

Service Manual

Model: AMX-100/ AMX-100FX



www.altoproaudio.com

Version: .2

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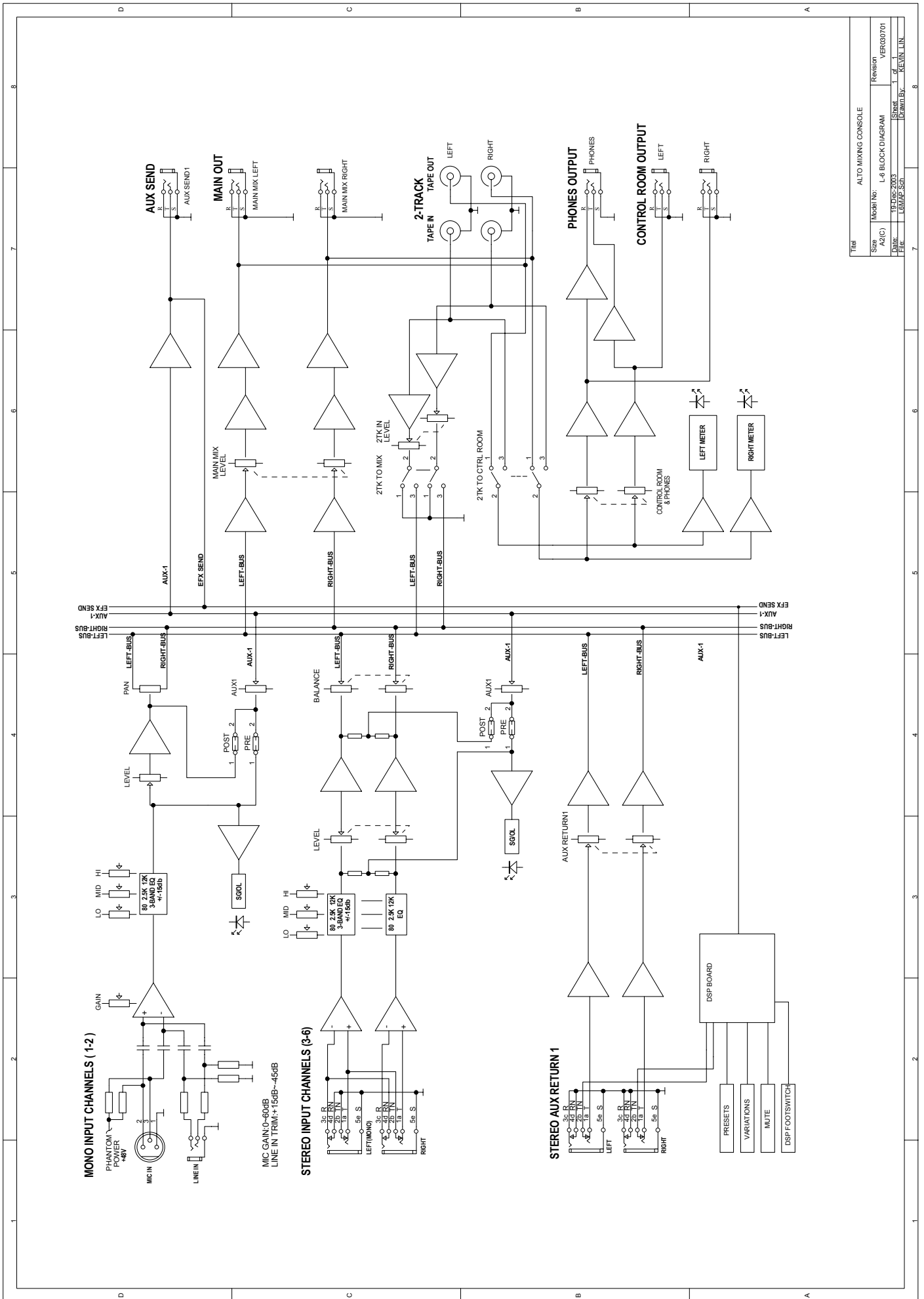
9. Notes

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 to Noise Ratio)	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
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	+/- 12dB @2.5kHz
	Low shelving	+/- 15dB @80Hz
	Low Cut filter	75Hz, 18dB/oct.
DSP Section (For AMX-100FX Model)		
	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 PEAK LED MUTE SWITCH with LED indicator
Main Mix Section		
	Noise (Bus noise)	Fader 0 dB, channels muted: - 100dBr (ref.:+4dBu) Fader 0dB, all input channels assigned and set to UNITY gain: - 90dBr (ref.:+4dBu)
	Max output	+22dBu unbalanced, 1/4" jacks
	AUX Returns gain range	-∞ to +15dB
	AUX Sends max out	+22dBu

Power supply (AC/AC Adaptor)		
	Main voltage	USA/Canada 100 - 120V~, 60Hz
		Europe 210 - 240V~, 50Hz
		U.K./Australia 240V~, 50Hz
	Power Consumption	11 watts (for AMX-100 model)
		15 watts (for AMX-100FX model)
Physical		
	Dimension (W×D×H)	270mm×310mm×35/45mm
		(7.79"×8.95"×1.01"/1.30")
	Net weight	3.0Kg (6.61lb)
	Shipping weight	3.6Kg (7.94lb)

2. Block Diagram

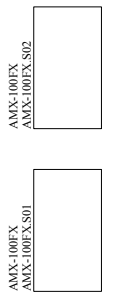
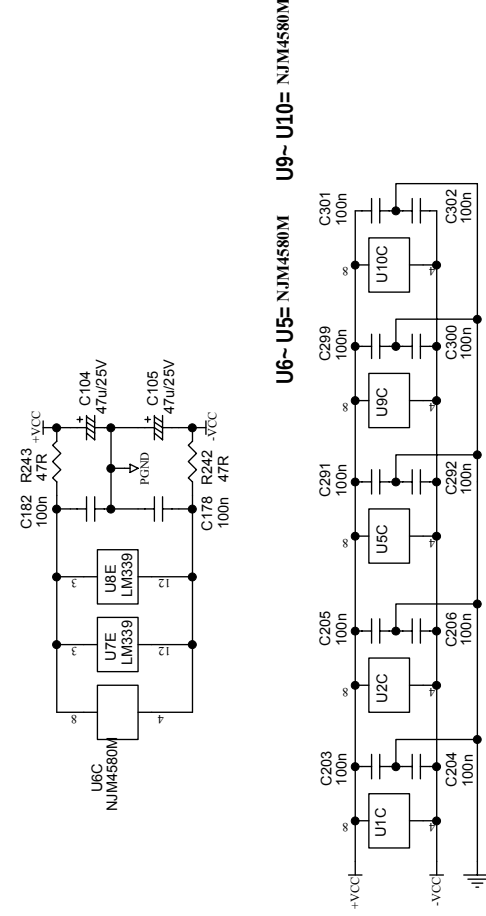
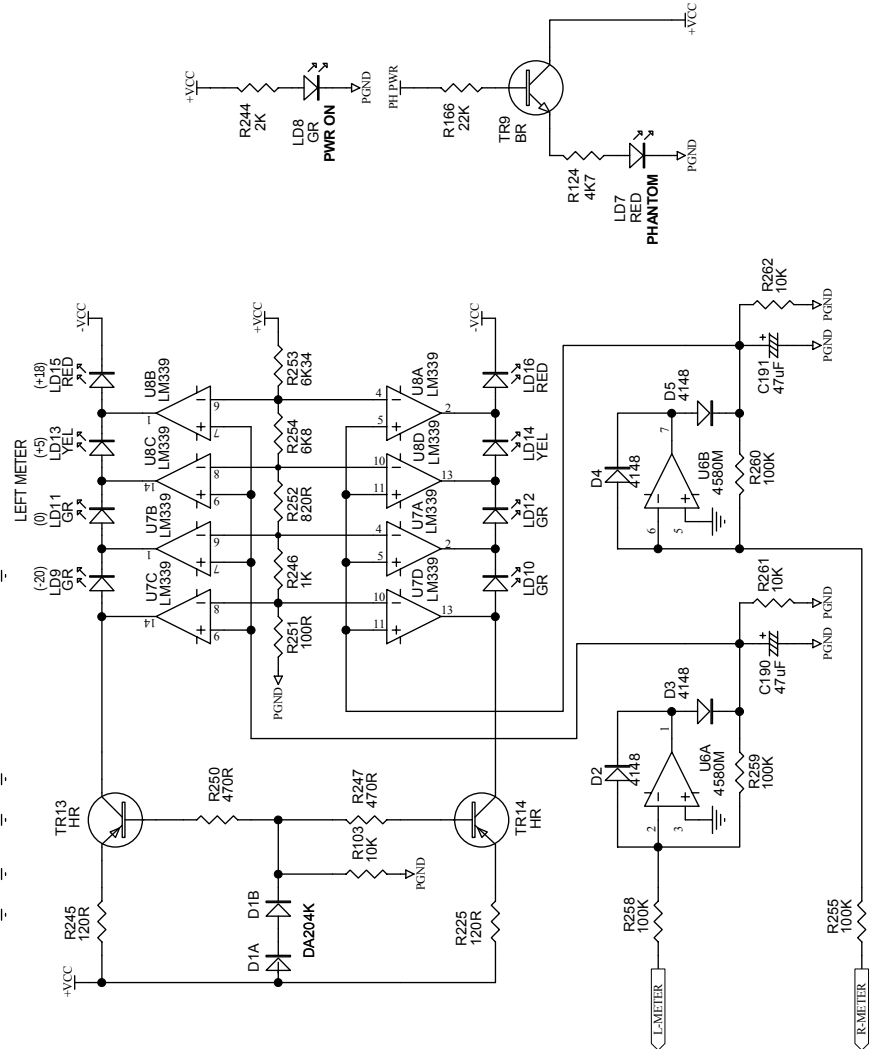
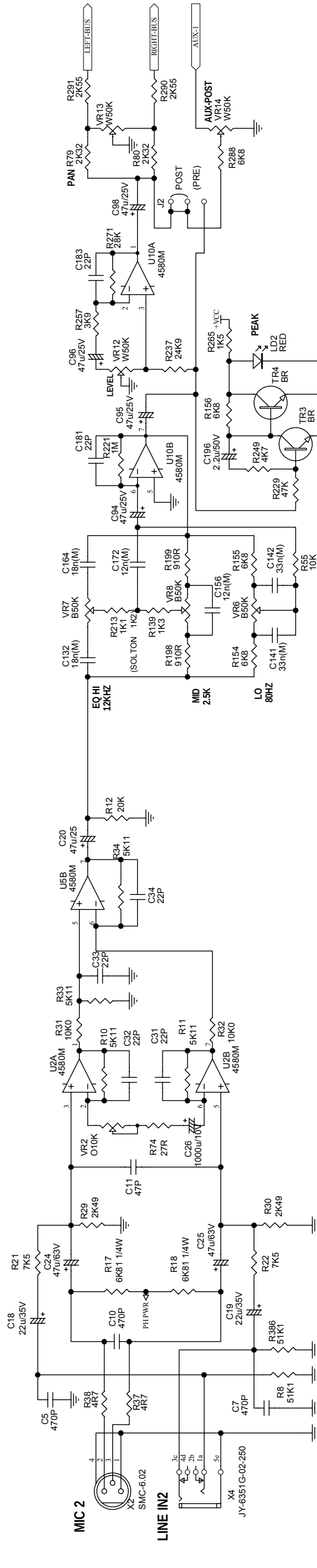
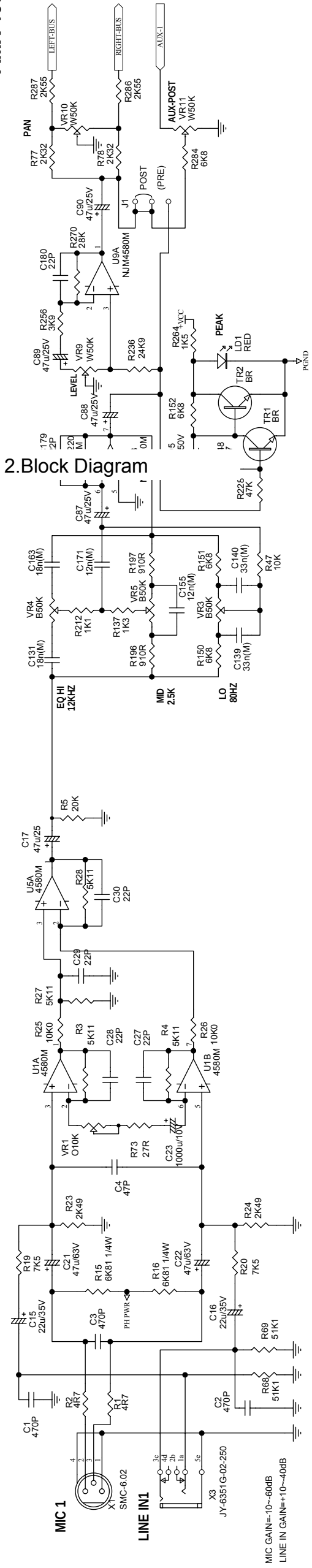


