

# i7100

Integrated Mobile Sound System

## SERVICE MANUAL

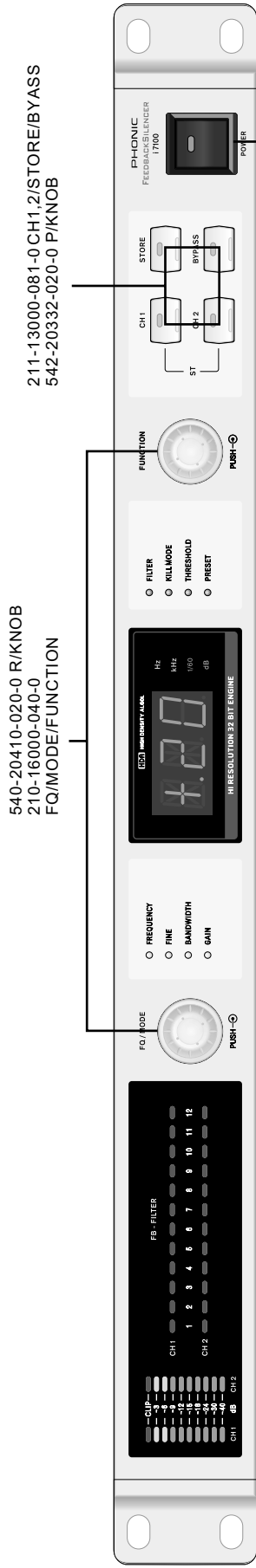


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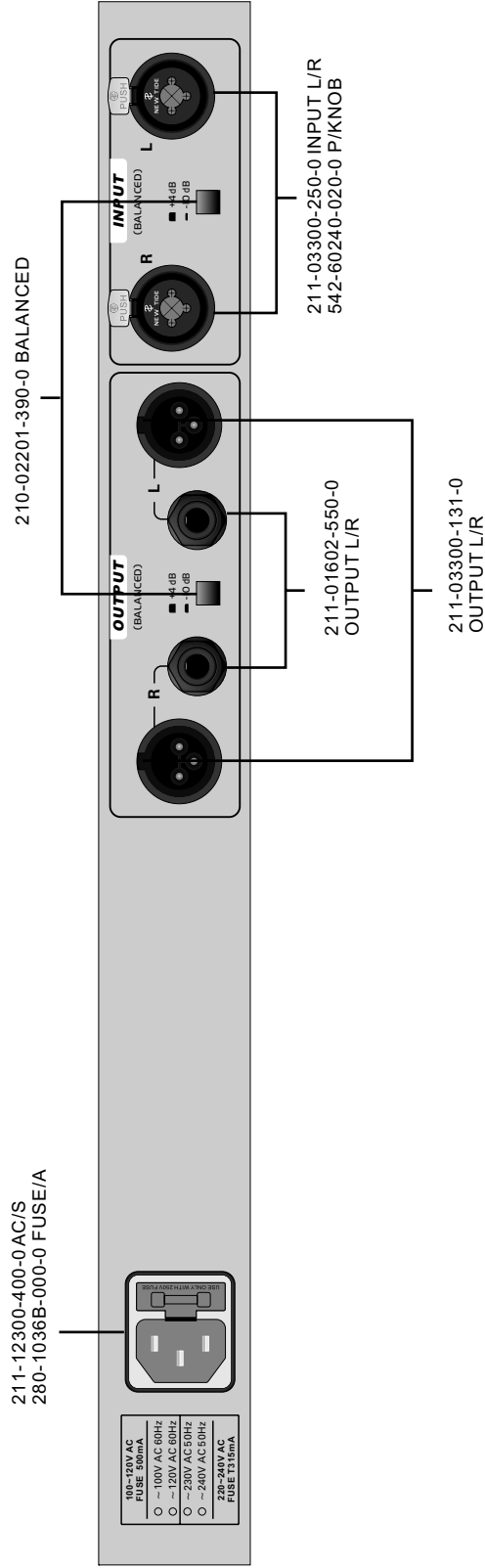
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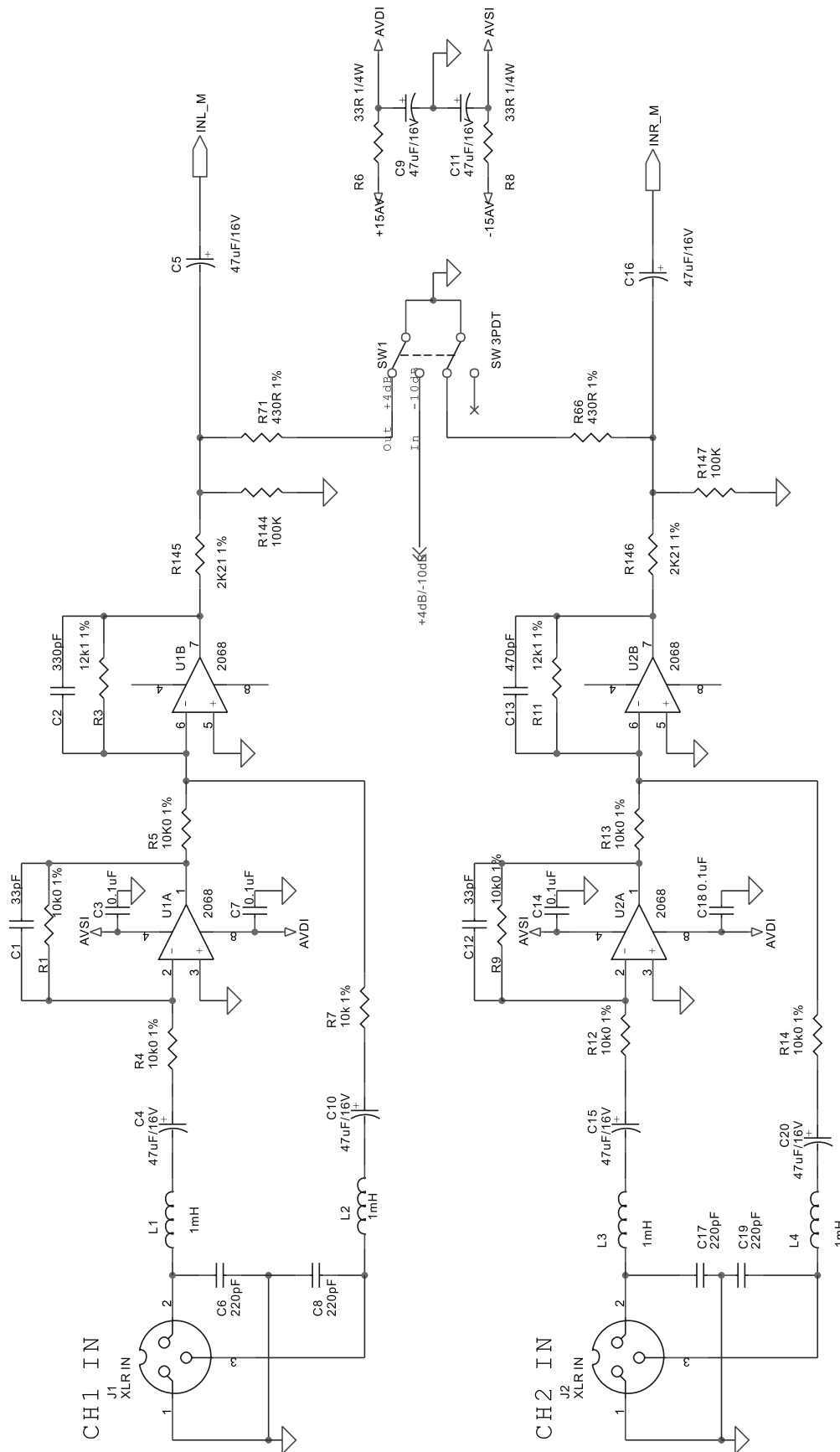
PANEL LAYOUT



