

Service Manual

Model: AMX-180/AMX-180FX



www.altoproaudio.com

Version: .2

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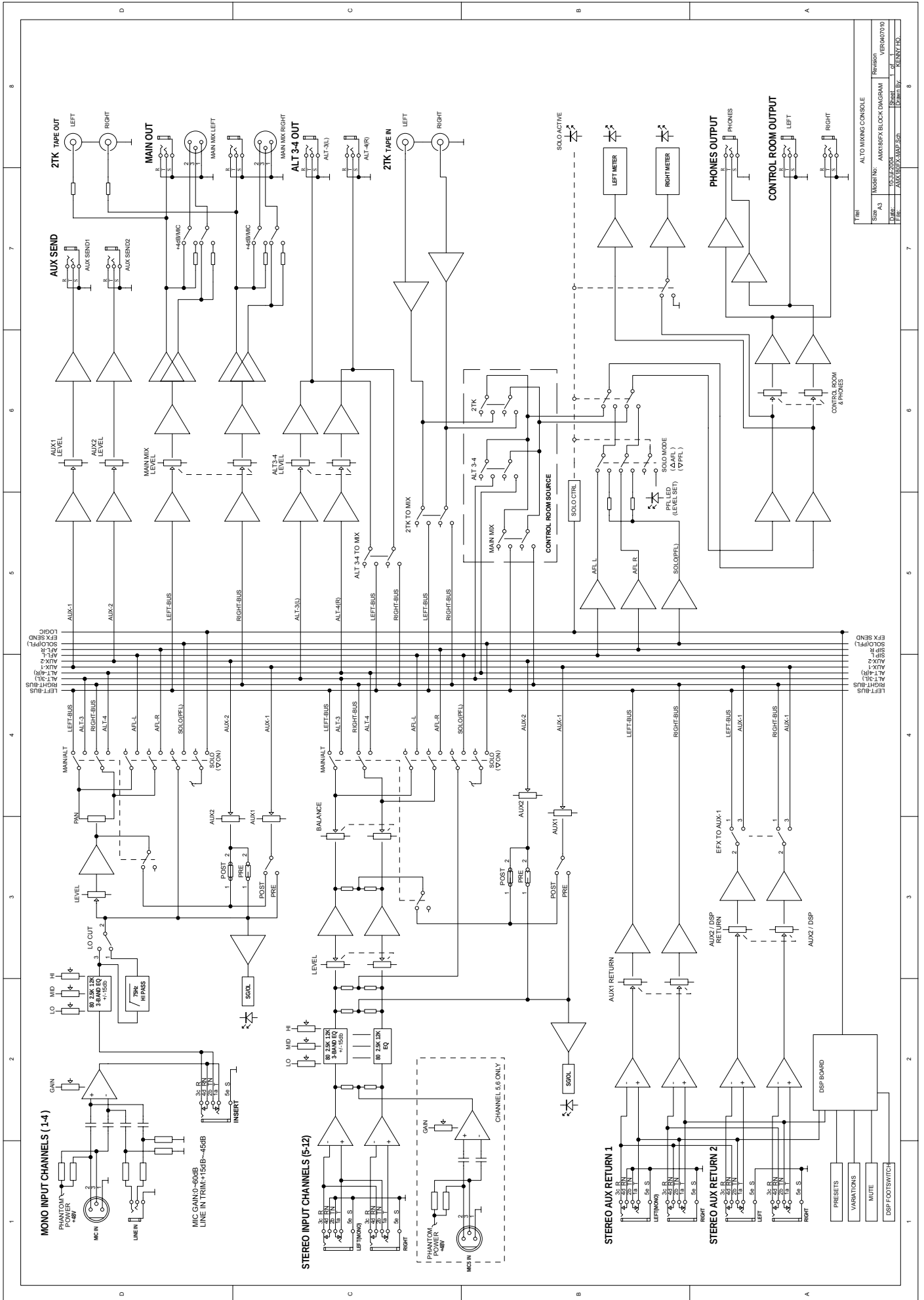
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1.Specification

Mono input channels	Microphone input	Electronically balanced ,discrete input configuration
	Frequency response	10Hz to 55KHz,±3dB
	Distortion (THD&N)	0.005% at +4dBu, 1KHz
	Gain range	0dB to 44dB(MIC)
	SNR (Signal Noise Rated)	115dB
	Line input	Electronically balanced
	Frequency response	10Hz to 55KHz,±3dB
	Distortion (THD&N)	0.005% at +4dBu, 1KHz
	Sensitivity range	+15dBu to -30dBu
Stereo input channels	Line input	unbalanced
	Frequency response	10Hz to 55KHz,±3dB
	Distortion (THD&N)	0.005% at +4dBu, 1KHz
Impedance	Microphone input	1.4K ohm
	Channel insert return	2.5K ohm
	All other inputs	10Kohm or greater
	Tape out	1K ohm
	All other output	120 ohm
Equalization	Hi shelving	
	Mid bell	12dB @2.5KHz
	Low shelving	
DSP Section(For AMX-140FX Model)	A/D and D/A converters	24bit
	DSP resolution	24bit
	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
PEAK LED		
MUTE SWITCH with LED indicator		
Main Mix Section	Noise (Bus noise)	Fader 0 dB, channels muted:-100.0dBr (ref.:+4dBu)
		Fader 0 dB,all input channels assigned and set to UNITY gain:-90dBr(ref.:+4dBu)
	Max output	+22dBu balanced XLR,
		+22dBu unbalanced,1/4"jacks
	AUX Return gain range	OFF to +15dB
AUX Sends max out	+22dBu	
Power supply (AC/AC Adaptor)	Main voltage	USA/ Canada 100-120V~,60Hz
		Europe 210-230V~,50Hz/60Hz
		U.K/Australia 240V~,50Hz
	Power Consumption	25watts
Physical	Dimension (W*D*H)	409mm X 330mm X 43mm (16.10" X12.99" X1.69")
		Net weight

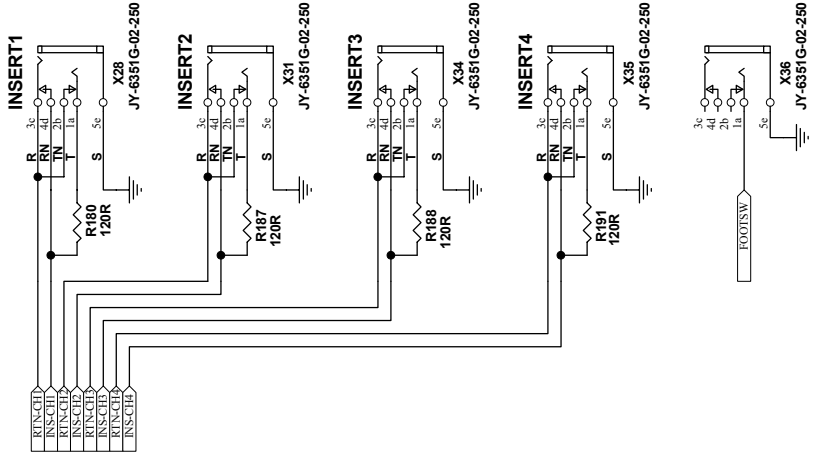
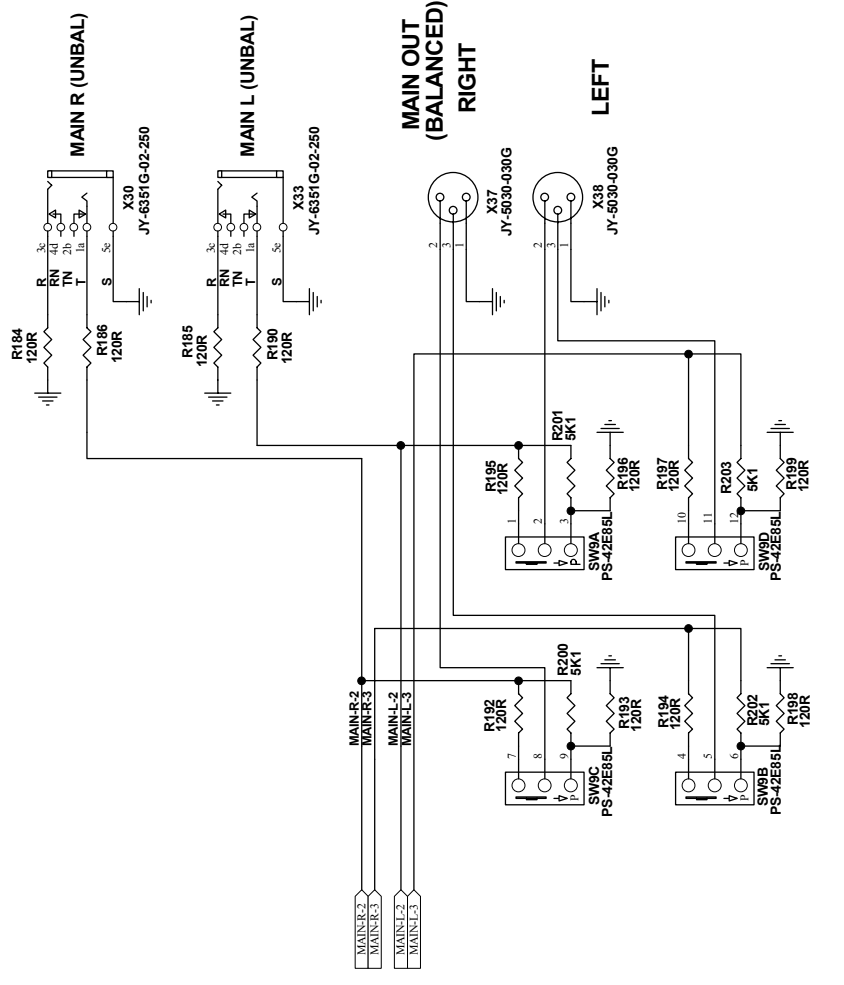
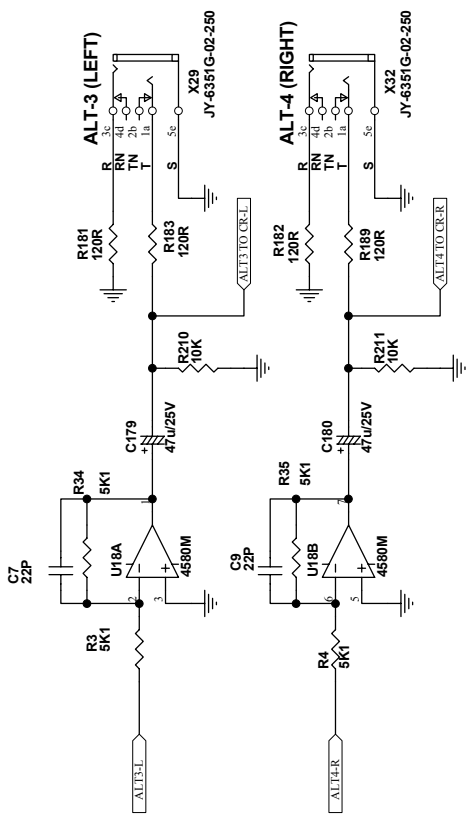
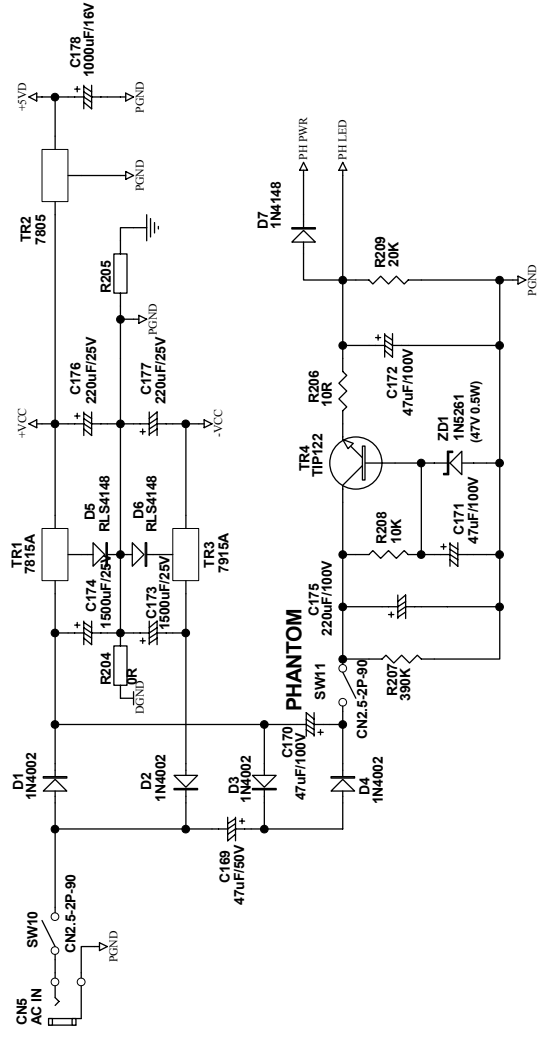
2.Block Diagram