Title		ALTO MIXING CONSOLE	
Size	Model No.	Revision	VER000701
A2(C)			
18DEC-2003		Sheet	1 of 1
File	LEMAP.SCH	Drawn By	KEVIN LIN

3.Schematic Diagram

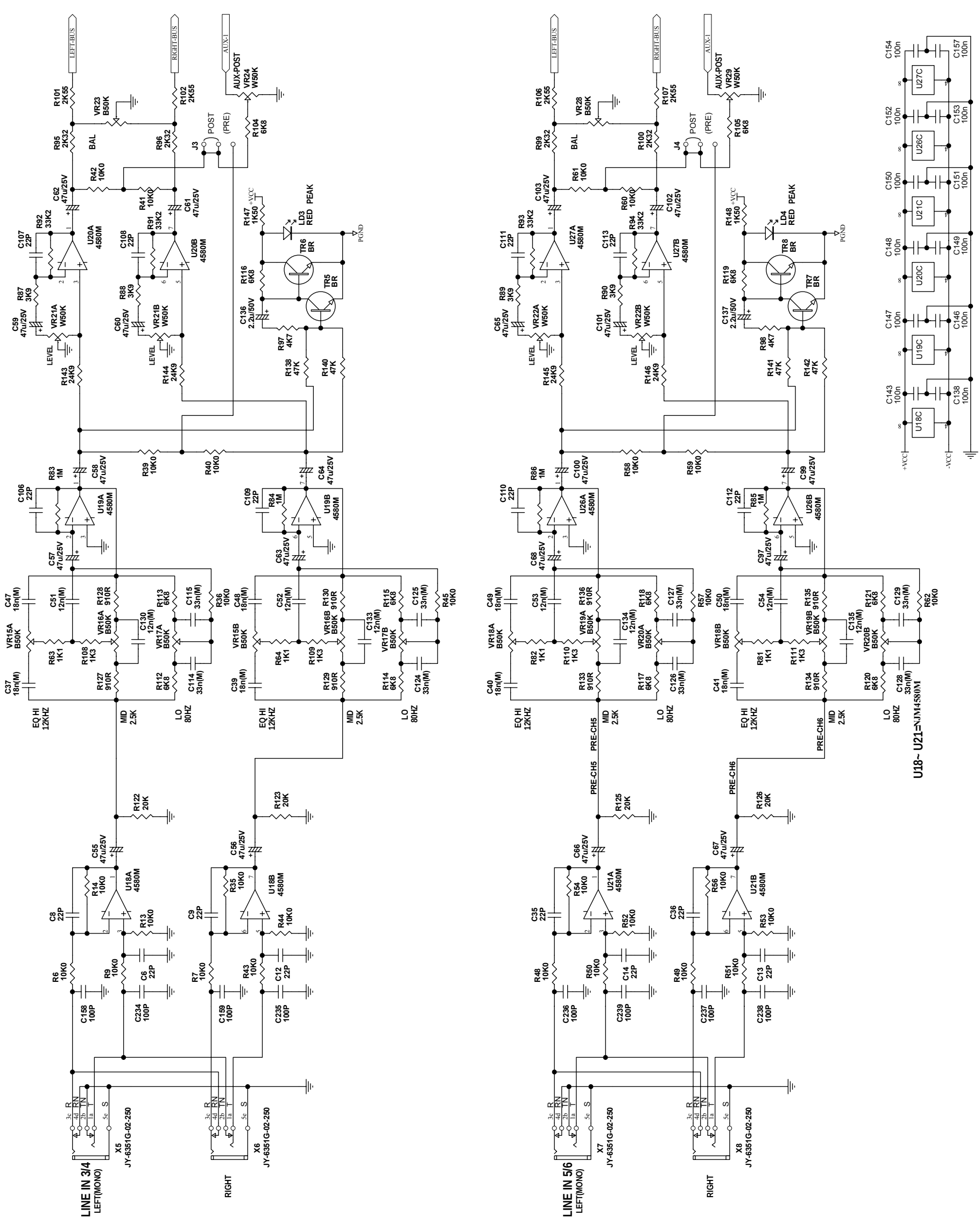
AMX-100FX (1/3)

