W	1.50K_ ±1% 0603	R6,R13,R65,R113,R165
237	RD00292	SMD precise resistor 1/10W	1.00M_ ±1% 0603	R10,R60,R98,R99,R100,R110, R200,R209,R210
238	SG00001	SMD integrated circuit	TL074CDT(SO14)/(ST)	U3/B,U103/B
239	SE00025	SMD diode	0.45A/85V BAV99	D6,D7,D106,D107
240	SE00027	SMD diode	0.45A/85V BAW56	D1,D2,D3,D101,D102
241	SE00026	SMD diode	0.45A/85V BAV70	D110,D111,D4,D11,D9,D10,D109
242	RD00320	SMD precise resistor 1/4W	12.0K_ ±1% 1206	R74/B,R85/B,R174/B,R185/B
243	RD00341	SMD precise resistor 1/10W	4.70K_ ±1% 0603	R28,R45,R90,R128,R145,R1002
244	RD00322	SMD precise resistor 1/10W	2.70K_ ±1% 0603	R7,R8,R16,R75,R79,R80,R83, R107,R108,R116,R175,R179, R180,R183
245	RD00339	SMD precise resistor 1/10W	47.0K_ ±1% 0603	R4,R31,R33,R43,R104,R131, R133,R143
246	RD00342	SMD precise resistor 1/10W	1.50M_ ±1% 0603	R38,R138
247	RD00332	SMD precise resistor 1/10W	680_ ±1% 0603	R68,R168

NO.	Part No.	Description	Specification	Remark
248	RD00214	SMD precise resistor 1/10W	10.0K_ ±1% 0603	R1,R5,R14,R24,R29,R30,R32,R39,R47,R48,R49,R50, R51,R52, R53,R54,R55,R56,R57,R69,R114,R129,R130,R132,R139,R147, R148, R149,R150,R151,R152,R153, R169, R154,R155,R156,R157,R201,R202,R219,R301,R302, R319,R1001,R1003
249	RD00218	SMD precise resistor 1/10W	15.0K_ ±1% 0603	R9,R12,R86,R109,R112,R186
250	RD00224	SMD precise resistor 1/10W	100K_ ±1% 0603	R35,R58,R59,R135,R158,R159,R208,R308
251	RD00506	SMD precise resistor 1/10W	3.30K_ ±1% 0603	R23,R27,R36,R81,R82,R136,R181,R182
252	RD00509	SMD fixed resistor 1/10W	24K_ ±5% 0603	R25
253	RD00399	SMD precise resistor 1/4W	10.0K_ ±1% 1206	R215/B,R216/B,R315/B,R316/B
254	RD00282	SMD precise resistor 1/10W	1.00K_ ±1% 0603	R2,R21,R44,R61,R62,R63,R64,R66,R67,R92,R93,R95,R102,R144, R161,R162,R163,R164,R166, R167
255	RD00390	SMD precise resistor 1/10W	10.0M_ ±1% 0603	R96,R97
256	RD00392	SMD precise resistor 1/10W	2.20K_ ±1% 0603	R15,R26,R46,R78,R115,R146, R178
257	RD00105	SMD fixed resistor 1/10W	22K_ ±5% 0603	R94
258	RD00129	SMD fixed resistor 1/4W	0.0_ ±5% 1206	C34,C134
259	RD00525	SMD precise resistor 1/10W	33.0K_ ±1% 0603	R42,R142
260	RD00301	SMD precise resistor 1/10W	12.1K_ ±1% 0603	R11,R111
261	CI00125	SMD ceramic capacitor 1210	10uF/16V Y5V 1210(3225)	C16,C31,C40,C116,C131
262	CI00105	SMD ceramic capacitor 1206	0.0022uF/50V NPO ±5%	C30,C130
263	CI00185	SMD ceramic capacitor 0603	0.1uF/50V X7R± 10%(C1608X7R1H104KT)/TDK	C6/B,C2,C4,C9,C11/B,C14,C17/B,C19/B,C20/B,C21/B,C24/B,C25/B, C27/B,C39,C49,C102,C104,C106/B,C117/B,C119/B, C120/B,C121/B,C124/B,C125/B,C127/B