3.Schematic Diagram

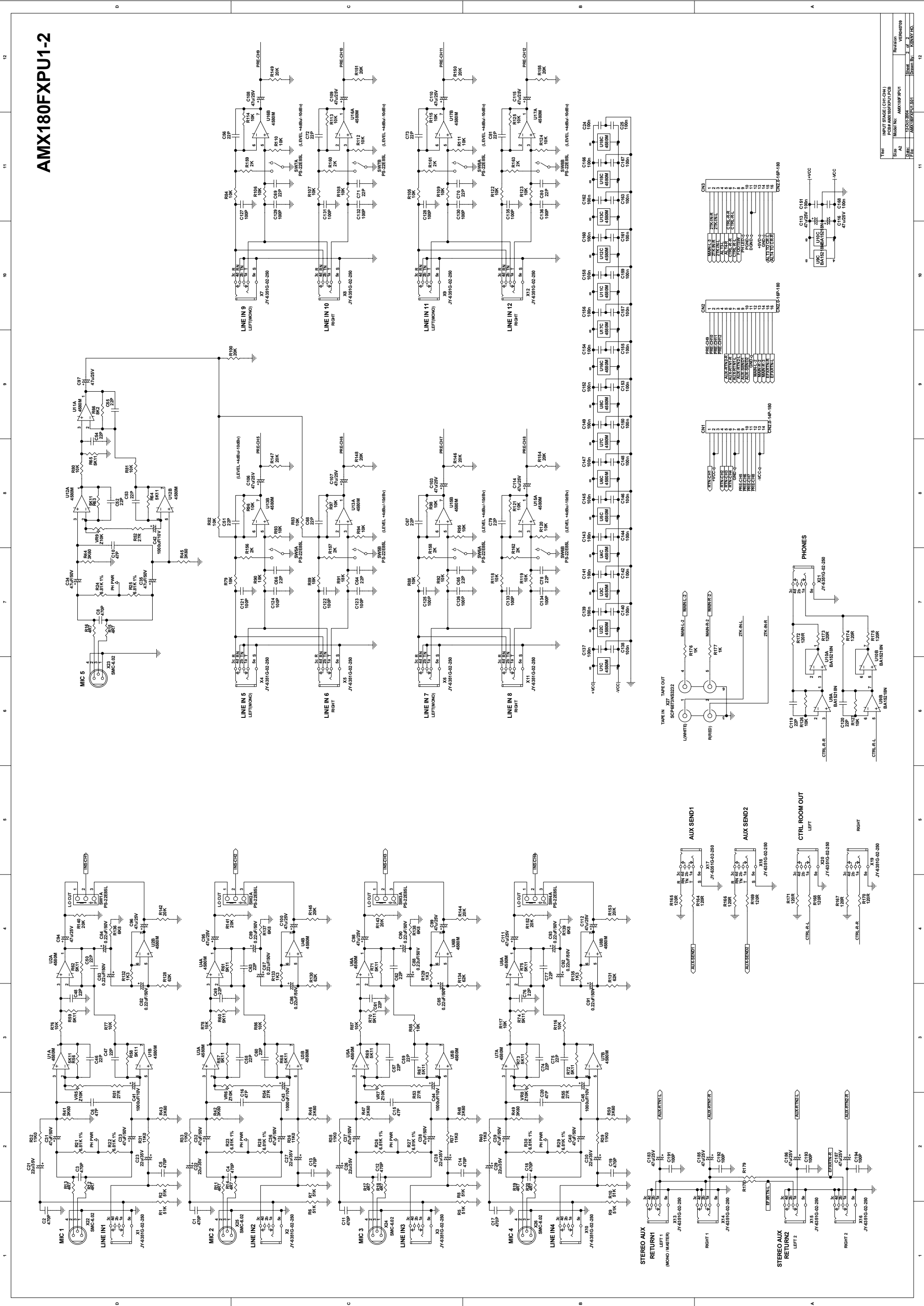
AMX180FXPU1-1

PHANTOM PWR



Title		OUTPUT STAGE (INSERT & MAIN OUTPUT)	
PCB#		AMX180FXPU1.PCB	
Size	A3	Model No.	AMX180FXPU1
Revision	VER040709	Sheet	1 of 2
Date:	12-05-2004	Drawn By:	KENNY HO.
File:	AMX180FXPU1.Sch		

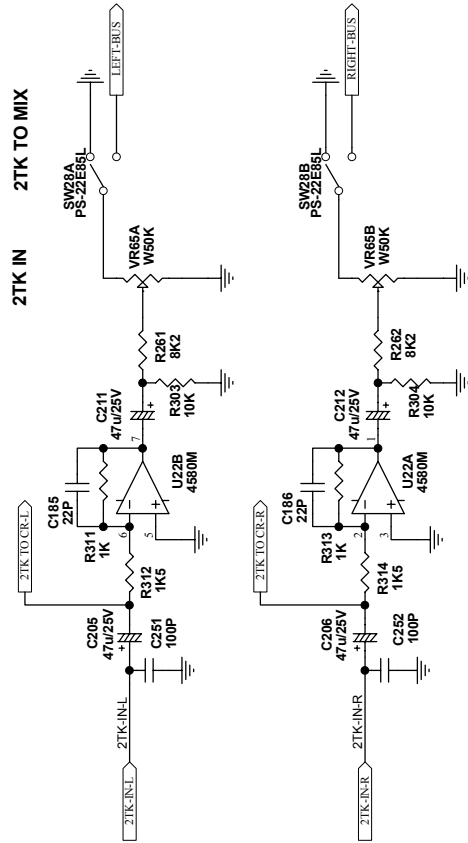
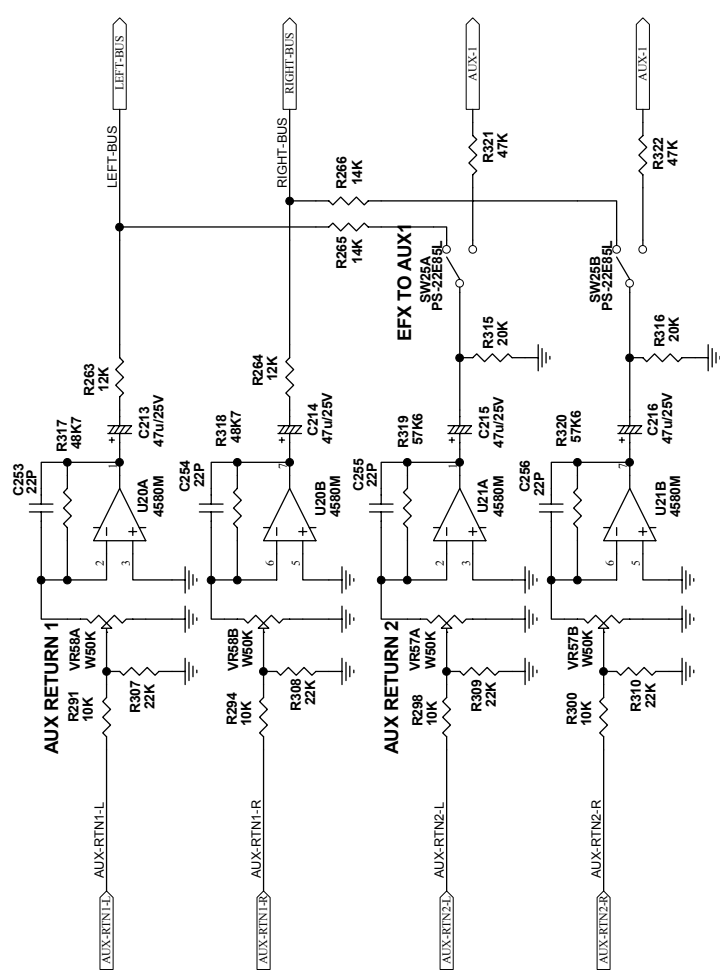
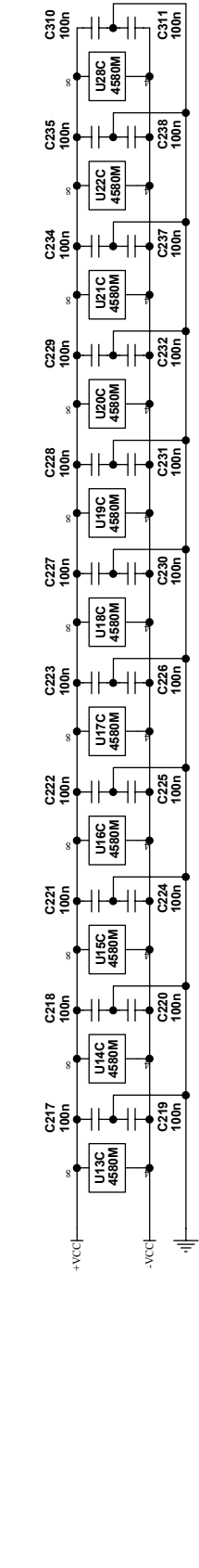
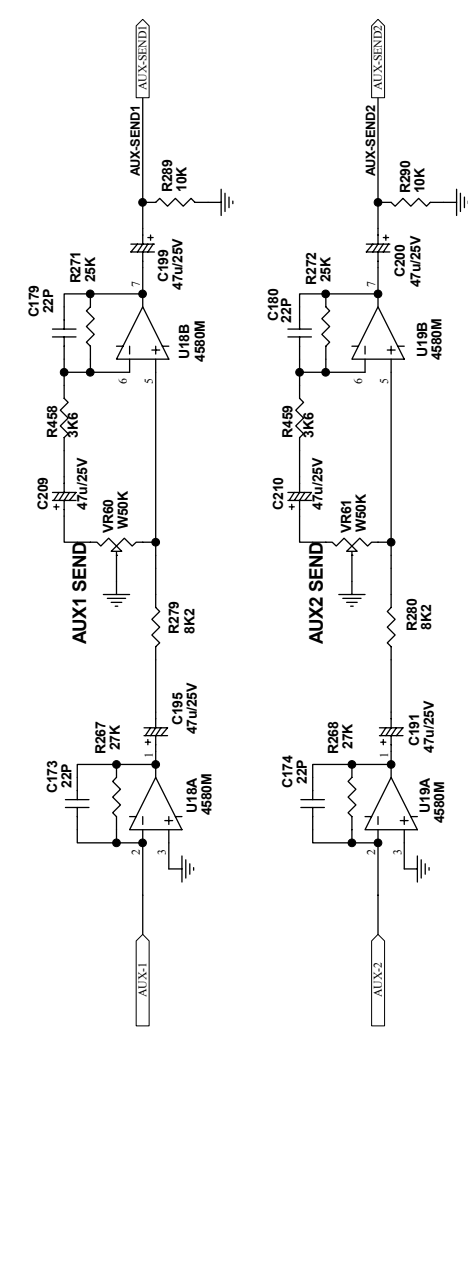
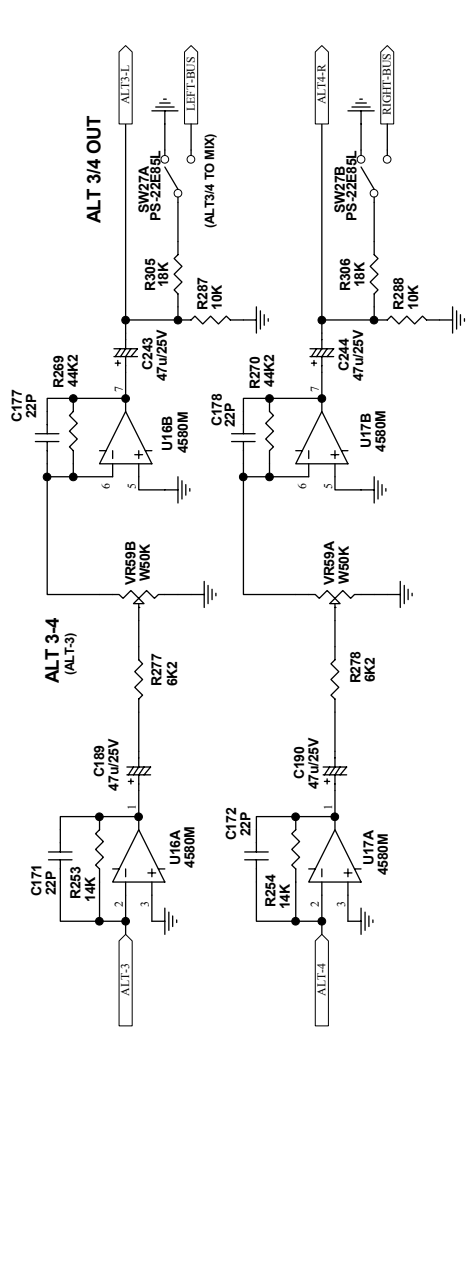
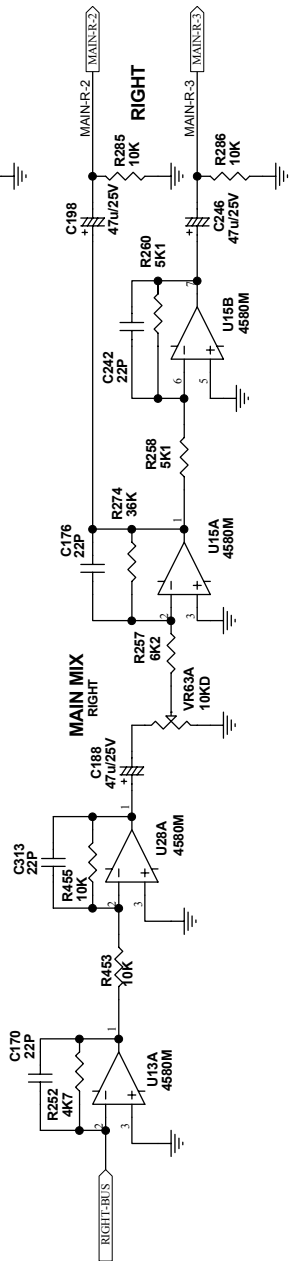
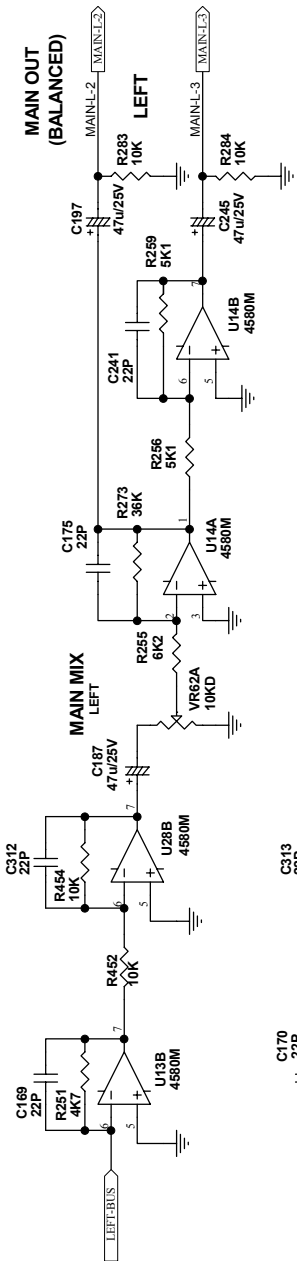
AMX180FXPU1-2