2.Block Diagram



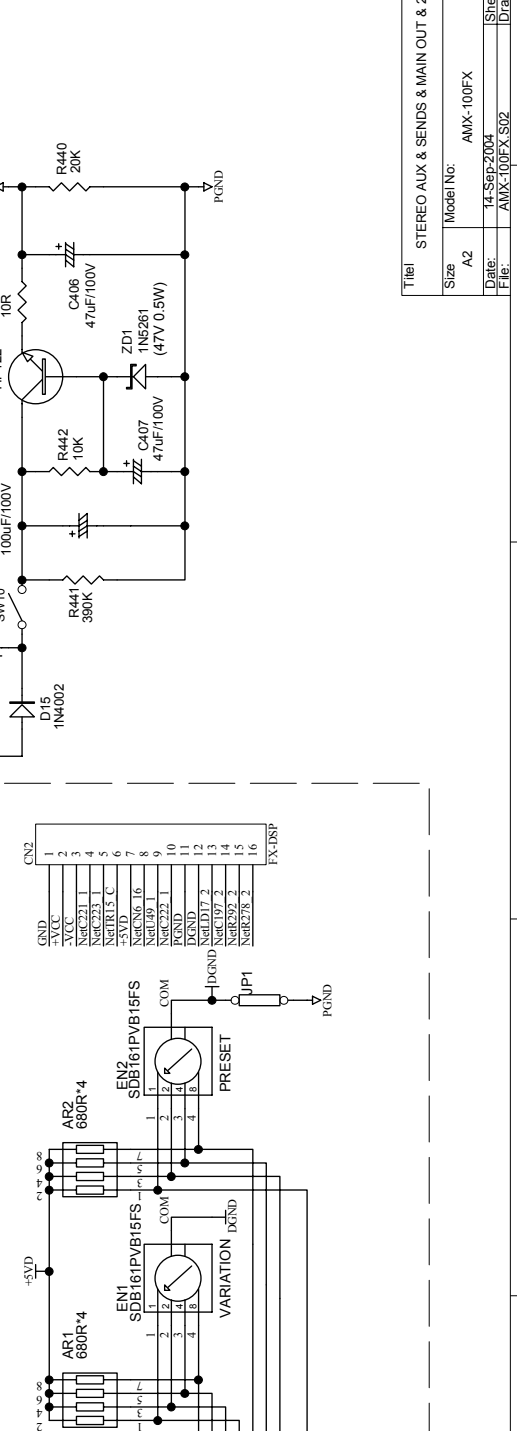
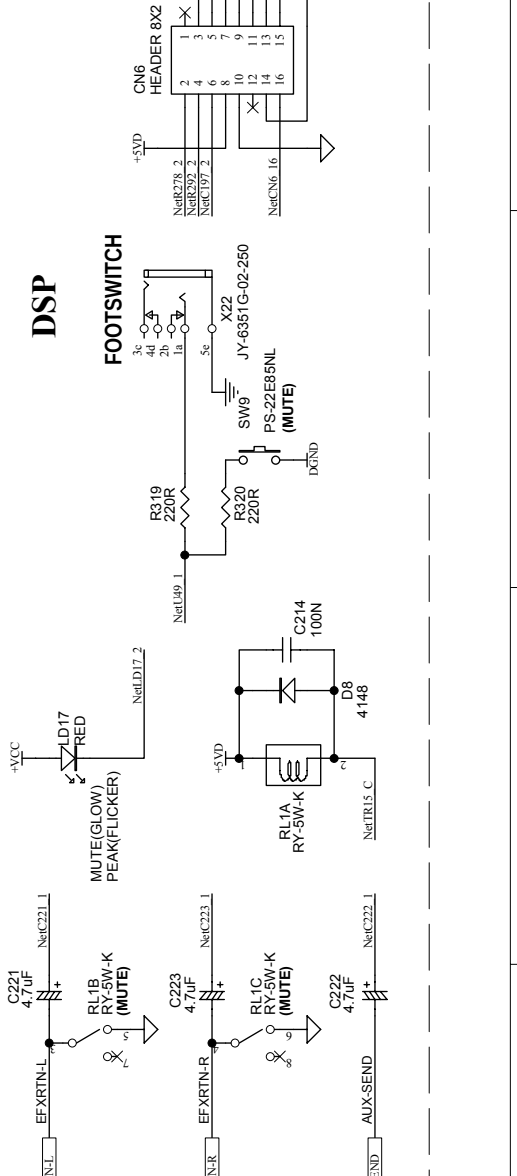
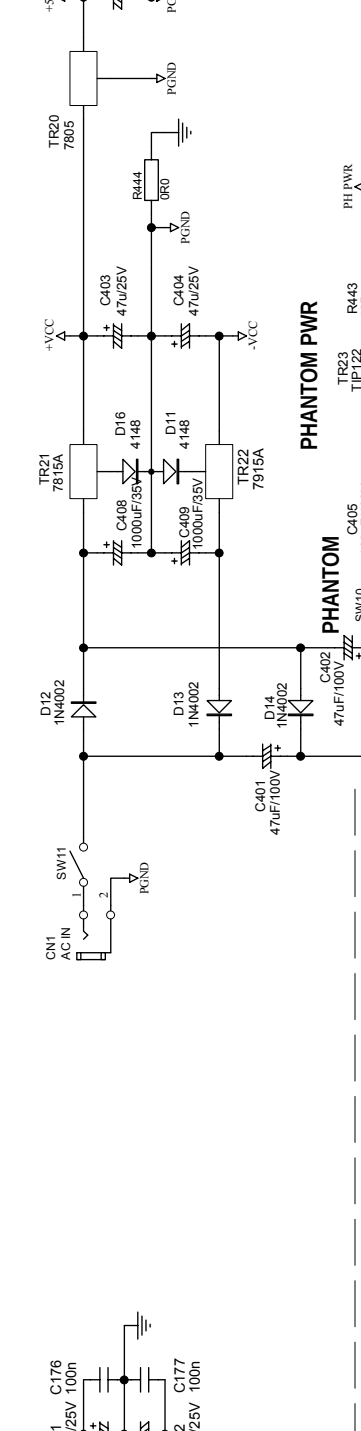
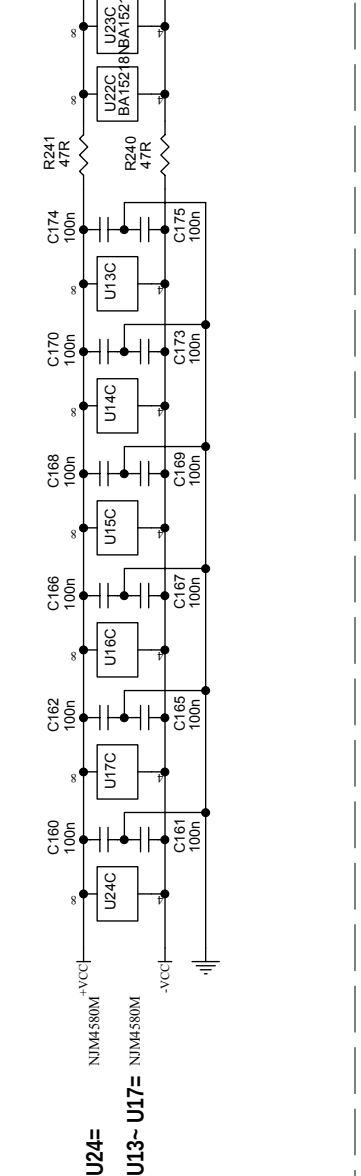
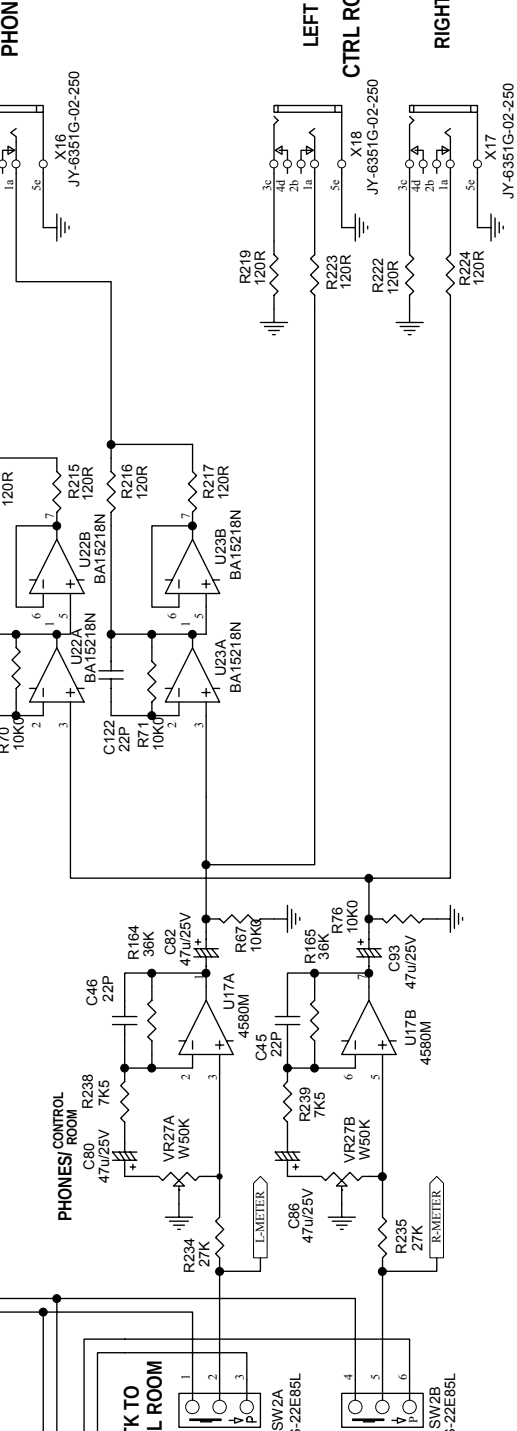
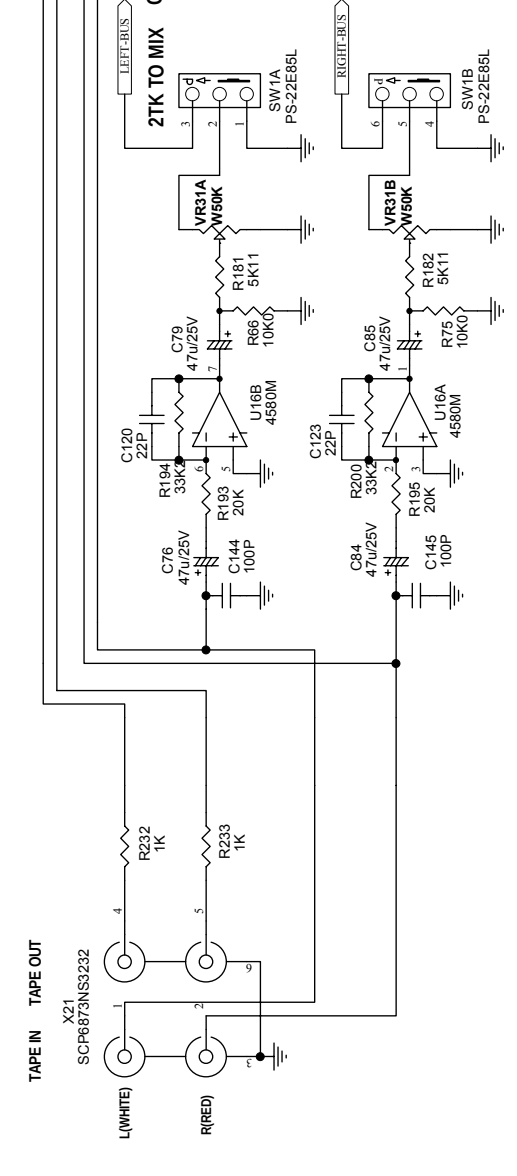
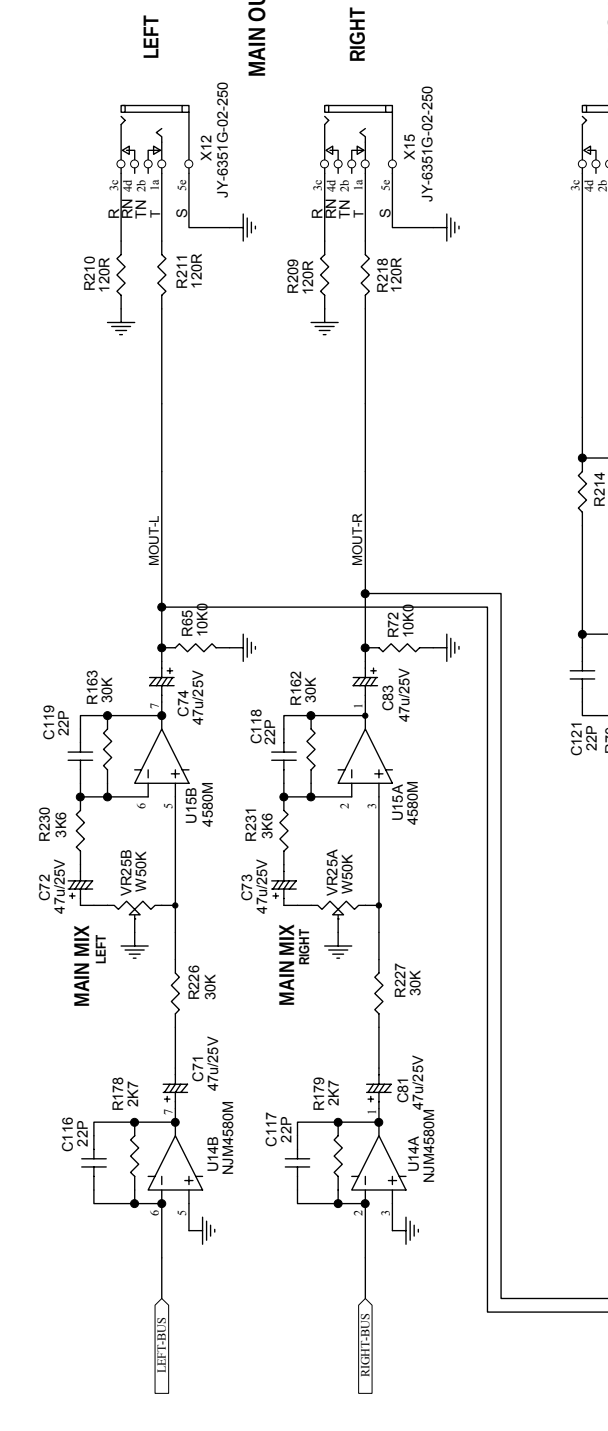
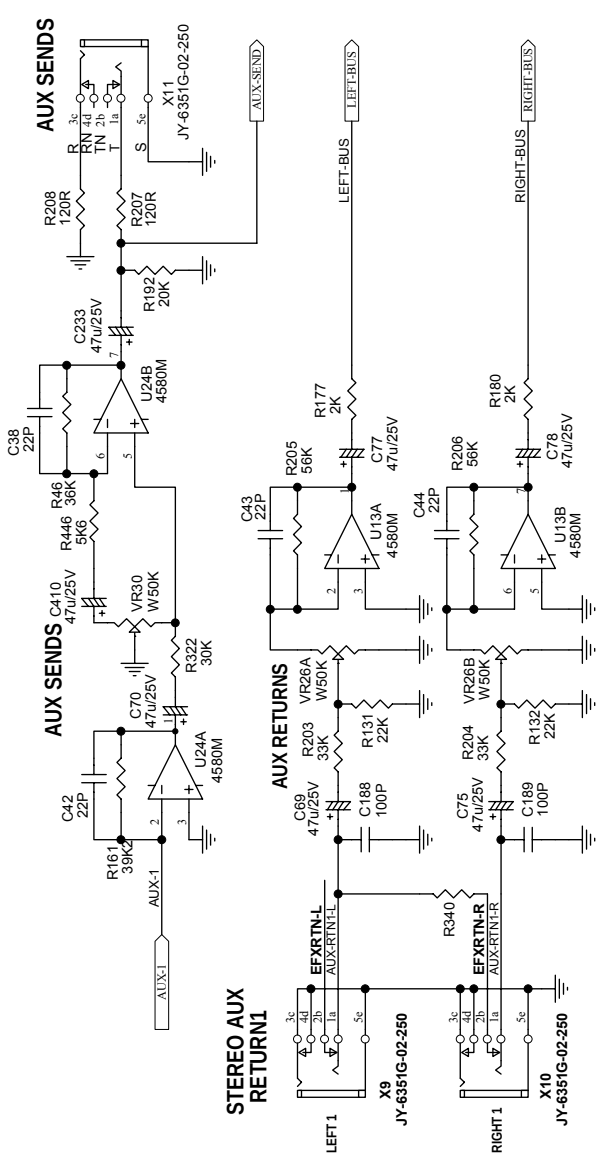
Title	INPUT MONO CH (CH1-CH2)		
Size	A2	Model No.	AMX-100FX
Date	14-Sep-2004	Sheet	1 of 3
File	AMX-100FX.Sch	Drawn By	KEVIN_LIN
Revision	VER040914		