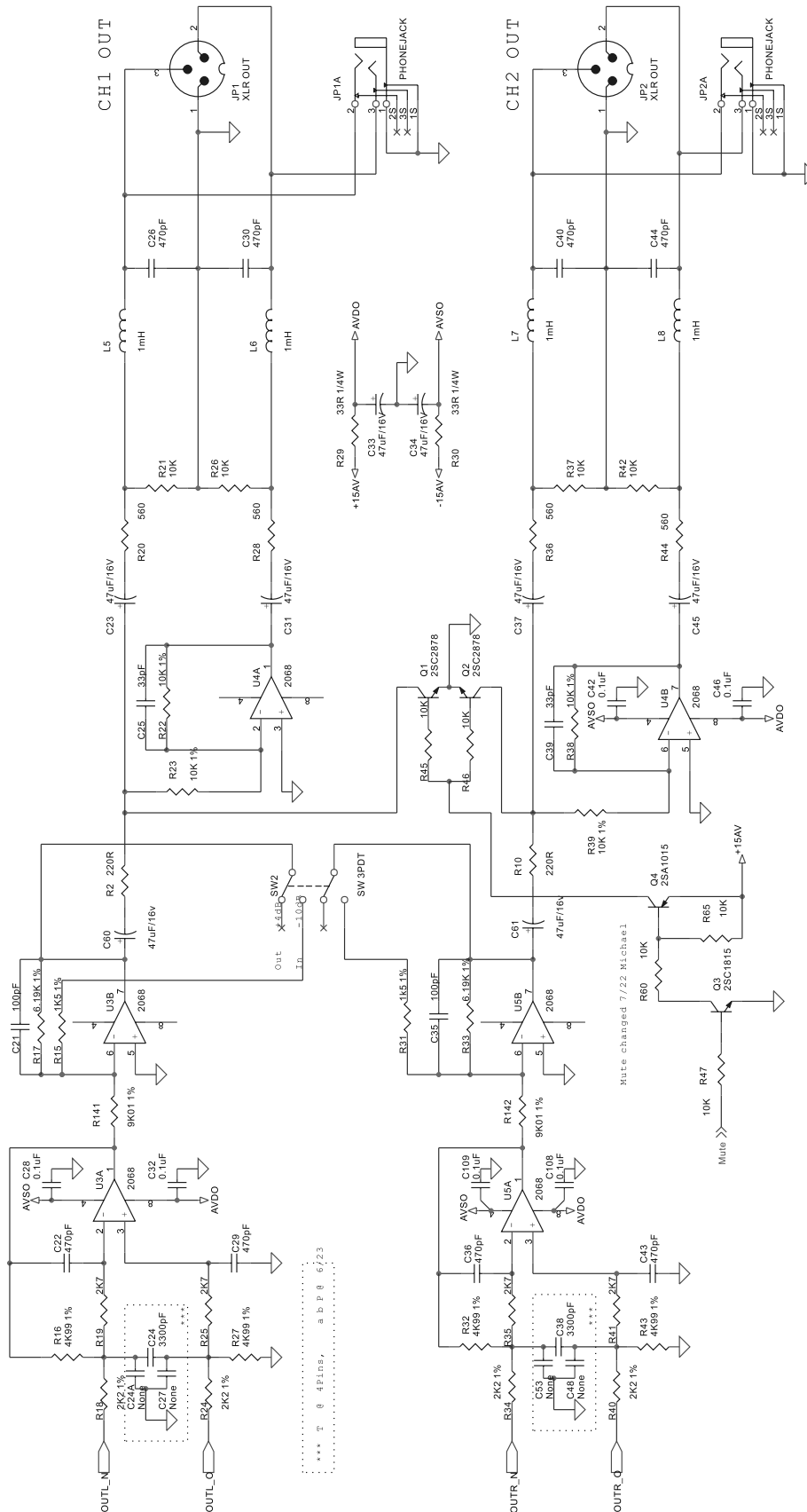
P/KNOB:542-20320-020-0  
ACRYLIC:529-20032-000-0  
HOUSING:543-20210-020-0  
PUSH BRKT:551-20079-420-0  
P/SW:210-02101-010-0  
LED:100-00150-040-0



