

SOLID AMPLIFIERS

Service Manual - May 2008

SOLID 4 Amplifier

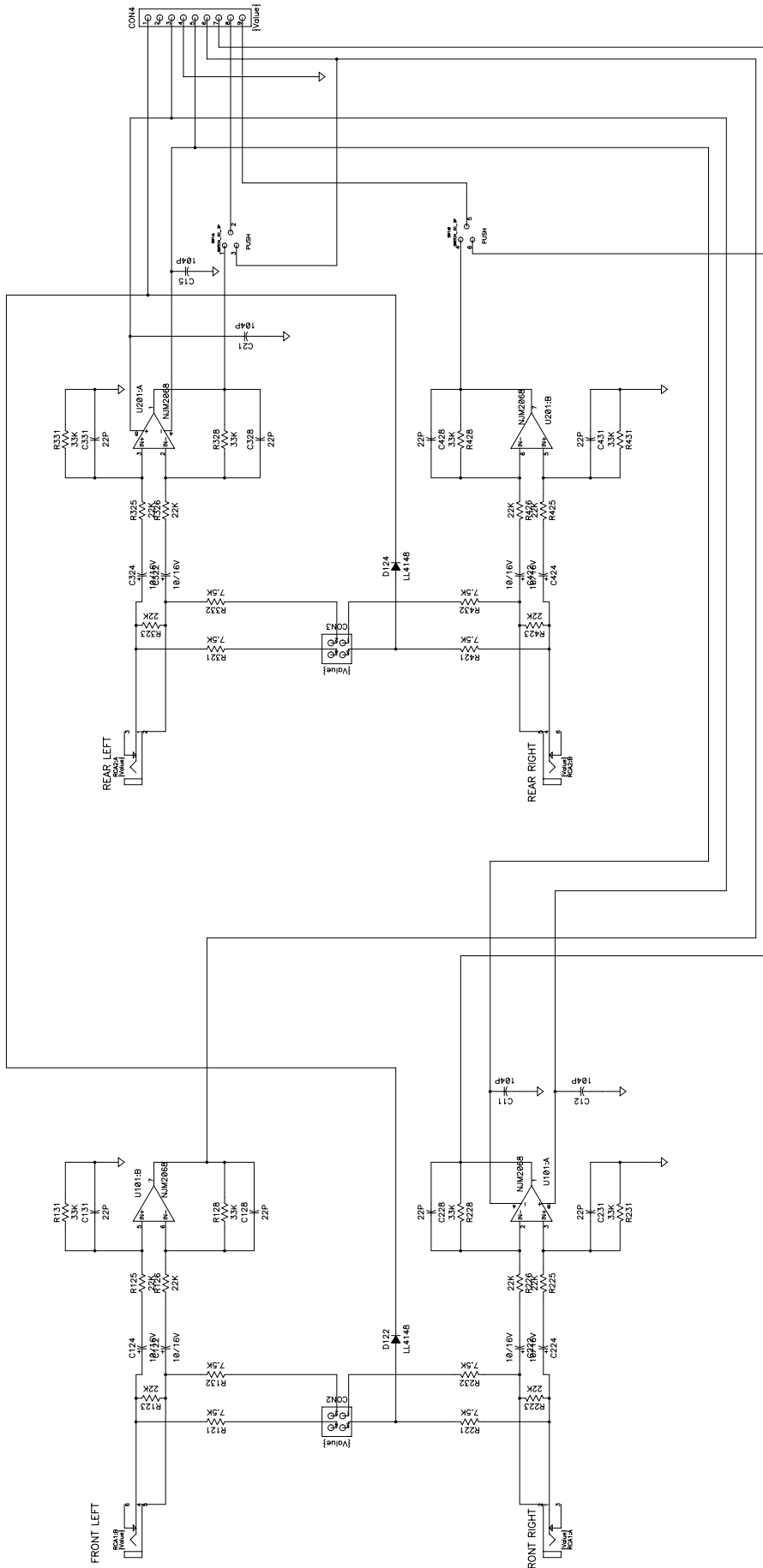



FOCAL[®]
the Spirit of Sound

Summary



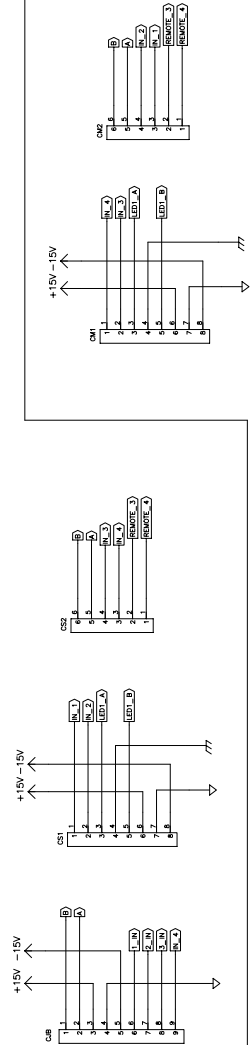