AMX-100FX (2/3)

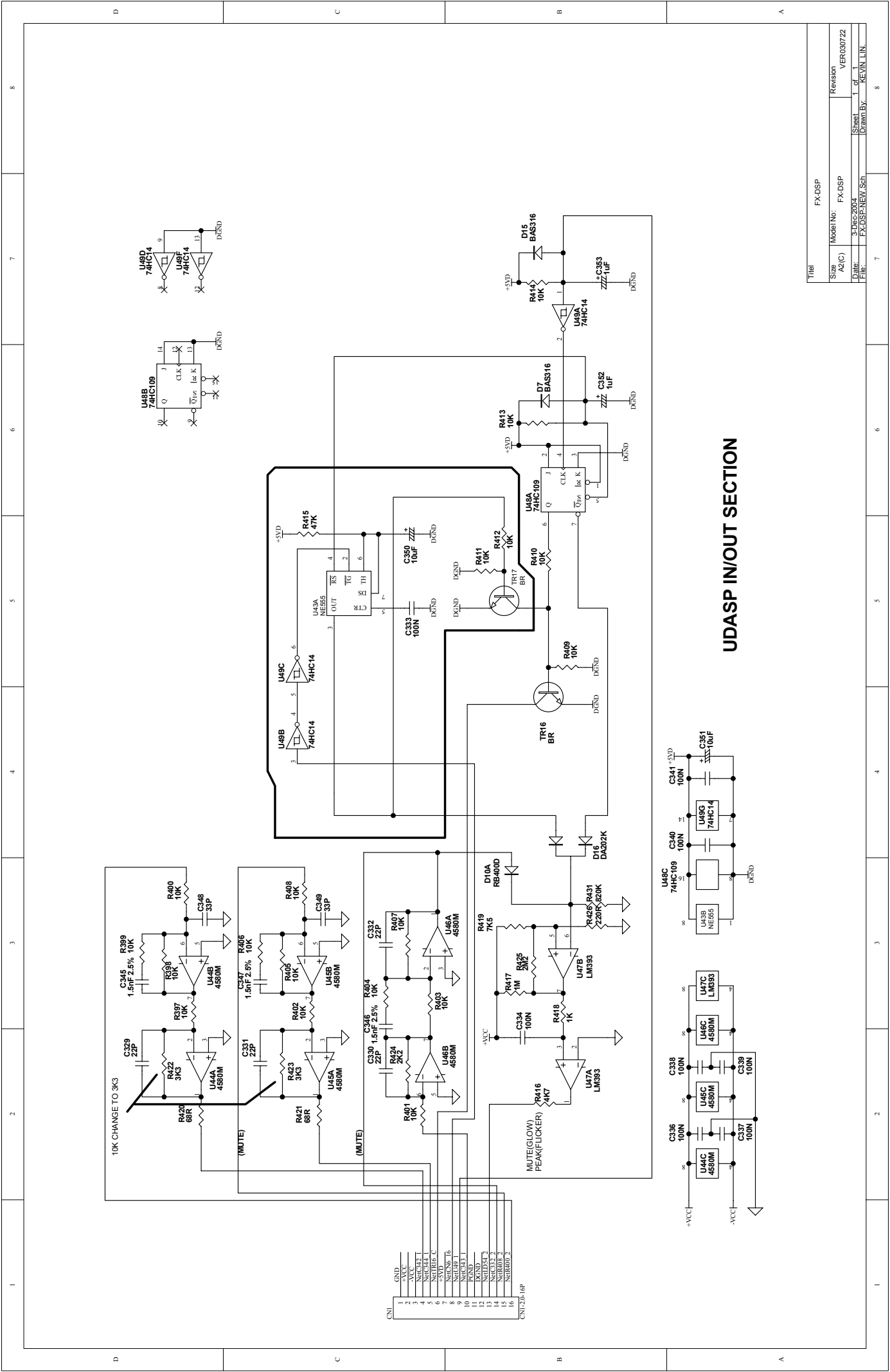


Title		INPUT STEREO (CH3/4-CH5/6)	
Size	A2	Model No.	AMX-100FX
Date	14-SEP-2004	Sheet	2 of 3
File	AMX-100FX.S01	Drawn By:	KEVIN LIN

AMX-100FX (3/3)