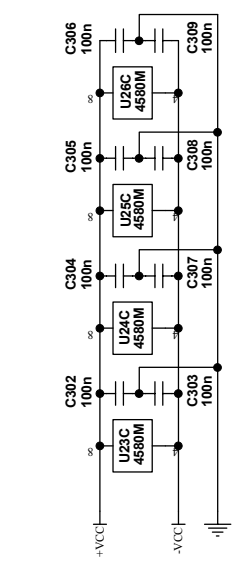
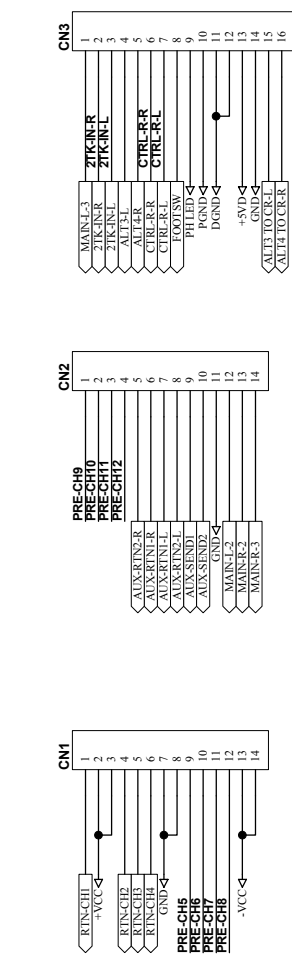
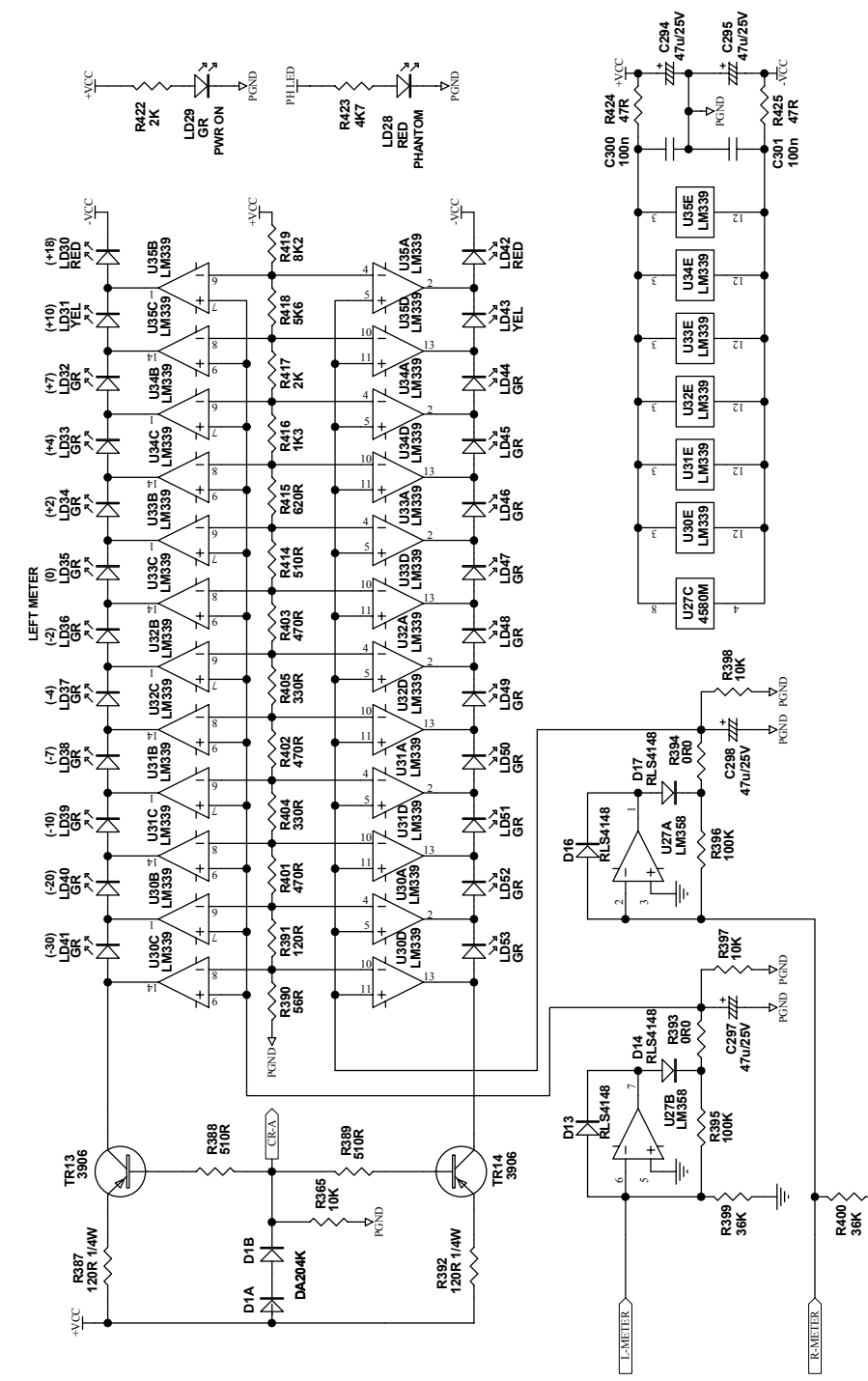
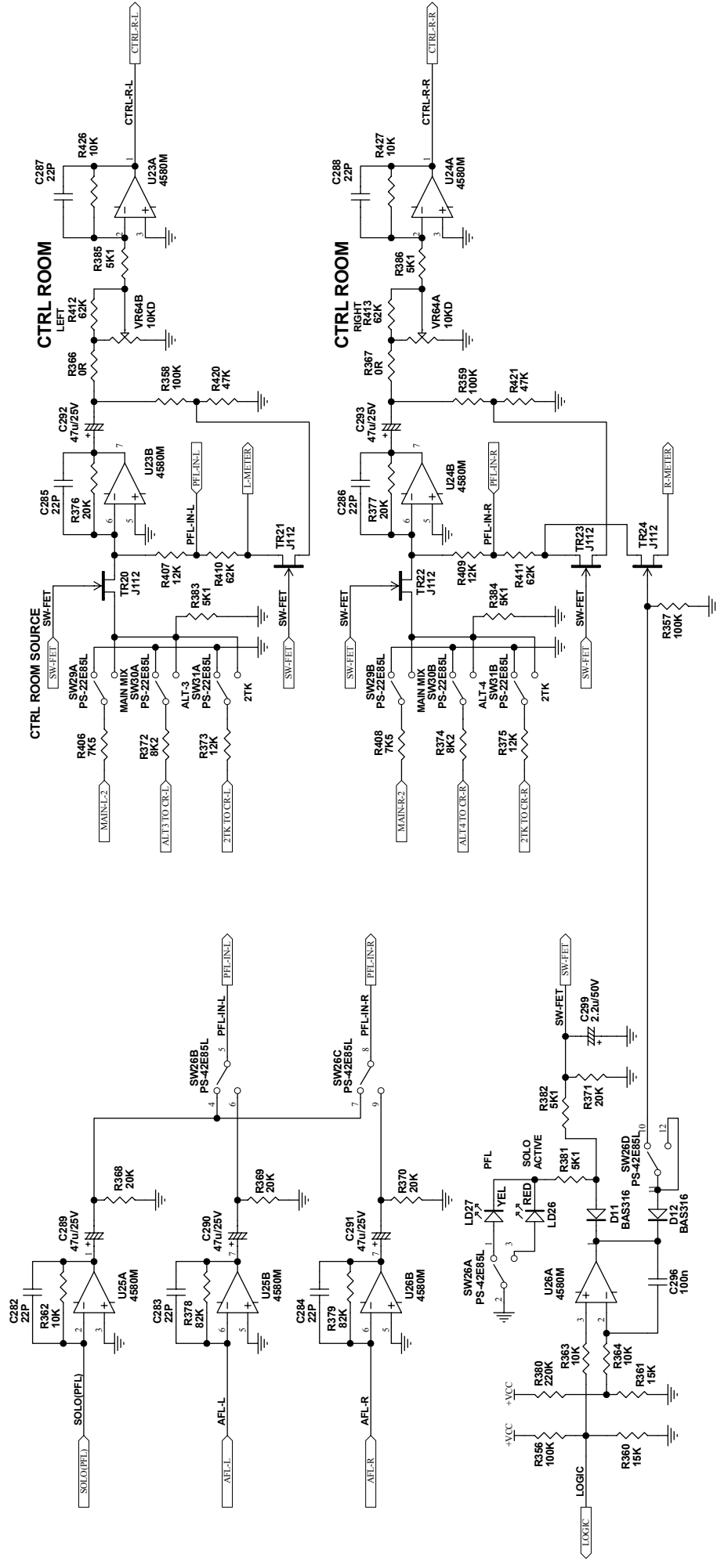
Rev	Input Stage (CH1-CH4)	Model No.	Rev
1	PCB AMX180FXPU1 PCB	AMX180FXPU1	1
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3			3
4			4
5			5
6			6
7			7
8			8
9			9
10			10
11			11
12			12