264	CI00053	SMD ceramic capacitor 0603	33PF/50V C0G± 5%(C1608C0G1H330JT)/TDK	C10,C12
265	CI00083	SMD ceramic capacitor 0603	3.9PF/50VC0G± 0.25PF(C1608C0G1H3R9CT)TDK	C23,C123
266	CI00084	SMD ceramic capacitor 0603	4.7PF/50VC0G± 0.25PF(C1608C0G1H4R7CT)TDK	C52/B
267	CI00201	SMD ceramic capacitor 0603	0.01uF/50V ± 10%(C1608X7R1H103KT)/TDK	C15,C41,C42,C43
268	CI00224	SMD ceramic capacitor 0603	470PF/50V C0G ± 5%(C1608C0G1H471JT)/TDK	C22,C26,C36,C37,C122,C126, C136,C137
269	CI00234	SMD ceramic capacitor 0603	0.0033uF/50VC0G± 5%(C1608C0G1H332JT)/TDK	C13
270	CI00220	SMD ceramic capacitor 0603	220PF/50V C0G ± 5%(C1608C0G1H221JT)/TDK	C1,C33,C133
271	CI00216	SMD ceramic capacitor 0603	82PF/50V C0G ± 5%(C1608C0G1H820JT)/TDK	C7,C8,C107,C108
272	CI00228	SMD ceramic capacitor 0603	0.001uF/50V C0G± 5%(C1608C0G1H102JT)/TDK	C5,C28,C105,C128
273	CI00222	SMD ceramic capacitor 0603	330PF/50V C0G ± 5%(C1608C0G1H331JT)/TDK	C3,C32,C103,C132
274	SE00077	SMD L.E.D RS	red KPTC 2012EC	D119,D19
275	SE00078	SMD L.E.D RS	green KPTC 2012SGC	D16,D17,D18
276	HB01991	PCB RS	DGMCNTRL17 VER060411	CS1
277	RD00592	SMD precise resistor RS 1/10W	10.0K_ ±0.1% 0603	R72,R73,R88,R89,R172,R173, R188,R189
278	RD00590	SMD precise resistor RS 1/10W	1.50K_ ±0.1% 0603	R76,R77,R176,R177
279	RD00591	SMD precise resistor RS 1/10W	82.0K_ ±0.1% 0603	R70,R71,R170,R171
280	AE00449	solder material without lead	9308/Sn Ag Cu	
281	SE00090	SMD zener diode RS	1/2W 6.8V(MMSZ5235B)(SOD 123)/(PANJIT)	D112,D114,D12,D14

NO.	Part No.	Description	Specification	Remark
282	SG00496	SMD integrated circuit RS	LF412CDR(SO8)/(TI)	U4/B,U104/B
283	CO00137	SMD inductance RS	1.0mH ±5%(NL453232T 102J)/(TDK)	L1,L101
284	SG00502	SMD integrated circuit RS	NE5532DR(SO8)/(TI)	U1/B,U2/B,U101/B,U102/B
285	SG00504	SMD integrated circuit RS C	ATmega8 16AU(TQFP32)/(ATMEL)	U8/B
286	SG00509	SMD integrated circuit RS	HEF4069UBT(SO14)/(PHI)	U5/B,U105/B
287	CI00278	SMD ceramic capacitor RS 1206	0.0018uF/50V NPO ±5%	C29,C129
288	NE16833	lable RS	DIGIMOD1000 V1.0	
289	NI00017	membrane	0.055*1M	
290	NH00035	bond paper	0.06*1M	
291	NE16889	lable RS	DIGIMOD1000 V1.0	
292	NI00017	membrane	0.055*1M	
293	NH00035	bond paper	0.06*1M	
294	NE16886	lable RS	DIGIMOD1000 V1.0	
295	NI00034	membrane	0.045*1M	
296	NH00014	bond paper	0.05*1M white	
297	HK07827	PC board	P APM80 SPEAKER	
298	HB01216	PCB RS	PBM8 SPEAK VER061028	