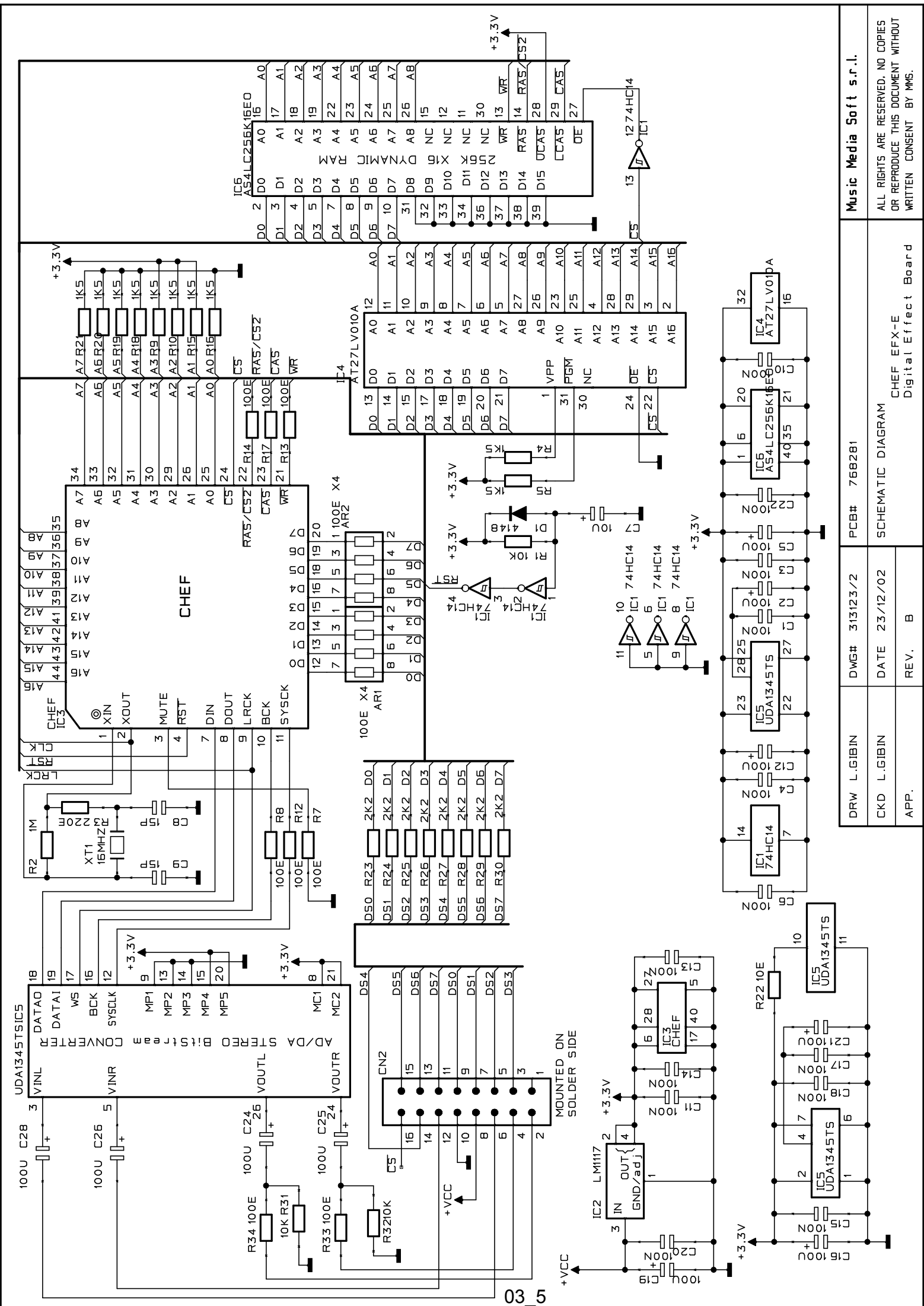


Title	STEREO AUX & SENDS & MAIN OUT & 2TK & CTRL R & PHONES
Size	A2
Date	14-SEP-2004
File	AMX-100FX.SI02
Model No.	AMX-100FX
Revision	VER040914
Sheet	3 of 3
Drawn By	KEVIN LIN



UDASP IN/OUT SECTION

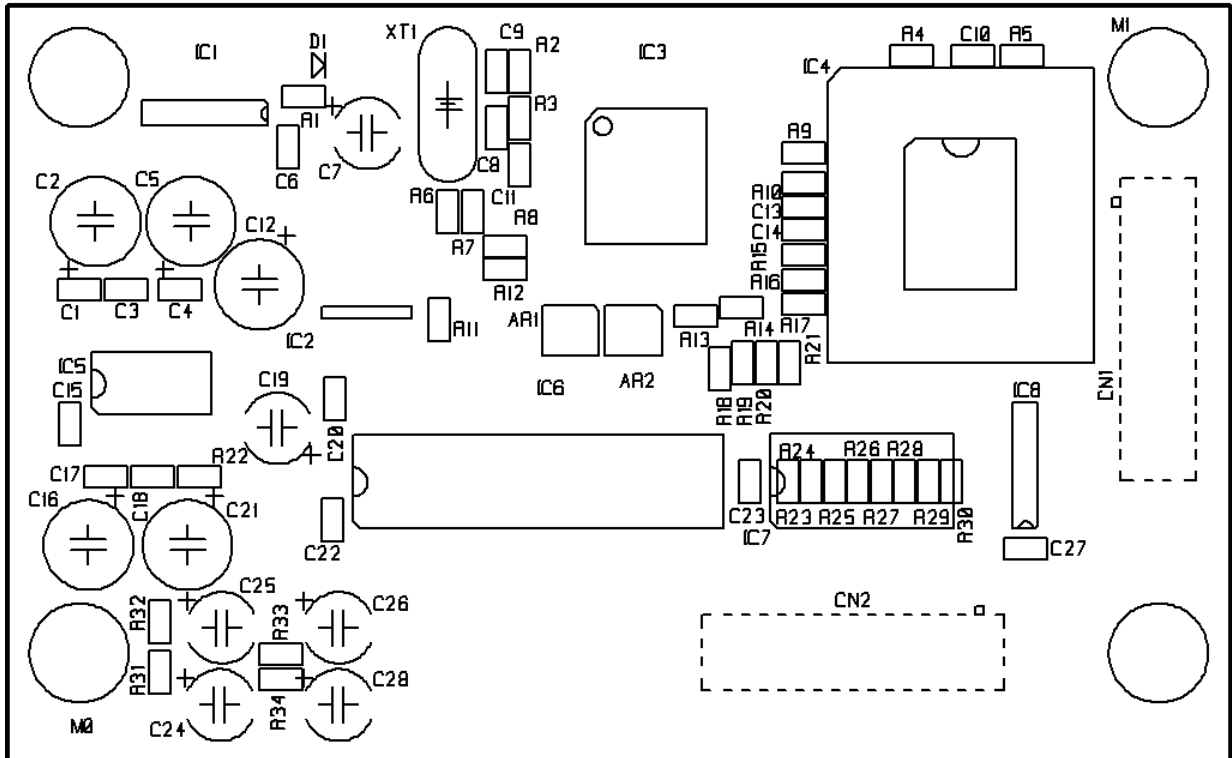
Title		FX-DSP	
Size	Model No.	FX-DSP	Revision
A2(C)			VER030722
File	3-DES-2003	Sheet	1 of 1
Lib	FX-DSP-NEW.Sch	Drawn By	KEVIN LIN



Music Media Soft s.r.l.	
DRW L.GIBIN	PCB# 768281
CKD L.GIBIN	DWG# 313123/2
APP.	DATE 23/12/02
	REV. B
SHEMATIC DIAGRAM	
CHEF EF-E	
Digital Effect Board	
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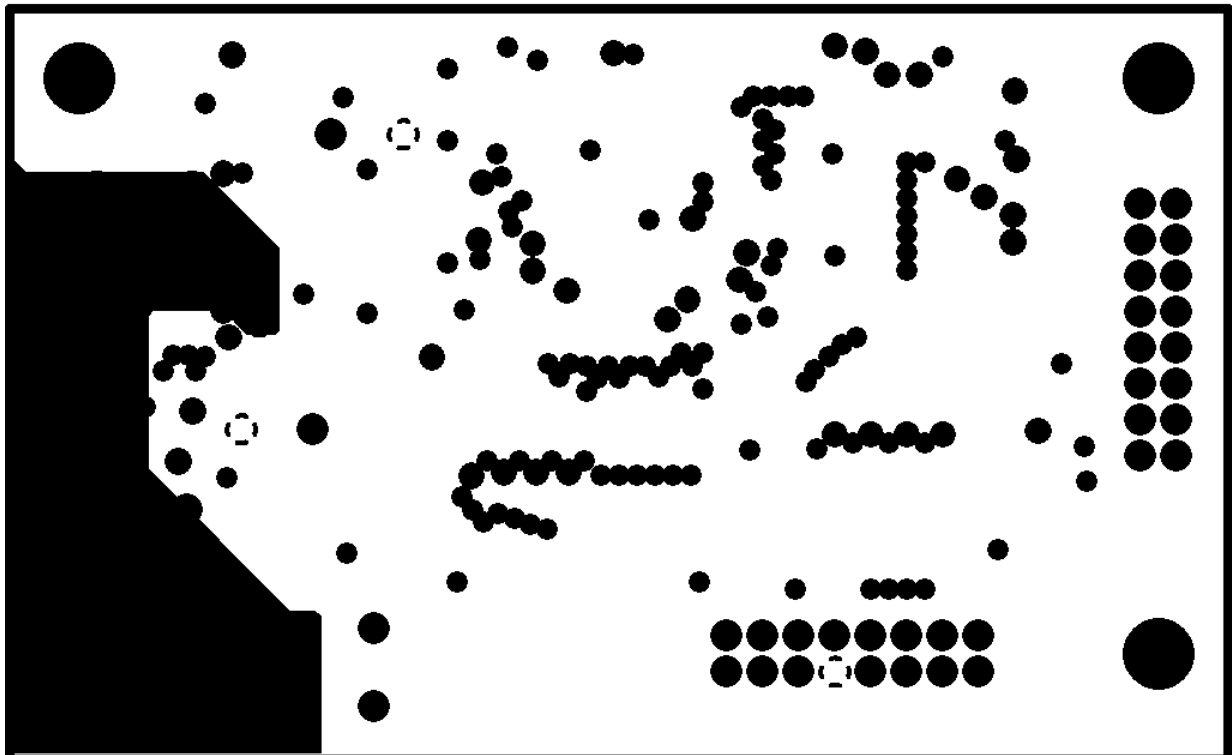
4. Printed Circuit Board