AMX180FXMN1-2

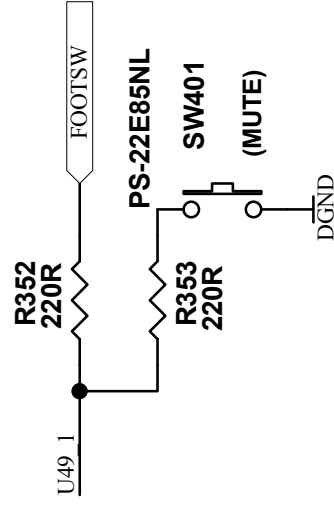
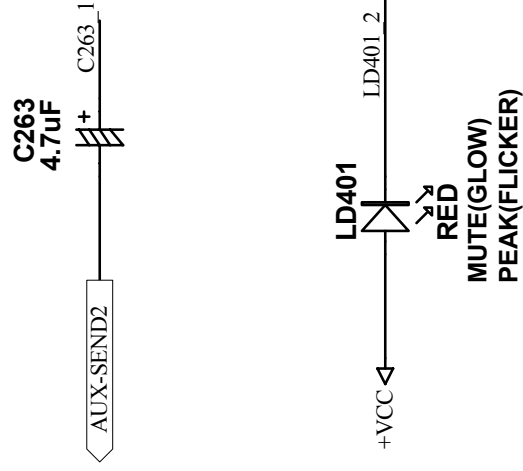
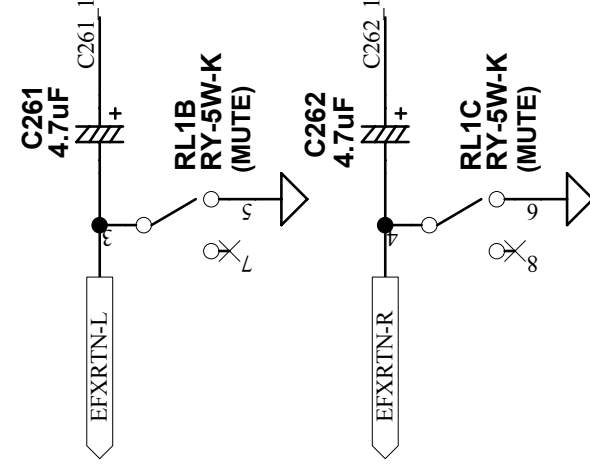
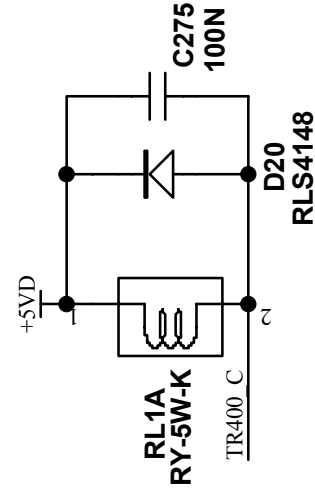
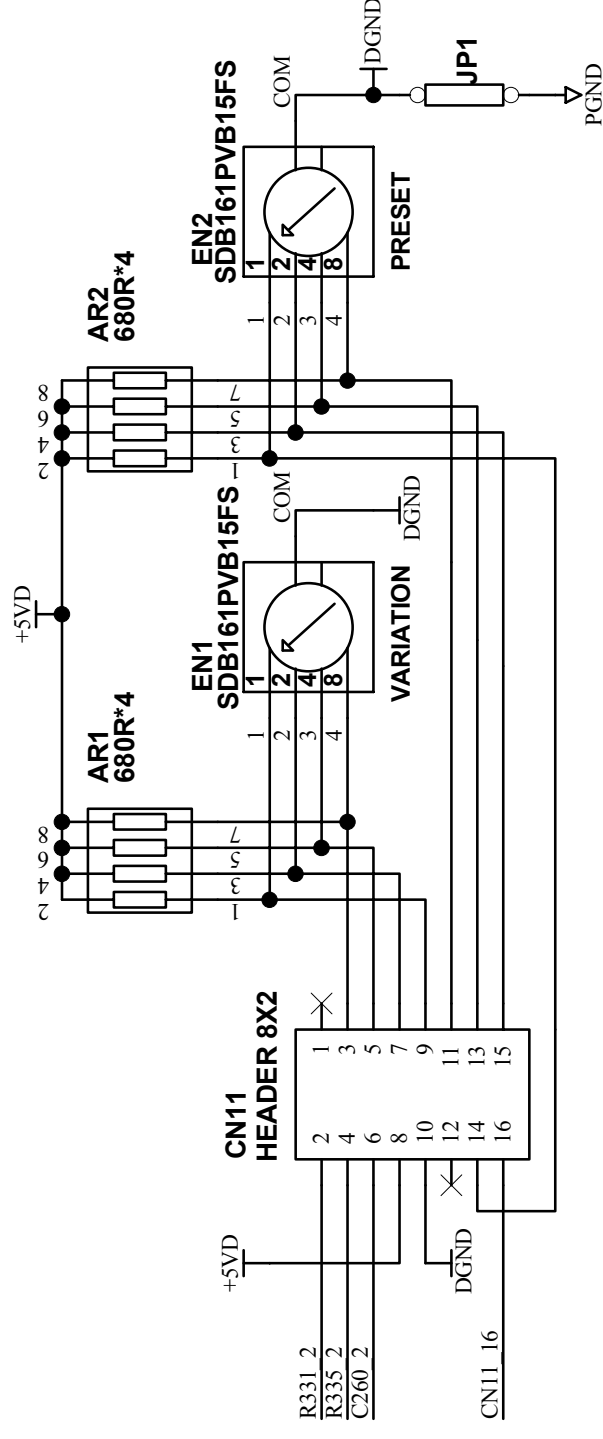


AMX180FXMN1-3



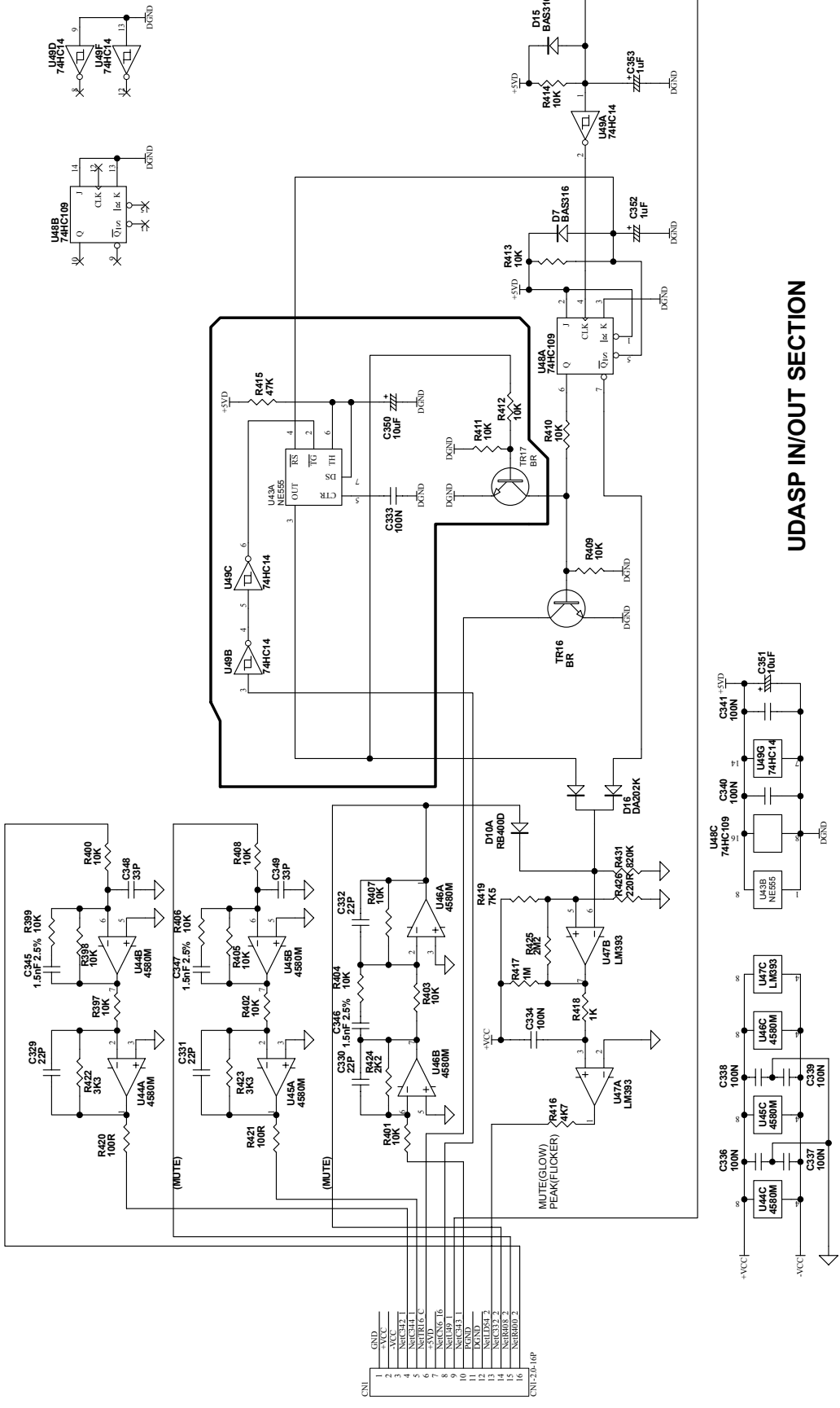
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Revision	VER040709
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Drawn By:	3 of 4
File:	AMX180FXMN1.S102
	KENNY HO.

AMX180FXMN1-4



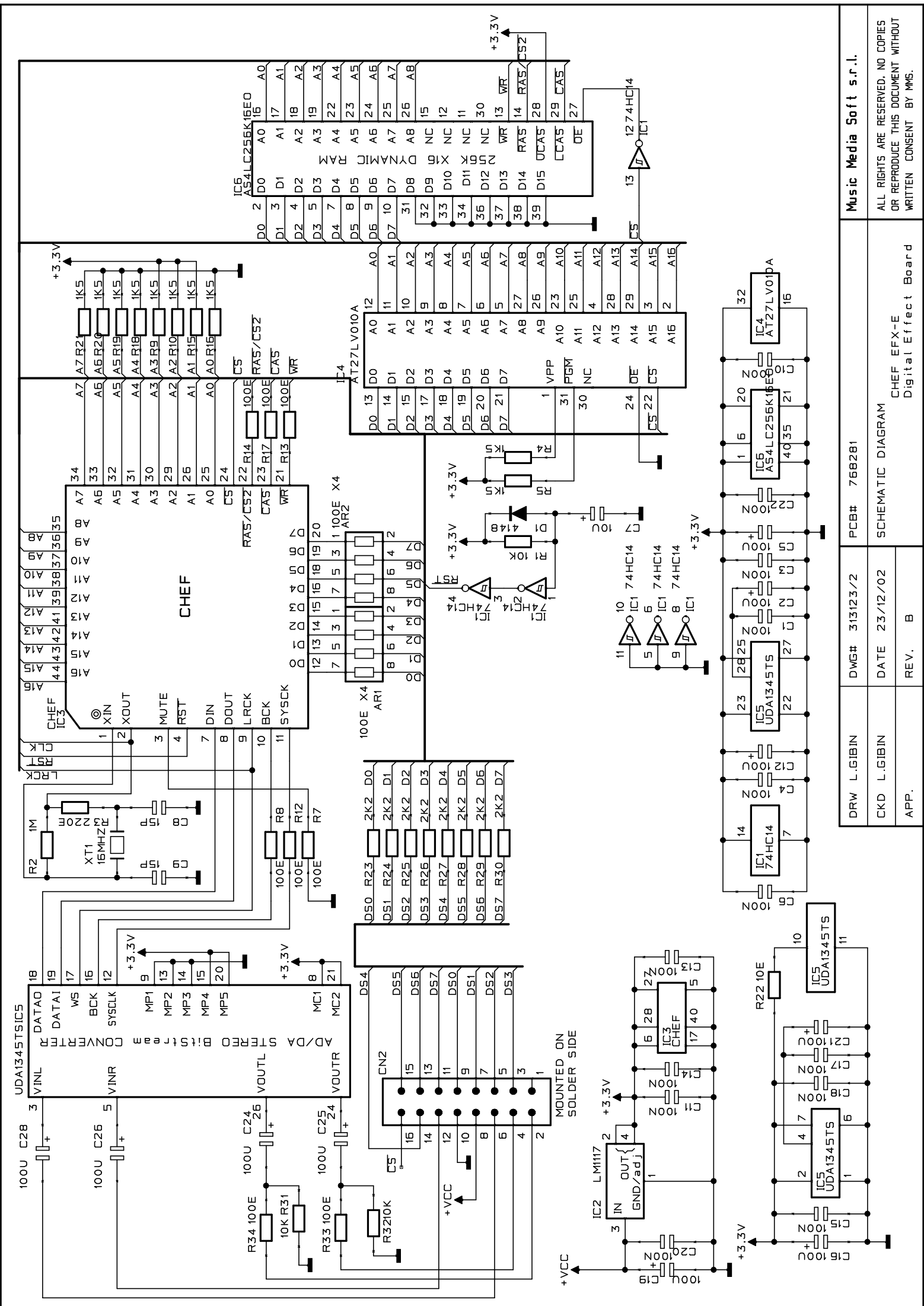
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Size	Model No:	Revision	VER040709
A2(C)	AMX180FXMN1		
Date:	12-Oct-2004	Sheet	4 of 4
File:	AMX180FXMN1.S03	Drawn By:	KENNY HO.

FX-DSP



UDASP IN/OUT SECTION

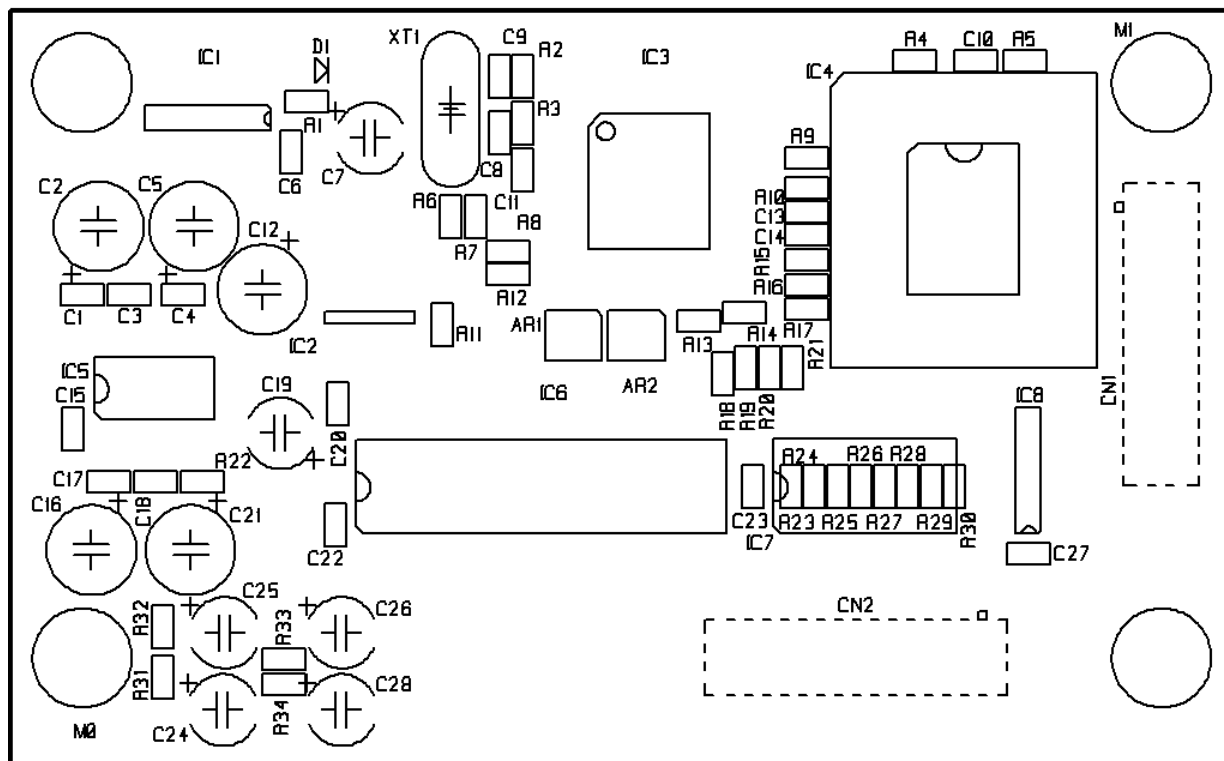
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Size	Model No.	FX-DSP	
A2(C)	Revision	VER040507	
Drawn	Drawn By	KENNY.HO	
File	Drawn By	KENNY.HO	