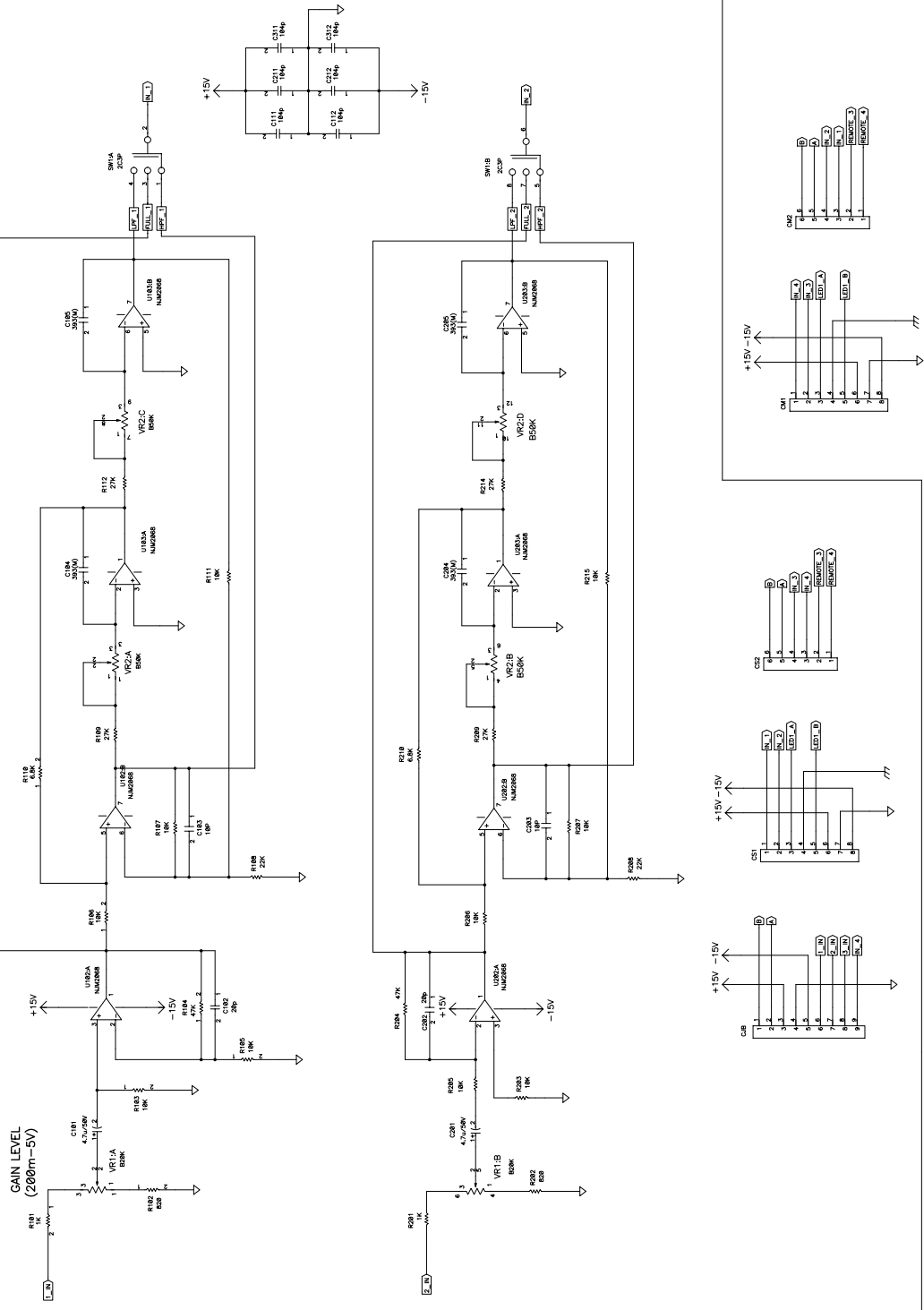
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Components layout	9 to 11
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List of spare parts	18