313123/2 TOP SILK

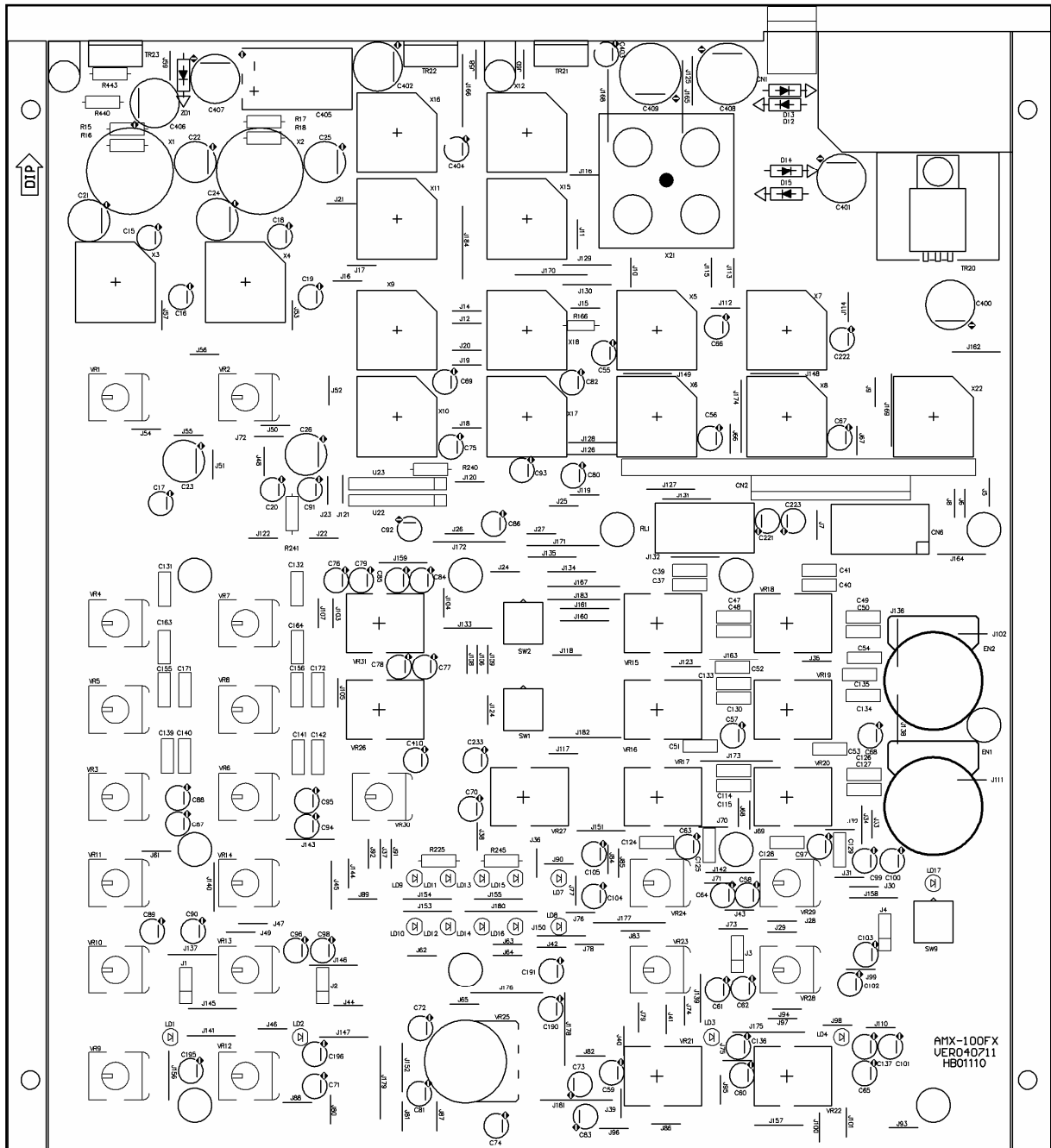


PCB : 313123/2 Top Overlay

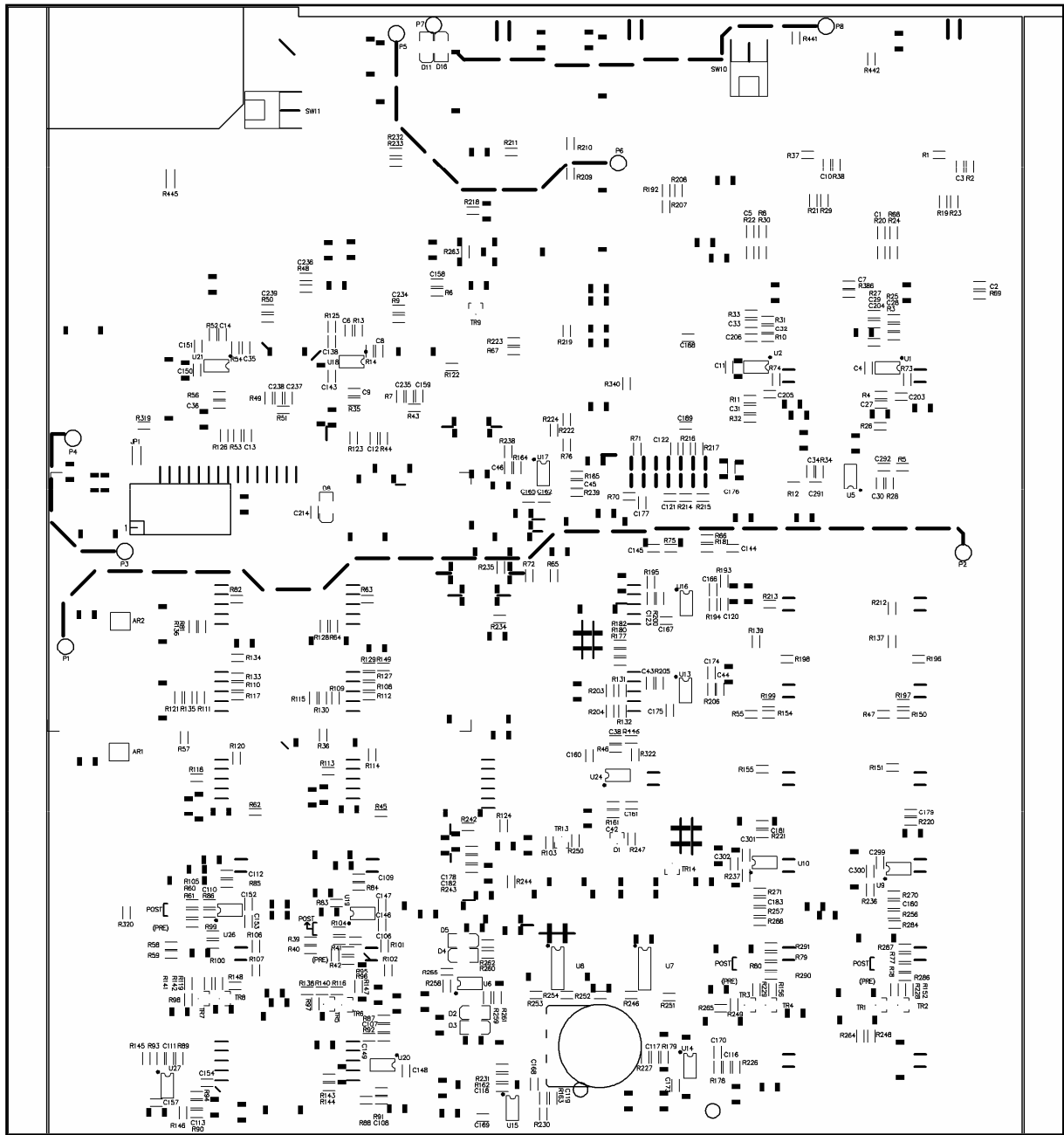
313123/2 I* INTERNAL LAYER GND



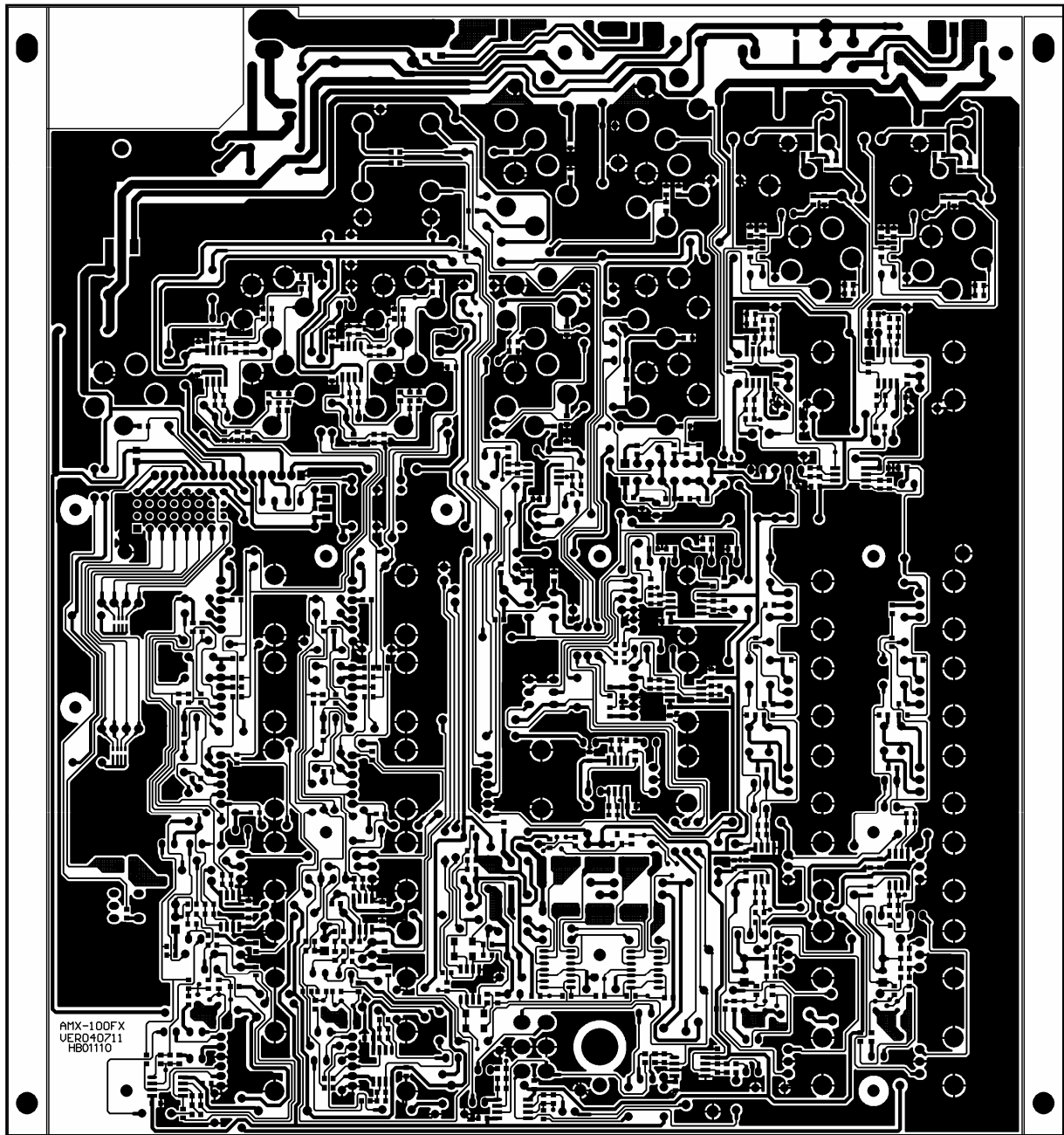
4. Printed Circuit Board



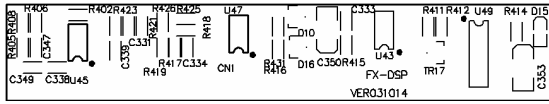
PCB : AMX-100FX Top Overlay



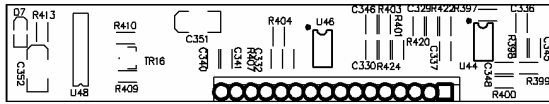
PCB : AMX-100FX Bottom Overlay



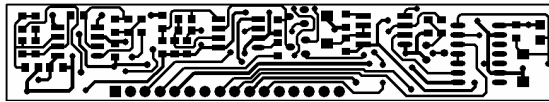
PCB : AMX-100FX Bottom Layer



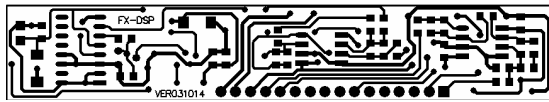
PCB : FX-DSP Top Overlay



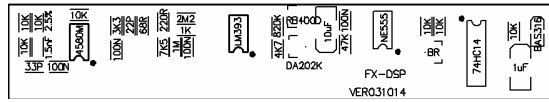
PCB : FX-DSP Bottom Overlay



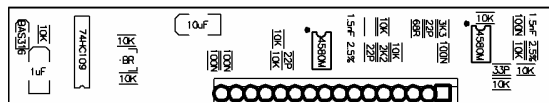
PCB : FX-DSP Top Layer



PCB : AMX-100FX Bottom Layer

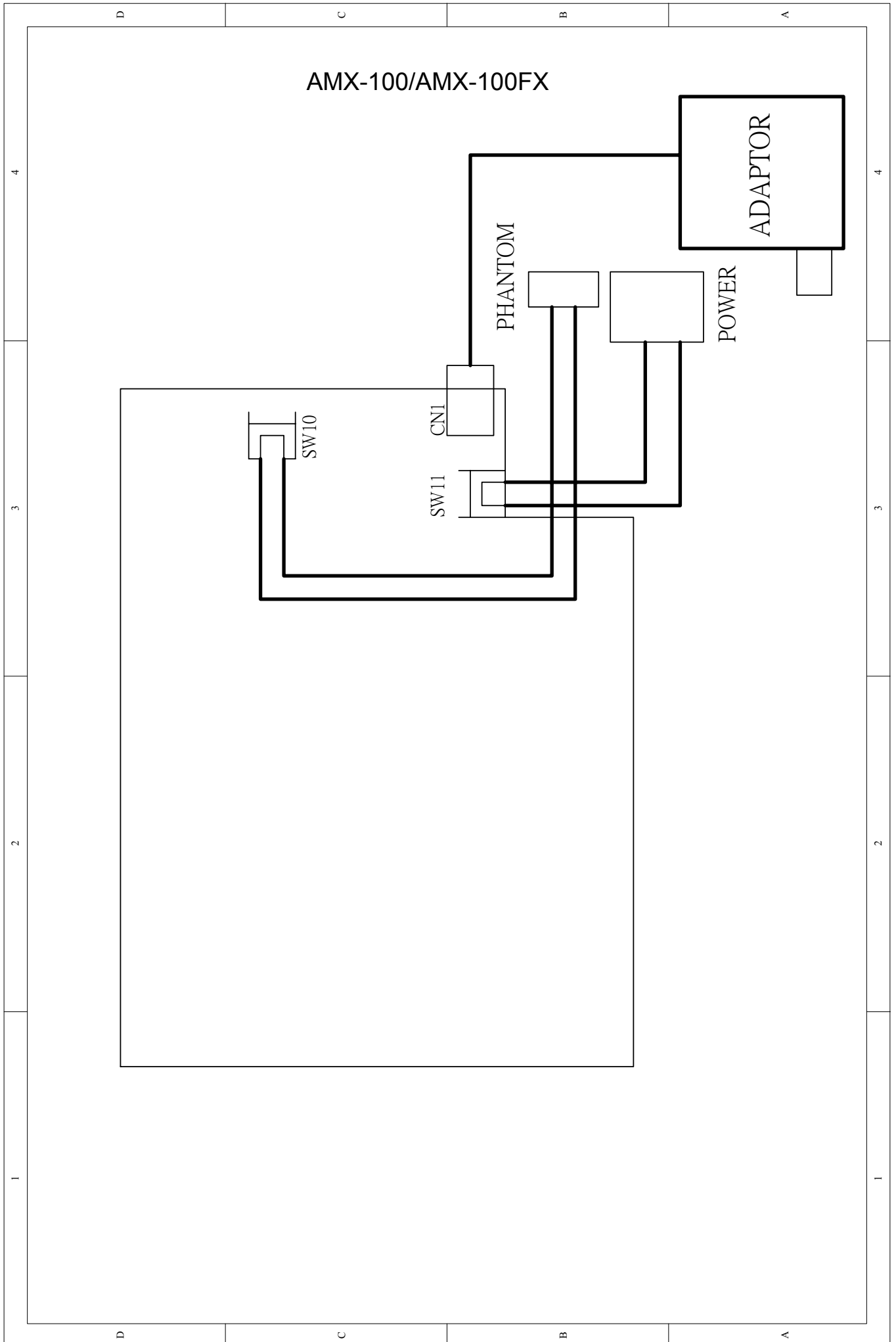


PCB : FX-DSP Top Overlay



PCB : FX-DSP Bottom Overlay

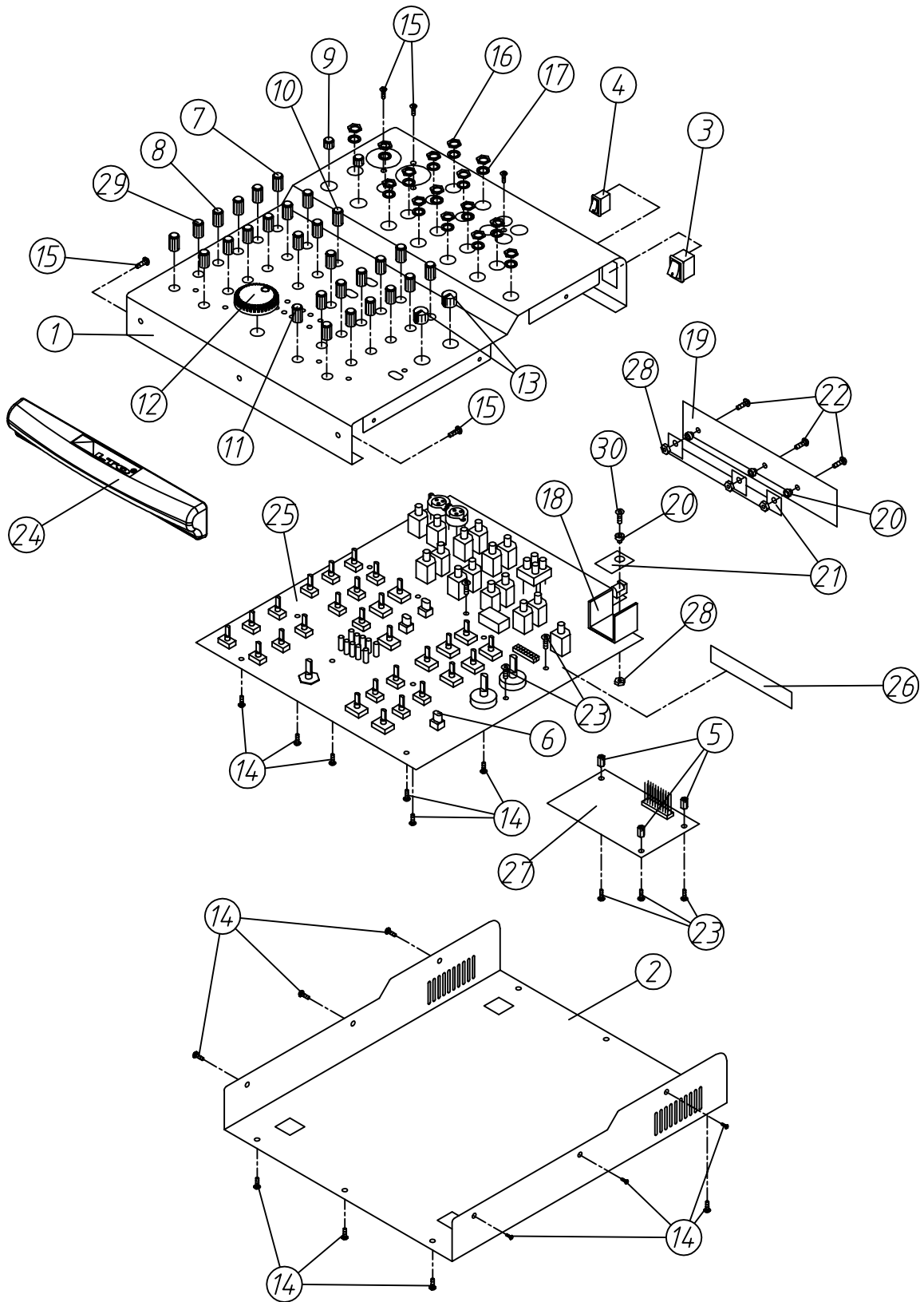
5. Wiring Diagram



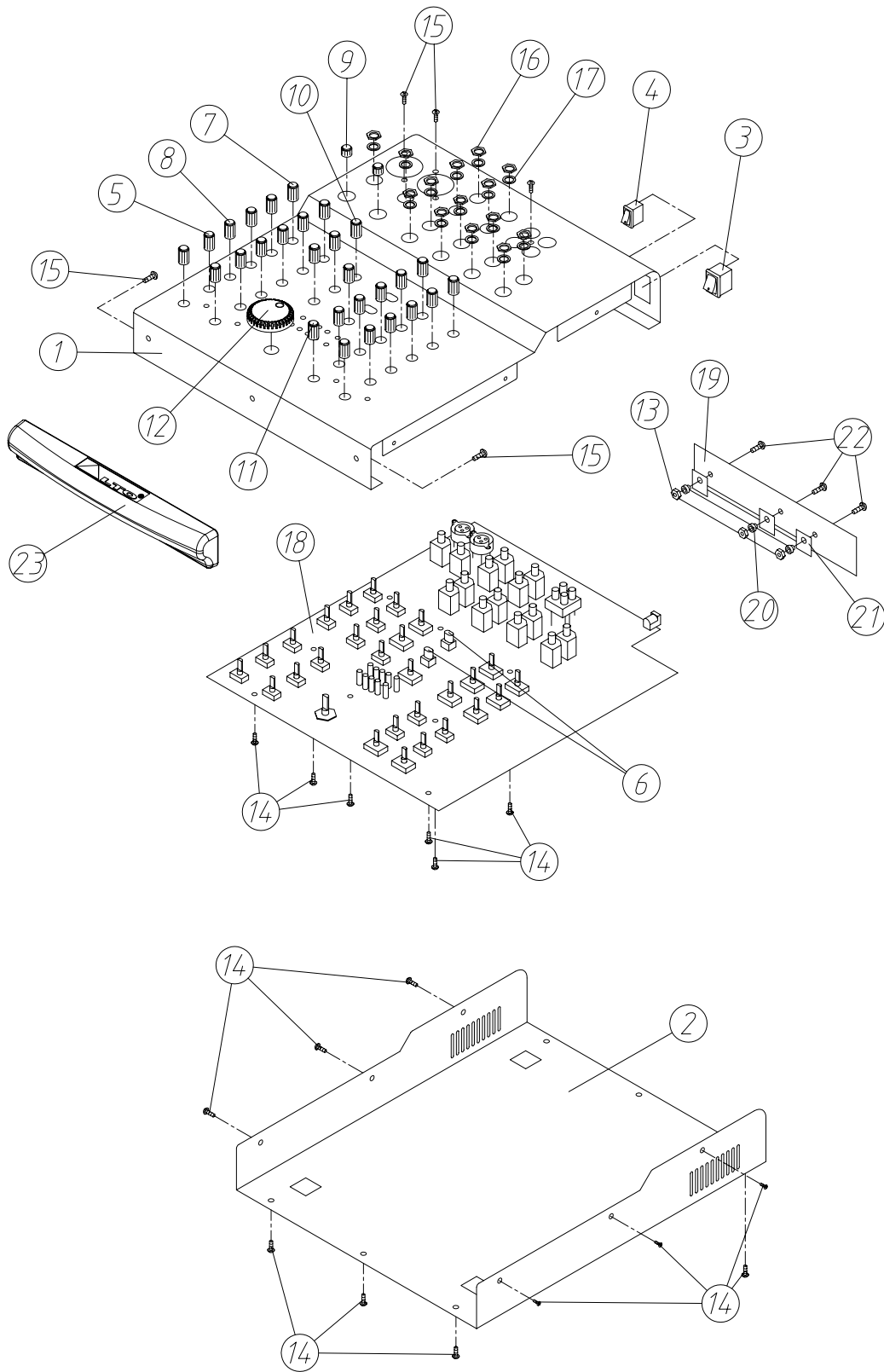
7.Electrical Parts List

8.Exploded Views & Mechanical Parts List

SEKAKU



Machine type:AMX-100FX
Serial number:AMX100FX-00
Date:2004/01/01



