

Service Manual

Model: S-8

8 Channel Mixing Console



www.altoproaudio.com

Version: 1.2

ISSUE:2003.9.21

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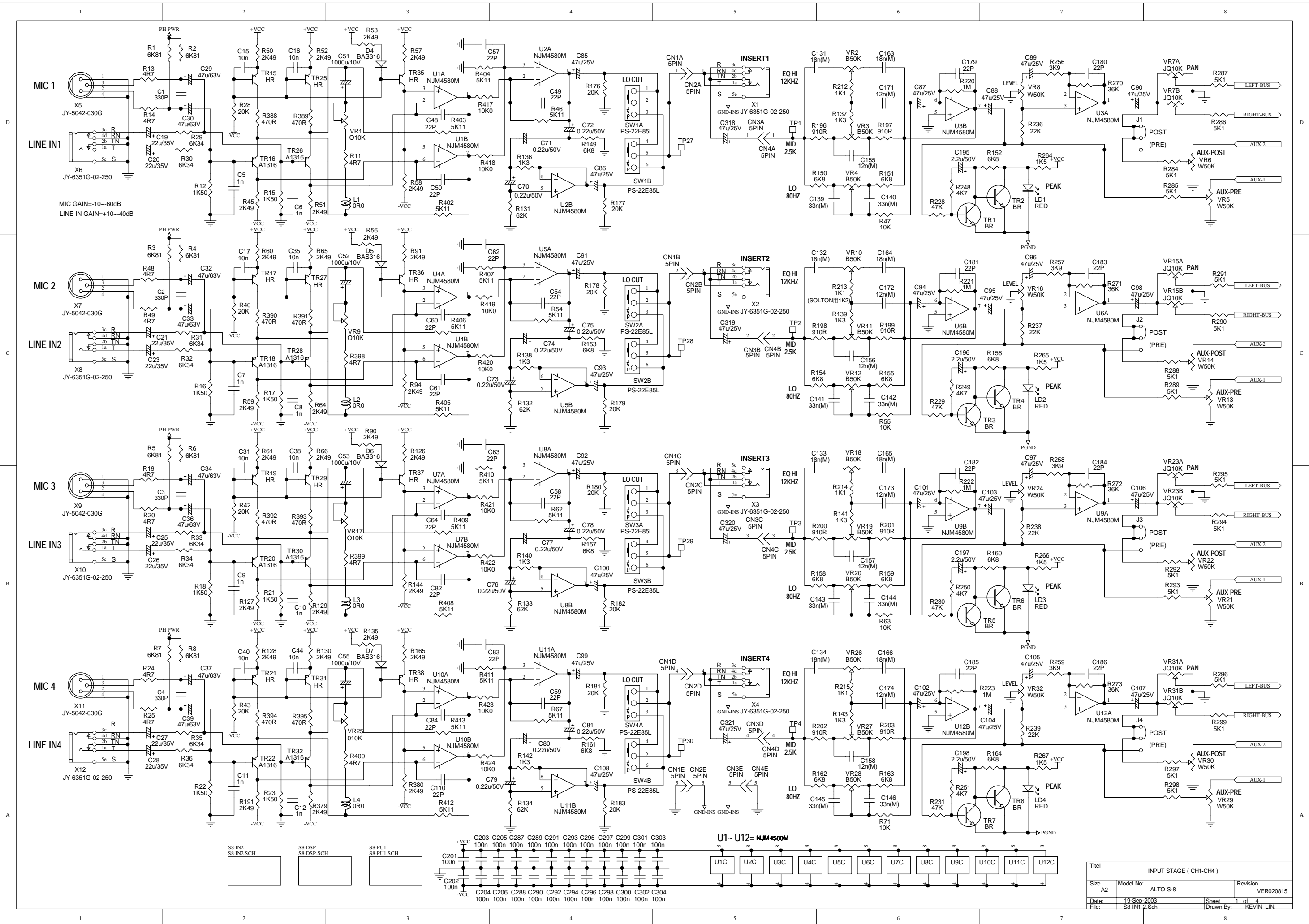
2. 功能特性介紹說明(FEATURE)

The **S-8** is 5 mono MIC/LINE channels with MIC PREAMPS plus 2 stereo channels perfect for keyboards, MIDI equipment or other stereo sound sources and a 2-track input/output for recording and playback in a mixer small enough to carry in your board luggage: meet the ALTO S-8. In spite of its size, you can find great 3-band equalizers in each channel plus switchable low-cut filters in the mono channels, 2 AUX sends, 2 stereo returns, phantom power and accurate peak LED and level meters. Plus of course our ultra low noise circuitry and exceptional build quality.

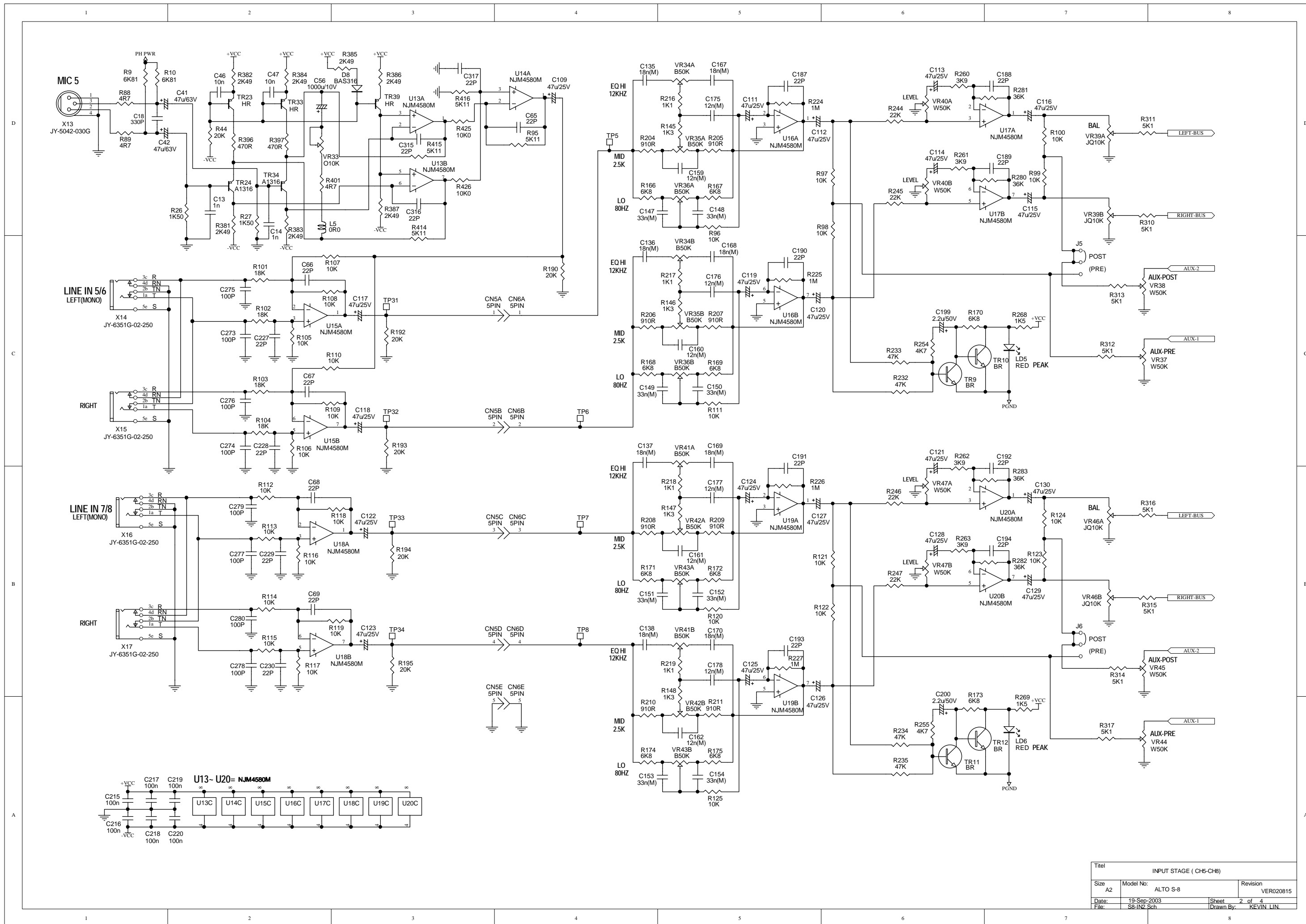
- 5 MIC Input Channels with gold plated XLRs and balanced Line Inputs.
- 2 Stereo Input Channels with balanced TRS Jacks.
- Ultra-low noise discrete Mic Preamps with +48 V Phantom Power.
- 2 additional multifunctional Stereo Line Inputs.
- Extremely high headroom – offering more dynamic range.
- Balanced Inputs for highest signal integrity.
- Warm, natural 3-band EQ on each channels.
- Peak LEDs and switchable low-Cut Filter on each Channels.
- 2 AUX Sends per channel for external effects and monitoring.
- Balanced TRS and XLR outputs, Control Room and Headphone Outputs.
- 2-Track Inputs assignable to Main Mix, Control Room / Headphone Outputs.
- Highly accurate 12 segment Bar graph Meters.
- Inserts on MIC channels.
- performance and excellent noise figures
- Rugged construction ensures long life even under the most demanding conditions
- Manufactured under ISO9001 certified management system

Features:

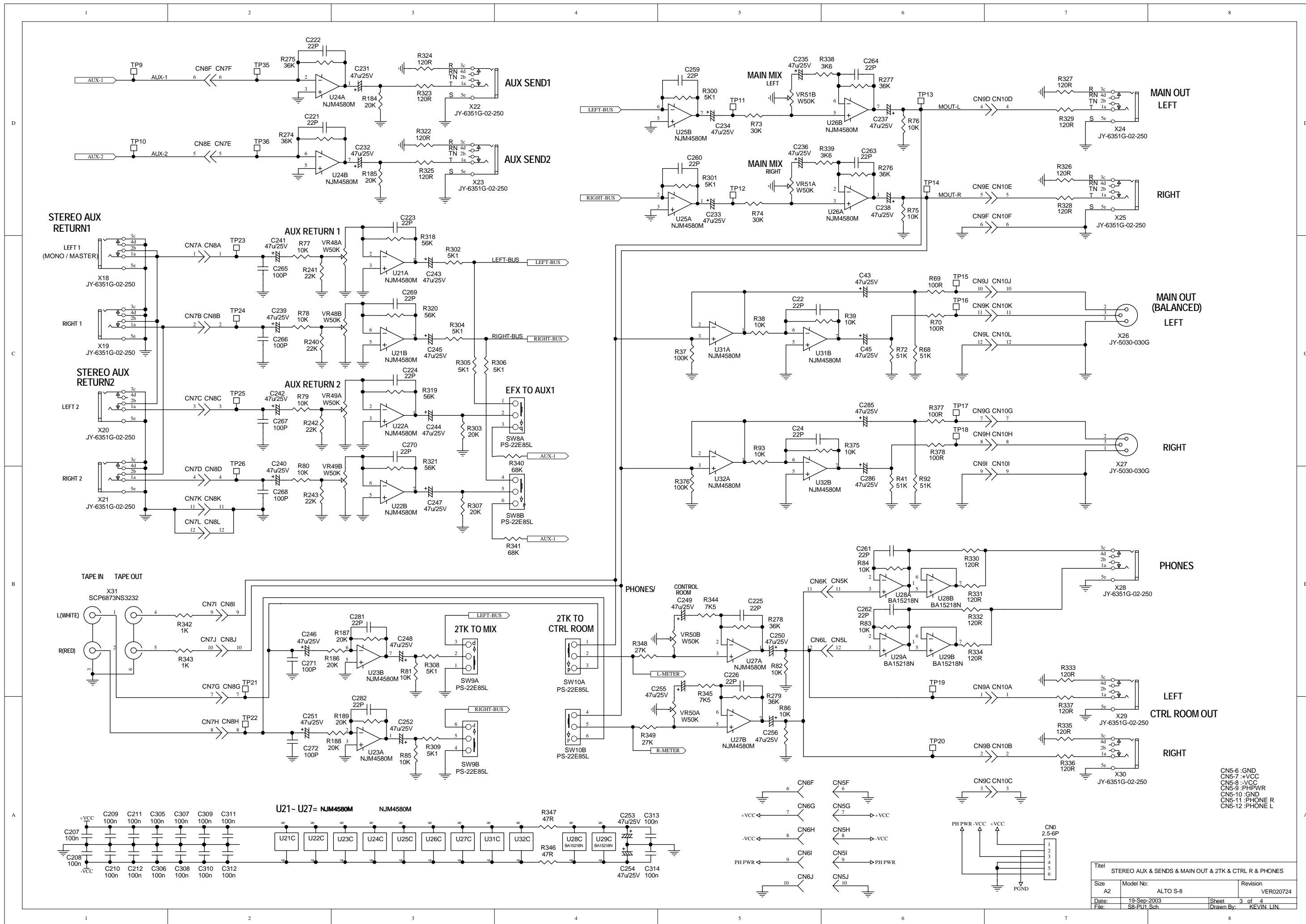
Function	description	notes
Channel inputs	8	
Mono channels	4(5)	
Stereo channels	2	
MIC PREAMPS	4	
EQ (mono channels)	3-band plus low-cut	
EQ (stereo channels)	3-band	
Aux sends	2	
Stereo aux returns	2	
2-track input/output	1	
Phantom power	+48 V	