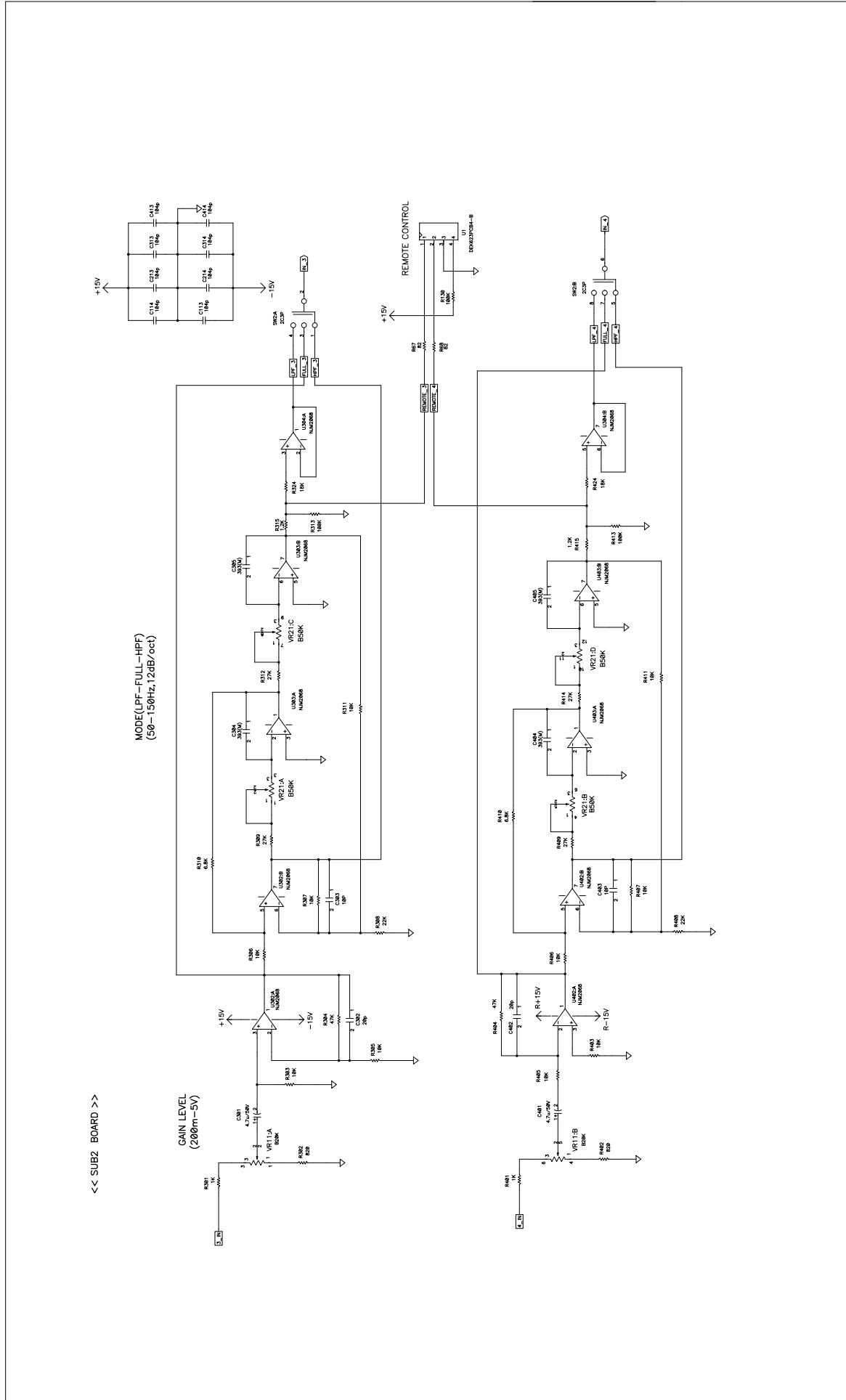
Title		SOLID4 SUB1	
Size	Number	Rev	
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Filename		Sheet	1 of 1