Machine type:AMX-100
Serial number:AMX100-00
Date:2004/01/02

Mechanical Parts List				
Model No.		ALTO AMX-100FX		
NO	Item No	Item Description		pcs
1	MA04527	panel	AMX-100FX ALTO	1
2	MB03080	rear board	AMX-120	1
3	HI00026	power switch	RA12KKATOF 2P	1
4	HI00171	power switch	R612KKATOF1	1
5	MG00238	copper pillar	M3*6*0.5PH	3
6	NI01863	key	φ5.5*W10*7.5	3
7	NI02083	knob	φ10.5*18mm	12
8	NI02633	knob	φ10.5*18	6
9	NI02714	knob	φ10*13.5mm	2
10	NI02817	knob	φ10.5*18mm	2
11	NI00826	knob	φ12*18mm double color	4
12	NI02837	knob	φ35*11mm 534C	1
13	NI02386	konb	φ14*13mm	2
14	MG00041	screw	M3*6	20
15	MG00061	screw	M3*10	8
16	ME00060	nut	JY-6351G-02-250	15
17	MF00061	washer	JY-6351G-02-250	15
18	MI01953	heat sink	AMX-100FX 1.5t*24*21*20.5mm	1
19	MI01906	heat sink	AMX-120 V1.1	1
20	NI02249	insulate bean	TW-1(TO-220)	4
21	NC00005	silicone insulator	TO-220 square type	4
22	MG00162	screw	M3*8	3
23	MG00036	screw	M3*4	6
24	NI02834	handle	208*33*26mm AMX-120 black	1
25	HK00838	PC board	P-AMX-100FX-DIP	1
26	HK00832	PC board	P-FX-DSP-DIP	1
27	HK01409	PC board	P-313123-DIP(AMX-140FX)	1