Title			
INPUT STAGE (CH1-CH4)			
Size	A2	Model No:	ALTO S-8
Date:	19-Sep-2003	Sheet	1 of 4
File:	S8-IN1-2.Sch	Drawn By:	KEVIN LIN
Revision	VER020815		

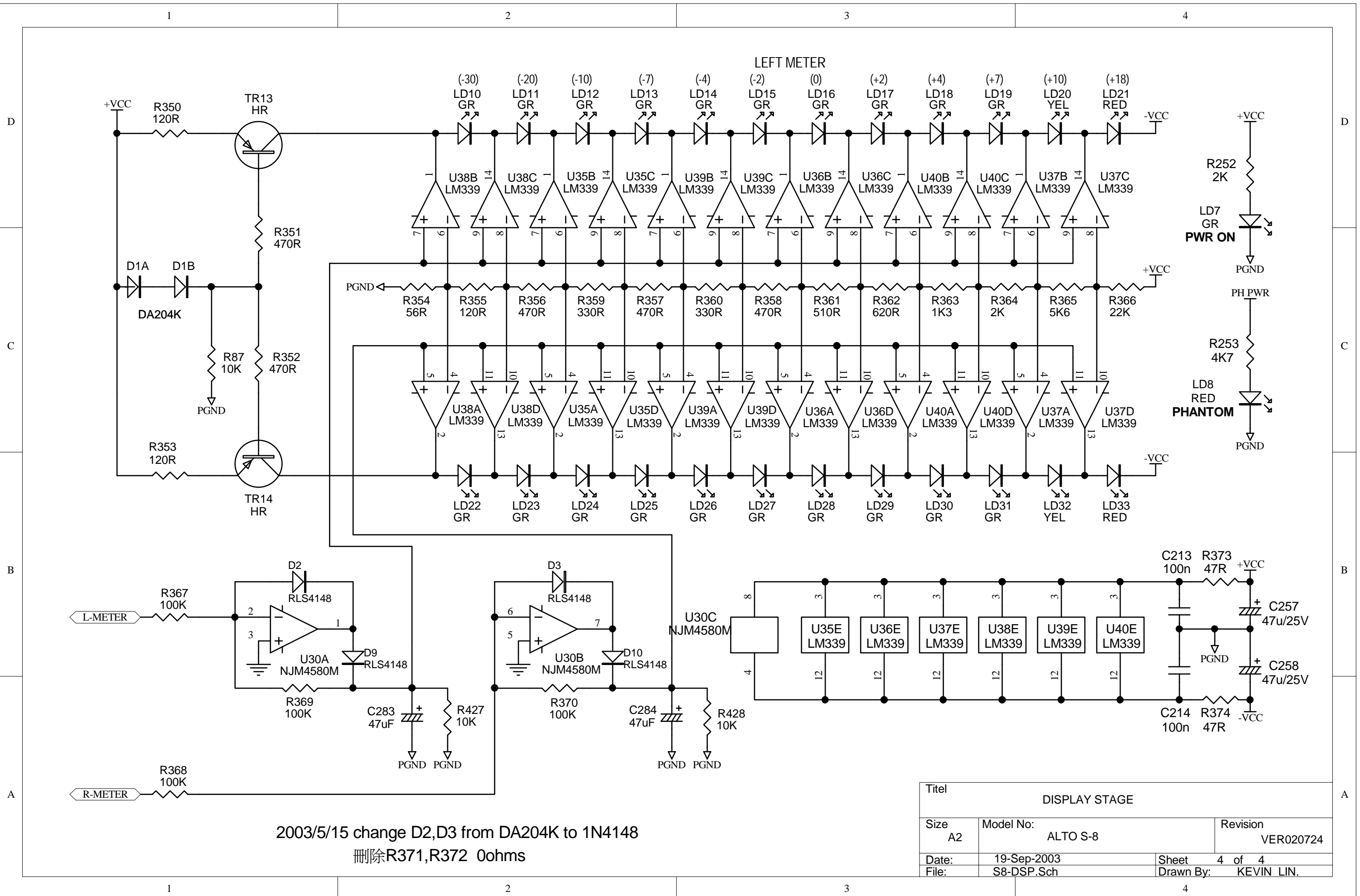


Title			
INPUT STAGE (CH5-CH8)			
Size	A2	Model No:	ALTO S-8
Revision	VER020815		
Date:	19-Sep-2003	Sheet	2 of 4
File:	S8-IN2_Sch	Drawn By:	KEVIN LIN



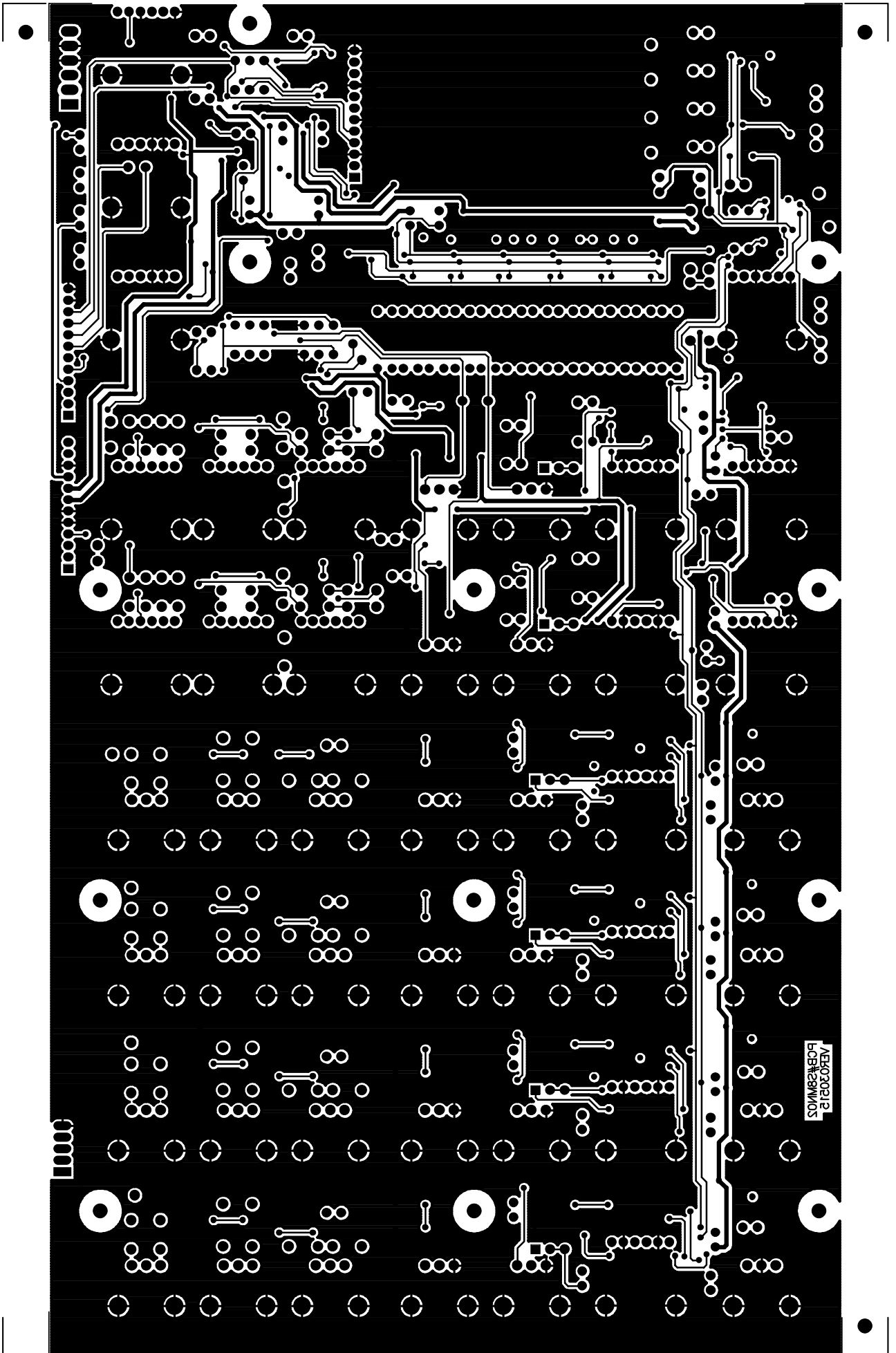
CN5-6 :GND
 CN5-7 :+VCC
 CN5-8 :VCC
 CN5-9 :PH PWR
 CN5-10 :GND
 CN5-11 :PHONE R
 CN5-12 :PHONE L

Title: STEREO AUX & SENDS & MAIN OUT & 2TK & CTRL R & PHONES			
Size: A2	Model No: ALTO S-8	Revision: VER020724	
Date: 19-Sep-2003	Sheet: 3 of 4		
File: S8-PL1.Sch	Drawn By: KEVIN LIN		



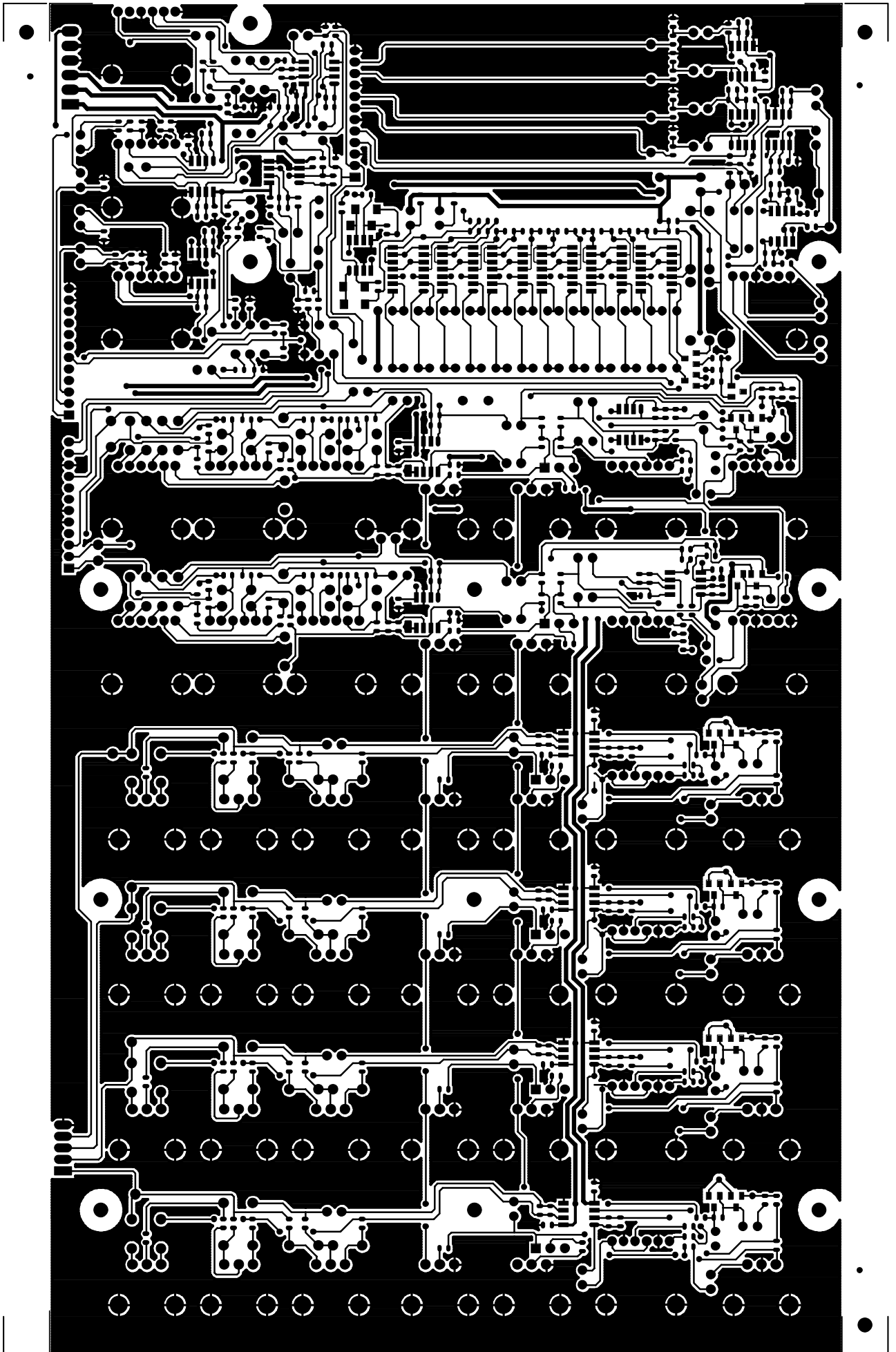
2003/5/15 change D2,D3 from DA204K to 1N4148
 删除R371,R372 0ohms