299	HC00371	MIC jack	SCJ 0658 1 Y	
300	HC00949	speaker socket RS C	LD4015	
301	HA04876	wire RS	4P 160*2/150*2mm UL1015 16AWG	
302	HA02441	jump	7.5mm	J9,J10
303	HA02249	wire	φ0.6	
304	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
305	MJ00942	fixed bracket	CS12/600 V1.3	
306	MJ00061	iron board	1*2135*1220 20.45kg	
307	HK07826	PC board	P APM80 IN OUT DIP	
308	RA00125	fixed resistor 1/2W	470_ M type	R50
309	RA00184	fixed resistor 1/4W	100_ M type	R19,R22,R29,R32,R42,R47
310	RA00103	fixed resistor 1/2W	22_ M type	R48,R49
311	HI00247	slide switch	3 stages 8P SS 23D14 G14(2P3T)	S4
312	HI00246	slide switch	2 stages 6P SS 22H23 G14(2P2T)	S2,S3
313	HC00403	RCA jack	SCP6873NS3232T2 4P	J4
314	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
315	HC00365	connector(male)	14P 2.54mm 180°(C03 14AG1)	J10,J11
316	HC00077	connector(male)	3P 2.5mm 180°	J9
317	HC00076	connector(male)	2P 2.5mm 180°	J1 3,J2 3
318	HC00126	balance MIC jack RS	JY 5042 030G female plug 180°	J1 1,J2 1,J3 1,J4 1,J5 1,J6 1,J7 1,J8 1
319	CB00127	electrolytic capacitor	47uF/63V φ6*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
320	CB00199	electrolytic capacitor	10uF/25V φ4*7mm	C1,C2,C7,C8,C1 3,C1 4, C1 7,C17,C18,C20,C23,C24,C26,C27,C27, C3 3,C3 4,C4 3,C4 4, C5 3,C5 4,C6 3,C6 4,C7 5Z,C7 6,C7 8,C8 5, C8 6,C8 8
321	CB00217	electrolytic capacitor	470uF/50V φ10*20mm	C30
322	HA01918	jump	4mm	
323	CB00203	electrolytic capacitor	47uF/35V φ5*11mm	C11,C12,C15,C16,C22,C24
324	CB00040	electrolytic capacitor	47uF/25V φ5*11mm	C1 10,C2 10,C3 10,C4 10,C5 10,C6 10
325	CB00033	electrolytic capacitor	22uF/25V φ6*7mm	C5
326	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
327	HK07825	PC board	P APM80 IN OUT SMD	
328	RD00018	SMD fixed resistor 1/8W	1.0K_ ±5% 0805	R7 4,R7 5,R8 4,R8 5,R1 14, R2 14,R3 14,R4 12,R5 12,R6 12
329	RD00033	SMD fixed resistor 1/8W	12K_ ±5% 0805	R7 6,R7 7,R8 6,R8 7
330	RD00028	SMD fixed resistor 1/8W	5.6K_ ±5% 0805	R15,R25,R38,R40,R45
331	RD00030	SMD fixed resistor 1/8W	6.8K_ ±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

NO.	Part No.	Description	Specification	Remark
332	RD00032	SMD fixed resistor 1/8W	10K_ ±5% 0805	R4,R5,R6,R7,R8,R9,R11,R1 2,R13,R16,R18,R20,R21,R2R23,R24,R27,R28,R30,R31,R32,R33,R34, R35,R39,R41,R42,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
333	RD00038	SMD fixed resistor 1/8W	22K_ ±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
334	RD00040	SMD fixed resistor 1/8W	27K_ ±5% 0805	R2,R3