DRW L.GIBIN	DWG# 313123/2	PCB# 768281	Music Media Soft s.r.l.
CKD L.GIBIN	DATE 23/12/02	REV. B	ALL RIGHTS ARE RESERVED, NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY MMS.
APP.	SHEMATIC DIAGRAM		CHEF EF-E Digital Effect Board

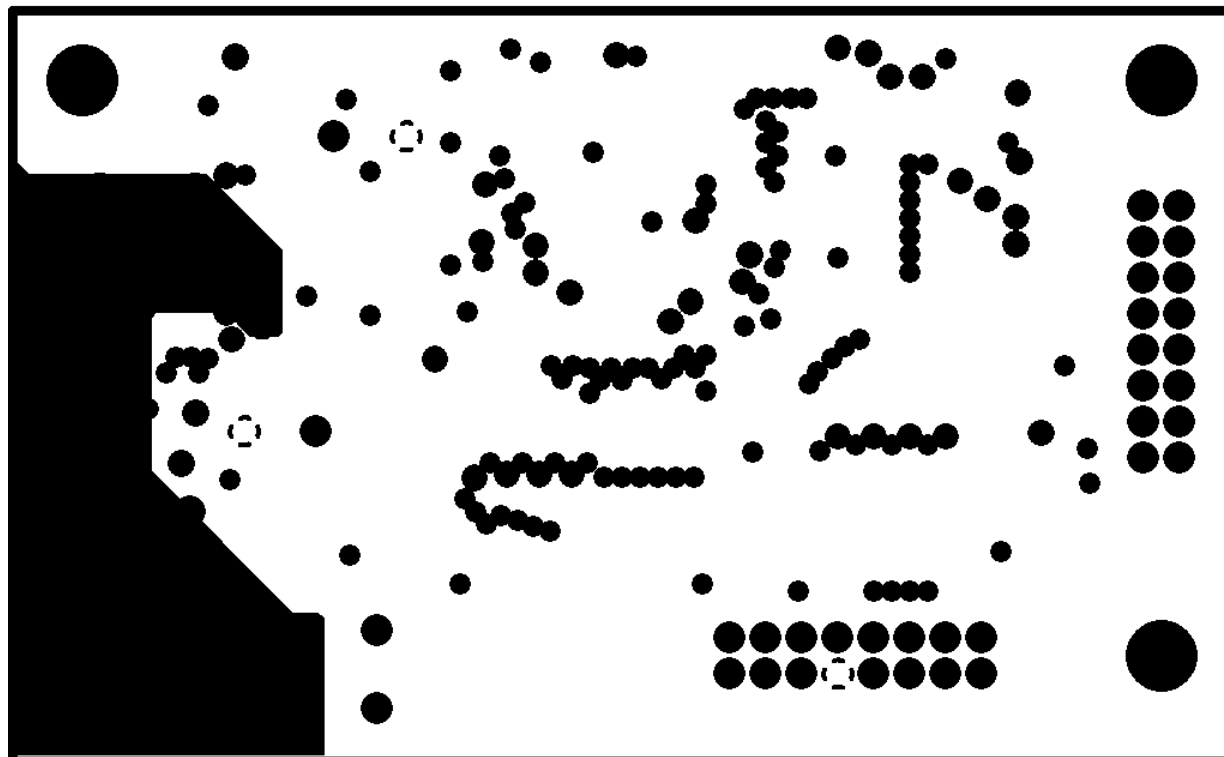
4. Printed Circuit Board

313123/2 TOP SILK

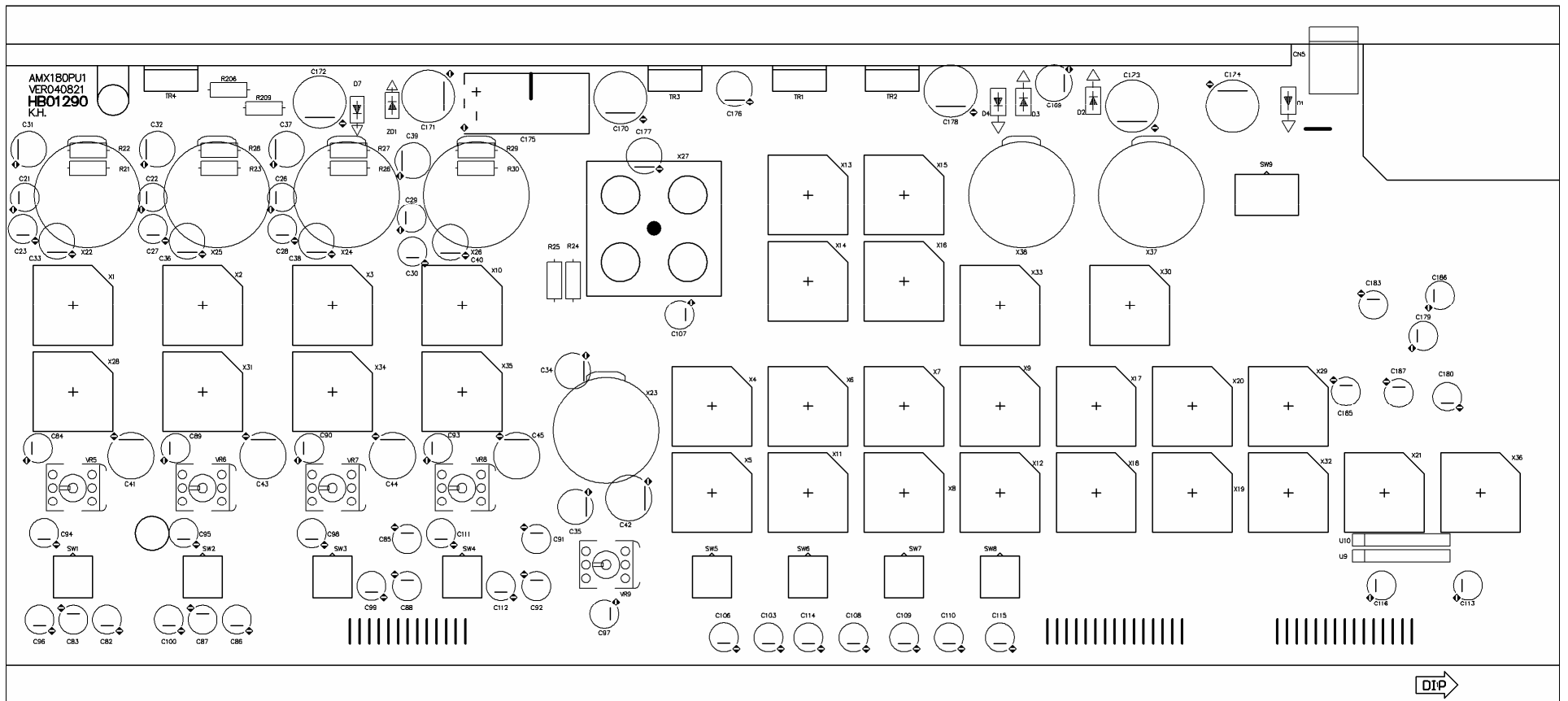


PCB : 313123/2 Top Overlay

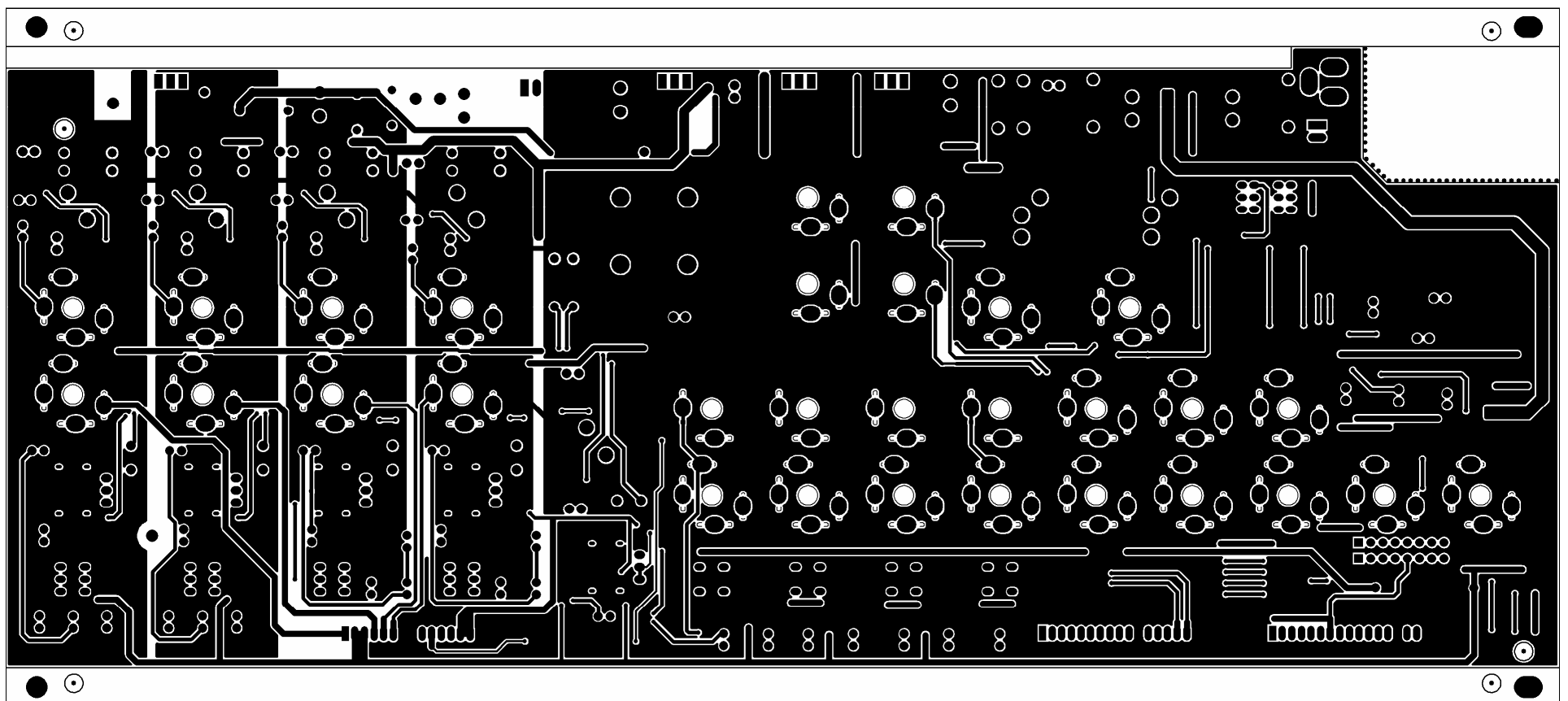
313123/2 I* INTERNAL LAYER GND



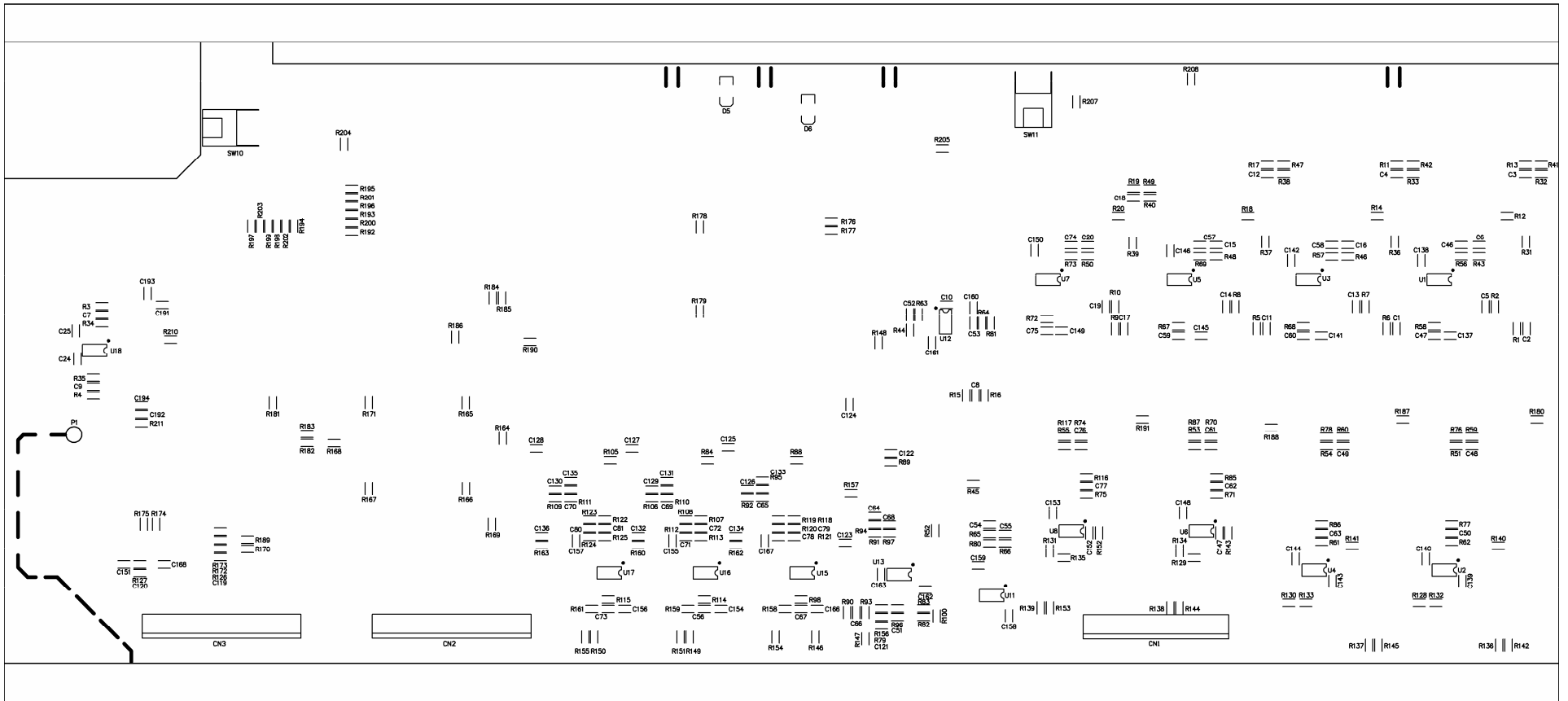
4. Printed Circuit Board



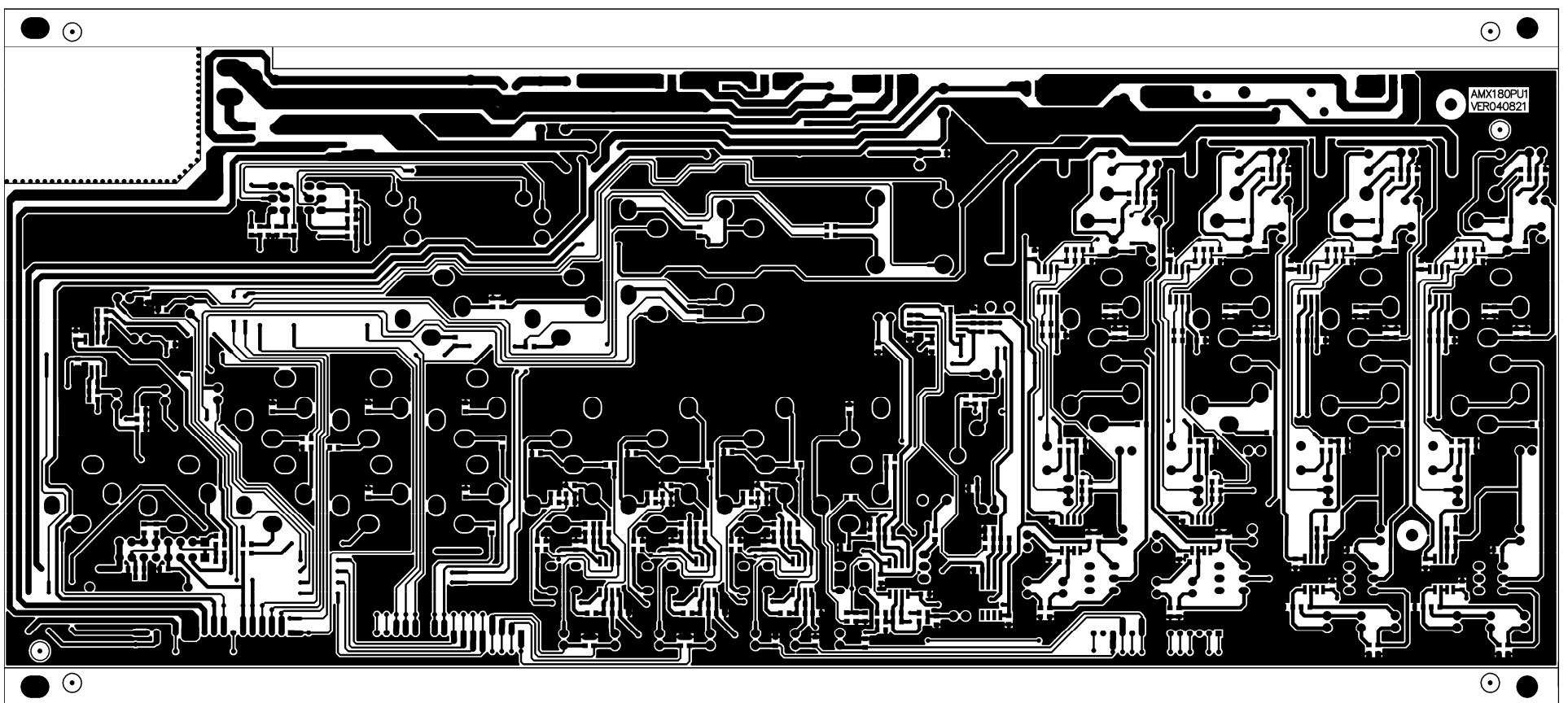
PCB : AMX180PU1 Top Overlay



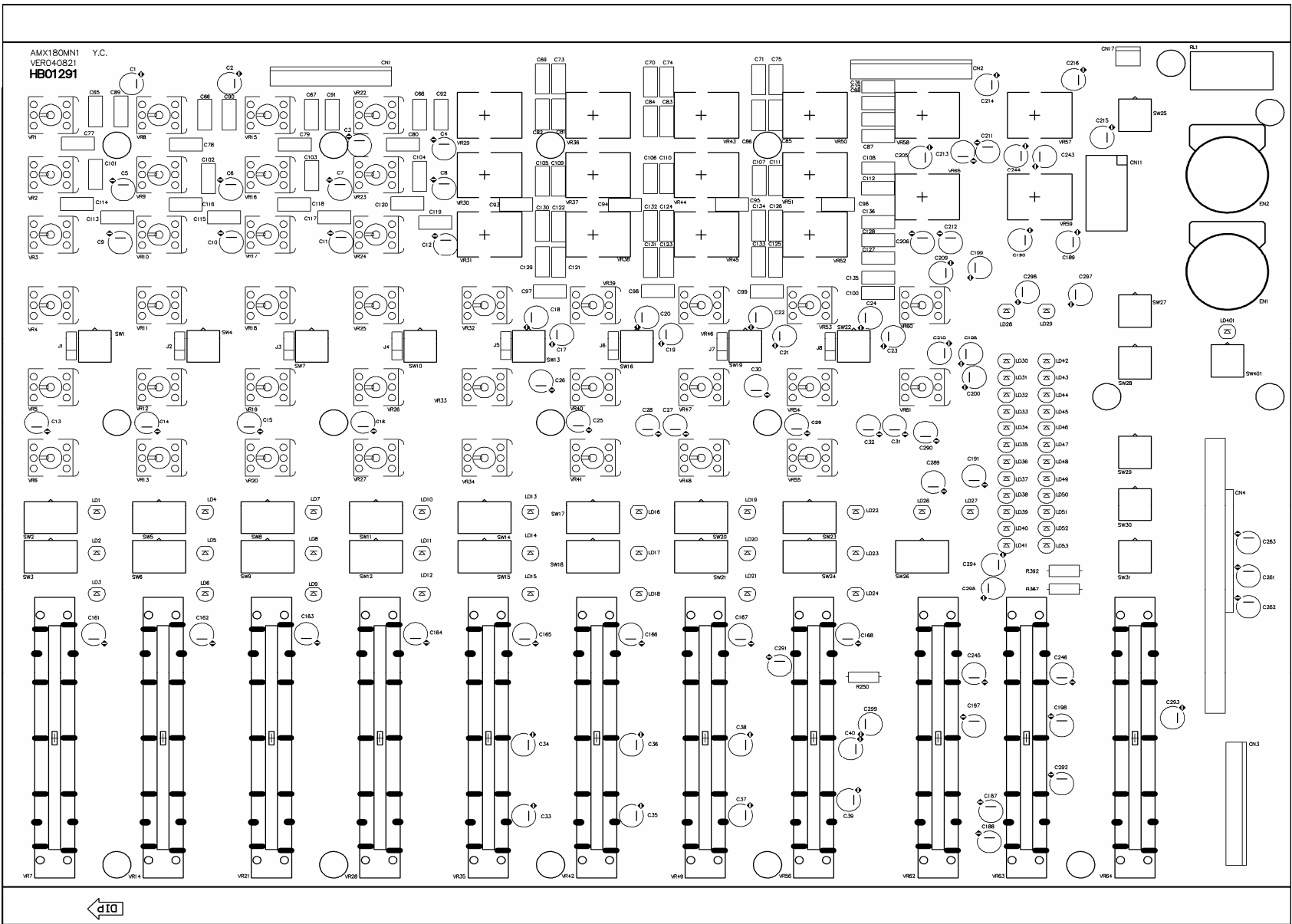
PCB : AMX180PU1 Top Layer



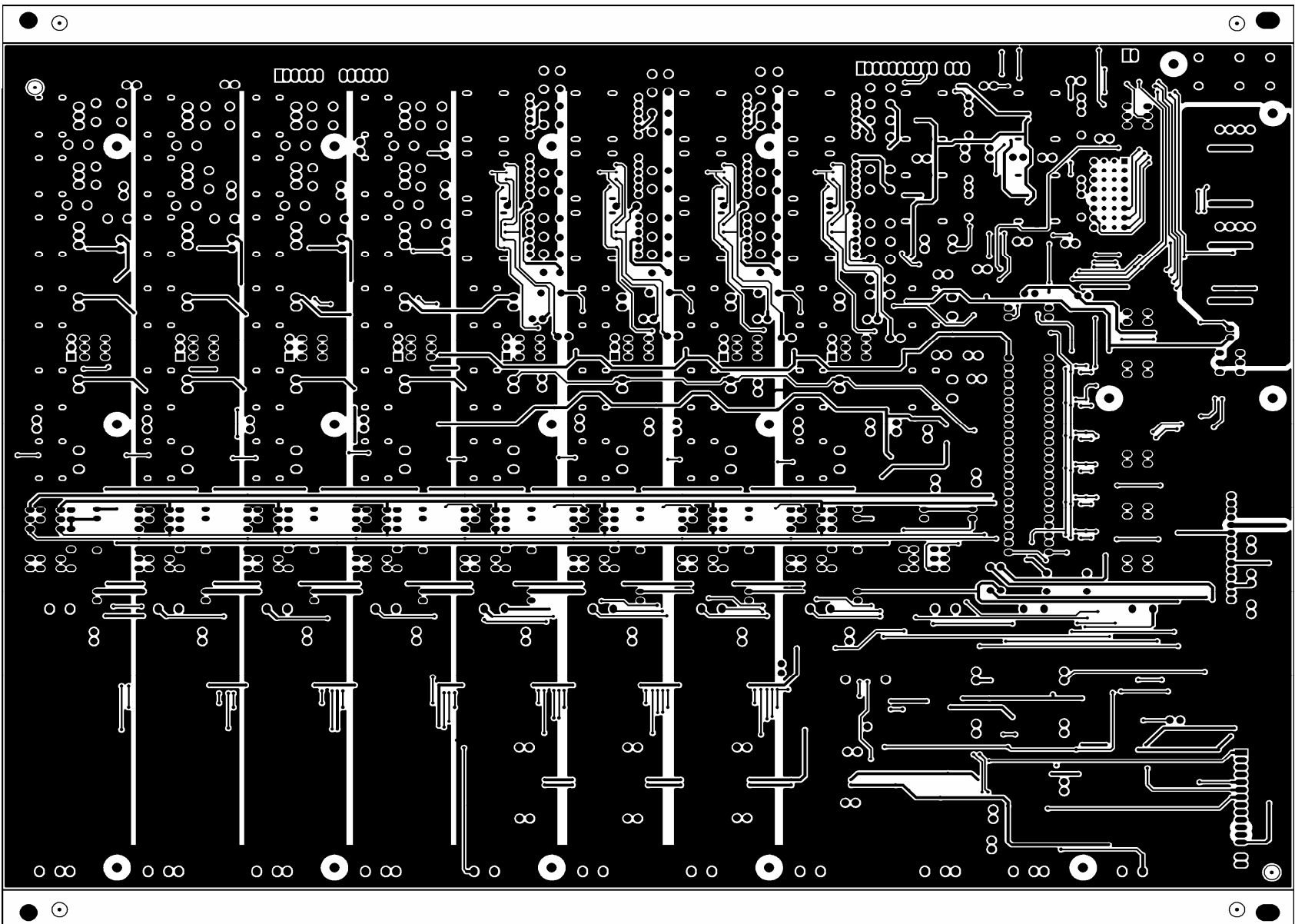
PCB : AMX180PU1 Bottom Overlay



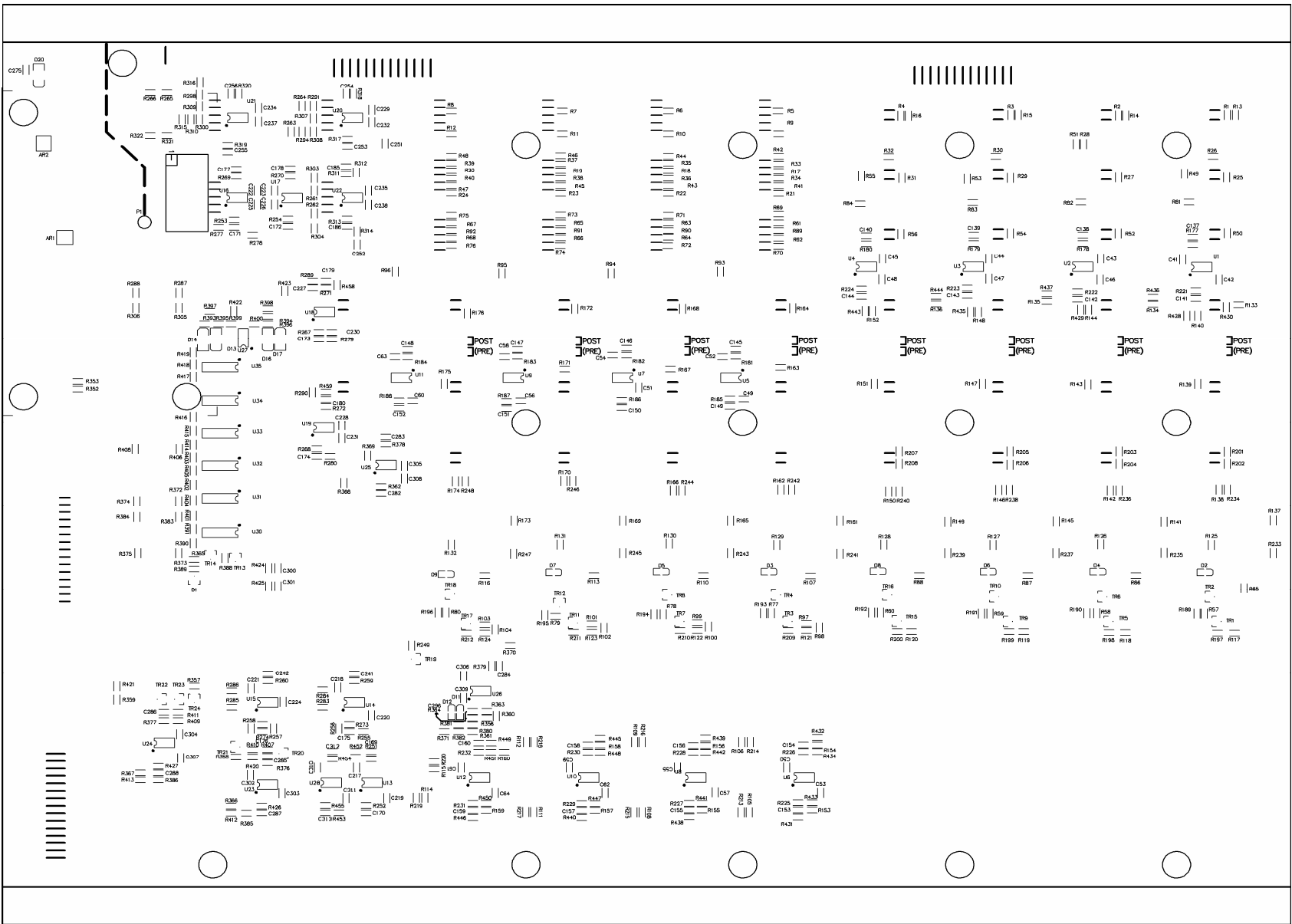
PCB : AMX180PU1 Bottom Layer



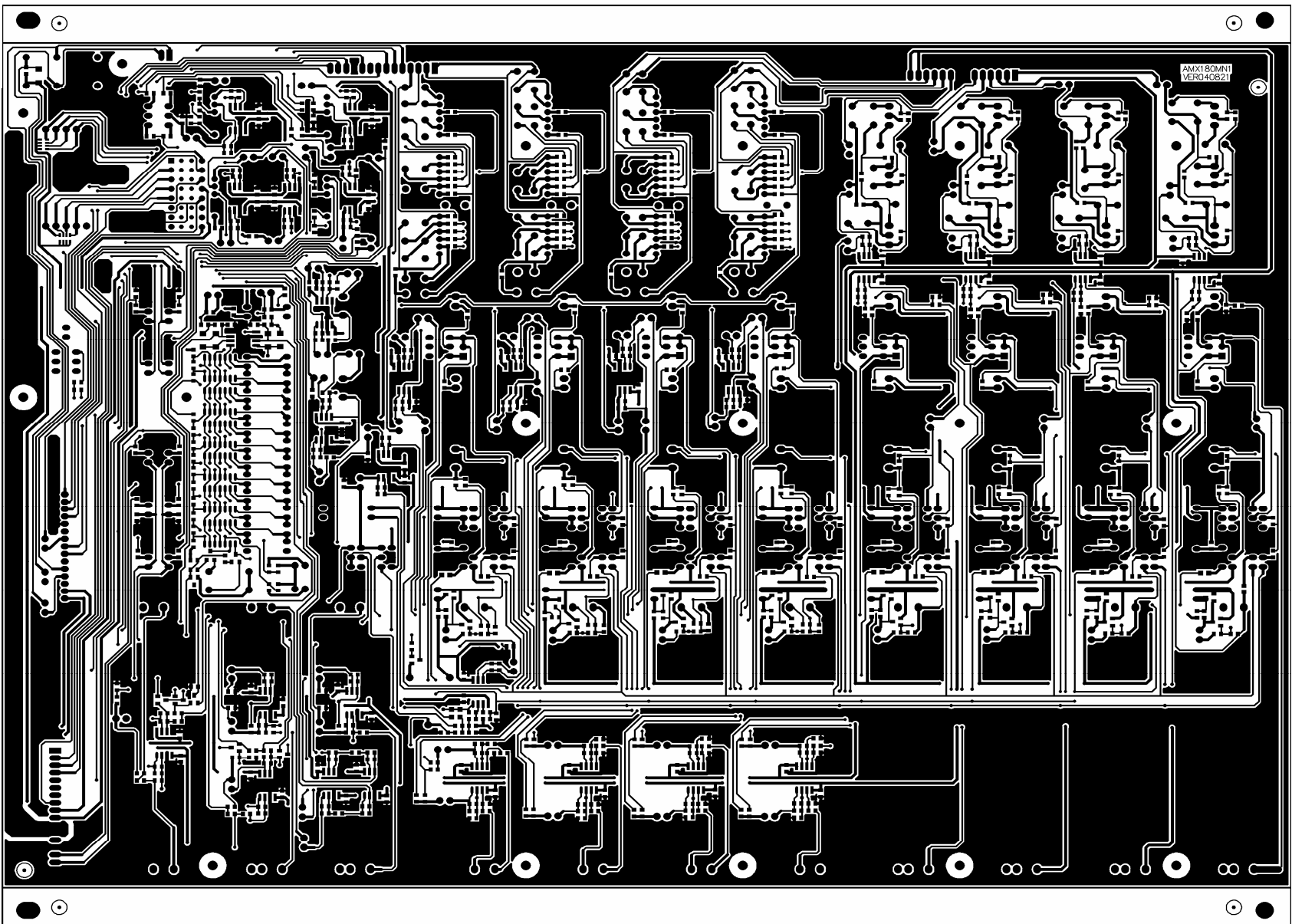
PCB : AMX180MN1 Top Overlay