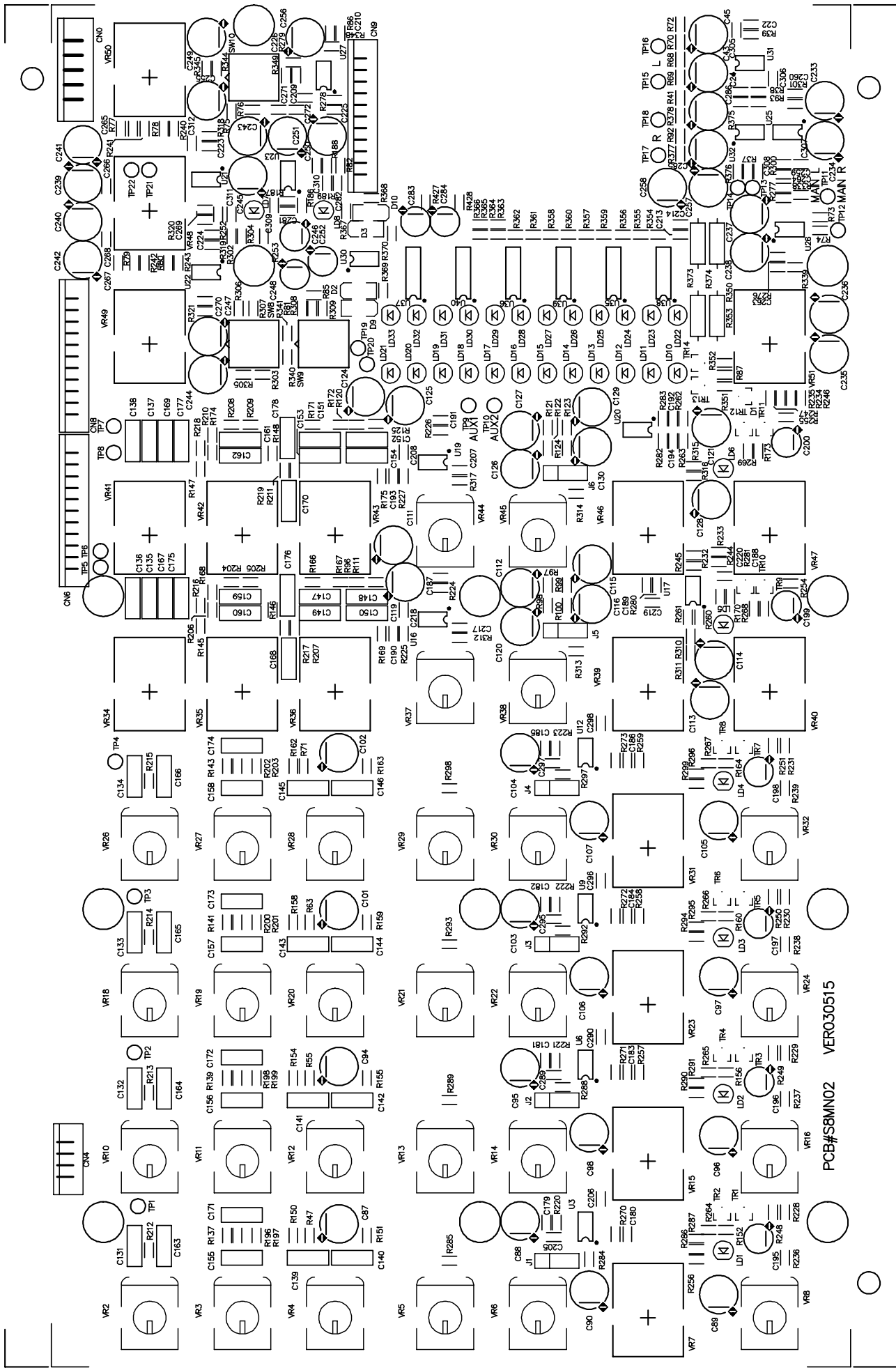
Titel			DISPLAY STAGE		
Size	Model No:	Revision		VER020724	
A2	ALTO S-8				
Date:	19-Sep-2003	Sheet	4 of 4		
File:	S8-DSP.Sch	Drawn By:	KEVIN LIN.		