ANALOG INPUT

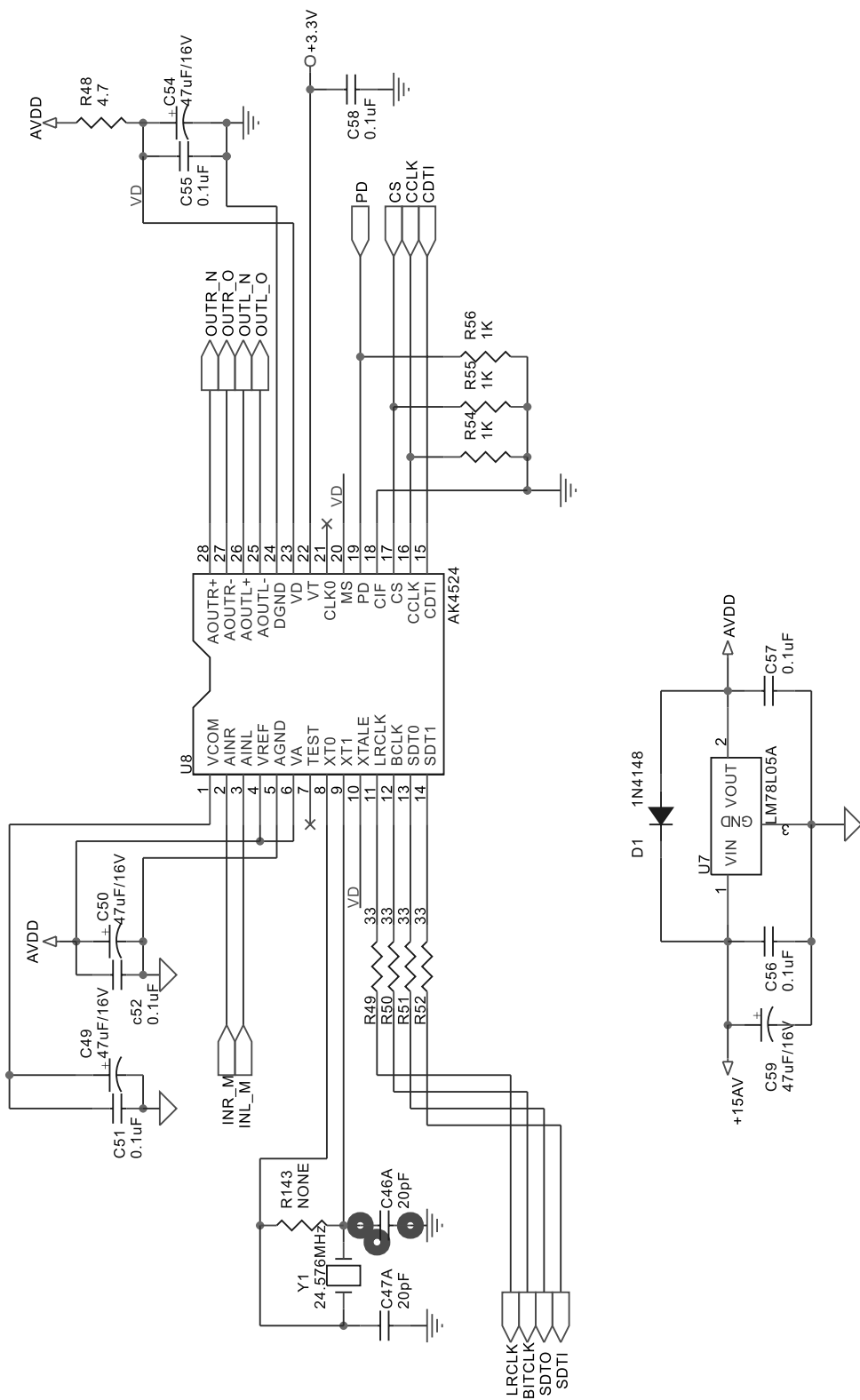


ANALOG OUTPUT

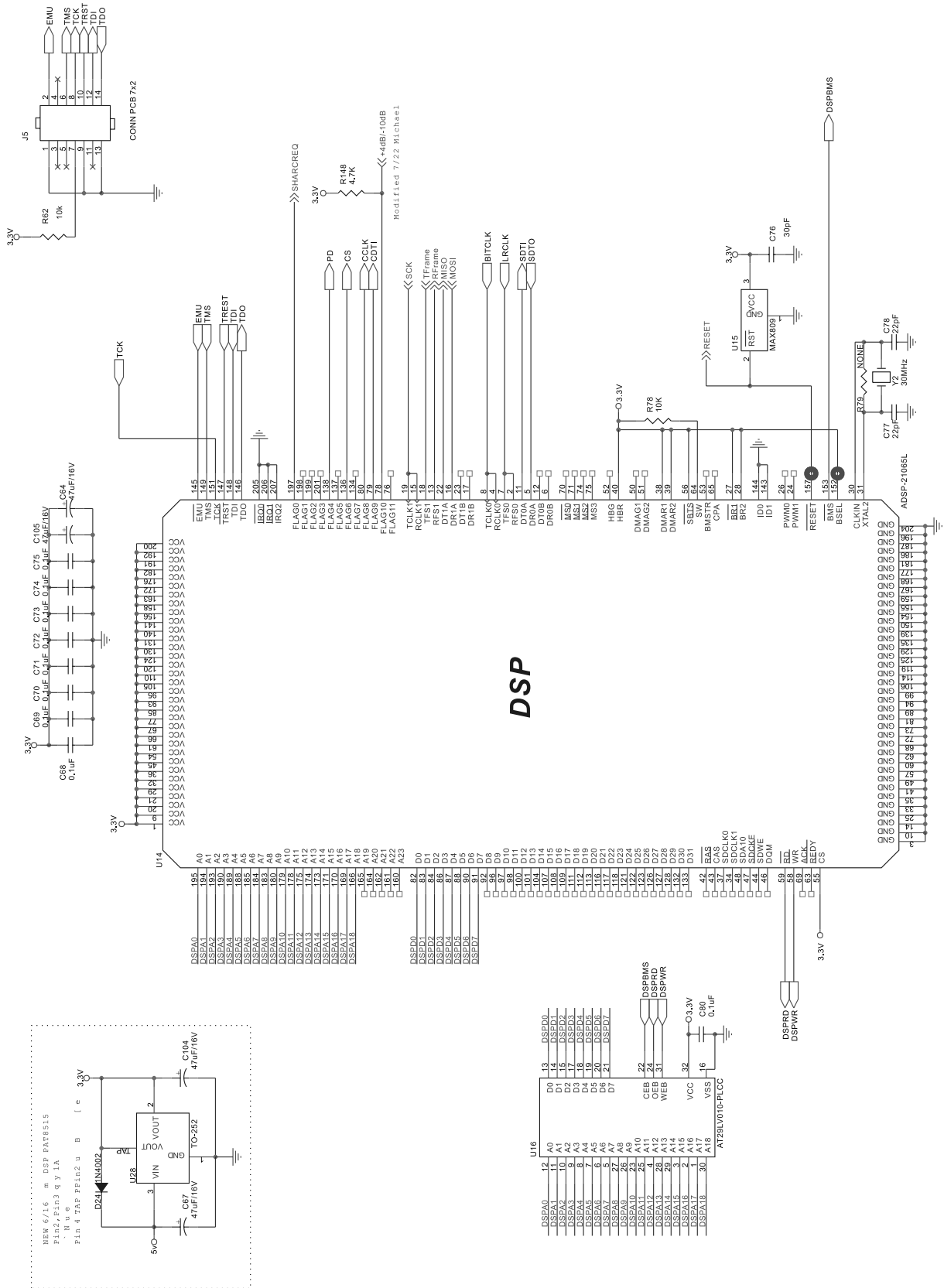


Title		PHONIC INC
Size		i7100
B	Document Number	Analog Output
Date:		ERICAW, JULY 23, 2004
Sheet		1 of 8
Rev		0.14

