

**i7200**

Inte grated Mobile Sound System

## SERVICE MANUAL



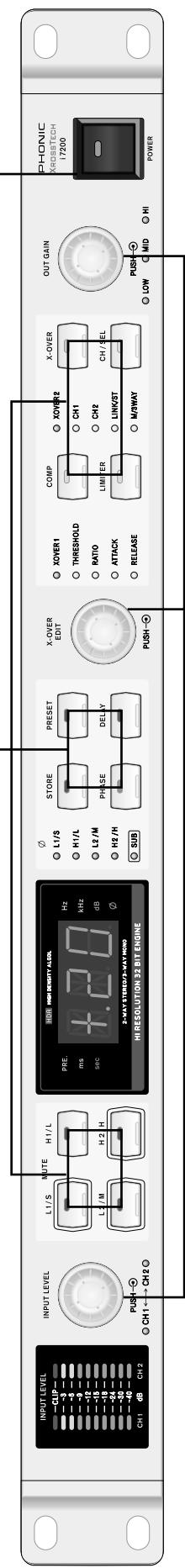
# i7200 SERVICE MANUAL

## CONTENTS

	PAGE
PANEL LAYOUT .....	3
ANALOG IN MASTER .....	4
ANALOG OUT SLAVE.....	5
ANALOG OUT SLAVE.....	6
AVR .....	7
CODEC.....	8
DSP .....	9
FRONTPARNEL.....	10
MATRIX .....	11
POWER SUPPLY.....	12
BOM .....	13
MISCELLANEOUS ITEMS .....	13
FRONT PCB-PART LIST .....	15
BACK PCB-PART LIST .....	16
BACK PCB-PART LIST .....	17
POWER REQUIREMENT CLASSIFICATION .....	19

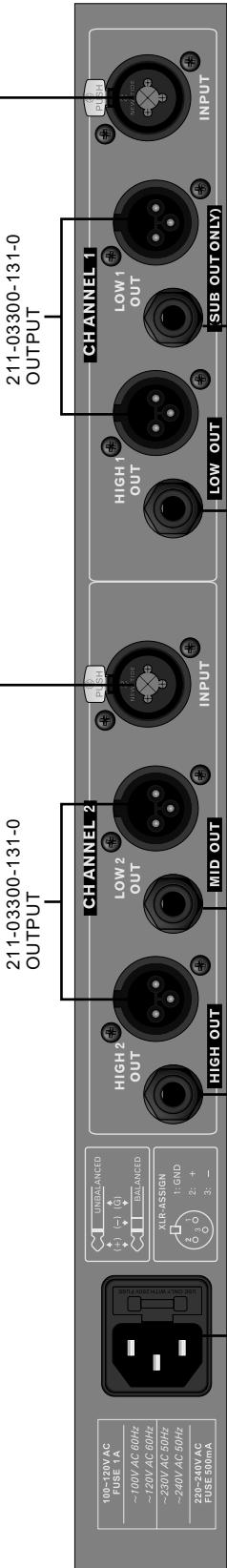
P/KNOB:542-20320-020-0  
 ACRYLIC:529-20032-000-0  
 HOUSING:543-20210-020-0  
 PUSH:551-20079-420-0  
 P/SW:210-02101-010-0  
 LED:100-00150-040-0

542-20330-020-0 P/KNOB  
 210-13000-081-0 MUTE/STORE/  
 RESET/DELAY/LIMITER/X-OVER/CH/REL



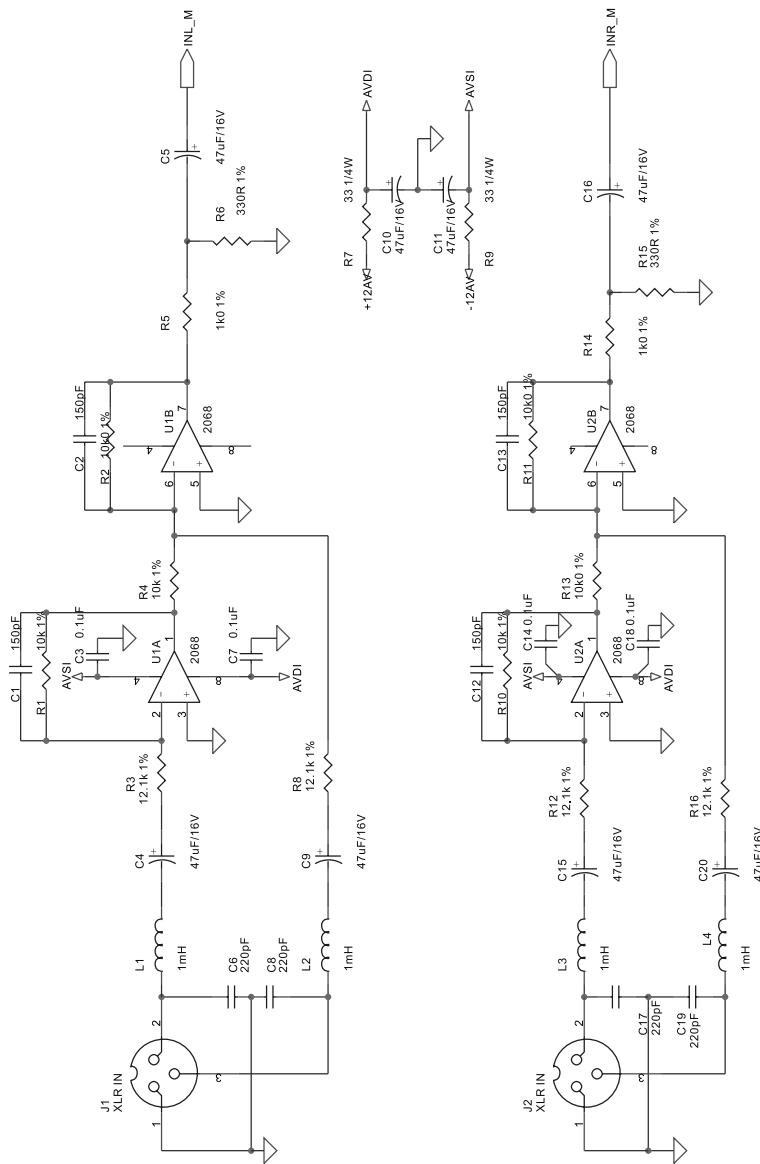
210-16000-040-0  
 INPUT/EDIT/OUT GAIN  
 540-20410-020-0  
 R/KNOB