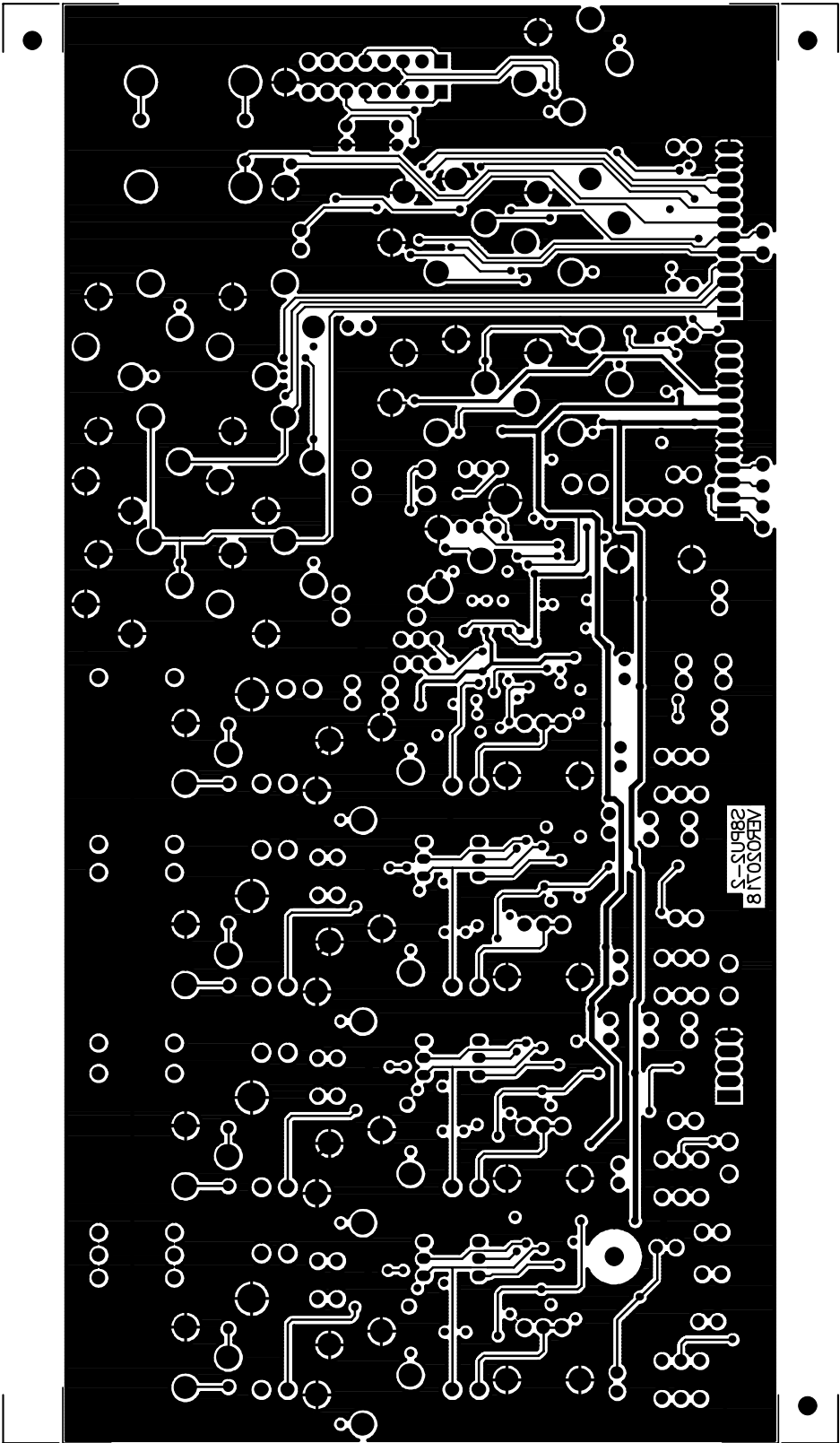
A84030212
F0B1428W105

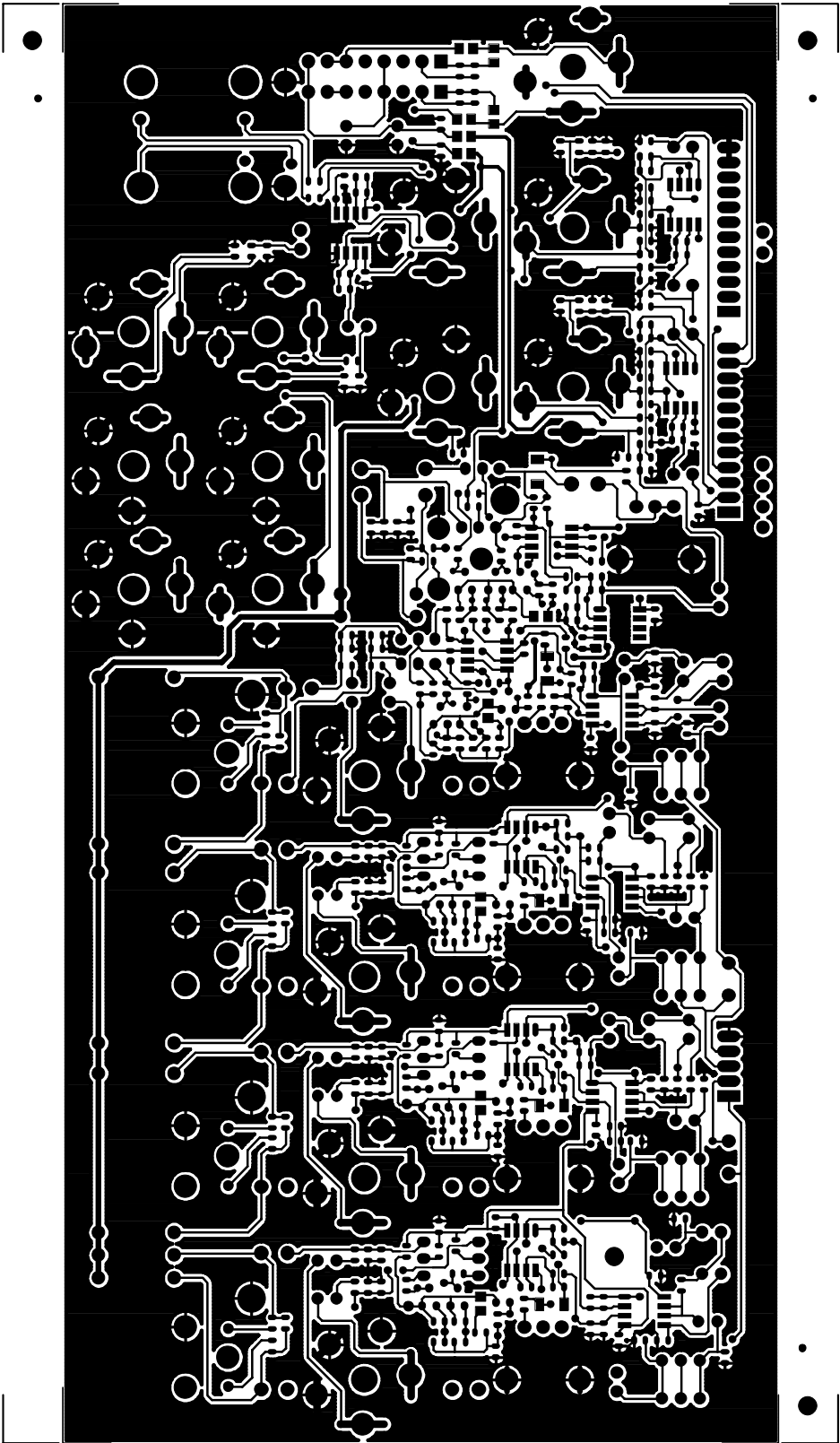
00001

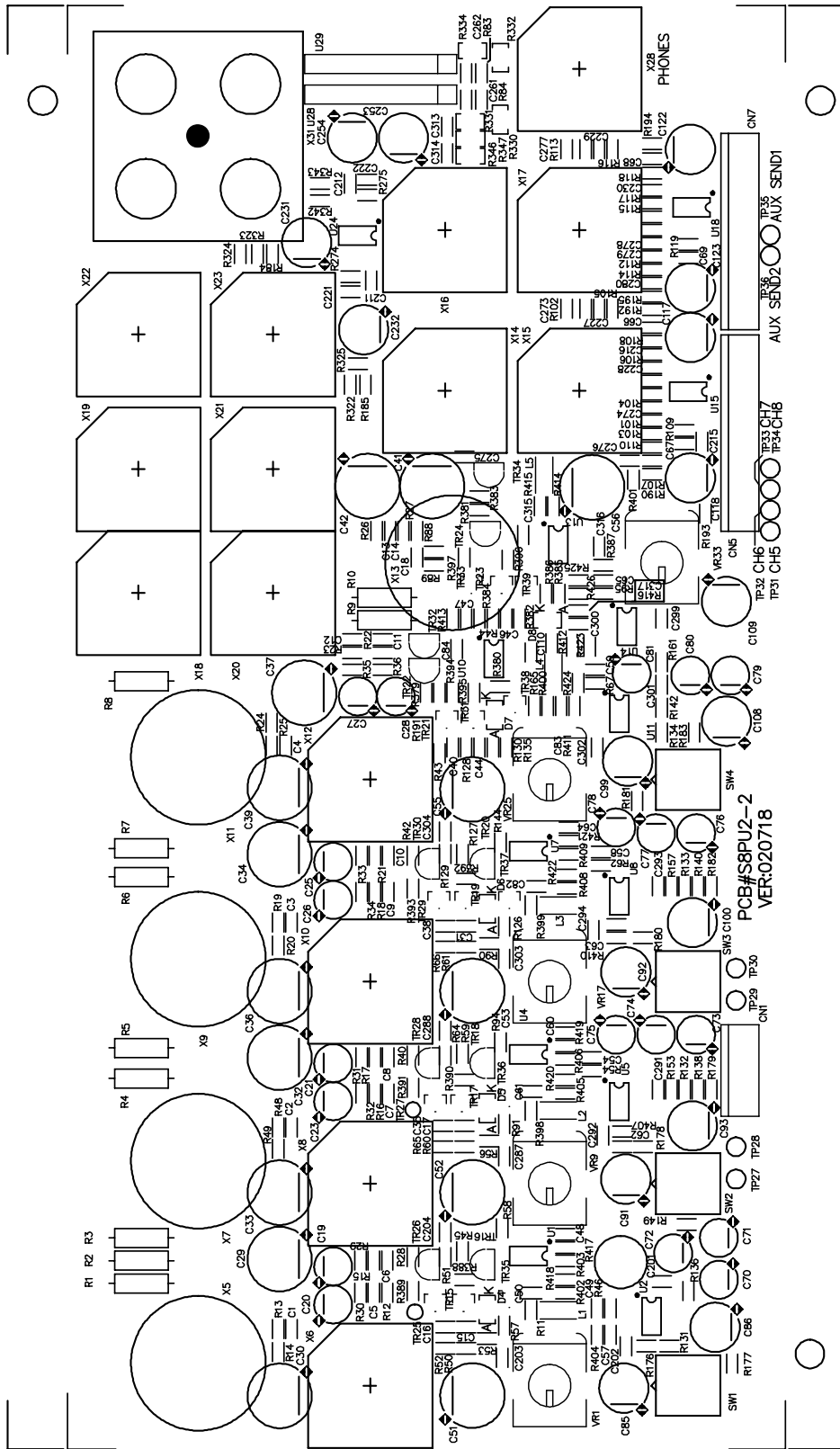


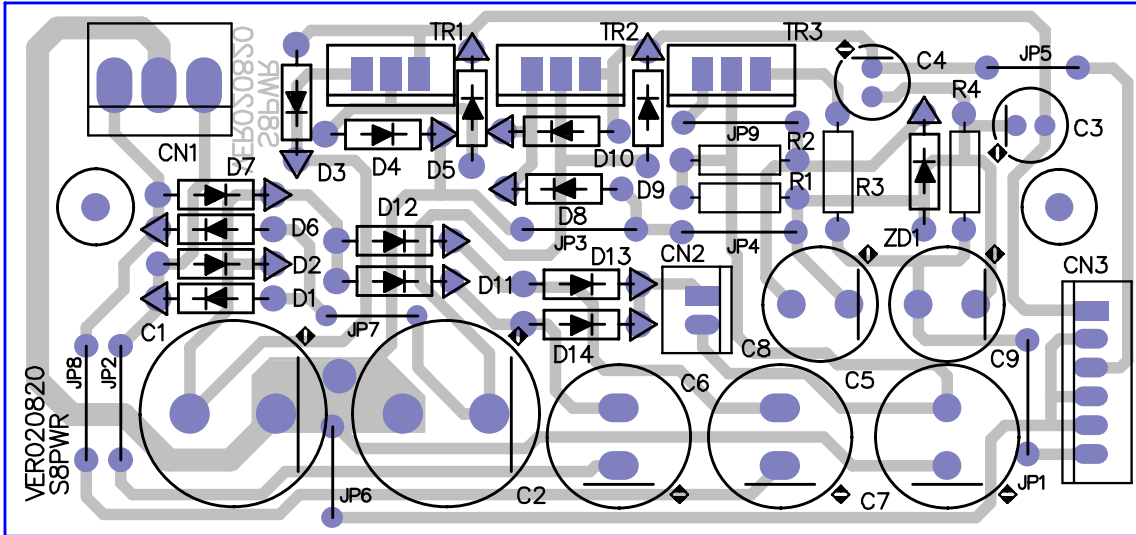


PCB#SBMN02 VER030515

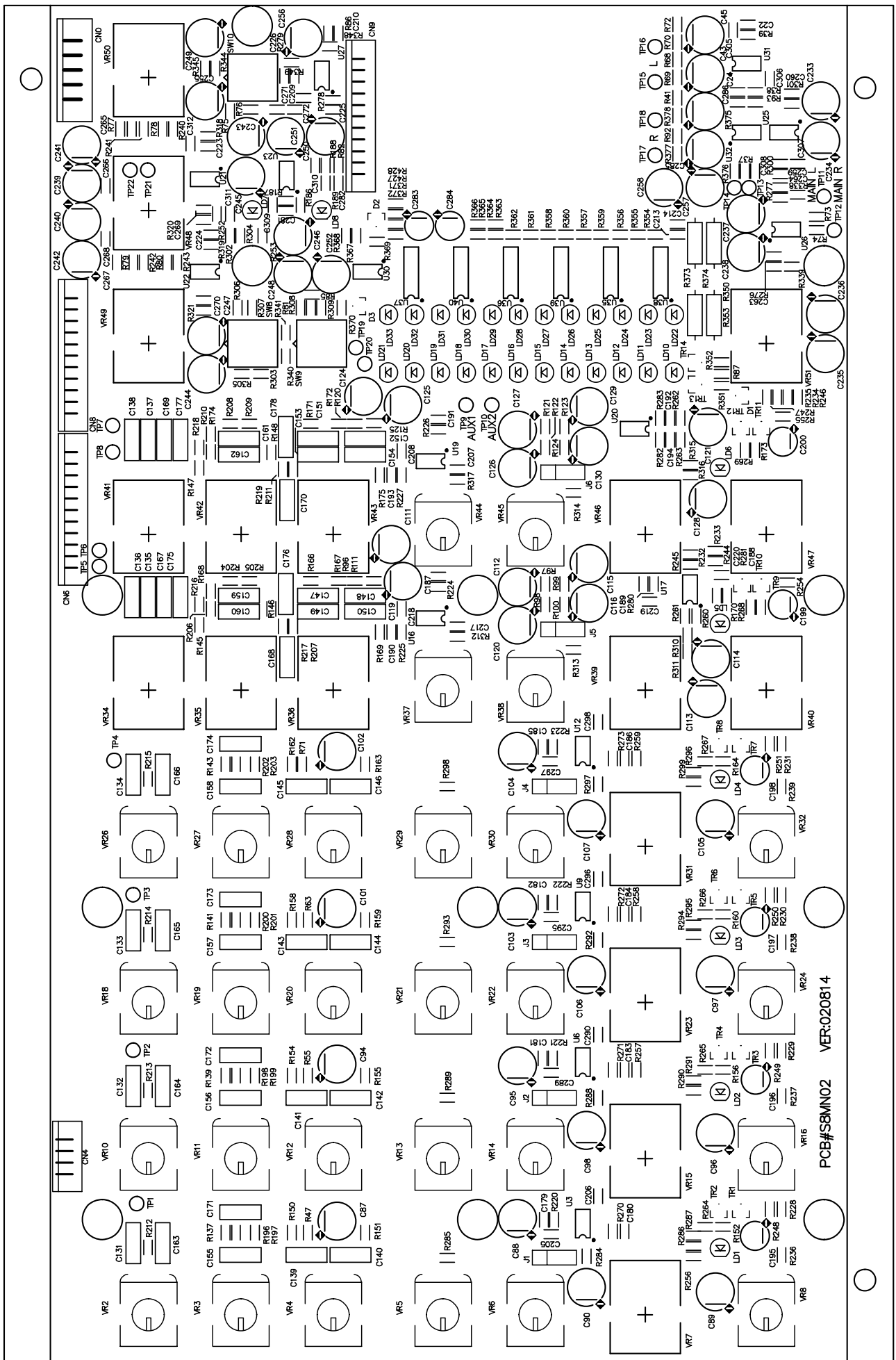




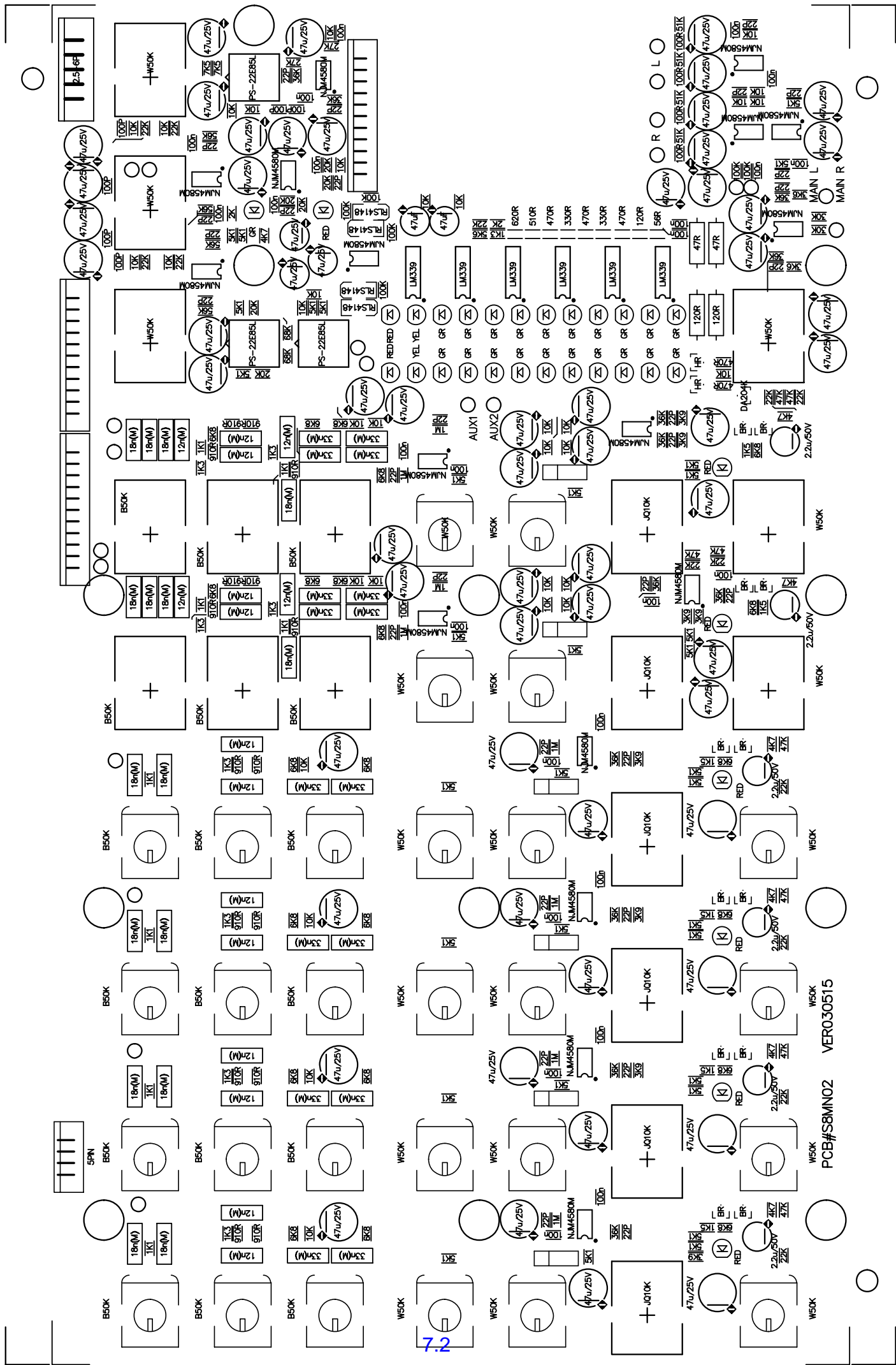




7. PCB零件阻值圖

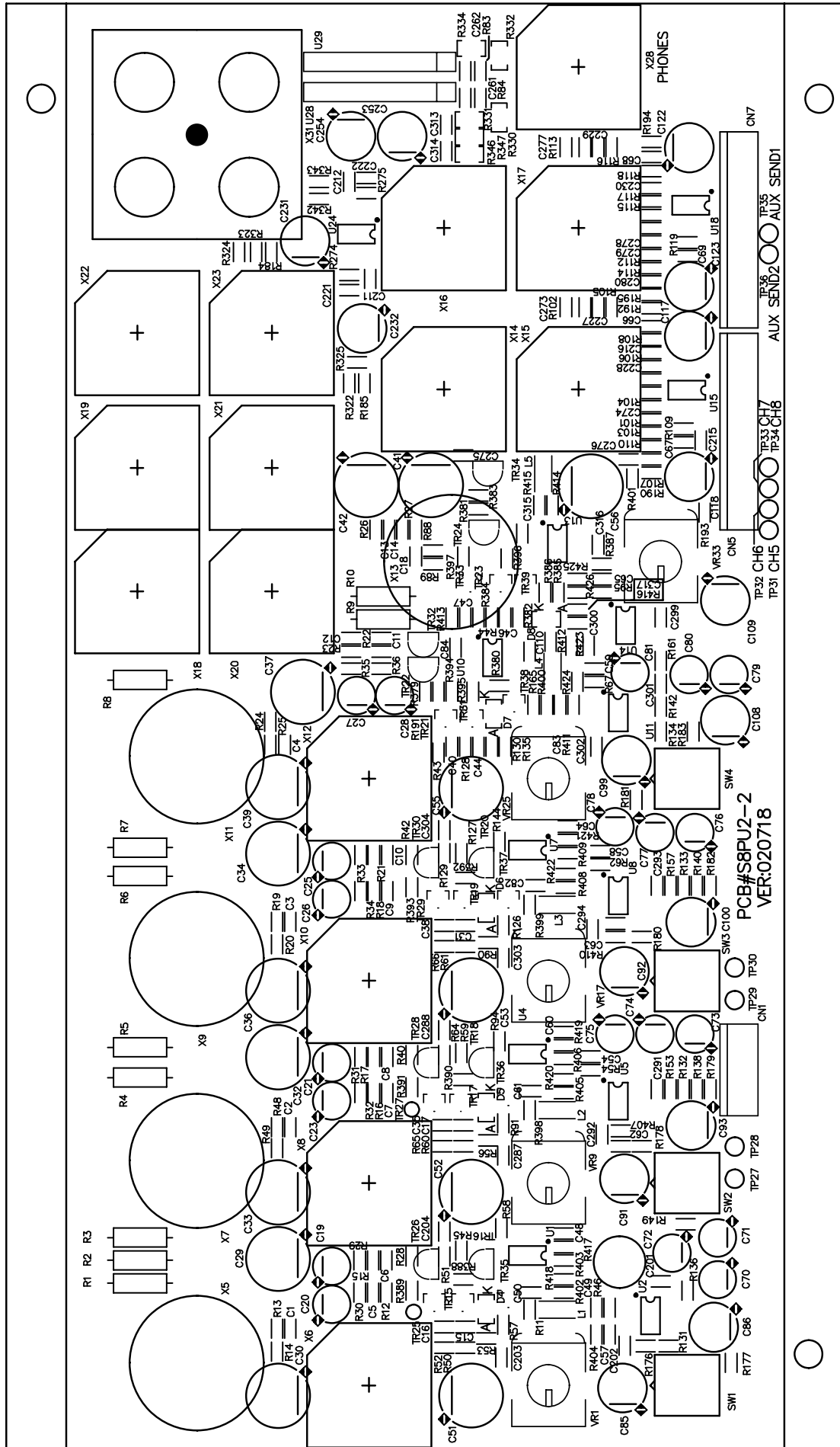


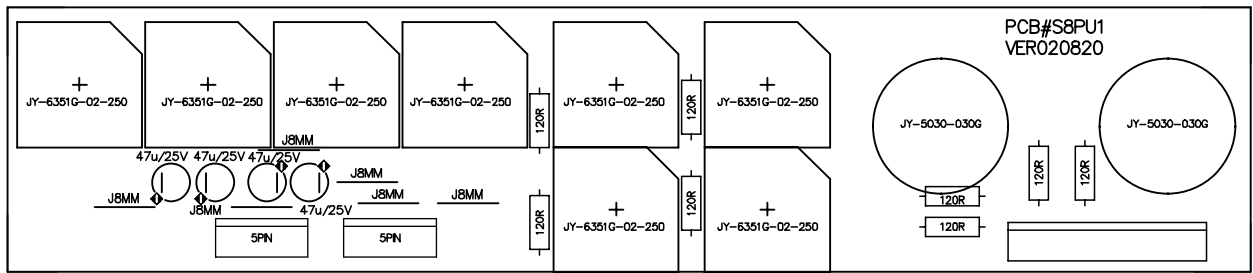
PCB#SSMN02 VER:020814



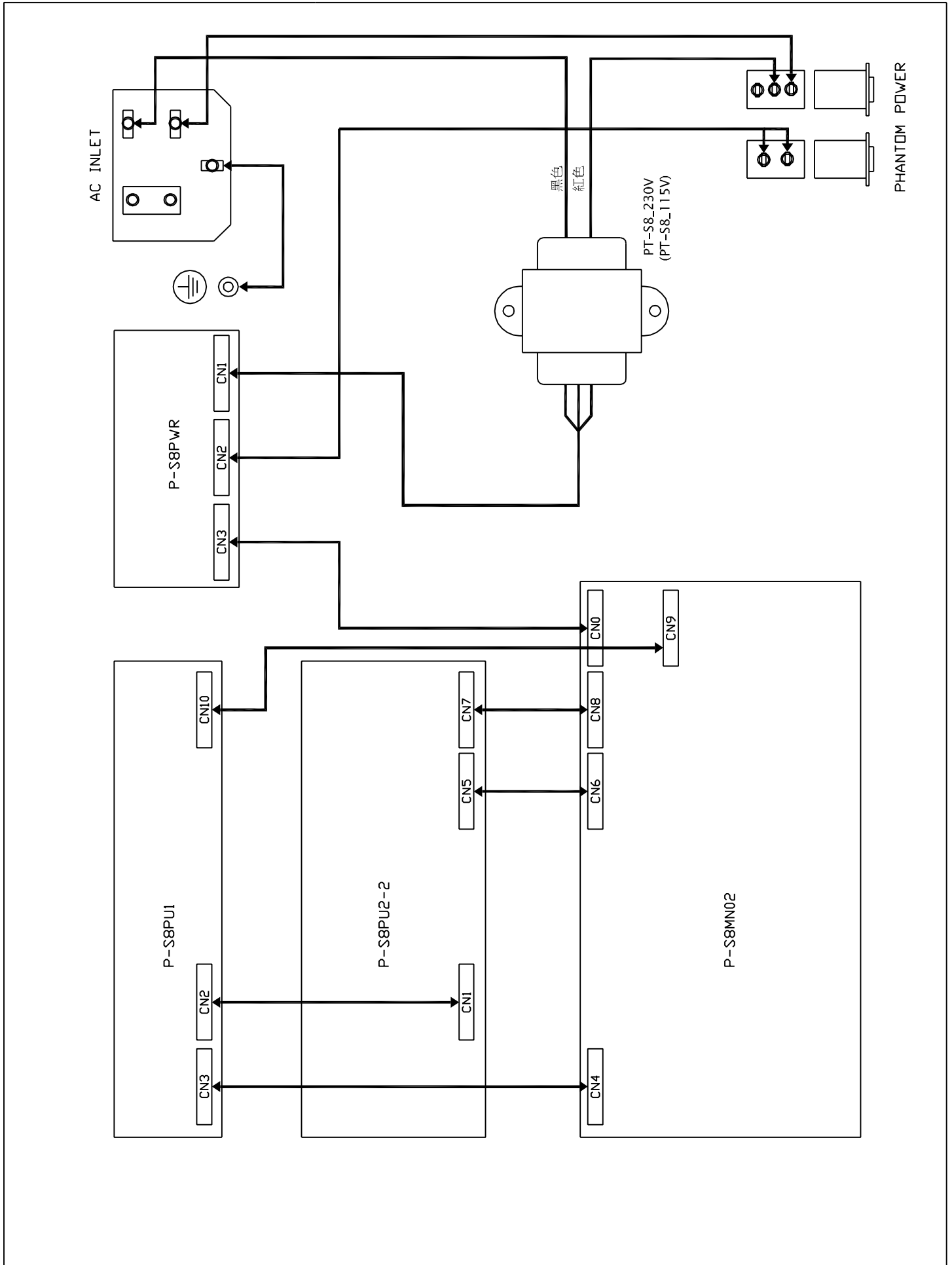
7.2

PCB#S8MN02 VERO30515





5. S-8 WIRE CONFIGURATION (全機配線圖)



7. Electrical Parts List

SEKAKU ELECTRON INDUSTRY CO.,LTD

Multi-Level BOM Structure Listing

Report No.: IEB0_P02
Prepared by JG010012[張淑菁]

Date 2003/08/08
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Item No. PF01207 Version
DESCRIPTION: S-8
S-8 ALTO_230V 歐規_CHINA

UNIT: PCS
Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0001-----	HI00026 power switch RA12KKATOF 2P			PCS	1.0000 1	2002/11/08 N
0002-----	HI00171 switch R612KKATOF1			PCS	1.0000 1	2002/11/08 N
0003-----	HC00008 AC outlet 3515 A TYPE(RF-2004-C-4.8)			PCS	1.0000 1	2002/11/08 N
0004-----	HD00054 fuse 250mA 250V 5.2*20mm CSA/S/UL/VDE			PCS	1.0000 1	2002/11/08 N
0005-----	MG00304 copper pole M3*14*0.5PH			PCS	12.0000 1	2002/11/08 N
0006-----	MG00305 copper pole M3*24*0.5PH			PCS	1.0000 1	2002/11/08 N
0007-----	NI01862 key 5.5*5.5*14.5			PCS	4.0000 1	2002/12/02 N
0008-----	NI01863 key 5.5*W10*7.5			PCS	7.0000 1	2002/12/02 N
0009-----	NI02083 knob 10.5*18			PCS	21.0000 1	2002/11/08 N
0010-----	NI02081 knob 10.5*18			PCS	12.0000 1	2002/11/08 N
0011-----	NI02082 knob 10.5*18			PCS	6.0000 1	2002/11/08 N
0012-----	NI02084 knob 10.5*18			PCS	5.0000 1	2002/11/08 N
0013-----	NI00826 knob 12*18 雙色(外冷灰8C內282C)			PCS	7.0000 1	2002/11/08 N
0014-----	MG00041 screw M3*6			PCS	30.0000 1	2002/11/08 N
0015-----	MG00042 screw M3*10			PCS	2.0000 1	2002/11/08 N
0016-----	MG00061 screw M3*10			PCS	15.0000 1	2002/11/08 N
0017-----	ME00015 colour nut 3m/m			PCS	3.0000 1	2002/11/08 N