PCB : AMX180MN1 Top Layer

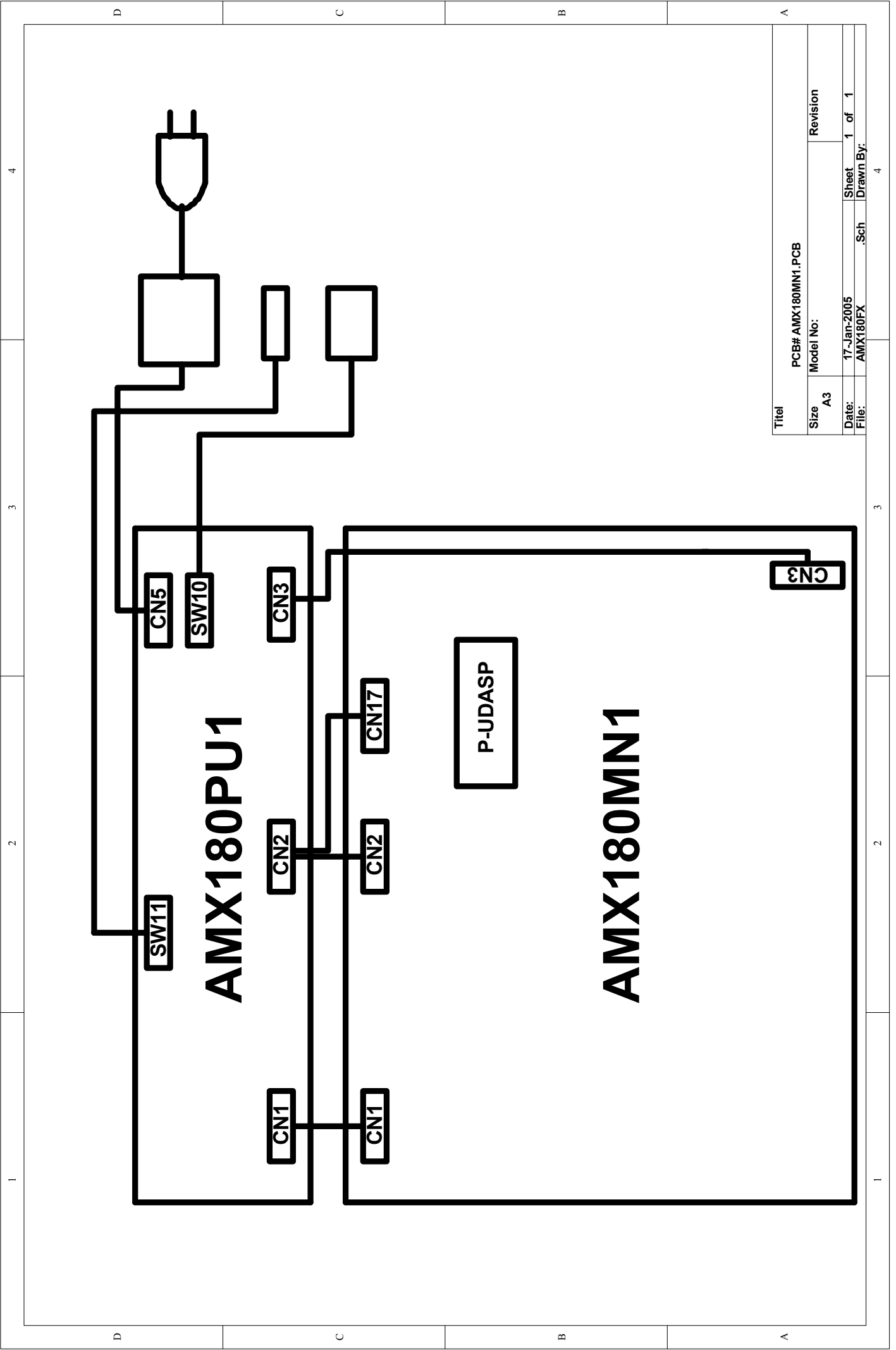


PCB : AMX180MN1 Bottom Overlay



PCB : AMX180MN1 Bottom Layer

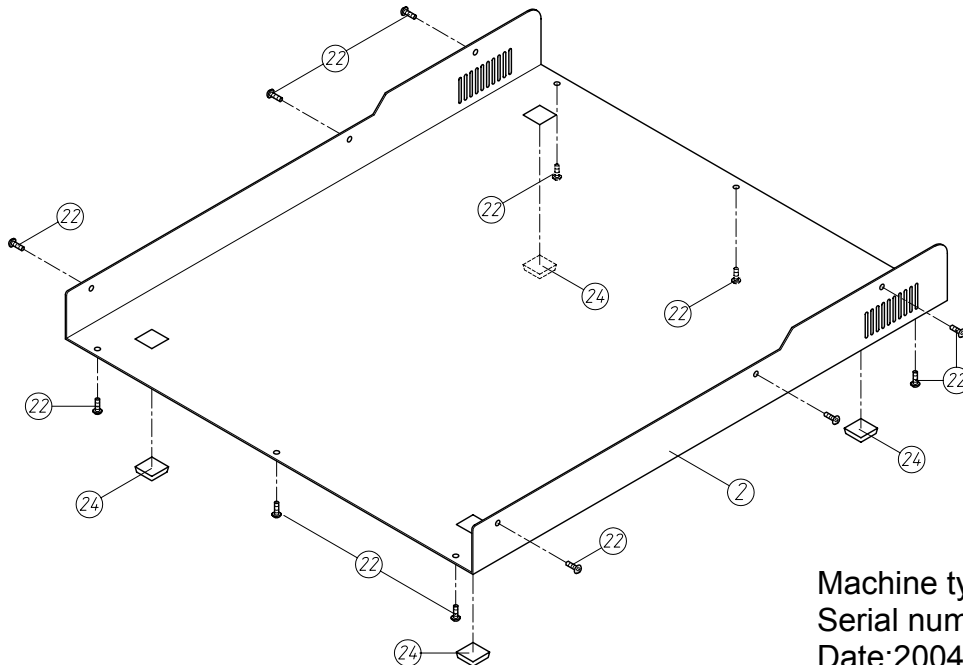
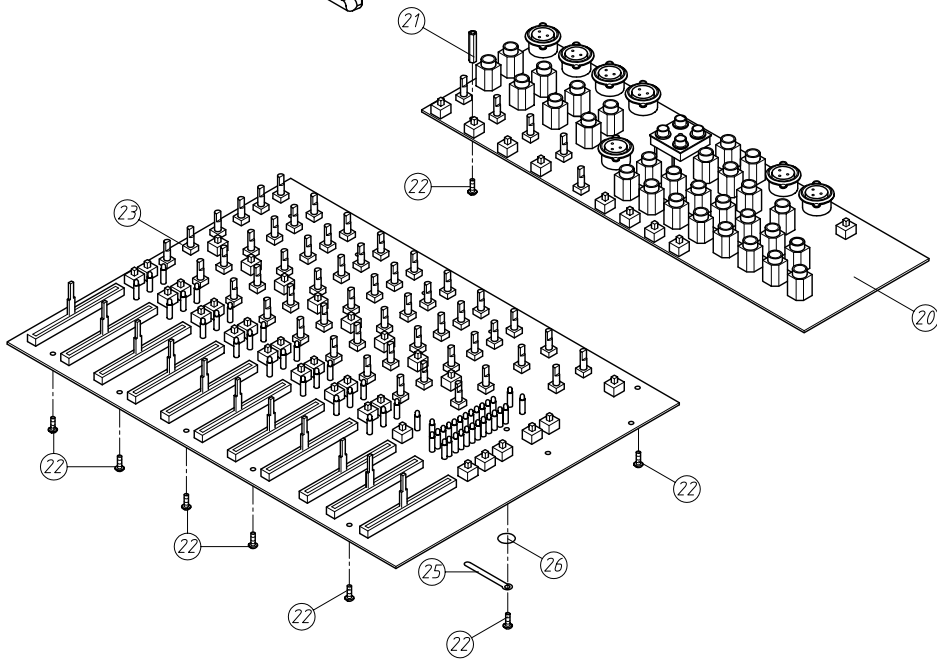
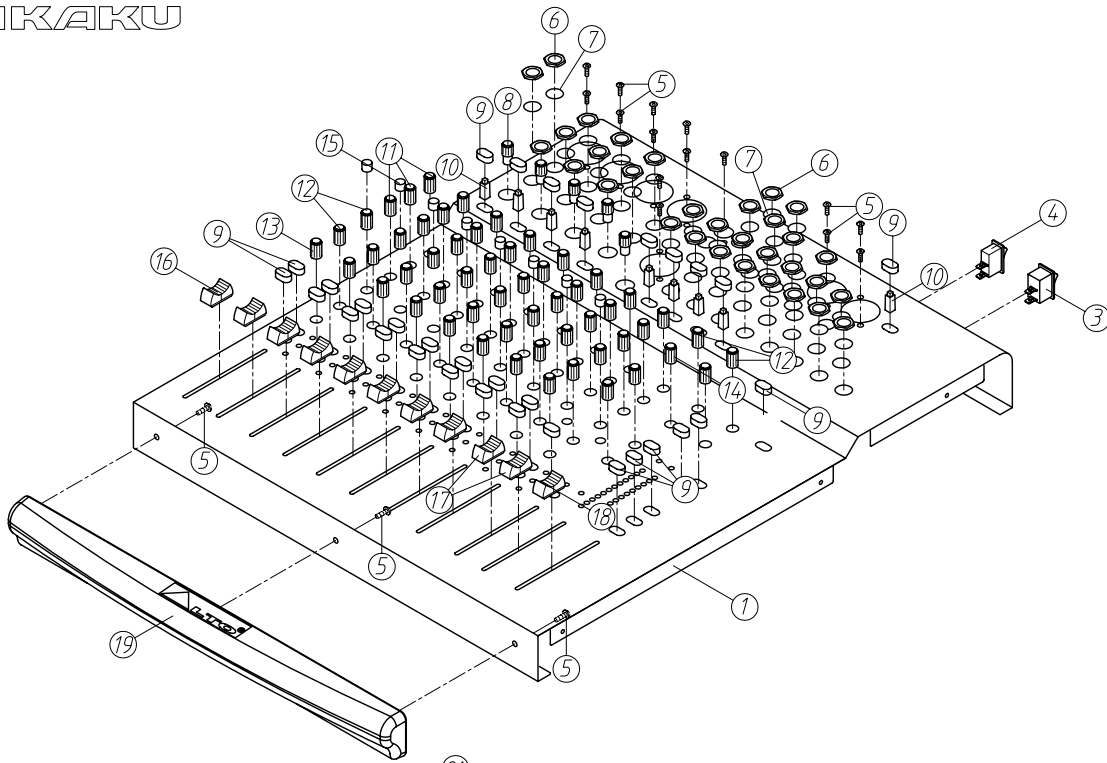
5.Wiring Diagram



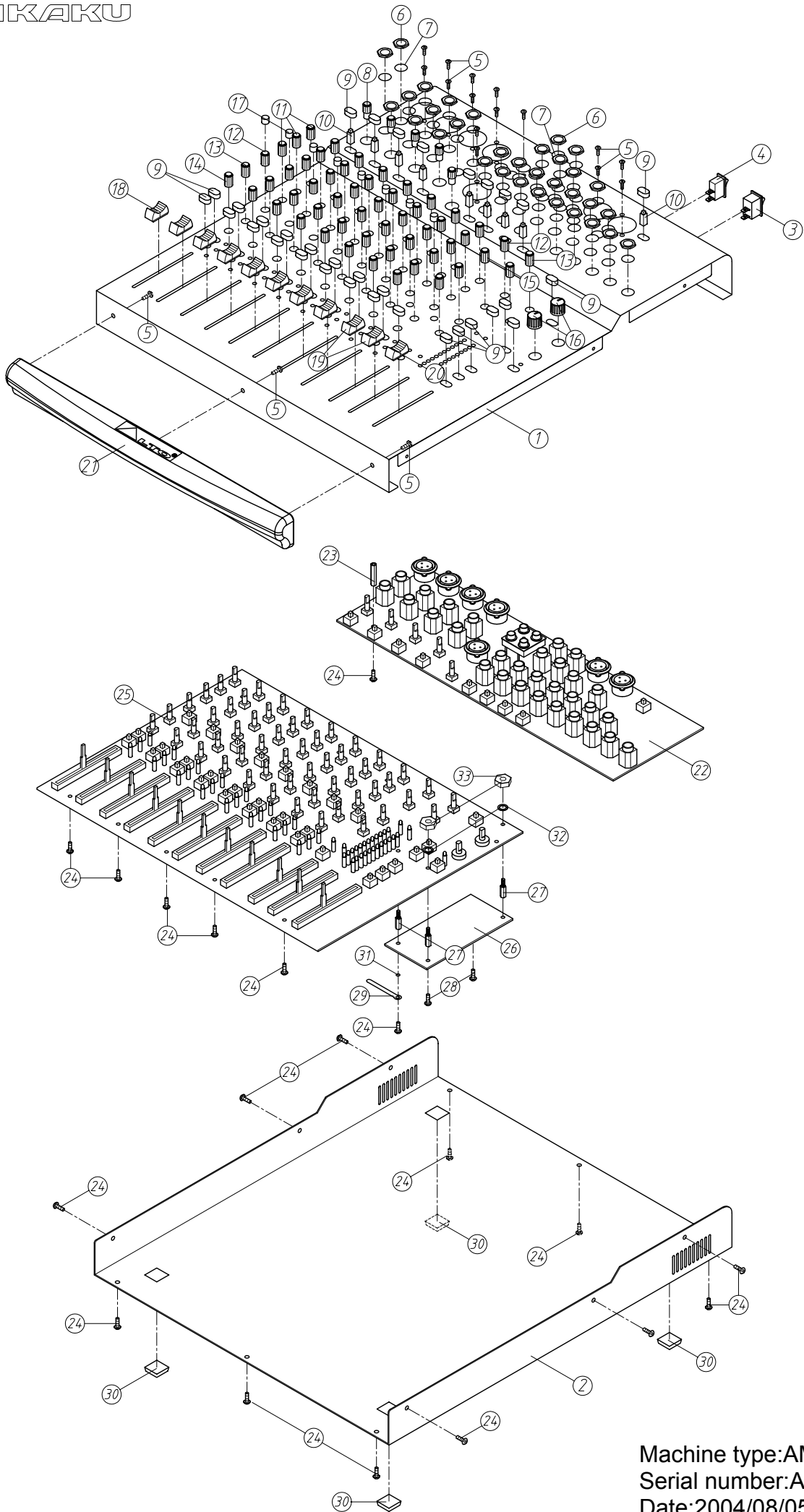
7. Electrical Parts List

8.Exploded Views & Mechanical Parts List

SEIKAKU



Machine type:AMX-180
Serial number:AMX180-00
Date:2004/08/05



Mechanical Parts List

Model No.		ALTO AMX-180		
NO	Item No	Item Description		pcs
1	MA04586	panel	AMX-180FX ALTO_V1.1	1
2	MB03115	rear board	AMX-180	1
3	HI00026	power switch	RA12KKATOF 2P	1
4	HI00171	power switch	R612KKATOF1	1
5	MG00061	screw	M3*10	18
6	ME00060	nut	JY-6351G-02-250	29
7	MF00061	washer	JY-6351G-02-250	29
8	NI02714	knob	φ10*13.5mm	5
9	NI01863	key	φ5.5*W10*7.5	32
10	NI01862	key	5.5*5.5*14.5	9
11	NI02083	knob	φ10.5*18mm	24