211-03300-250-0 INPUT

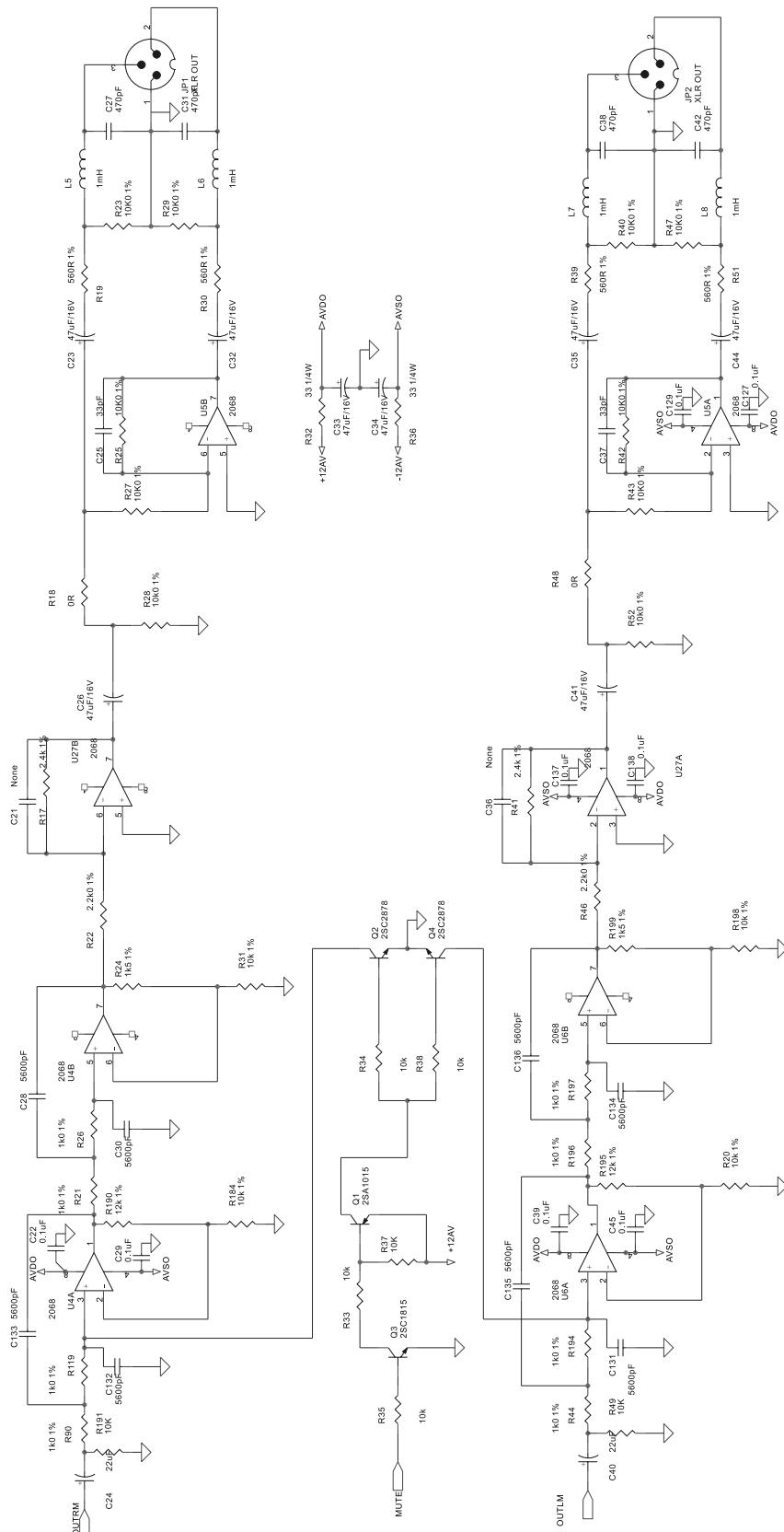


211-03300-131-0 OUTPUT  
 211-03300-131-0 INPUT  
 211-03300-131-0 OUTPUT  
 211-03300-131-0 INPUT  
 211-12300-040-0

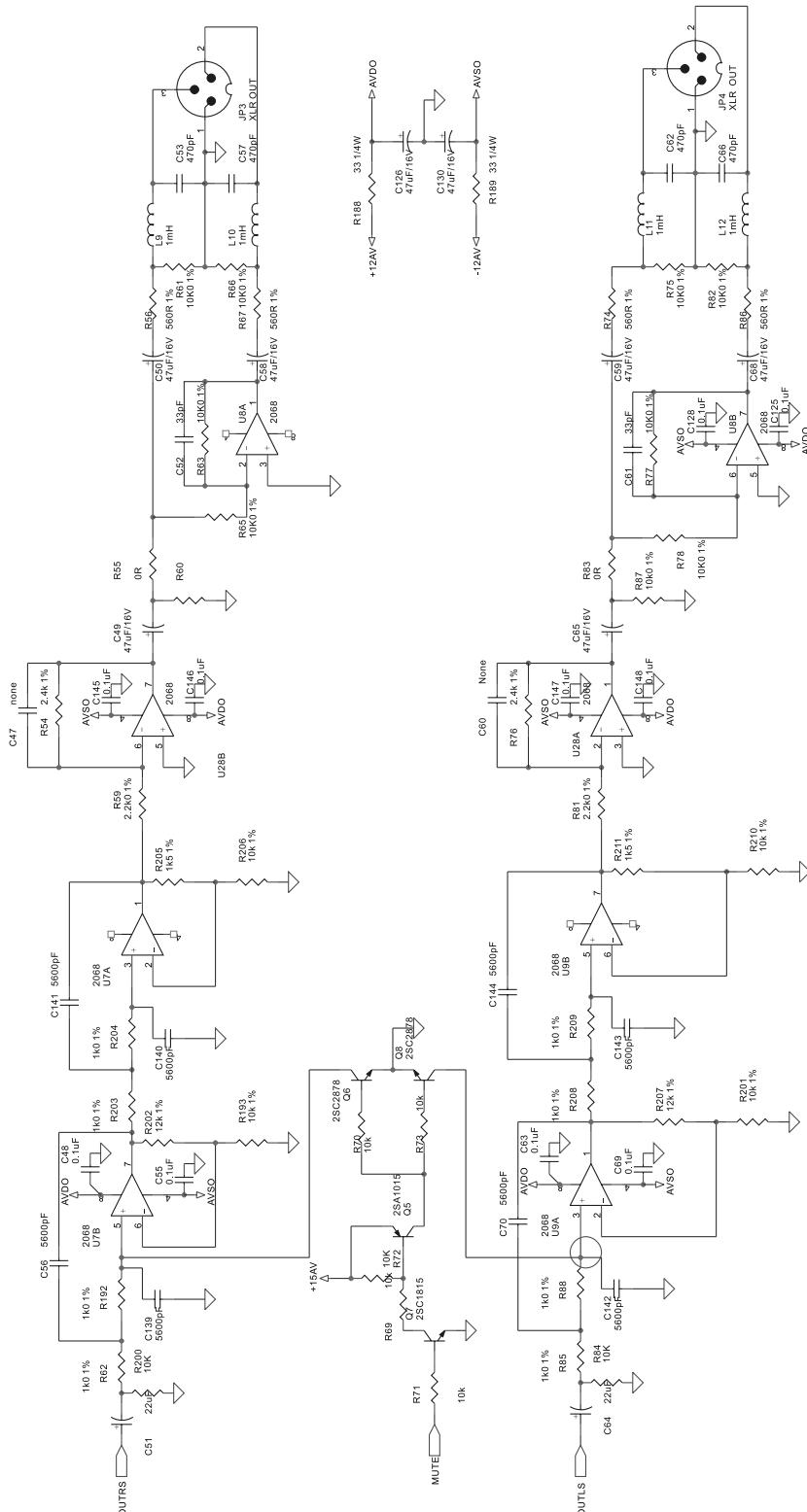
## ANALOG IN MASTER



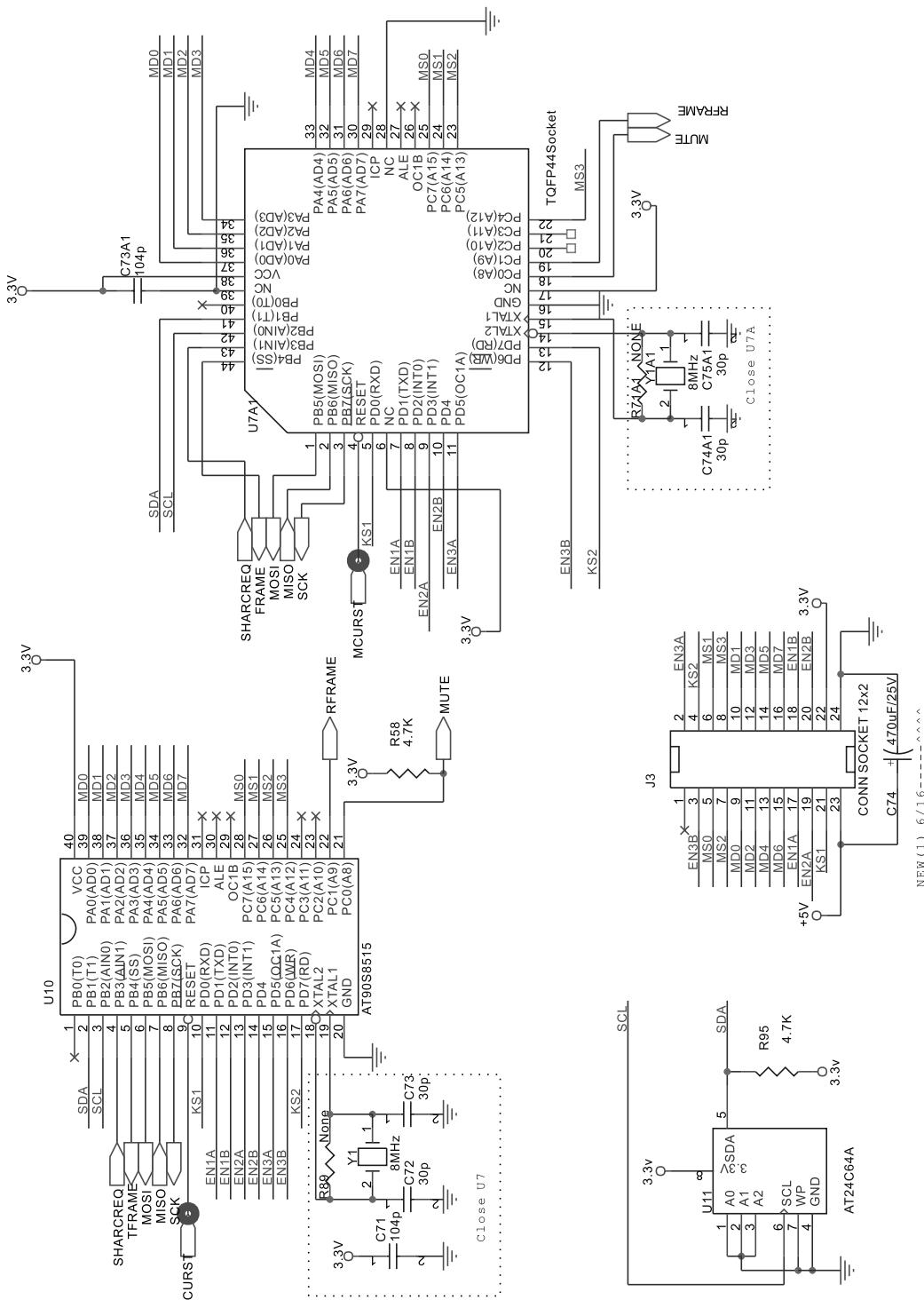
## **ANALOG OUT SLAVE**



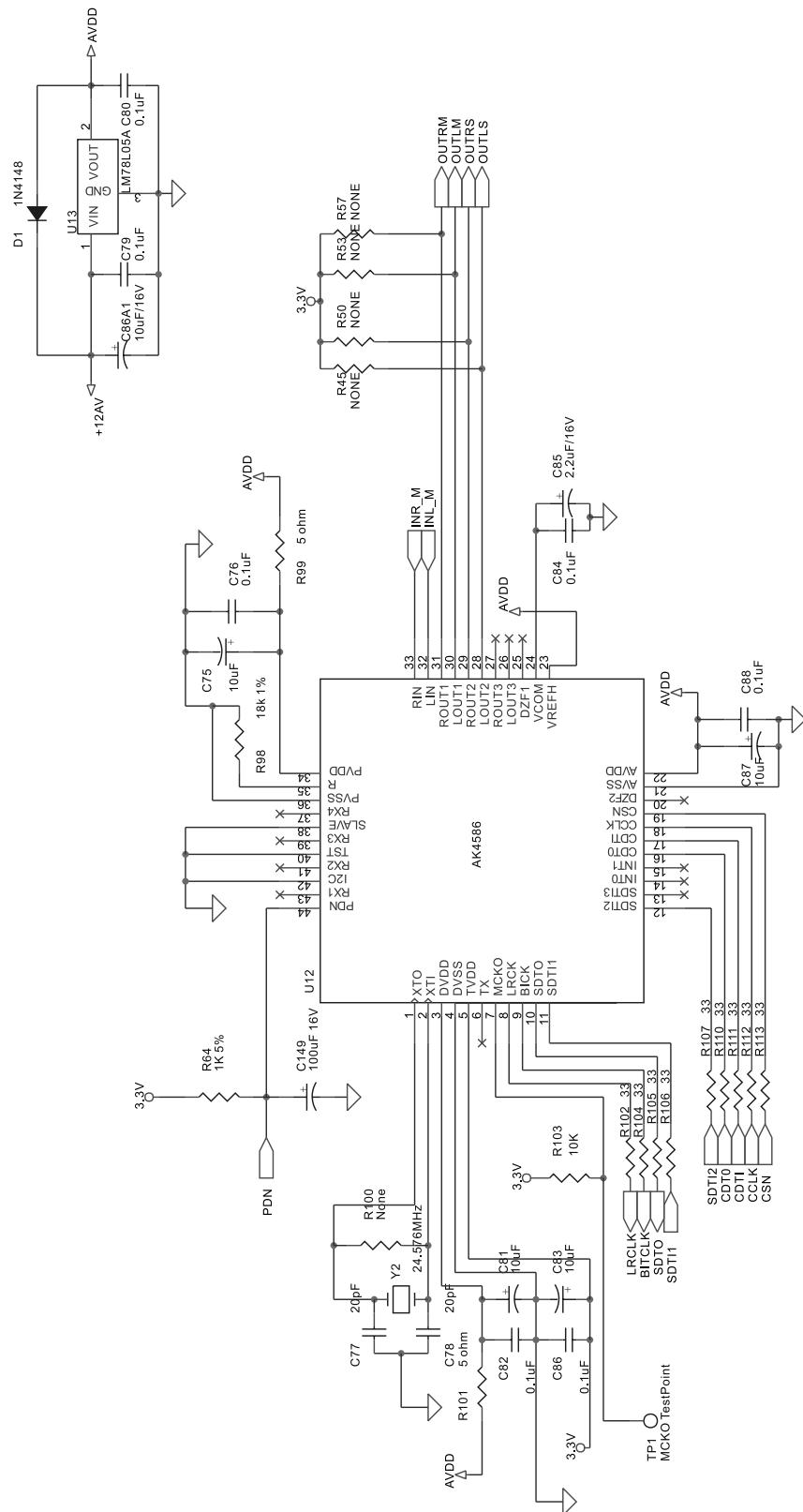
## **ANALOG OUT SLAVE**



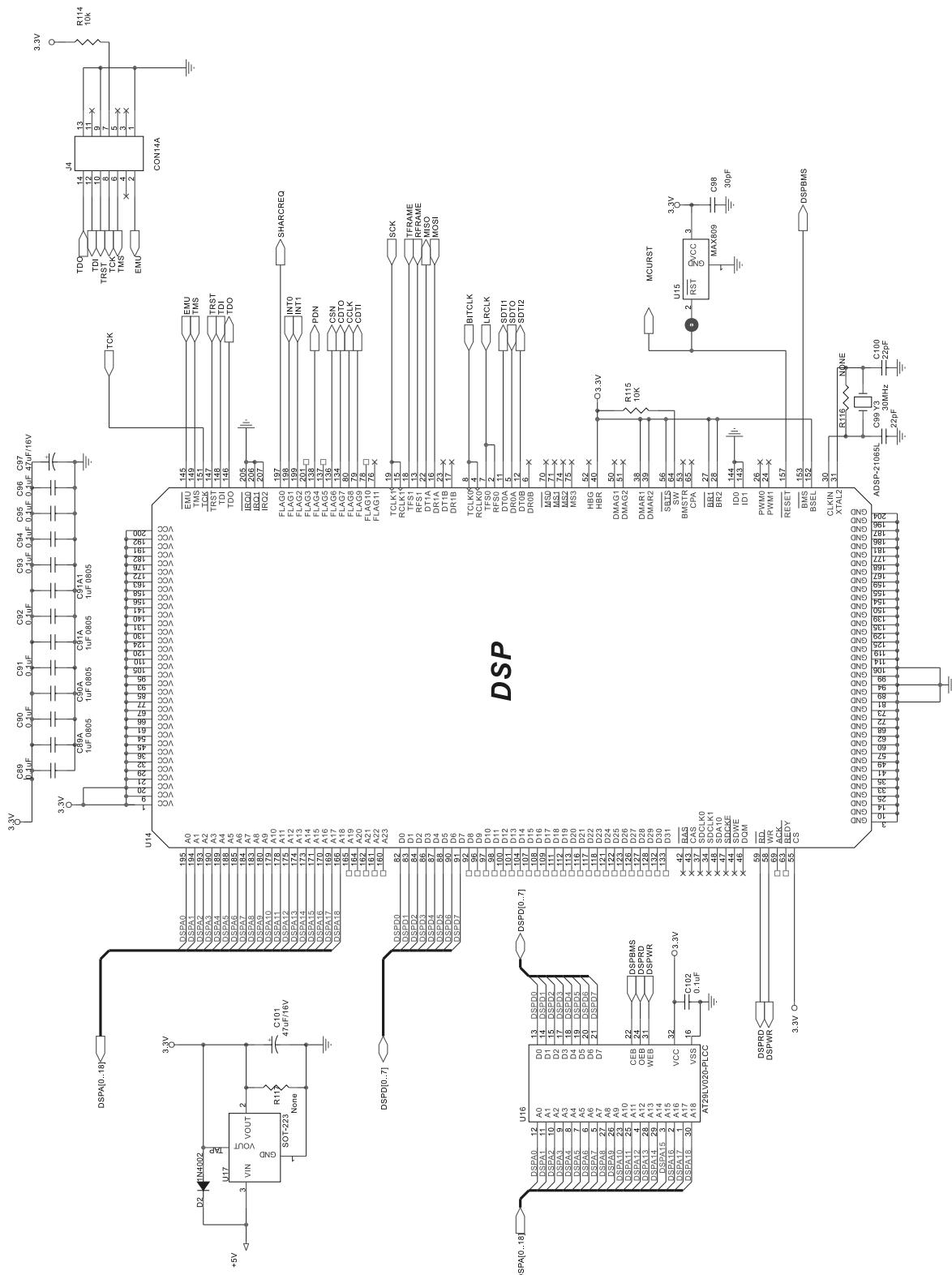
AVR



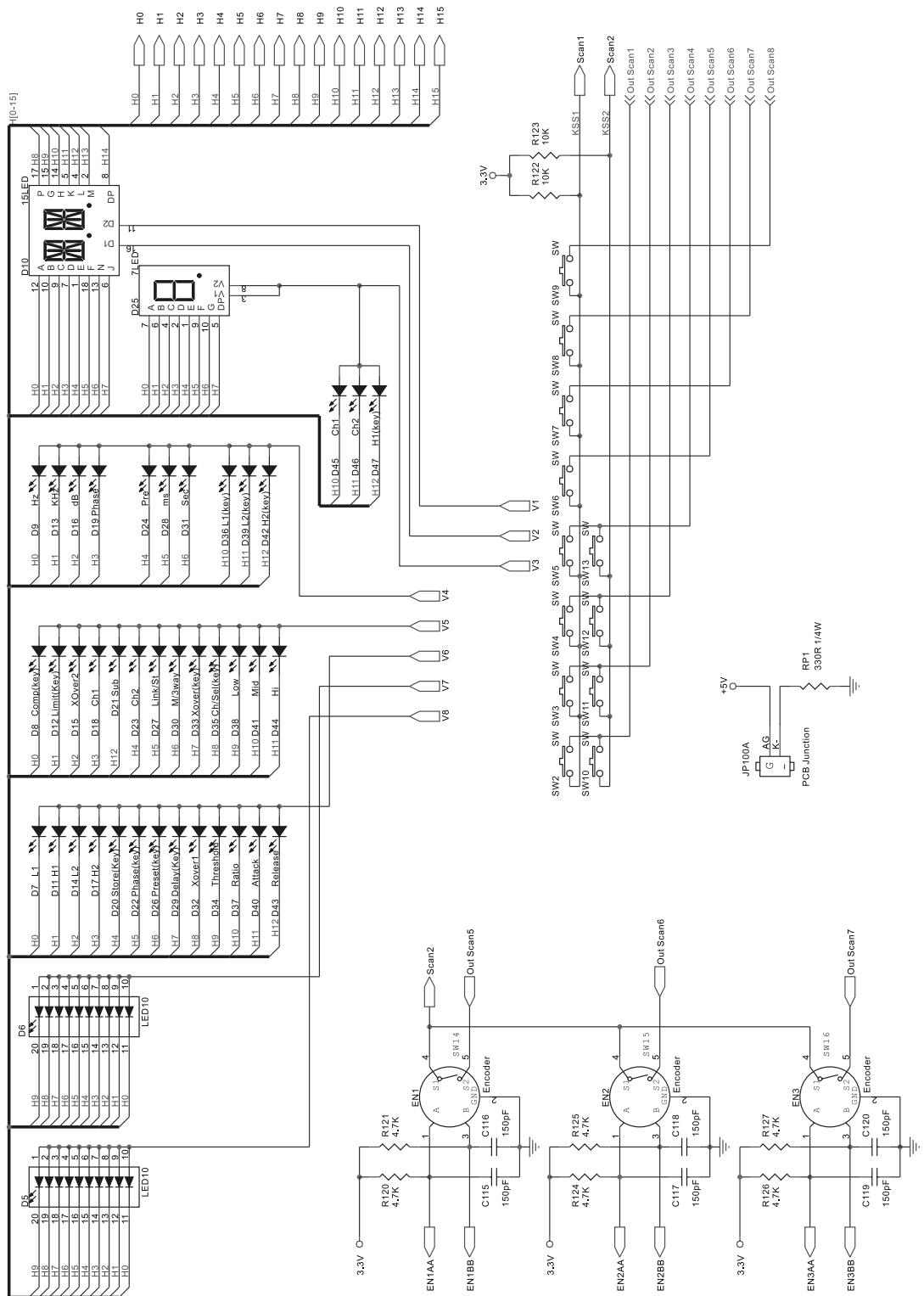