0018-----	MF00037 washer 3* 5*1t			PCS	8.0000 1	2002/11/08 N
0019-----	MF00030 washer 3* 8*0.8t			PCS	2.0000 1	2002/11/08 N
0020-----	MF00048 washer 4* 8*0.5t			PCS	1.0000 1	2003/06/24 N
0021-----	ME00060 socket nut JY-6351G-02-250			PCS	23.0000 1	2002/11/08 N
0022-----	MF00061 washer JY-6351G-02-250			PCS	23.0000 1	2002/11/08 N

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 DESCRIPTION: S-8
 S-8 ALTO_230V_歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0023-----	HA01174 single terminal wiring CF:W146 80 green/yellow			PCS	1.0000 1	2002/11/08 N
0024-----	HA01835 P.V.C single wave wired UL1617 80 brown			PCS	1.0000 1	2002/11/08 N
0025-----	HA01392 row-wire connector wiring 2P 150			PCS	1.0000 1	2002/11/08 N
0026-----	HA01590 row-wire connecting wiring 6P-6P 190			PCS	1.0000 1	2002/11/08 N
0027-----	HA00861 power cord Europe 3P LT-312+LT-501			PCS	1.0000 1	2002/11/08 N
0028-----	NI00218 cable tie-black ALT-102SB			PCS	2.0000 1	2002/11/08 N
0029-----	NI00252 sleeve 4*20mm			PCS	7.0000 1	2002/11/08 N
0001-----	NI00248 sleeve 4*1000mm			M	20.0000 1000	2002/06/04 N
0030-----	NI00501 foot cushion 12.7*9*3t(SF-004)			PCS	4.0000 1	2002/11/08 N
0031-----	NA00123 PE bag 0.04t*580*300mm			PCS KG	1.0000 1	2002/11/08 N
0032-----	HJ00006 desiccant 30g			PCS	1.0000 1	2002/11/08 N
0033-----	NF00976 instruction S8 ALTO			PCS	1.0000 1	2002/11/08 N
0001-----	NH00149 paper 889*640mm			張 令	1.5000 1	2002/08/01 Y
0034-----	NB01568 barrier S8			PCS	1.0000 1	2002/11/08 N
0035-----	NB01625 barrier S8			PCS	1.0000 1	2002/11/08 N
0036-----	NB01654 barrier S8 ALTO			PCS	1.0000 1	2002/11/08 N
0037-----	NI01272 handle for wireless colorful box			PCS	1.0000 1	2002/11/08 N
0038-----	NB01656 box S8			PCS	1.0000 4	2002/11/08 N
0039-----	TC00116 wire PT-S8_230V			PCS	1.0000 1	2002/11/08 N
0040-----	MI01445 ZD-隔離罩-S8-04 S-8 PT-S8用			PCS	1.0000 1	2002/11/08 N
0001-----	MJ00090 iron board 0.3*200*3000 1.431kg			PCS KG	1.0000 40	2003/02/25 N
0041-----	MJ01027 heat-sink S-8			PCS	1.0000 1	2002/11/08 N
					0.00	%