335	RD00036	SMD fixed resistor 1/8W	18K_ ±5% 0805	R7 8,R8 8,R7 10,R8 10
336	RD00023	SMD fixed resistor 1/8W	2.2K_ ±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
337	RD00050	SMD fixed resistor 1/8W	150K_ ±5% 0805	R12,R14
338	SG00122	SMD integrated circuit RS ACT	NJM4580M TE3(SOP8)/(JRC)	U1,U2,U3,U4,U5,U6,U7,U8
339	RD00009	SMD fixed resistor 1/8W	220_ ±5% 0805	R1
340	HB01098	PCB	PBM8 IN OUT REV05	
341	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
342	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C3,C4,C9,C10,C13,C14
343	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
344	AE00449	solder material without lead	9308/Sn Ag Cu	
345	HK00758	PC board	P PBM8 CTRL DIP	
346	CB00009	electrolytic capacitor	1uF/50V 4*7mm	C1
347	CB00199	electrolytic capacitor	10uF/25V 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
348	CB00039	electrolytic capacitor	47uF/25V 4*7mm	C13,C15,C19
349	CB00139	electrolytic capacitor	4.7uF/63V NP 4*6.3*11mm	C39
350	CF00032	metal film capacitor MSC	0.1uF/100V 5% CASE01	C53,C40
351	CB00073	electrolytic capacitor	1000uF/35V 4*13*20mm	C41,C42
352	CB00186	electrolytic capacitor	33uF/100V 4*8*11.5mm	C44,C43
353	CB00058	electrolytic capacitor	220uF/35V 4*10*12mm	C47
354	CB00187	electrolytic capacitor	100uF/100V 4*10*20mm	C48,C49
355	CB00137	electrolytic capacitor	2.2uF/100V 4*5*11mm	C51
356	CB00127	electrolytic capacitor	47uF/63V 4*6*11mm	C52
357	SA00053	L.E.D	4 round(red)long foot 26mm	D1,D6,D11,D16
358	SA00093	rectifier diode	1N4148 0.5A	D2,D7,D12,D22
359	SA00052	L.E.D	4 round(green)long foot 26	D3,D4,D8,D9,D13,D14,D21
360	SA00054	L.E.D	3m/m round(yellow)long foot 26	D5,D10,D15
361	NI01786	LED spacer support	LEDS 12 12mm	
362	SA00167	bridge rectifier	2A W2 04	D18,D17
363	SA00098	rectifier diode	1A/400V 1N4004	D19,D20
364	HC00644	connector(male)	3P 3.96mm 90°	J2
365	HC00473	connector RS ACT	2.45mm 180° 2*8P B25 2*8BG1(B)H=5mm	J1
366	HA02076	wire RS	14P 14P 30mm UL2651 28AWG PH1.27	J4,J3
367	RC00365	slide potentiometer	W100K_ 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
368	RA00231	fixed resistor 1/4W	4.7K_ M type	R1
369	RC00358	potentiometer	B50K_ 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
370	RC00360	potentiometer	B50K_ 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
371	RA00119	fixed resistor 1/2W	220_ M type	R35,R42
372	RA00324	fixed resistor 1/8W	22_ M type	R92,R93
373	RA00955	metal oxide film resistor 5W	82_ P type	R108