## CODEC



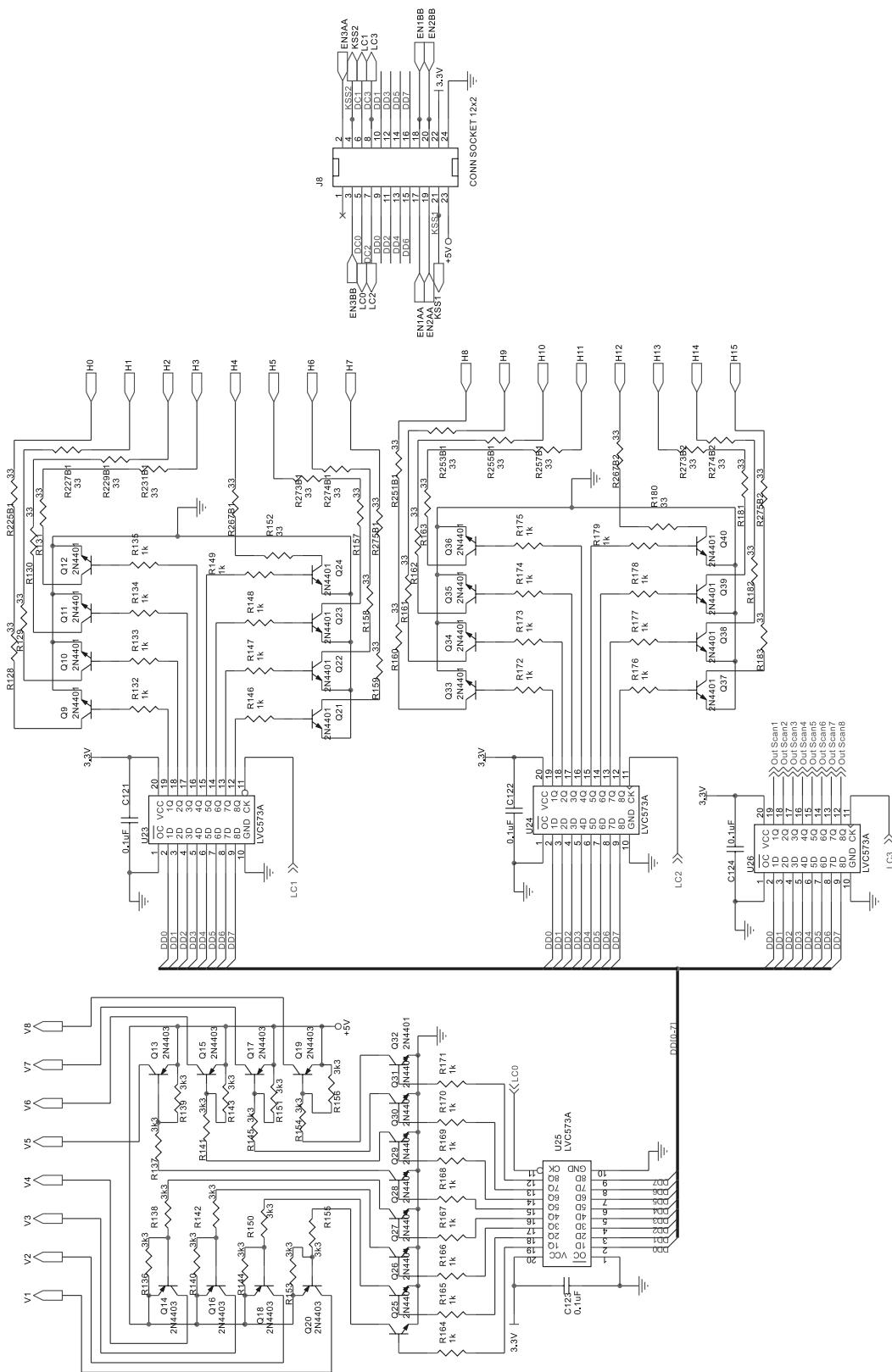
DSP



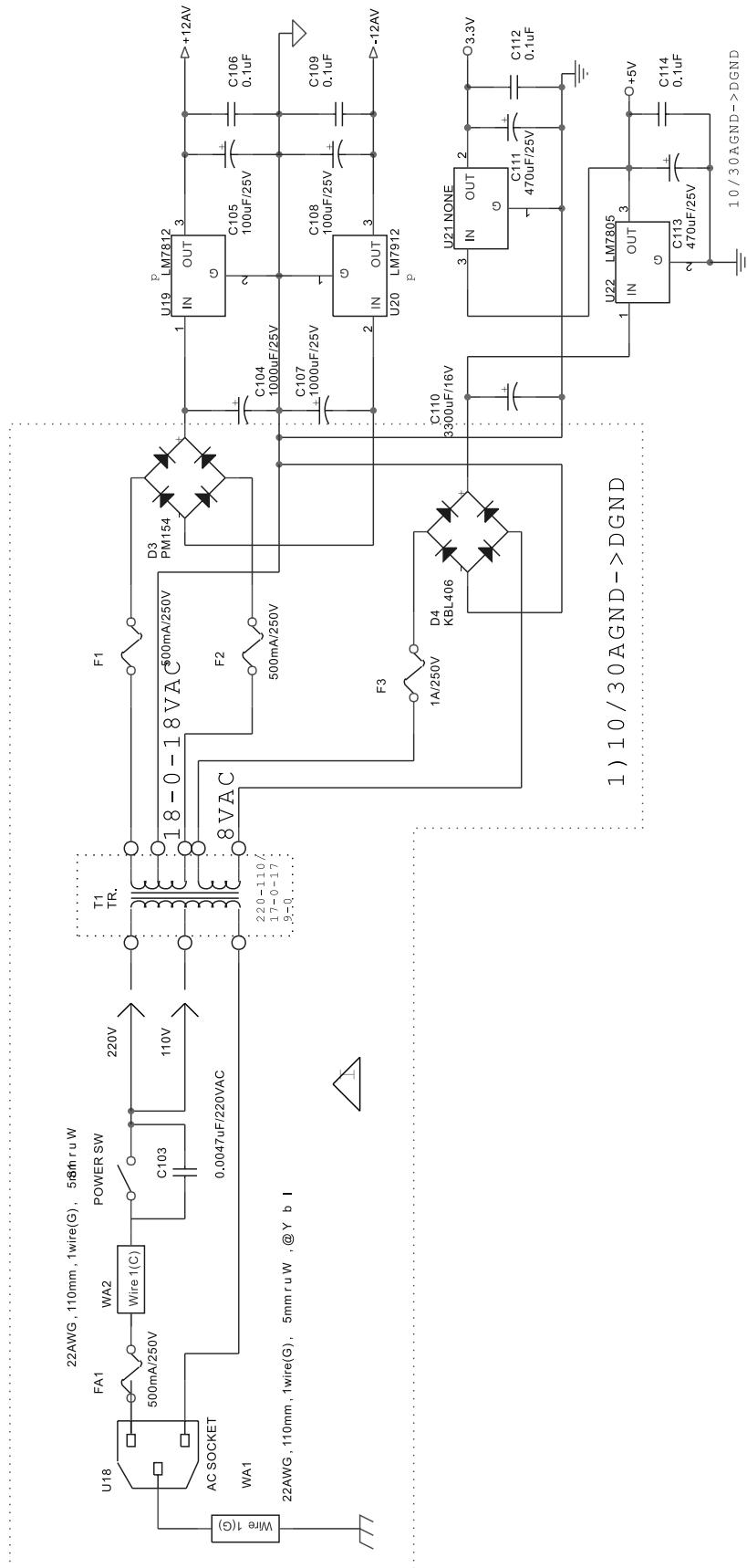
## FRONTPARNEL



## MATRIX



## POWER SUPPLY



**MISCELLANEOUS ITEMS**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
S1	210-02101-010-0	PSH/SW SDDLB10074U-PJ
EN1.2.3	210-16000-040-0	ENCODER DC11B1524418-PJ
CN100	211-10020-000-0	2P WAFER/S 2.0MM
	211-12300-040-0	AC/S 0717-1-PS
GND*1	212-10010-890-0	1P WAFER/P 100MM GRN