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UNIT: PCS
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
0001-----	MJ01030 heat-sink S-8			PCS	1.0000 1 0.00 %	2002/12/23 N
0001-----	MJ00070 AL board 4*2440*1220 32.40kg			PCS KG	1.0000 1400 0.00 %	2002/07/02 N
0042-----	NI02249 caushion TW-1(TO-220)			PCS	3.0000 1 0.00 %	2002/11/08 N
0043-----	NC00022 insulation 0.3t*18*45mm S-8			PCS	1.0000 1 0.00 %	2002/11/13 N
0044-----	MG00162 screw M3*8			PCS	3.0000 1 0.00 %	2002/11/08 N
0045-----	NF00061 assurance card LTO			PCS	1.0000 1 0.00 %	2002/11/08 N
0046-----	NE06907 label S-8			PCS	4.0000 1 0.00 %	2002/11/08 N
0001-----	NH00012 bond paper 0.04*1M			M	1.0000 80 0.00 %	2003/02/10 N
0002-----	NI00014 membrane 0.035*1M			M	1.0000 80 0.00 %	2003/02/10 N
0047-----	NE05004 label ALTO			PCS	4.0000 1 0.00 %	2002/11/08 N
0048-----	NE02717 label MADE IN CHINA			PCS	2.0000 1 0.00 %	2002/11/08 N
0001-----	NI00067 R-25#透明龍 cellophane paper			M	1.0000 700 0.00 %	2003/01/30 N
0002-----	NI00027 membrane 0.105*1M			M	1.0000 700 0.00 %	2003/01/30 N
0049-----	MA03464 panel S-8 ALTO-EUROPE			PCS	1.0000 1 0.00 %	2002/11/08 N
0001-----	MA03462 panel S-8			PCS	1.0000 1 0.00 %	2002/06/18 N
0001-----	MA03461 panel S-8			PCS	1.0000 1 0.00 %	2002/06/18 N
0001-----	MJ00061 Zn-plated board 1*2135*1220 20.45kg			PCS KG	1.0000 15 0.00 %	2002/06/18 N
0002-----	ME00097 screw M3*10*0.5PH			PCS	1.0000 1 0.00 %	2003/06/24 N
0050-----	MB02345 bottom board S-8			PCS	1.0000 1 0.00 %	2002/11/08 N
0001-----	MB02342 bottom board S-8			PCS	1.0000 1 0.00 %	2003/01/12 N
0001-----	MJ00058 iron board 1*2135*1220 20.45kg			PCS KG	1.0000 20 0.00 %	2002/06/18 N
0002-----	ME00032 iron pillar hexagon6.35*M3*5.2			PCS	2.0000 1 0.00 %	2002/10/30 N

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Version	Item No Item Descri	Loss %	Ver.	Unit	Cardinal Usage Rate Attrition Rate	Effective Date @:Phantom Layer Rate
0003-----	ME00004 screw M3*10*0.5PH			PCS	2.0000 1 0.00 %	2002/10/30 N
0051-----	HK00925 K-PC板			PCS	1.0000 1 0.00 %	2002/11/08 N
0001-----	P-S8MN02-DIP RA00174 fixed resistor 1/4W 47 M type R373,R374			PCS	2.0000 1 0.00 %	2002/07/31 N
0002-----	RA00185 fixed resistor 1/4W 120 M type R350,R353			PCS	2.0000 1 0.00 %	2002/07/31 N
0003-----	CF00054 metal-film capacitor(MSC) 0.012uF/63V ±5% CASE01 4mm R155,R156,R157,R158,R159,R160,R161,R162,R171,R172, R173,R174,R175,R176,R177,R178			PCS	16.0000 1 0.00 %	2002/07/31 N
0004-----	CF00021 metal-film capacitor 0.018uF/63V 5% CASE01 4mm C131,C132,C133,C134,C135,C136,C137,C138,C163,C164, C165,C166,C168,C169,C17,C170			PCS	16.0000 1 0.00 %	2002/07/31 N
0005-----	CF00023 metal-film capacitor MSC 0.033uF/63V 5% CASE01 4mm C139,C140,C141,C142,C143,C144,C145,C146,C147,C148, C149,C150,C151,C152,C153,C154			PCS	16.0000 1 0.00 %	2002/07/31 N
0006-----	CB00011 electrolytic capacitor 2.2uF/50V C195,C196,C197,C198,C199,C200			PCS	6.0000 1 0.00 %	2002/07/31 N
0007-----	CB00175 capacitor 47uF/25V SLL 5*11mm C101,C102,C103,C104,C105,C106,C107,C111,C112,C113, C114,C115,C116,C117,C120,C121,C124,C125,C126,C127, C128,C129,C130,C233,C234,C235,C236,C237,C238,C239, C240,C241,C242,C243,C244,C245,C246,C247,C248,C249, C250,C251,C252,C255,C256,C257,C258,C283,C284,C285, C286,C43,C45,C87,C88,C89,C90,C94,C95,C96,C97,C98			PCS	62.0000 1 0.00 %	2003/06/13 N
0008-----	RC00235 potentiometer W50K RV09BC-40-30F-W50K-0C VR13,VR14,VR16,VR21,VR22,VR24,VR29,VR30,VR32,VR37, VR38,VR44,VR45,VR5,VR6,VR8			PCS	16.0000 1 0.00 %	2002/07/31 N
0009-----	RC00233 potentiometer B50K RV09BC-40-30F-B50K-0C VR10,VR11,VR12,VR18,VR19,VR2,VR20,VR26,VR27,VR28,VR3, VR4			PCS	12.0000 1 0.00 %	2002/07/31 N
0010-----	RC00237 potentiometer W50K RV112BC-40-30A-W50K-0C VR40,VR47,VR48,VR49,VR50,VR51			PCS	6.0000 1 0.00 %	2002/07/31 N

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Version	Item No Item Descri	Loss %	Ver.	Unit	Cardinal Usage Rate Attrition Rate	Effective Date @:Phantom Layer Rate
0011-----	RC00236 potentiometer B50K RV112BC-40-30A-B50K-OC VR34, VR35, VR36, VR41, VR42, VR43			PCS	6.0000 1 0.00 %	2002/07/31 N
0012-----	RC00259 potentiometer J/Q10K RV112BC-40-30A-J/Q10K-OC VR15, VR23, VR31, VR39, VR46, VR7			PCS	6.0000 1 0.00 %	2002/07/31 N
0013-----	SA00052 L.E.D high intensity 3m/m round(green)long foot 26 LD10, LD11, LD12, LD13, LD14, LD15, LD16, LD17, LD18, LD19, LD22, LD23, LD24, LD25, LD26, LD27, LD28, LD29, LD30, LD31, LD7			PCS	21.0000 1 0.00 %	2002/07/31 N
0014-----	SA00054 L.E.D high intensity 3m/m round(yellow)long foot 26 LD20, LD32			PCS	2.0000 1 0.00 %	2002/07/31 N
0015-----	SA00053 L.E.D high intensity 3m/m round(red)long foot 26mm LD1, LD2, LD21, LD3, LD33, LD4, LD5, LD6, LD8			PCS	9.0000 1 0.00 %	2002/07/31 N
0016-----	NI01782 LED spacer support LEDS-11 11mm			PCS	32.0000 1 0.00 %	2002/07/31 N
0017-----	HI00162 按壓式SW 2段6P PS-22E8552L(3.3x3.3) SW10, SW8, SW9			PCS	3.0000 1 0.00 %	2002/07/31 N
0018-----	HC00256 row-wire header 5P 2.0mm 180° CN4			PCS	1.0000 1 0.00 %	2002/07/31 N
0019-----	HC00261 row-wire header 12P 2.0mm 180° CN6, CN8, CN9			PCS	3.0000 1 0.00 %	2002/07/31 N
0020-----	HC00080 row-wire header 6P 2.5mm 180° CNO			PCS	1.0000 1 0.00 %	2002/07/31 N
0021-----	HK00930 K-PC板 P-S8MNO2-SMD			PCS	1.0000 1 0.00 %	2002/09/09 N
0001-----	HB00713 PC board S8MNO2_VER030515			PCS	1.0000 1 0.00 %	2002/09/09 N
0002-----	RD00346 resistor 56 ±5% 0603 R354			PCS	1.0000 1 0.00 %	2002/09/09 N
0003-----	RD00068 SMDfixed resistor 1/10W 100 ±5% 0603 R377, R378, R69, R70			PCS	4.0000 1 0.00 %	2002/09/09 N

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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0004-----	RD00069 SMDfixed resistor 1/10W 120 ±5% 0603 R355			PCS	1.0000 1 0.00 %	2002/09/09 N
0005-----	RD00076 SMDfixed resistor 1/10W 330 ±5% 0603 R359,R360			PCS	2.0000 1 0.00 %	2002/09/09 N
0006-----	RD00078 SMDfixed resistor 1/10W 470 ±5% 0603 R351,R352,R356,R357,R358			PCS	5.0000 1 0.00 %	2002/09/09 N
0007-----	RD00347 resistor 510 ±5% 0603 R361			PCS	1.0000 1 0.00 %	2002/09/09 N
0008-----	RD00348 resistor 620 ±5% 0603 R362			PCS	1.0000 1 0.00 %	2002/09/09 N
0009-----	RD00349 resistor 910 ±5% 0603 R196,R197,R198,R199,R200,R201,R202,R203,R204,R205, R206,R207,R208,R209,R210,R211			PCS	16.0000 1 0.00 %	2002/09/09 N
0010-----	RD00059 SMDfixed resistor 1/10W 0 ±5% 0603 R371,R372			PCS	2.0000 1 0.00 %	2002/09/09 N
0011-----	RD00350 resistor 1.1K ±5% 0603 R212,R213,R214,R215,R216,R217,R218,R219			PCS	8.0000 1 0.00 %	2002/09/09 N
0012-----	RD00351 resistor 1.3K ±5% 0603 R137,R139,R141,R143,R145,R146,R147,R148,R363			PCS	9.0000 1 0.00 %	2002/09/09 N
0013-----	RD00085 SMDfixed resistor 1/10W 1.5K ±5% 0603 R264,R265,R266,R267,R268,R269			PCS	6.0000 1 0.00 %	2002/09/09 N
0014-----	RD00087 SMDfixed resistor 1/10W 2.0K ±5% 0603 R252,R364			PCS	2.0000 1 0.00 %	2002/09/09 N
0015-----	RD00352 resistor 3.6K ±5% 0603 R338,R339			PCS	2.0000 1 0.00 %	2002/09/09 N
0016-----	RD00092 SMDfixed resistor 1/10W 3.9K ±5% 0603 R256,R257,R258,R259,R260,R261,R262,R263			PCS	8.0000 1 0.00 %	2002/09/09 N