12	NI02081	knob	φ10.5*18mm	20
13	NI02082	knob	φ10.5*18mm	8
14	NI02817	knob	φ10.5*18mm	2
15	NI02377	knob	φ5.5*7.5mm(3.3*3.3mm)	8
16	NI02309	knob	24*11.5*11	8
17	NI02352	knob	24*11.5*11	2
18	NI02353	knob	24*11.5*11	1
19	NI01945	handle	AMX-180;180FX_V1.0	1
20	HK04386	PC board	P-AMX180PU1-DIP	1
21	MG00247	copper pillar	M3*10*0.5PHsingle length16	1
22	MG00041	screw	M3*6	28
23	HK04348	PC board	P-AMX180MN1-DIP	1
24	NI00501	foot cushion	12.7*9*3t(SF-004)	4
25	MJ00808	power clip	WL3-32T	1
26	NC00080	wood washer	φ3.17*φ8.2*1	1
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40				

Mechanical Parts List

Model No.		ALTO AMX-180FX		
NO	Item No	Item Description		pcs
1	MA04586	panel	AMX-180FX ALTO_V1.1	1
2	MB03115	rear board	AMX-180	1
3	HI00026	power switch	RA12KKATOF 2P	1
4	HI00171	power switch	R612KKATOF1	1
5	MG00061	screw	M3*10	18
6	ME00060	nut	JY-6351G-02-250	30
7	MF00061	washer	JY-6351G-02-250	30