JP100	212-10021-000-0	2P WAFER/P PMC-006
	212-10240-070-0	24P WAFER/P I7200
	281-00000-020-0	FUSE CLIP FH-1206
	307-00000-000-0	CORD CONNECTOR HW-C4
	313-00000-060-0	RUBBER WASHER TO-2203
	314-00000-050-0	BUSHES 602S(V.O)
	379-28151-111-0	M.WIRE UL1617 #22 150MM BRN
	510-21180-010-0	PANEL I7200
	511-20870-000-0	BACK PANEL I7200
	516-20490-100-0	TOP COV. I7200
	517-20690-000-0	BOT. COV. I SERIES
	524-20011-010-0	L/R SIDE PANEL AL
	525-60010-000-0	FEET 20*20*8.0MM (SF-006)
	526-20063-010-0	HEAT SINK 63*35*t3 I SERIES
ON POWER SW LED	529-20032-000-0	LED ACRYLIC LENS 11.5*6*t3
ON PUSH KNOB*12	529-20033-000-0	LED ACRYLIC LENS I SERIES(2)
	529-20034-100-0	ACRYLIC LENS 66.3*34.8*t3 I7200
LED BAR	529-20036-000-0	ACRYLIC LENS 31.8*34.8*t3
INPUT LEVEL*1,OUT GATN*1,X-OVER EDIT*1	540-20410-020-0	R/KNOB 877C BODY
POWER SW	542-20320-020-0	P/KNOB ABS BLK
AX-COVER\CH/ SEL*1,COMP\	542-20330-020-0	P/KNOB 877C BODY
POWER SW BUSHING	543-20210-020-0	P/KNOB BUSH. BLK ABS
POWER SW BRKT.	551-20079-420-0	PUSH BRKT ABS I SERIES
	552-00001-420-0	ADHESIVE FIXED AB-2-3M
	552-20079-420-0	PCB FIXED 380*12.1*2MM (PP)
FIX X'MER*2	552-90001-100-0	X'MER FIXED 20*8*2
	560-21160-000-0	CARTON I7200
	561-21350-000-0	G/B I7200
	565-20060-000-0	RT/LF POLYLON 1U SERIES
	568-00003-000-0	#10 240*340*0.05
	568-20004-000-0	PE BAG 550*300*0.05
	572-00000-050-0	DRYER 5g
	573-10124-010-0	GND LABLE