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Item No. PF01207 Version
 DESCRIPTION: S-8
 S-8 ALTO_230V 歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition Rate	
0017-----	RD00093 SMDfixed resistor 1/10W 4.7K ±5% 0603 R248, R249, R250, R251, R253, R254, R255			PCS	7.0000 1 0.00 %	2002/09/09 N
0018-----	RD00094 SMDfixed resistor 1/10W 5.1K ±5% 0603 R284, R285, R286, R287, R288, R289, R290, R291, R292, R293, R294, R295, R296, R297, R298, R299, R300, R301, R302, R304, R305, R306, R308, R309, R310, R311, R312, R313, R314, R315, R316, R317			PCS	32.0000 1 0.00 %	2002/09/09 N
0019-----	RD00095 SMDfixed resistor 1/10W 5.6K ±5% 0603 R365			PCS	1.0000 1 0.00 %	2002/09/09 N
0020-----	RD00097 SMDfixed resistor 1/10W 6.8K ±5% 0603 R150, R151, R152, R154, R155, R156, R158, R159, R160, R162, R163, R164, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175			PCS	22.0000 1 0.00 %	2002/09/09 N
0021-----	RD00098 SMDfixed resistor 1/10W 7.5K ±5% 0603 R344, R345			PCS	2.0000 1 0.00 %	2002/09/09 N
0022-----	RD00101 SMDfixed resistor 1/10W 10K ±5% 0603 R100, R111, R120, R121, R122, R123, R124, R125, R375, R38, R39, R427, R428, R47, R55, R63, R71, R75, R76, R77, R78, R79, R80, R81, R82, R85, R86, R87, R93, R96, R97, R98, R99			PCS	33.0000 1 0.00 %	2002/09/09 N
0023-----	RD00306 resistor 20K ±5% 0603 R186, R187, R188, R189, R303, R307			PCS	6.0000 1 0.00 %	2002/09/09 N
0024-----	RD00105 SMDfixed resistor 1/10W 22K ±5% 0603 R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R366			PCS	13.0000 1 0.00 %	2002/09/09 N
0025-----	RD00106 SMDfixed resistor 1/10W 27K ±5% 0603 R348, R349			PCS	2.0000 1 0.00 %	2002/09/09 N
0026-----	RD00107 SMDfixed resistor 1/10W 30K ±5% 0603 R73, R74			PCS	2.0000 1 0.00 %	2002/09/09 N
0027-----	RD00353 resistor 36K ±5% 0603 R270, R271, R272, R273, R276, R277, R278, R279, R280, R281, R282, R283			PCS	12.0000 1 0.00 %	2002/09/09 N
0028-----	RD00111 SMDfixed resistor 1/10W 47K ±5% 0603			PCS	8.0000 1 0.00 %	2002/09/09 N

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Item No. PF01207 Version
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 S-8 ALTO_230V 歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
R228, R229, R230, R231, R232, R233, R234, R235						
0029-----	RD00354 resistor 51K ±5% 0603 R41, R68, R72, R92			PCS	4.0000 1 0.00 %	2002/09/09 N
0030-----	RD00112 SMDfixed resistor 1/10W 56K ±5% 0603 R318, R319, R320, R321			PCS	4.0000 1 0.00 %	2002/09/09 N
0031-----	RD00114 SMDfixed resistor 1/10W 68K ±5% 0603 R340, R341			PCS	2.0000 1 0.00 %	2002/09/09 N
0032-----	RD00116 SMDfixed resistor 1/10W 100K ±5% 0603 R367, R368, R369, R37, R370, R376			PCS	6.0000 1 0.00 %	2002/09/09 N
0033-----	RD00125 SMDfixed resistor 1/10W 1.0M ±5% 0603 R220, R221, R222, R223, R224, R225, R226, R227			PCS	8.0000 1 0.00 %	2002/09/09 N
0034-----	CI00051 SMDceramic capacitor0603 22PF/50V NPO ±5% C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C194, C22, C223, C224, C225, C226, C24, C259, C260, C263, C264, C269, C270, C281, C282			PCS	30.0000 1 0.00 %	2002/09/09 N
0035-----	CI00059 SMDceramic capacitor0603 100PF/50V NPO ±5% C265, C266, C267, C268, C271, C272			PCS	6.0000 1 0.00 %	2002/09/09 N
0036-----	CI00075 SMDceramic capacitor0603 0.1uF/50V Y5V +80, -20% C205, C206, C207, C208, C209, C210, C213, C214, C217, C218, C219, C220, C289, C290, C295, C296, C297, C298, C305, C306, C307, C308, C309, C310, C311, C312			PCS	26.0000 1 0.00 %	2002/09/09 N
0037-----	SF00004 SMD transistor 2SA1036K(R) (MMBT3906LT1) TR13, TR14			PCS	2.0000 1 0.00 %	2002/09/09 N
0038-----	SF00010 SMD transistor 2SC2412K(R) (MMBT3904LT1) TR1, TR10, TR11, TR12, TR2, TR3, TR4, TR5, TR6, TR7, TR8, TR9			PCS	12.0000 1 0.00 %	2002/09/09 N
0039-----	SE00008 SMD rectifier diode DA204K/T-146 D1, D2, D3			PCS	3.0000 1 0.00 %	2002/09/09 N
0040-----	SG00122 SMD integrated circuit NJM4580M-TE3 U12, U16, U17, U19, U20, U21, U22, U23, U25, U26, U27, U3, U30, U31, U32, U6, U9			PCS	17.0000 1 0.00 %	2002/09/09 N

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Item No. PF01207 Version
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 S-8 ALTO_230V 歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal Usage Rate	Effective Date @:Phantom Layer Attrition Rate
0041-----	SG00032 SMD integrated circuit BA10339F(ST LM339DT) U35,U36,U37,U38,U39,U40			PCS	6.0000 1 0.00 %	2002/09/09 N
0052-----	HK00927 K-PC板 P-S8PU2-DIP			PCS	1.0000 1 0.00 %	2002/11/08 N
0001-----	RA00505 precise resistor 1/4W 6.81K M type R1,R10,R2,R3,R4,R5,R6,R7,R8,R9			PCS	10.0000 1 0.00 %	2002/07/31 N
0002-----	CB00003 electrotytic capacitor 0.22uF/50V C70,C71,C72,C73,C74,C75,C76,C77,C78,C79,C80,C81			PCS	12.0000 1 0.00 %	2002/07/31 N
0003-----	CB00029 electrotytic capacitor 22uF/35V C19,C20,C21,C23,C25,C26,C27,C28			PCS	8.0000 1 0.00 %	2002/07/31 N
0004-----	CB00175 capacitor 47uF/25V SLL 5*11mm C100,C108,C109,C117,C118,C122,C123,C231,C232,C253, C254,C85,C86,C91,C92,C93,C99			PCS	17.0000 1 0.00 %	2003/06/13 N
0005-----	CB00042 electrotytic capacitor 47uF/63V LZ 105 8*12 C29,C30,C32,C33,C34,C36,C37,C39,C41,C42			PCS	10.0000 1 0.00 %	2002/07/31 N
0006-----	CB00074 electrotytic capacitor 1000uF/10V 8*11.5 C51,C52,C53,C55,C56			PCS	5.0000 1 0.00 %	2002/07/31 N
0007-----	SB00050 transistor 2SA1316-GR TR16,TR18,TR20,TR22,TR24,TR26,TR28,TR30,TR32,TR34			PCS	10.0000 1 0.00 %	2002/07/31 N
0008-----	SD00007 integrated circuit BA15218N (M5218L substitute) U28,U29			PCS	2.0000 1 0.00 %	2002/07/31 N
0009-----	RC00296 potentiometer 010K RV09BC-40-30F-02C10K VR1,VR17,VR25,VR33,VR9			PCS	5.0000 1 0.00 %	2003/03/15 N
0010-----	HC00126 MIC jack for balance JY-5042-030G female plug 180° X11,X13,X5,X7,X9			PCS	5.0000 1 0.00 %	2002/07/31 N
0011-----	HC00125 MIC jack JY-6351G-02-250 X10,X12,X14,X15,X16,X17,X18,X19,X20,X21,X22,X23,X28, X6,X8			PCS	15.0000 1 0.00 %	2002/07/31 N

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UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0012-----	HI00162 按壓式SW 2段6P PS-22E8552L(3.3x3.3) SW1,SW2,SW3,SW4			PCS	4.0000 1 0.00 %	2002/07/31 N
0013-----	HC00403 rca SCP6873NS3232T2 4P X31			PCS	1.0000 1 0.00 %	2002/07/31 N
0014-----	HA01583 header wiring 12P-12P 40 CN5,CN7			PCS	2.0000 1 0.00 %	2002/07/31 N
0015-----	HC00256 row-wire header 5P 2.0mm 180° CN1			PCS	1.0000 1 0.00 %	2002/07/31 N
0016-----	HK00926 K-PC板 P-S8PU2-SMD			PCS	1.0000 1 0.00 %	2002/09/09 N
0001-----	HB00714 PC board S8PU2-2_VER020718			PCS	1.0000 1 0.00 %	2002/07/31 N
0002-----	RD00355 resistor 4.7 ±5% 0603 R11, R13, R14, R19, R20, R24, R25, R398, R399, R400, R401, R48, R49, R88, R89			PCS	15.0000 1 0.00 %	2002/07/31 N
0003-----	RD00069 SMDfixed resistor 1/10W 120 ±5% 0603 R322, R323, R324, R325			PCS	4.0000 1 0.00 %	2002/07/31 N
0004-----	RD00078 SMDfixed resistor 1/10W 470 ±5% 0603 R388, R389, R390, R391, R392, R393, R394, R395, R396, R397			PCS	10.0000 1 0.00 %	2002/07/31 N
0005-----	RD00083 SMDfixed resistor 1/10W 1.0K ±5% 0603 R342, R343			PCS	2.0000 1 0.00 %	2002/07/31 N
0006-----	RD00351 resistor 1.3K ±5% 0603 R136, R138, R140, R142			PCS	4.0000 1 0.00 %	2002/07/31 N
0007-----	RD00097 SMDfixed resistor 1/10W 6.8K ±5% 0603 R149, R153, R157, R161			PCS	4.0000 1 0.00 %	2002/07/31 N
0008-----	RD00104 SMDfixed resistor 1/10W 18K ±5% 0603 R101, R102, R103, R104			PCS	4.0000 1 0.00 %	2002/07/31 N
0009-----	RD00306 resistor 20K ±5% 0603 R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R190, R192, R193, R194, R195, R28, R40, R42, R43, R44			PCS	20.0000 1 0.00 %	2002/07/31 N

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UNIT: PCS
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Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0010-----	RD00353 resistor 36K ±5% 0603 R274, R275			PCS	2.0000 1 0.00 %	2002/07/31 N
0011-----	RD00113 SMDfixed resistor 1/10W 62K ±5% 0603 R131, R132, R133, R134			PCS	4.0000 1 0.00 %	2002/07/31 N
0012-----	RD00201 SMDprecise resistor 1/10W 1.50K ±1% 0603 R12, R15, R16, R17, R18, R21, R22, R23, R26, R27			PCS	10.0000 1 0.00 %	2002/07/31 N
0013-----	RD00204 SMDprecise resistor 1/10W 2.49K ±1% 0603 R126, R127, R128, R129, R130, R135, R144, R165, R191, R379, R380, R381, R382, R383, R384, R385, R386, R387, R45, R50, R51, R52, R53, R56, R57, R58, R59, R60, R61, R64, R65, R66, R90, R91, R94			PCS	35.0000 1 0.00 %	2002/07/31 N
0014-----	RD00210 SMDprecise resistor 1/10W 5.11K ±1% 0603 R402, R403, R404, R405, R406, R407, R408, R409, R410, R411, R412, R413, R414, R415, R416, R46, R54, R62, R67, R95			PCS	20.0000 1 0.00 %	2002/07/31 N
0015-----	RD00287 resistor 6.34K ±1% 0603 R29, R30, R31, R32, R33, R34, R35, R36			PCS	8.0000 1 0.00 %	2002/07/31 N
0016-----	RD00214 SMDprecise resistor 1/10W 10.0K ±1% 0603 R105, R106, R107, R108, R109, R110, R112, R113, R114, R115, R116, R117, R118, R119, R417, R418, R419, R420, R421, R422, R423, R424, R425, R426, R83, R84			PCS	26.0000 1 0.00 %	2002/07/31 N
0017-----	RD00129 SMDfixed resistor 1/4W 0 ±5% 1206 L1, L2, L3, L4, L5			PCS	5.0000 1 0.00 %	2002/07/31 N
0018-----	RD00004 SMDfixed resistor 1/10W 47 ±5% 0805 R346, R347			PCS	2.0000 1 0.00 %	2002/07/31 N
0019-----	RD00007 SMDfixed resistor 1/10W 120 ±5% 0805 R330, R331, R332, R334			PCS	4.0000 1 0.00 %	2002/07/31 N
0020-----	CI00051 SMDceramic capacitor0603 22PF/50V NPO ±5% C110, C221, C222, C227, C228, C229, C230, C261, C262, C315, C316, C317, C48, C49, C50, C54, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C82, C83, C84			PCS	32.0000 1 0.00 %	2002/07/31 N
0021-----	CI00062 SMDceramic capacitor0603 330PF/50V NPO ±5 %			PCS	5.0000 1 0.00 %	2002/07/31 N