NO.	Part No.	Description	Specification	Remark
374	RA00139	fixed resistor 1/2W	3.9K_ M type	R111
375	HI00317	rotary switch	RE2001 40E2 155F 4B	SW1,SW2
376	HI00238	push button switch RS	2 6P PS 92 26A(NON LOCK)	S1
377	HI00236	push button switch RS	2 6P PS 92 26A(SELF LOCK)	S2,S3,S1 1,S2 1,S3 1,S4 1, S5 1,S6 1,S7 1,S8 1
378	SD00032	integrated circuit	LM317T(TO220)/(ST)	U8,U12,U19
379	SD00033	integrated circuit	LM337SP(1.5A)(TO220)/(ST)	U18
380	NI00863	plastic washer	TO220B	
381	ME00015	color nut	3m/m	
382	MF00037	washer	φ3.2*φ5.5*1t	
383	MG00166	screw	M3*10	
384	MG00243	copper pillar	M3*5*0.5PH	
385	MG00326	screw	3*4	
386	MI02137	heat sink RS ACT	PBM 8 V1.2	
387	MJ00055	AL plate	2*2000*1000 10.88kg	
388	HK00756	PC board	P PBM8 CTRL SMD	
389	HB01097	PCB	PBM8 CTRL VER051124.	
390	CI00146	SMD ceramic capacitor 0805	0.22uF/50V X7R ±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
391	CI00098	SMD ceramic capacitor 0805	0.033uF/50V X7R ±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
392	CI00112	SMD ceramic capacitor 0805	0.01uF/50V X7R ±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
393	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
394	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C2,C3,C5,C6,C7,C9,C11,C12, C14,C16,C18,C20,C22,C24,C26,
395	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C1 1,C2 1,C3 1,C4 1,C5 1,C6 1
396	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
397	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
398	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
399	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
400	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
401	CI00018	SMD ceramic capacitor 0805	220PF/50V NPO ±5%	C28,C32
402	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
404	RD00028	SMD fixed resistor 1/8W	5.6K_ ±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
405	RD00036	SMD fixed resistor 1/8W	18K_ ±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,FR18 12
406	RD00019	SMD fixed resistor 1/8W	1.2K_ ±5% 0805	RF2 2,RF11 2,RF11 9
407	RD00046	SMD fixed resistor 1/8W	56K_ ±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
408	RD00025	SMD fixed resistor 1/8W	3.3K_ ±5% 0805	RF3 2,RF8 2,RF12 2,RF12 9,RF17 2,RF17 9

NO.	Part No.	Description	Specification	Remark
409	RD00040	SMD fixed resistor 1/8W	27K_ ±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
410	RD00021	SMD fixed resistor 1/8W	1.8K_ ±5% 0805	RF4 2,RF13 2,RF13 9
411	RD00044	SMD fixed resistor 1/8W	47K_ ±5% 0805	RF5 1,RF5 3,RF5 4,RF14 1,RF14 3,RF14 4,RF14 8,RF14 10,RF14 11
412	RD00454	SMD fixed resistor 1/8W	2.7K_ ±5% 0805	R29,R40,R46,RF5 2,R103,R106,RF14 2,RF14 9
413	RD00018	SMD fixed resistor 1/8W	1.0K_ ±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
414	RD00049	SMD fixed resistor 1/8W	100K_ ±5% 0805	RF7 1,RF7 3,RF7 4,R74,R79,R86,RF16 1, RF16 3,RF16 4, RF16 8, RF16 10,RF16 11
415	RD00023	SMD fixed resistor 1/8W	2.2K_ ±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
416	RD00016	SMD fixed resistor 1/8W	680_ ±5% 0805	R2,R3,R4,R5,R6,R7,R8,R9,R37,R44,R83,R90,R94
417	RD00015	SMD fixed resistor 1/8W	560_ ±5% 0805	R1 8,R2 8,R3 8,R4 8,R5 8,R6 8