8	NI02714	knob	φ10*13.5mm	5
9	NI01863	key	φ5.5*W10*7.5	33
10	NI01862	key	5.5*5.5*14.5	9
11	NI02083	knob	φ10.5*18mm	24
12	NI02081	knob	φ10.5*18mm	10
13	NI02633	knob	φ10.5*18	10
14	NI02082	knob	φ10.5*18mm	8
15	NI02817	knob	φ10.5*18mm	2
16	NI02386	konb	φ14*13mm	2
17	NI02377	knob	φ5.5*7.5mm(3.3*3.3mm)	8
18	NI02309	knob	24*11.5*11	8
19	NI02352	knob	24*11.5*11	2
20	NI02353	knob	24*11.5*11	1
21	NI01945	handle	AMX-180;180FX_V1.0	1
22	HK04391	PC board	P-AMX180FXPU1-DIP	1
23	MG00247	copper pillar	M3*10*0.5PHsingle length16	1
24	MG00041	screw	M3*6	28
25	HK04388	PC board	P-AMX180FXMN1-DIP	1
26	HK03894	PC board	P-313123-SMD(L-8)	1
27	MG00243	copper pillar	M3*5*0.5PH	1
28	MG00036	screw	M3*4	1
29	MJ00808	power clip	WL3-32T	1
30	NI00501	foot cushion	12.7*9*3t(SF-004)	4
31	NC00080	wood washer	φ3.17*φ8.2*1	1
32	MF00037	washer	φ3*φ5*1t	2
33	ME00015	nut	3m/m	2
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