28	ME00015	nut	3m/m	4
29	NI02082	knob	φ10.5*18mm	4
30	MG00166	screw	M3*10	1
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Mechanical Parts List				
Model No.		ALTO AMX-100		
NO	Item No	Item Description		pcs
1	MA04530	panel	AMX-100 ALTO	1
2	MB03080	rear board	AMX-120	1
3	HI00026	power switch	RA12KKATOF 2P	1
4	HI00171	power switch	R612KKATOF1	1
5	NI02082	knob	φ10.5*18mm	4
6	NI01863	key	φ5.5*W10*7.5	2
7	NI02083	knob	φ10.5*18mm	12
8	NI02081	knob	φ10.5*18mm	6
9	NI02714	knob	φ10*13.5mm	2
10	NI02817	knob	φ10.5*18mm	2
11	NI00826	knob	φ12*18mm double color	4
12	NI02837	knob	φ35*11mm 534C	1
13	ME00015	nut	3m/m	3
14	MG00041	screw	M3*6	20
15	MG00061	screw	M3*10	8
16	ME00060	nut	JY-6351G-02-250	14
17	MF00061	washer	JY-6351G-02-250	14
18	HK00838	PC board	P-AMX-100FX-DIP	1
19	MI01906	heat sink	AMX-120 V1.1	1
20	NI02249	insulate bean	TW-1(TO-220)	3
21	NC00005	silicone insulator	TO-220 square type	3
22	MG00162	screw	M3*8	3
23	NI02834	handle	208*33*26mm AMX-120 black	1
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