CODEC



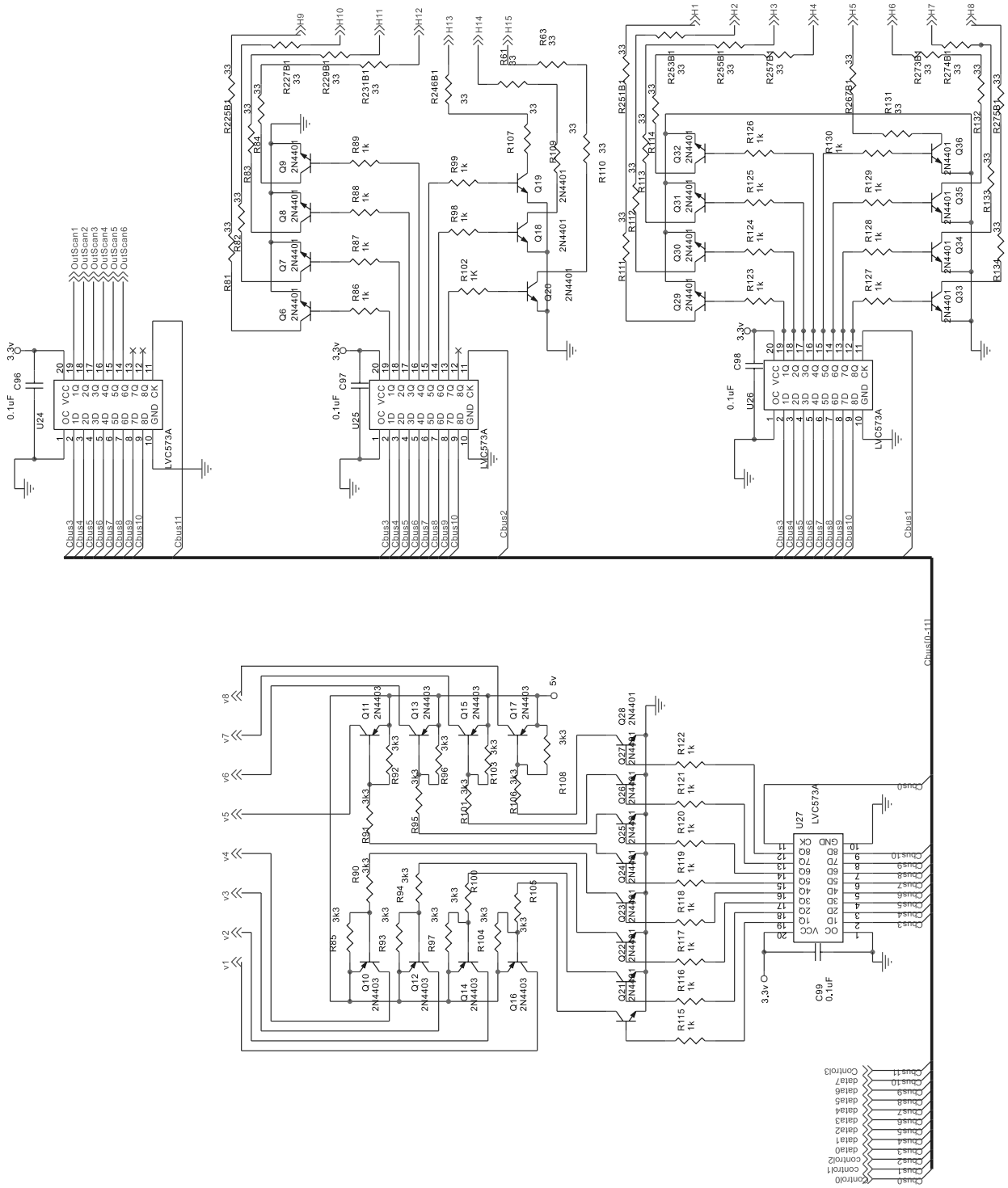
CODEC AES\_EBU



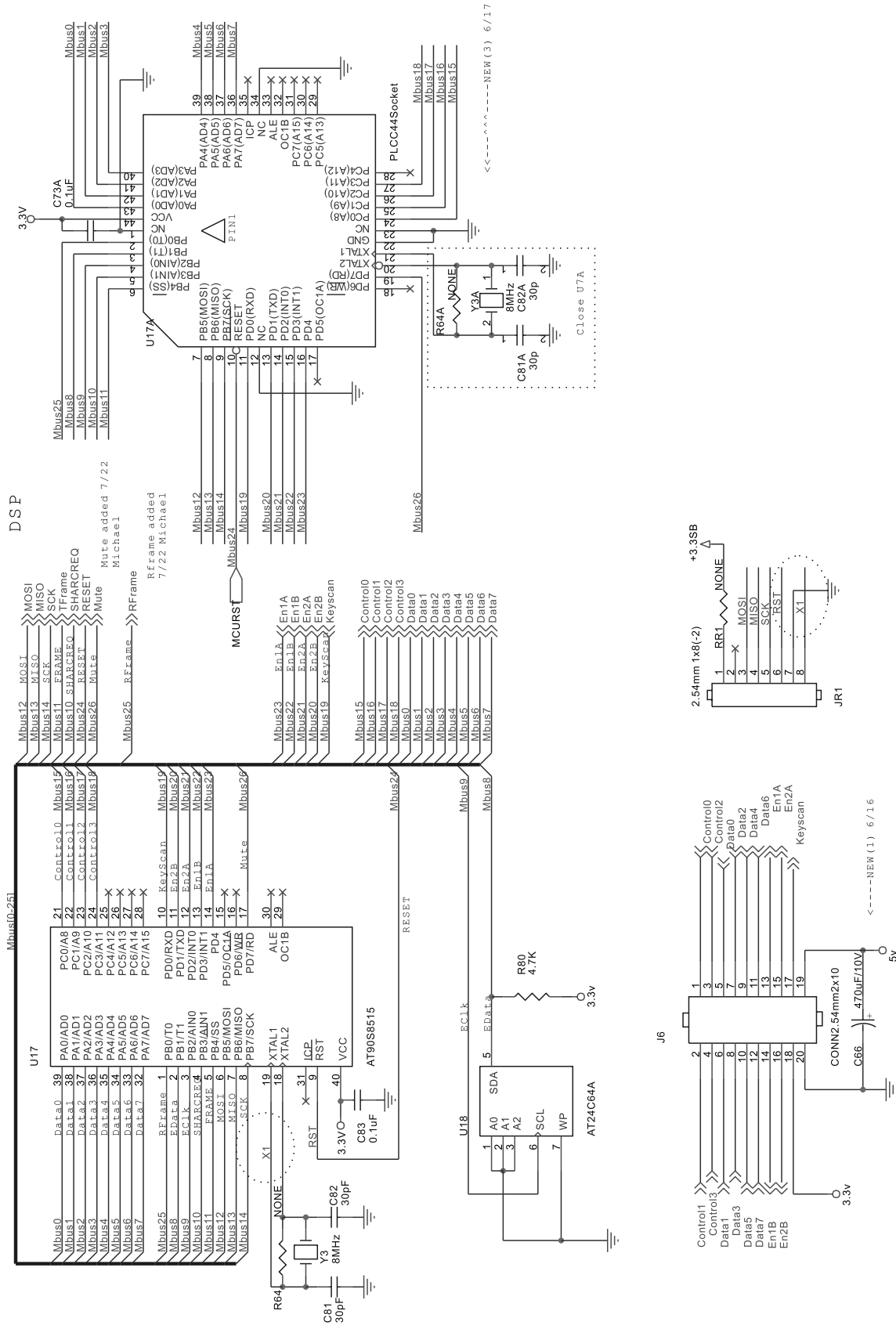




MATRIX SCAN

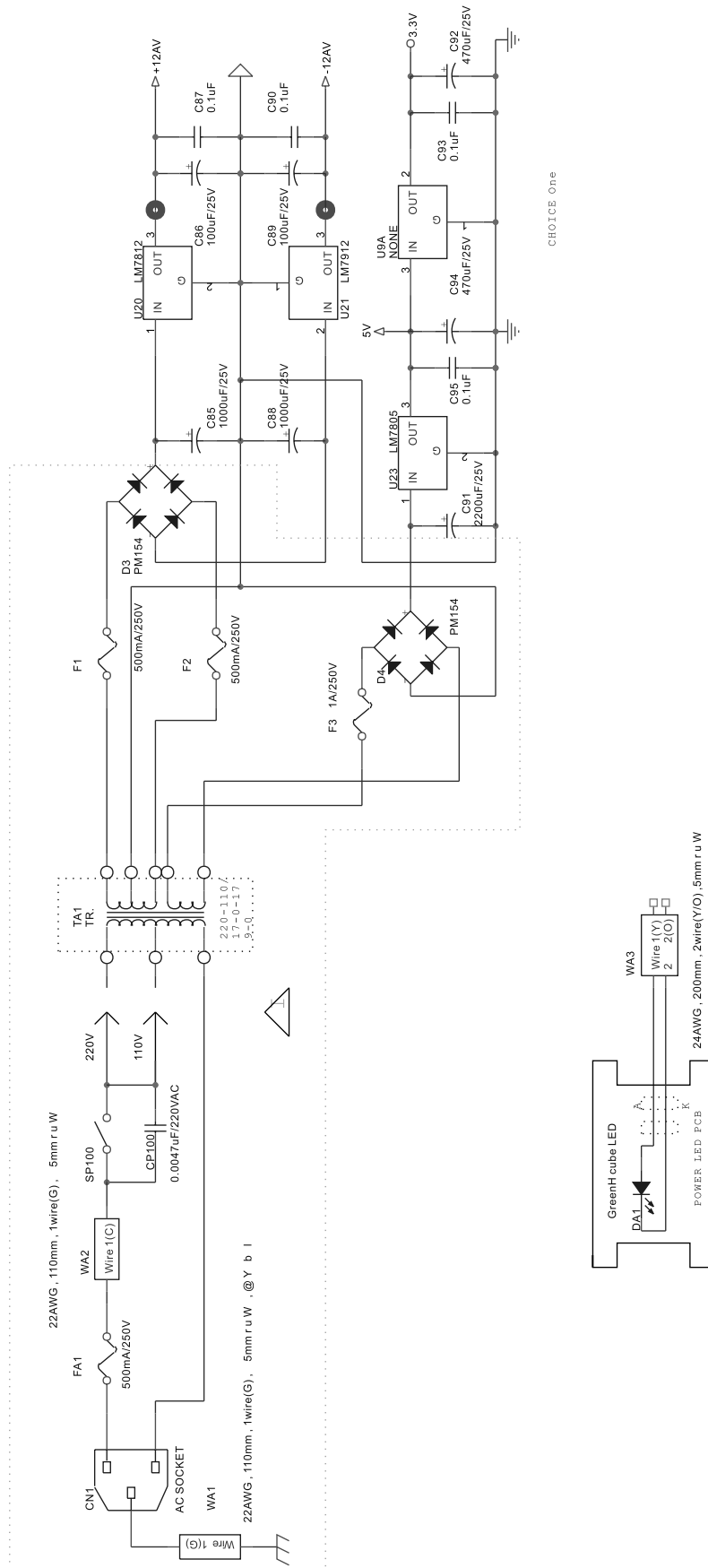


MICROCONTROLLER

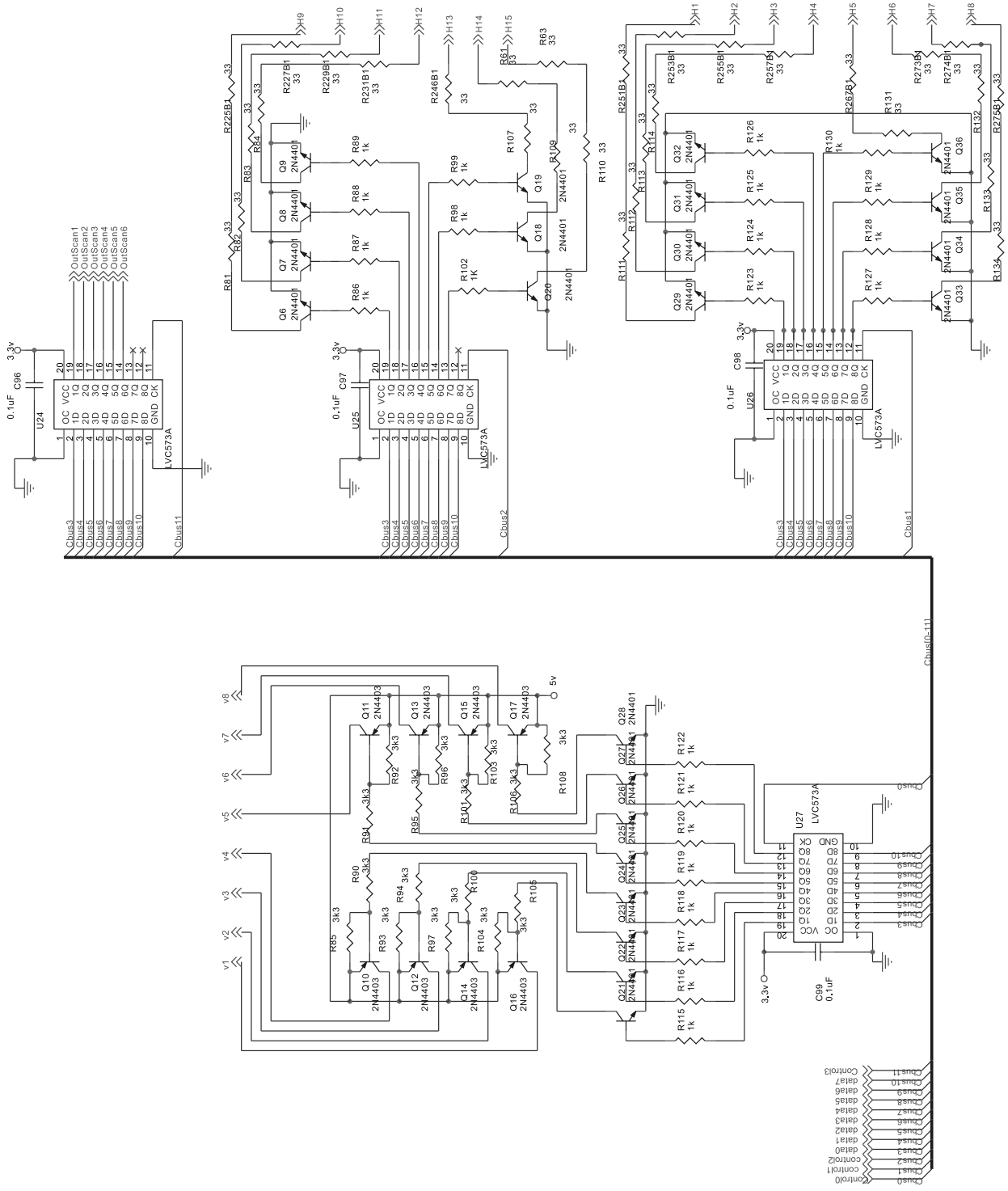




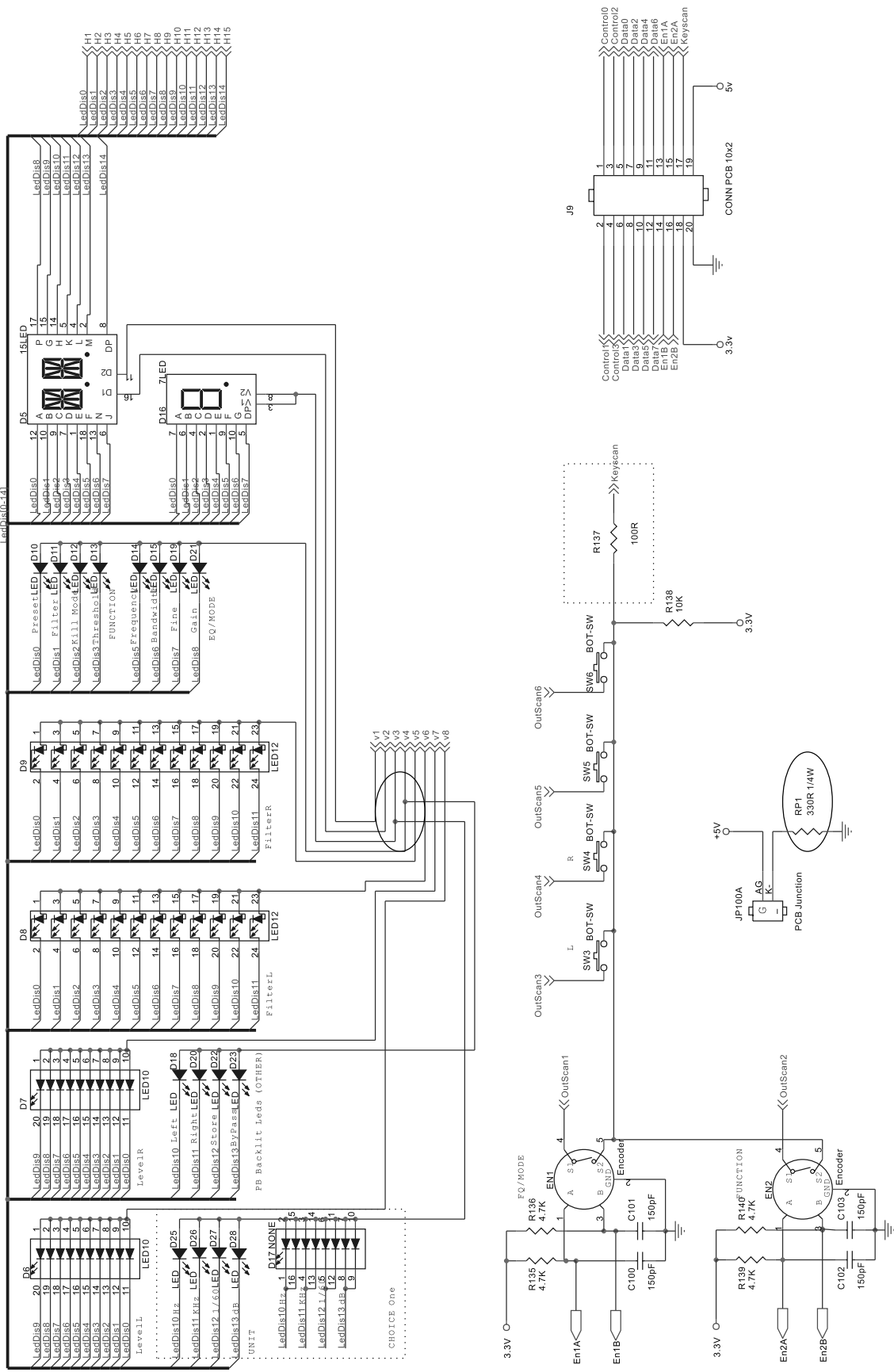
POWER SUPPLY



## MICROCONTROLLER & SFROM



USER INTERFACE





## MISCELLANEOUS ITEMS

Ref.	Phonic Part No.	Specifications	
POWER SW	210-02101-010-0	PSH/SW SDDL B10074U-PJ	
	211-12300-040-0	AC/S 0717-1-PS	
GND*1	212-10010-890-0	1P WAFER/P 100MM GRN	
	212-10200-120-0	20P WAFER/P 200MM	
	281-00000-020-0	FUSE CLIP FH-1206	
	307-00000-000-0	CORD CONNECTOR HW-C4	
U20.21.23	313-00000-060-0	RUBBER WASHER TO-2203	
IC*3	314-00000-050-0	BUSHES 602S(V.O)	
	321-00000-070-0	CABLE TIE HW-100MM	
	379-28151-111-0	M.WIRE UL1617 #22 150MM BRN	
POWER LED	385-02201-220-0	2P W.RIBBIN WIRE 250MM ORN+BRN UL1007#28	
	510-21170-010-0	PANEL I7100	
	511-20770-000-0	BACK PANEL I7100	
	516-20490-000-0	TOP COV. I7100	