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Item No. PF01207 Version
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 S-8_ALTO_230V_歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer
					Attrition	Rate
	C1,C18,C2,C3,C4					
0022-----	CI00059				8.0000	2002/07/31
	SMDceramic capacitor0603			PCS	1	N
	100PF/50V NPO ±5%				0.00	%
	C273,C274,C276,C277,C278,C279,C280,C275					
0023-----	CI00065				10.0000	2002/07/31
	SMDceramic capacitor0603			PCS	1	N
	0.001uF/50V X7R ±10%				0.00	%
	C10,C11,C12,C13,C14,C5,C6,C7,C8,C9					
0024-----	CI00071				10.0000	2002/07/31
	SMDceramic capacitor0603			PCS	1	N
	0.01uF/50V X7R ±10%				0.00	%
	C15,C16,C17,C31,C35,C38,C40,C44,C46,C47					
0025-----	CI00075				22.0000	2002/07/31
	SMDceramic capacitor0603			PCS	1	N
	0.1uF/50V Y5V +80,-20%				0.00	%
	C201,C202,C203,C204,C211,C212,C215,C216,C287,C288, C291,C292,C293,C294,C299,C300,C301,C302,C303,C304, C313,C314					
0026-----	SE00028				5.0000	2002/07/31
	diode			PCS	1	N
	BAS316,115				0.00	%
	D4,D5,D6,D7,D8					
0027-----	SF00004				15.0000	2002/07/31
	SMD transistor			PCS	1	N
	2SA1036K(R) (MMBT3906LT1)				0.00	%
	TR15,TR17,TR19,TR21,TR23,TR25,TR27,TR29,TR31,TR33, TR35,TR36,TR37,TR38,TR39					
0028-----	SG00122				13.0000	2002/07/31
	SMD integrated circuit			PCS	1	N
	NJM4580M-TE3				0.00	%
	U1,U10,U11,U13,U14,U15,U18,U2,U24,U4,U5,U7,U8					
0053-----	HK00928				1.0000	2002/11/08
	K-PC板			PCS	1	N
	P-S8PU1				0.00	%
0001-----	HB00715				1.0000	2002/07/31
	PC board			PCS	1	N
	S8PU1_VER020820				0.00	%
0002-----	RA00185				8.0000	2002/07/31
	fixed resistor 1/4W			PCS	1	N
	120 M type				0.00	%
	R326,R327,R328,R329,R333,R335,R336,R337					
0003-----	HA01922				6.0000	2002/07/31
	jumper wire			PCS	1	N
	8mm				0.00	%
	JP1,JP2,JP3,JP4,JP5,JP6					
0001-----	HA02249				0.0180	2002/09/19
	wire			M	1	N
	0.6			KG	0.00	%
0004-----	HC00392				2.0000	2002/07/31
	shape male			PCS	1	N
	JY-5030-030G 180°				0.00	%
	X26,X27					
0005-----	HC00125				8.0000	2002/07/31
	MIC jack			PCS	1	N
	JY-6351G-02-250				0.00	%

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 S-8_ALTO_230V_歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
	X1,X2,X24,X25,X29,X3,X30,X4					
0006-----	HA02078 wire 12P-12P 220 CN10			PCS	1.0000 1 0.00 %	2002/07/31 N
0007-----	HA02188 wire 5P-5P 120mm CN2,CN3			PCS	2.0000 1 0.00 %	2002/07/31 N
0008-----	CB00039 electrotytic capacitor 47uF/25V C318,C319,C320,C321			PCS	4.0000 1 0.00 %	2002/08/28 N
0054-----	HK00929 K-PC板 P-S8PWR			PCS	1.0000 1 0.00 %	2002/11/08 N
0001-----	HB00716 PC board S8PWR_VER020820			PCS	1.0000 1 0.00 %	2002/07/31 N
0002-----	RA00242 fixed resistor 1/4W 10K M type R2			PCS	1.0000 1 0.00 %	2002/07/31 N
0003-----	RA00159 fixed resistor 1/4W 10 Mr type R3			PCS	1.0000 1 0.00 %	2002/07/31 N
0004-----	SA00094 rectifier diode 1N4002/100V D1,D10,D11,D12,D13,D14,D2,D3,D4,D5,D6,D7,D8,D9			PCS	14.0000 1 0.00 %	2002/07/31 N
0005-----	SA00127 zener diode 1/2W 47V 1N5261 ZD1			PCS	1.0000 1 0.00 %	2002/07/31 N
0006-----	RA00250 fixed resistor 1/4W 20K M type R4			PCS	1.0000 1 0.00 %	2002/07/31 N
0007-----	RA00301 fixed resistor 1/4W 390K M type R1			PCS	1.0000 1 0.00 %	2002/07/31 N
0008-----	CB00039 electrotytic capacitor 47uF/25V C3,C4			PCS	2.0000 1 0.00 %	2002/07/31 N
0009-----	CB00043 electrolytic capacitor 47uF/100V C8,C9			PCS	2.0000 1 0.00 %	2002/07/31 N
0010-----	CB00052 electrotytic capacitor 100uF/100V C5,C6			PCS	2.0000 1 0.00 %	2002/07/31 N

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 S-8_ALTO_230V_歐規_CHINA

UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate	@:Phantom Layer Attrition Rate
0011-----	CB00061 electrotytic capacitor 220uF/100V C7			PCS	1.0000 1 0.00 %	2002/07/31 N
0012-----	CB00082 electrotytic capacitor 2200uF/25V 18*21.5 C1,C2			PCS	2.0000 1 0.00 %	2002/07/31 N
0013-----	SD00077 integrated circuit 7815(TO-220) TR1			PCS	1.0000 1 0.00 %	2002/07/31 N
0014-----	SD00079 integrated circuit 7915(TO-220) TR2			PCS	1.0000 1 0.00 %	2002/07/31 N
0015-----	SB00043 transistor TIP122(ST) TR3			PCS	1.0000 1 0.00 %	2002/07/31 Y
0016-----	HC00076 row-wire header 2P 2.5mm 180° CN2			PCS	1.0000 1 0.00 %	2002/07/31 N
0017-----	HC00080 row-wire header 6P 2.5mm 180° CN3			PCS	1.0000 1 0.00 %	2002/07/31 N
0018-----	HC00089 row-wire header 3P 3.9mm 180° CN1			PCS	1.0000 1 0.00 %	2002/07/31 N
0019-----	HA01922 jumper wire 8mm JP5,JP6,JP7			PCS	3.0000 1 0.00 %	2002/07/31 N
0001-----	HA02249 wire 0.6			M	0.0180 1 0.00 %	2002/09/19 N
0020-----	HA01925 jumper wire 10mm JP1,JP2,JP3,JP4,JP8,JP9			PCS	6.0000 1 0.00 %	2002/07/31 N
0001-----	HA02249 wire 0.6			M	0.0200 1 0.00 %	2002/09/19 N
0055-----	MG00326 screw 3*4			PCS	14.0000 1 0.00 %	2002/11/08
0056-----	MI01550 separating shade 62*28*3 S-8			PCS	1.0000 1 0.00 %	2002/11/20
0001-----	MJ00084 iron board 0.33*1000*1000 2.59kg			PCS KG	1.0000 312 0.00 %	2003/02/25 N

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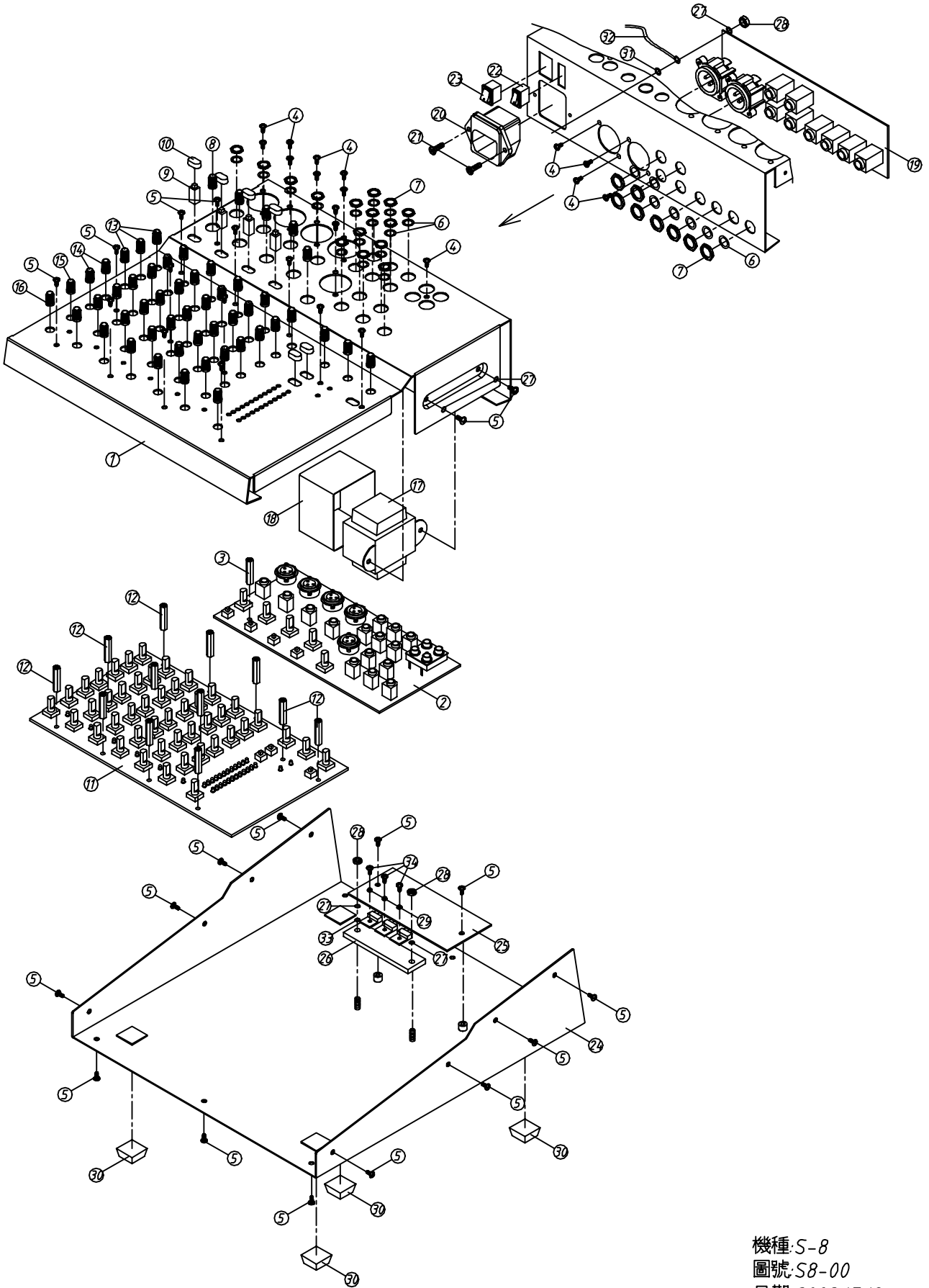
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UNIT: PCS
 Date: 2002/11/08

Version	Item No	Loss %	Ver.	Unit	Cardinal	Effective Date
Component Remark	Item Descri				Usage Rate @:	Phantom Layer
					Attrition Rate	Rate
0057-----	NI02285 insulation 0.5*61*27.5 S-8			PCS	1.0000 1 0.00 %	2002/11/20
0001-----	NI02283 insulation 0.5*61*27.5			PCS	1.0000 1 0.00 %	2003/02/25 N
0001-----	NI00375 film 45*60.5*0.5mm			PCS	1.0000 161 0.00 %	2002/09/07 N

8. Exploded Views & Mechanical Parts List

SEKAKU



機種: S-8
圖號: S8-00
日期: 2002/7/8

Mechanical Parts List

Model No.		ALTO S-8		
NO	Item No	Item Description		pcs
1	MA03464	panel	S-8 ALTO-EUROPE	1
2	HK00927	K-PC board	P-S8PU2-DIP	1
3	MG00305	copper pole	M3*24*0.5PH	1
4	MG00042	screw	M3*10	15
5	MG00041	screw	M3*6	44
6	MF00061	washer	JY-6351G-02-250	23
7	ME00060	socket nut	JY-6351G-02-250	23
8	NI02084	knob	φ 10.5*18	5
9	NI01862	key	5.5*5.5*14.5	4
10	NI01863	key	φ 5.5*W10*7.5	7
11	HK00925	K-PC board	P-S8MN02-DIP	1
12	MG00304	copper pole	M3*14*0.5PH	12
13	NI02083	knob	φ 10.5*18	21
14	NI02081	knob	φ 10.5*18	12
15	NI02082	knob	φ 10.5*18	6
16	NI00826	knob	φ 12*18	7
17	TC00116	trasformer	PT-S8_230V	1
18	MI01445	separating shade	S-8 PT-S8用	1
19	HK00928	K-PC board	P-S8PU1	1
20	HC00008	AC outlet	3515 A TYPE(RF-2004-C-4.8)	1
21	MG00061	screw	M3*10	2
22	HI00171	switch	R612KKAT0F1	1
23	HI00026	power switch	RA12KKATOF 2P	1
24	MB02345	bottom board	S-8	1
25	HK00929	K-PC board	P-S8PWR	1
26	MJ01027	heat-sink	S-8	1
27	MF00037	washer	φ 3* φ 5*1t	8
28	ME00015	colour nut	3m/m	3
29	NI02249	caushion	TW-1(TO-220)	3
30	NI00501	foot cushion	12.7*9*3t(SF-004)	4
31	MF00014	washer	φ 3* φ 6.5*0.5t	1
32	HA01174	signle terminal wiring CF:W146	80 green/yellow	1
33	MF00030	washer	φ 3* φ 8*0.8t	2
34	MG00163	screw	丸3*8	3