418	RD00479	SMD fixed resistor 1/8W	180_ ±5% 0805	R1 9,R2 9,R3 9,R4 9,R5 9,R6 9,R84,R91,R95
419	RD00032	SMD fixed resistor 1/8W	10K_ ±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
420	RD00033	SMD fixed resistor 1/8W	12K_ ±5% 0805	R15,R17,R22
421	RD00009	SMD fixed resistor 1/8W	220_ ±5% 0805	R23,R48,R101,R104,R107,R110
422	RD00480	SMD fixed resistor 1/8W	68K_ ±5% 0805	R25,R7 10,R7 33,R8 10,R8 33
423	RD00481	SMD fixed resistor 1/8W	8.2K_ ±5% 0805	R28,R39,R45,R7 9,R8 9,R100,R7 32,R8 32
424	RD00042	SMD fixed resistor 1/8W	33K_ ±5% 0805	R32,R36,R43
425	RD00043	SMD fixed resistor 1/8W	39K_ ±5% 0805	R52,R56,R60,R64,R68,R72
426	RD00056	SMD fixed resistor 1/8W	1.0M_ ±5% 0805	R75,R80,R87
427	RD00030	SMD fixed resistor 1/8W	6.8K_ ±5% 0805	R1 10,R2 10,R3 10,R4 10,R5 10,R6 10,R51,R55,R59,R63,R67,R71
428	RD00020	SMD fixed resistor 1/8W	1.5K_ ±5% 0805	R1 12,R2 12,R3 12,R4 12,R5 12,R6 12,R7 35,R8 35,R7 12, R8 12
429	RD00050	SMD fixed resistor 1/8W	150K_ ±5% 0805	R1 17,R2 17,R3 17,R4 17,R5 17,R6 17,R7 17,R7 40,R8 17,R8 40
430	RD00027	SMD fixed resistor 1/8W	4.7K_ ±5% 0805	R1 24,R2 24,R3 24,R4 24,R5 24,R6 24,R7 24,R7 47,R8 47,R8 24
431	RD00051	SMD fixed resistor 1/8W	180K_ ±5% 0805	R102
432	SG00122	SMD integrated circuit RS ACT	NJM4580M TE3(SOP8)/(JRC)	UF1,U1,UF2,U2,UF3,U3,UF4,U4,UF5,U5,UF6,U6,UF7,U7,UF8,UF9,U9, UF10,U10,UF11,U11,UF12,U12,UF13,U13,UF14,U14,U15,U16,U1 7,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
433	RD00037	SMD fixed resistor 1/8W	20K_ ±5% 0805	R41,R47,R30
434	RD00017	SMD fixed resistor 1/8W	820_ ±5% 0805	R109
435	RD00052	SMD fixed resistor 1/8W	220K_ ±5% 0805	R112
436	SE00011	SMD rectifier diode	RLS4148 0.5A (LL 34)	D23,D24,D25,D27
437	SF00051	transistor	SST176(S6)(SOT23)/(VISHAY)	TR1,TR2
438	AE00449	solder material without lead	9308/Sn Ag Cu	
439	HK00669	PC board RS	P DIGIT EFFECTD REV04 DIP(RX700)	P1
440	HC00618	connector RS	2.54 90° 12P 4.0/13.31mm	P1
441	HK00668	PC board	P DIGIT EFFECTD REV04 SMD	
442	HB01092	PCB	DIGIT EFFECT REV04	
443	CI00026	SMD ceramic capacitor 0805	0.0033uF/50V X7R ±10%	C1,C6
444	CJ00005	SMD AL electrolytic capacitor	10uF/16V CASE4u	C2,C5,C9
445	CI00013	SMD ceramic capacitor 0805	56PF/50V NPO	C3,C10
446	CI00100	SMD ceramic capacitor 0805	0.1uF/50V X7R ±10%	C4,C7,C8,C12,C17,C18,C19
447	CI00146	SMD ceramic capacitor 0805	0.22uF/50V X7R ±10%	C11
448	CI00007	SMD ceramic capacitor 0805	22PF/50V NPO	C15,C13
449	CI00145	SMD ceramic capacitor 0805	0.0015uF/50V X7R ±10%	C14
450	CJ00002	SMD AL electrolytic capacitor	1uF/50V CASE4u	C16

NO.	Part No.	Description	Specification	Remark
451	SE00016	SMD zener diode	1/2W 5.1V(RLZ5.1B) LL 34	D1
452	SE00011	SMD rectifier diode	RLS4148 0.5A (LL 34)	D2,D3,D4,D5,D6,D7
453	SF00051	transistor	SST176(S6)(SOT23)/(VISHAY)	Q1,Q2
454	RD00003	SMD fixed resistor 1/8W	10_ ±5% 0805	R1,R9,R10,R11
455	RD00032	SMD fixed resistor 1/8W	10K_ ±5% 0805	R2,R3,R12,R13,R19,R20,R22,R25, R29
456	RD00042	SMD fixed resistor 1/8W	33K_ ±5% 0805	R4,R14
457	RD00018	SMD fixed resistor 1/8W	1.0K_ ±5% 0805	R5
458	RD00030	SMD fixed resistor 1/8W	6.8K_ ±5% 0805	R6,R16,R27
459	RD00034	SMD fixed resistor 1/8W	15K_ ±5% 0805	R7,R17