	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*4	529-20033-000-0	LED ACRYLIC LENS I SERIES(2)
		529-20034-000-0	ACRYLIC LENS 66.3*34.8*t3
	LED BAR	529-20035-000-0	ACRYLIC LENS 116*34.8*t3
	FQ*1,FUNCTION*1	540-20410-020-0	R/KNOB 877C BODY
POWER SW	542-20320-020-0	P/KNOB ABS BLK	
ST CH1/CH2,STORE/ BYPASS*1	542-20330-020-0	P/KNOB 877C BODY	
BALANCED*2	542-60240-020-0	P/KNOB 431C+WHT	
POWER SW BUSH- ING	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	
	560-21150-000-0	CARTON I7100	
	561-21340-000-0	G/B I7100	
	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	



<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
	573-10124-010-0	GND LABEL
	573-60240-000-0	S/N LABEL PHONIC
	573-60343-000-0	LABEL BLUE D=8mm
	574-02340-110-0	OWN. MANU. I7100 PHONIC
	590-02604-200-8	M/E FLT SCR. M2.6*4 BLK D=4.5
	590-02606-200-8	M/E FLT SCR. M2.6*6 BLK D=4.5
FIX XLR*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 FIX POW- ER SW*2	590-33006-100-0	M/E RUD SCR. M3.0*6 NI