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
	573-60240-000-0	S/N LABEL PHONIC
	573-60343-000-0	LABEL BLUE D=8mm
	574-02350-110-0	OWN. MANU. I7200 PHONIC
	590-02604-200-8	M/E FLT SCR. M2.6*4 BLK D=4.5
HEAT SINK*2	590-02606-200-8	M/E FLT SCR. M2.6*6 BLK D=4.5
XLK JACK*4	590-03008-200-0	M/E FLT SCR. M3.0*8 BLK D=6
HANDLE*4	590-04010-100-0	M/E FLT SCR. M4*10 NI
FIX PCB*3 POWER SW*2	590-33006-100-0 590-33008-200-0	M/E RUD SCR. M3.0*6 NI M/E RUD SCR. M3.0*8 BLK
GND*1	590-44008-200-0	M/E PAN SCR. M4.0*8 BLK
FIX IC*3	590-83008-100-0	M/E RUD SCR (WASHER) M3*8 NI
FIX XLR*8	591-03006-200-0	T/P FLT SCR. M3.0*6 BLK
GND*1	600-00403-510-0	HEX. NUT M4.0*3.5 NI
FIX X'MER*4	610-00330-701-0	PLA. WAS. D3.3*D9.8*0.75 NI
GND *1	610-30400-501-0	TOOTH WAS. D4.0*D8.5*0.5 NI
IC*3	610-60300-501-0	PAN SPR. WAS D3.0*D5.3*0.5 NI
D7.11.14.15.17.18.21.23.2 7.30.32.34.37.40.43	615-20082-620-0	LED HOUSING LED3-8
D8.9.12.13.16.19.20.22.2 4.26.28.29.31.33.35.36.3 9.42.47	615-20099-620-0	LED BOSS LED3-3
D38.41.44.45.46	615-20133-620-0 618-14180-662-0 630-80000-310-0 B02-35015-410-0	LED BOSS LED3-8B SPEC. FIXED PIN SR-2 WHT PVC 60*80*0.3 I7200 PHONIC

**FRONT PCB-PART LIST**

Ref.	Phonic Part No.	Specifications
RP1	000-33126-400-0	CF RES . 330 J 1/4W T
R132.133.134.135.146.14 7.148.149.164.165.166.1 67.168.169.170.171.172. 173.174.175	008-01022-600-0	CHIP RES. 1K J 0603
R176.177.178.179	008-01022-600-1	
R122.123	008-01032-600-0	CHIP RES. 10K J 0603
R128.129.130.131.152.15 7.158.159.160.161.162.1 63.180.181.182.183.225B 1.227B1.	008-03302-600-0	CHIP RES. 33 J 0603
R229B1.231B1.251B1.25 3B1.255B1.257B1.267B1 .267B2.273B1.273B2.274 B1.274B2.275B1.	008-03302-600-1	
R275B2	008-03302-600-2	
R136.137.138.139.140.14 1.142.143.144.145.150.1 51.153.154.155.156	008-03322-600-0	CHIP RES. 3.3K J 0603
	008-04722-600-0	CHIP RES. 4.7K J 0603
C121.122.123.124	039-10424-220-0	CHIP C/C 0.1MF J 50V 0603
	039-15124-200-0	CHIP C/C 150PF J 50V 0603
D20.26.29.36.39.42.47	100-00010-070-0	LED LI3130 RED D5
D38.41.44.45.46	100-00030-000-0	LED BL-B4141 ORANGE
D22	100-00030-010-0	LED LES3130 ORANGE D5
D8.12.35	100-00040-040-0	LED LY3130 YLW D5
D33	100-00050-150-0	LED LG3130 GRN D5
D28.31	100-00110-060-0	LED LI5130 RED
D19.24	100-00140-050-0	LED LY5130 YLW
DA1	100-00150-040-0	LED 2*4mm BL-RGE131 Green
D9.13.16	100-00150-070-0	LED LG5130 GRN
D7.11.14.17	100-00430-000-0	LED BL-S4149 ORANGE
D18.23.27.30.34.37.40.43	100-00440-000-0	LED BL-S3149 YLW
D15.21.32	100-00450-000-0	LED BL-S2149 GREEN
D5.6	100-01110-080-0	LED BAR BA-1R2Y7G
D25	100-02000-070-0	7 SEG/LED BS-A552RD
D10	100-02000-080-0	7 SEG/LED BD-E522RD
Q9.10.11.12.21.22.23.24. 25.26.27.28.29.30.31.32.3 3.34.35.36.37.38.39.40	120-00007-410-0	TRAN. MMBT4401(2N4401)
Q13.14.15.16.17.18.19.20	121-00005-310-0	TRAN. MMBT4403(2N4403)
U23.24.25.26	170-00007-500-0	IC 74LVC573APW TSSOP

**BACK PCB-PART LIST**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
SW2.3.4.5.6.7.8.9.10.11. 12.13	210-13000-081-0	TACT/SW TC-004-PSS11A-B
J8	211-06244-010-0	PIN/S 5507-24-G1-0610-0300
	290-02350-000-0	PCB I7200 FRONT
	C02-35000-001-0	I7200 FRONT PCB SMD
	F02-35000-001-0	I7200 FRONT PCB M/I
	H02-35000-001-0	I7200 FRONT PCB A/I

**BACK PCB-PART LIST**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
R7.9.32.36.188.189	000-33026-400-0	CF RES. 33 J 1/4W T
R18.48.55.83	008-00002-600-0	CHIP RES. 0 J 0603
R33.34.35.37.38.49.69.70 .71.72.73.84.103.114.115. 191.200	008-01032-600-0	CHIP RES. 10K J 0603
R22.46.59.81	008-02222-400-0	CHIP RES. 2.2K F 0603
R17.41.54.76	008-02422-400-0	CHIP RES. 2.4K F 0603
R102.104.105.106.107.110 .111.112.113	008-03302-600-0	CHIP RES. 33 J 0603
R58.95	008-04722-600-0	CHIP RES. 4.7K J 0603
R5.14.21.26.44.62.64.85.8 8.90.119.192.194.196.197. 203.204.208.209	008-10012-400-0	CHIP RES. 1K F 0603
R1.2.4.10.11.13.20.23.25.2 7.28.29.31.40.	008-10022-400-0	CHIP RES. 10K F 0603
R75.77.78.82.87.184.193.1 98.201.206.210	008-10022-400-1	
R190.195.202.207	008-12022-400-0	CHIP RES. 12K F 0603
R3.8.12.16	008-12122-400-0	CHIP RES. 12K1 F 0603
R24.199.205.211	008-15012-400-0	CHIP RES. 1.5K F 0603
R98	008-18022-400-0	CHIP RES. 18K F 0603
R6.15	008-33002-400-0	CHIP RES. 330 F 0603
R99.101.	008-51082-400-0	CHIP RES. 5.1 F 0603
R19.30.39.51.56.67.74.86	008-56002-400-0	CHIP RES. 560 F 0603
C75.81.83.86A1.87	030-10626-0A0-0	E/C 10MF M 16V 5*11 T
C105.108.149	030-10736-0A0-0	E/C 100MF M 25V 8*11 T
C104.107	030-10838-006-0	E/C 1000MF Z 25V 10*21 P
C85	030-22526-0A0-0	E/C 2.2MF M 16V 5*11 T
C24.40.51.64	030-22628-0A0-0	E/C 22MF Z 16V 5*11 T
C110	030-22836-000-0	E/C 2200MF M 25V 16*25 P
C4.5.9.10.11.15.16.20.23.2 6.32.33.34.35.	030-47626-0A0-0	E/C 47MF M 16V 11*5 T
C74.111.113	030-47736-000-0	E/C 470MF M 25V 16*10 P
C3.7.14.18.22.29.39.45.48. 55.63.69.71.73	039-10424-220-0	CHIP C/C 0.1MF J 50V 0603
C94.95.96.102.106.109.11 2.114.137.138.14	039-10424-220-1	
C89A.90A.91A.91A1	039-10505-000-8	CHIP C/C 1MF K 16V 0805
C1.2.12.13	039-15124-200-0	CHIP C/C 150PF J 50V 0603
C77.78	039-20024-220-0	CHIP C/C 20P J 50V 0603
C99.100	039-22024-200-0	CHIP C/C 22PF J 50V 0603