460	RD00056	SMD fixed resistor 1/8W	1.0M_ ±5% 0805	R15,R26,R34
461	RD00023	SMD fixed resistor 1/8W	2.2K_ ±5% 0805	R21,R31,R32
462	RD00049	SMD fixed resistor 1/8W	100K_ ±5% 0805	R23
463	RD00267	SMD fixed resistor 1/8W	820K_ ±5% 0805	R24
464	RD00057	SMD fixed resistor 1/8W	2.2M_ ±5% 0805	R28
465	RD00009	SMD fixed resistor 1/8W	220_ ±5% 0805	R30
466	RD00038	SMD fixed resistor 1/8W	22K_ ±5% 0805	R33
467	SG00200	SMD integrated circuit	NJM4580V TE1(SSOP8)/(JRC)	U1,U2
468	SG00306	SMD integrated circuit	LM393DR(TI)/(MEXICO)	U3
469	SG00068	SMD integrated circuit	74HC14DT(SO14)/(PHI)	U5
470	SG00469	SMD integrated circuit RS	SN74HC109DR(SO16)/(TI)	U6
471	AE00449	solder material without lead	9308/Sn Ag Cu	
472	SG00243	SMD integrated circuit	NE555DR(SO8)/(TI)	U4
473	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
474	RA00157	fixed resistor 1/4W	0.0_	R31
475	CB00050	electrolytic capacitor	100uF/50V u8*11mm	C71
476	CB00069	electrolytic capacitor	1000uF/6.3V u8*11mm	
477	CB00064	electrolytic capacitor	470uF/16V u10*12mm	C59
478	NC00005	mica	SB 9500DSP 18*13*0.1t V1.0	
479	AC00179	tin without lead RS	M705E Sn 3Ag 0.5Cu	
480	RA00957	fixed resistor 1/8W	100_	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
481	HK01409	PC board RS	P 313123 DIP(AMX 140FX)	
482	SC00004	crystal oscillator	16.00MHZ	XT1
483	HC00484	connector	2.54 180° 2*8P(gold plated) 13.5/19mm	CN2
484	SG00193	SMD integrated circuit	AT27LV010A 90JC/L 8	IC4
485	SG00168	SMD integrated circuit RS	HT27LC010 90J(PLCC32)/(HOLTEK)	
486	HK03894	PC board RS ACT	P 313123 SMD(L 8)	
487	HB00895	PCB	313123/2(1*6)	
488	CI00075	SMD ceramic capacitor 0603	0.1uF/50V Y5V +80, 20%	C17,C15,C18,C6,C10,C22,C20,C13,C14,C1,C3,C4,C11
489	RD00061	SMD fixed resistor 1/10W	10_ ±5% 0603	R22
490	RD00068	SMD fixed resistor 1/10W	100_ ±5% 0603	R12,R14,R7,R8,R34,R17,R13,R33
491	RD00073	SMD fixed resistor 1/10W	220_ ±5% 0603	R3
492	RD00085	SMD fixed resistor 1/10W	1.5K_ ±5% 0603	R16,R15,R21,R20,R4,R19,R10,R18,R9,R5
493	RD00088	SMD fixed resistor 1/10W	2.2K_ ±5% 0603	R28,R27,R23,R24,R29,R30,R25,R26
494	RD00101	SMD fixed resistor 1/10W	10K_ ±5% 0603	R32,R31,R1
495	RD00125	SMD fixed resistor 1/10W	1.0M_ ±5% 0603	R2
496	RE00006	SMD resistor networks 4/16W	100_ *4 ±5% 8P 0603	AR1,AR2
497	SE00011	SMD rectifier diode	RLS4148 0.5A (LL 34)	D1
498	SG00068	SMD integrated circuit	74HC14DT(SO14)/(PHI)	IC1
499	SG00410	SMD integrated circuit	IC41LV16256 35KG(SOJ40)/(ICSI)	IC6
500	SG00166	SMD integrated circuit	TY 2 ALTO(GMCODE:105022)	IC3

NO.	Part No.	Description	Specification	Remark
501	SG00147	SMD integrated circuit	CHEF DSP(GMCODE:105022)	
502	SG00037	SMD integrated circuit	LD1117DT33C(TO252)/(ST)	IC2
503	HC00611	IC socket (SMD)	PLCC32 (AMP S/N:822516-7)	IC4
504	SG00016	SMD integrated circuit	UDA1345TS(SSOP28)/(PHI)	IC5
505	AE00449	solder material without lead	9308/Sn Ag Cu	
506	CI00264	SMD ceramic capacitor-RS 0603	15PF/50V NPO ±5	C8,C9
507	NE11475	label	L-8	
508	NH00221	paper	0.055*1M	
509	NI00016	membrane	0.05*1M	
510	AC00179	tin without lead-RS	M705E Sn 3Ag-0.5Cu	
511	CB00166	electrolytic capacitor	100uF/16V φ 6*5mm	C19,C12,C5,C2,C24,C16,C21,C25, C26,C28,C7