FIX X'MER*2	590-33008-200-0	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/J *4	591-03006-200-0	T/P FLT SCR. M3.0*6 BLK
	600-00403-510-0	HEX. NUT M4.0*3.5 NI
	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
LED BOSS	615-20082-620-0	LED HOUSING LED3-8
	615-20099-620-0	LED BOSS LED3-3
	618-14180-662-0	SPEC. FIXED PIN SR-2 WHT
	630-80000-310-0	PVC 60*80*0.3
	631-80000-000-0	HEMELON 8*30MM
	B02-34015-410-0	I7100 PHONIC

**FRONT PCB-PART LIST**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
RP1	000-33126-400-0	CF RES. 330 J 1/4W T
R86.87.88.89.98.99.102. 115-130	008-01022-600-0	CHIP RES. 1K J 0603
R138	008-01032-600-0	CHIP RES. 10K J 0603
R61.63.81.82.83.84.107 .109.110.111.112.113.11 4.131.132.133.134.137. 225B1	008-03302-600-0	CHIP RES. 33 J 0603
R227B1.229B1.231B1.24 6B1.251B1.253B1.255B1 .257B1.267B1.273B1.274 B1.275B1	008-03302-600-1	
R85.90.91.92.93.94.95.9 6.97.100.101.103.104.10 5.106.108	008-03322-600-0	CHIP RES. 3.3K J 0603
	008-04722-600-0	CHIP RES. 4.7K J 0603