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
C6.8.17.19	039-22124-220-0	CHIP C/C 220PF J 50V 0603
C72.73.74A1.75A1.98	039-30024-220-0	CHIP C/C 30P J 50V 0603
C25.37.52.61	039-33024-220-0	CHIP C/C 33PF J 50V 0603
C27.31.38.42.53.57.62.66	039-47124-220-0	CHIP C/C 470PF J 50V 0603
C28.30.56.70.131.132.133. 134.135.136.139	039-56225-200-8	CHIP C/C 0.0056MF K 50V 0603
C103	058-47236-000-0	LINE/C 4700PF M 400V MURATA
L1-L12	075-10013-300-0	INDUCTOR 1MH 1008PS-105MC SMD
D2	090-00002-001-0	DIODE 1N4002
D1	090-02000-020-0	DIODE 1N4148 T26MM MINI
D3	090-10000-000-0	B/DIODE PB154
D4	090-10018-000-0	B/DIODE KBL406
Q3.7	120-00000-800-0	TRAN. 2SC1815 GR TOSHIBA
Q2.4.6.8	120-00006-200-0	TRAN. 2SC2878 TOSHIBA
Q1.5	121-00000-200-0	TRAN. 2SA1015 GR TOSHIBA
U19	160-00001-219-0	IC 7812
U20	160-00001-331-0	IC LM7912
U22	160-00004-114-0	IC 7805
U13	160-00004-120-0	IC LM78L05 NS
U1.2.4.5.6.7.8.9.27.28	160-00024-100-0	IC NJM4580M DMP JRC
U17	160-00027-200-0	IC LM1117MPX-3.3 NS
U15	170-00007-300-0	TTL IC MAX809STR SOT-23 ON
U12	171-00004-900-0	CMOS IC AK4586VQ LQFP AKM
U14	177-00003-300-0	CPU IC ADSP21065LKS-240 MQFP
U7A1	177-00003-521-P	IC ATMEGA8515L-8AC TQFPV4(CHECKSUM:216E)
U16	177-00003-603-P	IC AT29LV020 PLCC V.35 (CHECKSUM: B80A)
U11	177-01002-313-P	IC AT24C64A TSSOP ATMEL(I7200)
JP1A.2A.3A.4A	211-01602-550-0	6D3/J PJB0661-6
JP1.2.3.4	211-03300-131-0	XLR/J 93M-108P/1
J1.2	211-03300-250-0	XLR/JACK 97M-1007PW-H
J3	211-06244-010-0	PIN/S 5507-24-G1-0610-0300
	290-02350-100-0	PCB I7200 BACK
Y2	300-24574-010-0	CRYSTAL 24.576MHZ HC-49/U-S
Y3	300-30004-000-0	CRYSTAL 30MHz HC-49/S
Y1A	300-80003-010-0	CRYSTAL 8MHz TXC
	315-00019-000-0	CONNECTOR JH-8M3
	C02-35000-002-0	I7200 BACK PCB SMD
	F02-35000-002-0	I7200 BACK PCB M/I
	H02-35000-002-0	I7200 BACK PCB A/I

**POWER REQUIREMENT CLASSIFICATION**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
<b>SA</b>		
	070-20758-800-0	X'MER 115/230V CM-E-M-254
F3	280-10263-001-0	FUSE 1A 250V VDE/CE S (GTD-1)
AC/S,F1,F2	280-50163-000-0 370-06010-321-6	FUSE 0.5A 250V VDE S P/CORD 10A/250V SA 2.5M 3P
<b>JIS</b>		
	070-20750-600-0	X'MER 100V JIS I SERIES
AC/S,F3	280-1026B-000-0	FUSE 1A 250V UL/CSA/JIS S
F1.F2	280-5016B-000-0 370-16510-629-0	FUSE 500MA 250V UL/CSA/JIS S P/CORD 7A 125V 2P 6F JIS
<b>UL</b>		
	070-20758-800-0	X'MER 115/230V CM-E-M-254
AC/S.F3	280-1026B-000-0	FUSE 1A 250V UL/CSA/JIS S
F1.F2	280-5016B-000-0 370-08010-721-0	FUSE 500MA 250V UL/CSA/JIS S P/CORD 120V 10A 6F 3PUL/CSA
	070-20752-100-0	X'MER 127V I SERIES
AC/S.F3	280-1026B-000-0	FUSE 1A 250V UL/CSA/JIS S
F1.F2	280-5016B-000-0 370-08010-721-0	FUSE 500MA 250V UL/CSA/JIS S P/CORD 120V 10A 6F 3PUL/CSA
<b>IEC</b>		
	070-20758-800-0	X'MER 115/230V CM-E-M-254
F3	280-10263-001-0	FUSE 1A 250V VDE/CE S (GTD-1)
AC/S,F1,F2	280-50163-000-0 370-15010-921-0	FUSE 0.5A 250V VDE S P/CORD IEC 10A 6F 3P SVT
	070-20758-800-0	X'MER 115/230V CM-E-M-254
F3	280-10263-001-0	FUSE 1A 250V VDE/CE S (GTD-1)
AC/S,F1,F2	280-50163-000-0 370-05940-821-0	FUSE 0.5A 250V VDE S P/CORD 220V 10A 2.5M 3P SVT SAA
<b>BS</b>		
	070-20758-800-0	X'MER 115/230V CM-E-M-254
F3	280-10263-001-0	FUSE 1A 250V VDE/CE S (GTD-1)
AC/S*1,F1,F2	280-50163-000-0 370-01010-921-0	FUSE 0.5A 250V VDE S P/CORD 240V 10A 6F 3P
	573-10032-010-0	POWER LABEL (ONLY USED IN BS)
<b>SAA</b>		
	070-20758-800-0	X'MER 115/230V CM-E-M-254
F3	280-10263-001-0	FUSE 1A 250V VDE/CE S (GTD-1)
AC/S,F1,F2	280-50163-000-0 370-11010-821-0	FUSE 0.5A 250V VDE S P/CORD 240V 10A 6F 3P SAA SVT

**PHONIC**

[www.phonic.com](http://www.phonic.com)