C96.97.98.99	039-10424-220-0	CHIP C/C 0.1MF J 50V 0603
C100.101.102.103	039-15124-200-0	CHIP C/C 150PF J 50V 0603
D22.27	100-00110-040-0	LED BL-R6137 HI-RED
D18.20.23.25.26	100-00140-030-0	LED BL-RKB137 HI-YLW
POWER LED	100-00150-040-0	LED 2*4mm BL-RGE131 Green
D28	100-00150-050-0	LED BL-RGE137 HI-GRN
D10.11.12.13	100-00430-000-0	LED BL-S4149 ORANGE
D14.15.19.21	100-00440-000-0	LED BL-S3149 YLW
D6.7	100-01110-080-0	LED BAR BA-1R2Y7G
D8.9	100-01112-070-0	LED BAR BA-C24/12S-32J
D16	100-02000-070-0	7 SEG/LED BS-A552RD
D5	100-02000-080-0	7 SEG/LED BD-E522RD
Q6.7.8.9.18.19.20.21.22. 23.24.25.26.27.28.29.30. 31.32.33.34.35.36	120-00007-410-0	TRAN. MMBT4401(2N4401)
	121-00005-310-0	TRAN. MMBT4403(2N4403)
U24.25.26.27	170-00007-500-0	IC 74LVC573APW TSSOP
SW3.4.5.6	210-13000-081-0	TACT/SW TC-004-PSS11A-B
EN1.EN2	210-16000-040-0	ENCODER DC11B1524418-PJ
J9	211-06204-010-0	
	290-02340-101-0	PCB I7100 A FRONT
	C02-34000-001-0	I7100 FRONT PCB SMD
	F02-34000-001-0	I7100 FRONT PCB M/I
	H02-34000-001-0	I7100 FRONT PCB A/I

**BACK PCB-PART LIST**

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
R6.8.29.30	000-33026-400-0	CF RES. 33 J 1/4W T
R54.55.56	008-01022-600-0	CHIP RES. 1K J 0603
R21.26.37.42.45.46.4 7.60.62.65.78	008-01032-600-0	CHIP RES. 10K J 0603
R144.147	008-01042-600-0	CHIP RES. 100K J 0603
R2.10	008-02212-600-0	CHIP RES. 220 J 0603
R18.24.34.40	008-02222-600-0	CHIP RES. 2K2 J 0603
R19.25.35.41	008-02722-600-0	CHIP RES. 2K7 J 0603
R49.50.51.52	008-03302-600-0	CHIP RES. 33 J 0603
R80.148	008-04722-600-0	CHIP RES. 4.7K J 0603
R48	008-04772-600-0	CHIP RES. 4.7 J 0603
R20.28.36.44	008-05612-600-0	CHIP RES. 560 J 0603
R1.4.5.7.9.12.13.14.2 2.23.38.39	008-10022-400-0	CHIP RES. 10K F 0603
R66.71	008-13012-400-0	CHIP RES. 1.3K F 0603
R145.146	008-22112-400-0	CHIP RES. 2.21K F 0603
R15.31	008-45312-400-0	CHIP RES. 4.53K F 0603
R16.27.32.43	008-49912-400-0	CHIP RES. 4K99 F 0603
R3.11	008-59012-400-0	CHIP RES. 5.9K F 0603
R17.33	008-61912-400-0	CHIP RES. 6.19K F 0603
R141.142	008-91012-400-0	CHIP RES. 9.1K F 0603
C86.89	030-10736-0A0-0	E/C 100MF M 25V 8*11 T
C85.88	030-10838-000-0	E/C 1000MF Z 25V 13*20 P
C91	030-22836-000-0	E/C 2200MF M 25V 16*25 P
C4.5.9.10.11.15.16.2 0.23.31.33.34.37.45. 49.50.54.59.60.61.64 .67.104.105	030-47626-0A0-0	E/C 47MF M 16V 11*5 T
C66.92.94	030-47736-000-0	E/C 470MF M 25V 16*10 P
C21.35	039-10124-220-0	CHIP C/C 100PF J 50V 0603
C3.7.14.18.28.32.42. 46.51.52.55.56.57.58 .68.69.70.71.72.73.7 4.75.80.83.87.73A	039-10424-220-0	CHIP C/C 0.1MF J 50V 0603
C90.93.95.108.109	039-10424-220-1	
C46A.47A	039-20024-220-0	CHIP C/C 20P J 50V 0603
C77.78	039-22024-200-0	CHIP C/C 22PF J 50V 0603
C6.8.17.19	039-22124-220-0	CHIP C/C 220PF J 50V 0603
C76.81.82	039-30024-220-0	CHIP C/C 30P J 50V 0603
C1.12.25.39	039-33024-220-0	CHIP C/C 33PF J 50V 0603
C24.38	039-33224-220-0	CHIP C/C 0.0033MF J 50V 0603

<b>Ref.</b>	<b>Phonic Part No.</b>	<b>Specifications</b>
C2.13.22.26.29.30.36 .40.43.44	039-47124-220-0	CHIP C/C 470PF J 50V 0603
	058-47236-000-0	LINE/C 4700PF M 400V MURATA
L1.2.3.4.5.6.7.8	075-10013-300-0	INDUCTOR 1MH 1008PS-105MC SMD
D24	090-00002-001-0	DIODE 1N4002
D1	090-02000-020-0	DIODE 1N4148 T26MM MINI
D3.4	090-10000-000-0	B/DIODE PB154
Q3	120-00000-800-0	TRAN. 2SC1815 GR TOSHIBA
Q1.2	120-00006-200-0	TRAN. 2SC2878 TOSHIBA
Q4	121-00000-200-0	TRAN. 2SA1015 GR TOSHIBA
U20	160-00001-219-0	IC 7812
U21	160-00001-331-0	IC LM7912
U23	160-00004-114-0	IC 7805
U7	160-00004-120-0	IC LM78L05 NS
U1.2.3.4.5	160-00024-100-0	IC NJM4580M DMP JRC
U28	160-00027-200-0	IC LM1117MPX-3.3 NS
U15	170-00007-300-0	TTL IC MAX809STR SOT-23 ON
U8	171-00004-500-0	CMOS IC AK4524 VSOP AKM
U14	177-00003-300-0	CPU IC ADSP21065LKS-240 MQFP
U17	177-00003-511-P	CPU ATMEGA8515-16PI ATMEL(CHECKSUM: CCCA)
U16	177-00003-601-P	IC AT29LV020 PLCC V.25 (CHECKSUM: E756)
U18	177-01002-311-P	IC AT24C64A TSSOP ATMEL(CHECKSUM: DFAC)
SW1.SW2	210-02201-390-0	PSH/SW SP70300-0202-11F1-N
JP1A.JP2A	211-01602-550-0	6D3/J PJB0661-6
JP1.2	211-03300-131-0	XLR/J 93M-108P/1
J1.J2	211-03300-250-0	XLR/JACK 97M-1007PW-H
J6	211-06204-010-0	PIN/S PHDRST-10 6MM
	211-11402-001-0	IC/S TA-40
	290-02340-001-0	PCB I7100 BACK
Y1	300-24574-010-0	CRYSTAL 24.576MHZ HC-49/U-S
Y2	300-30004-000-0	CRYSTAL 30MHz HC-49/S
Y3	300-80003-010-0	CRYSTAL 8MHz TXC
	315-00019-000-0	CONNECTOR JH-8M3
	C02-34000-002-0	I7100 BACK PCB SMD
	F02-34000-002-0	I7100 BACK PCB M/I
	H02-34000-002-0	I7100 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	FUSE 0.5A 250V VDE S
	370-06010-321-6	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	FUSE 500MA 250V UL/CSA/JIS S
	370-16510-629-0	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	FUSE 500MA 250V UL/CSA/JIS S
	370-08010-721-0	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	FUSE 500MA 250V UL/CSA/JIS S
	370-08010-721-0	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	FUSE 0.5A 250V VDE S
	370-15010-921-0	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	FUSE 0.5A 250V VDE S
	370-05940-821-0	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	FUSE 0.5A 250V VDE S
	370-01010-921-0	P/CORD 240V 10A 6F 3P
	573-10032-010-0	POWER LABEL (ONLY USED IN BS)

Ref.	Phonic Part No.	Specifications
<u>SAA</u>		
	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	FUSE 0.5A 250V VDE S
	370-11010-821-0	P/CORD 240V 10A 6F 3P SAA SVT

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