<< SUB2 BOARD >>

MODE(LP=FULL=HPF)
(50-150Hz, 12dB/oct)



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Size	Number	Rev	
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Date	2008.03.25	Drawn by	
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<< SUB2 BOARD >>

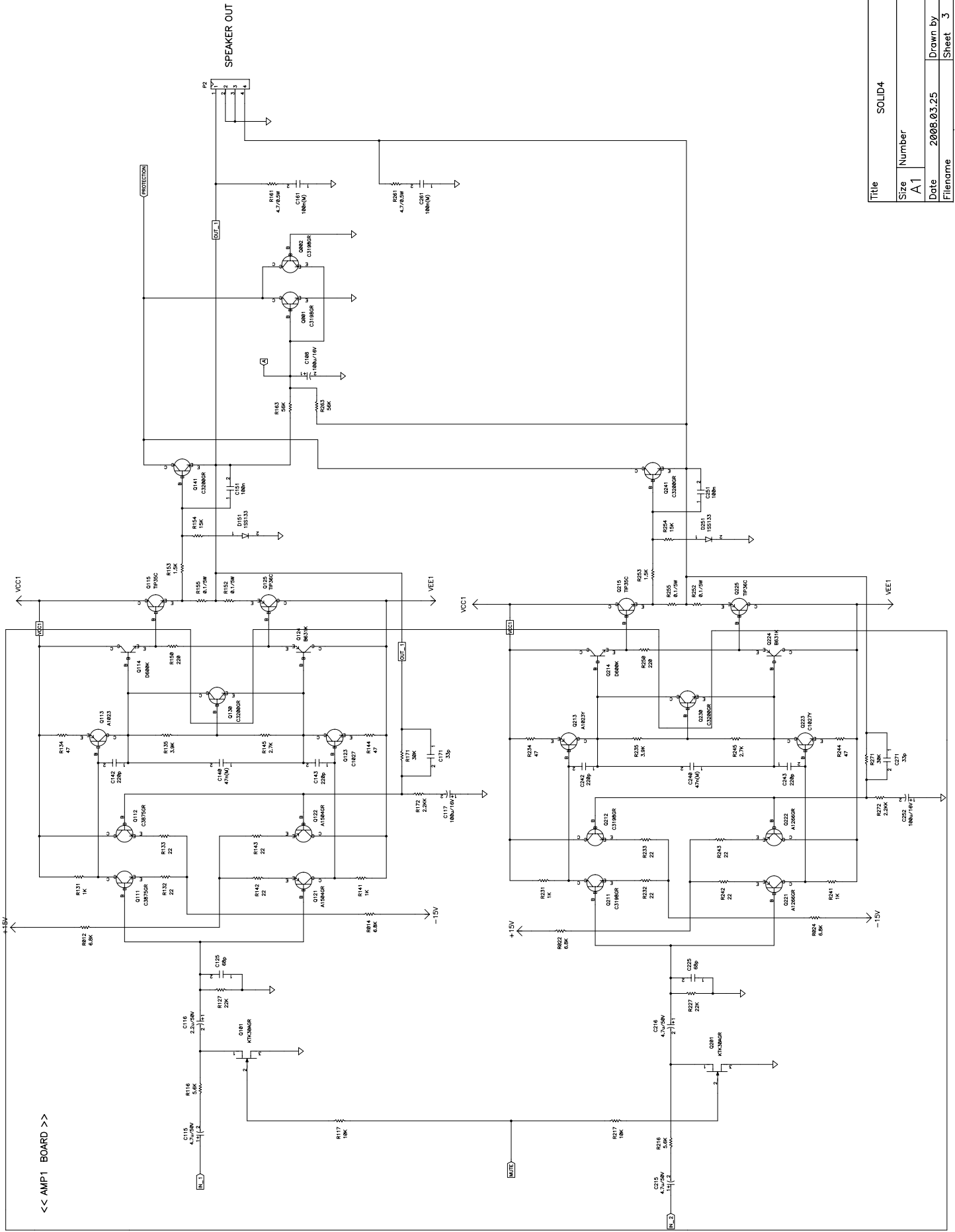
MODE(LPF-FULL-HPF)
(50-150Hz, 12dB/oct)

GAIN LEVEL
(200m-5V)

REMOTE CONTROL

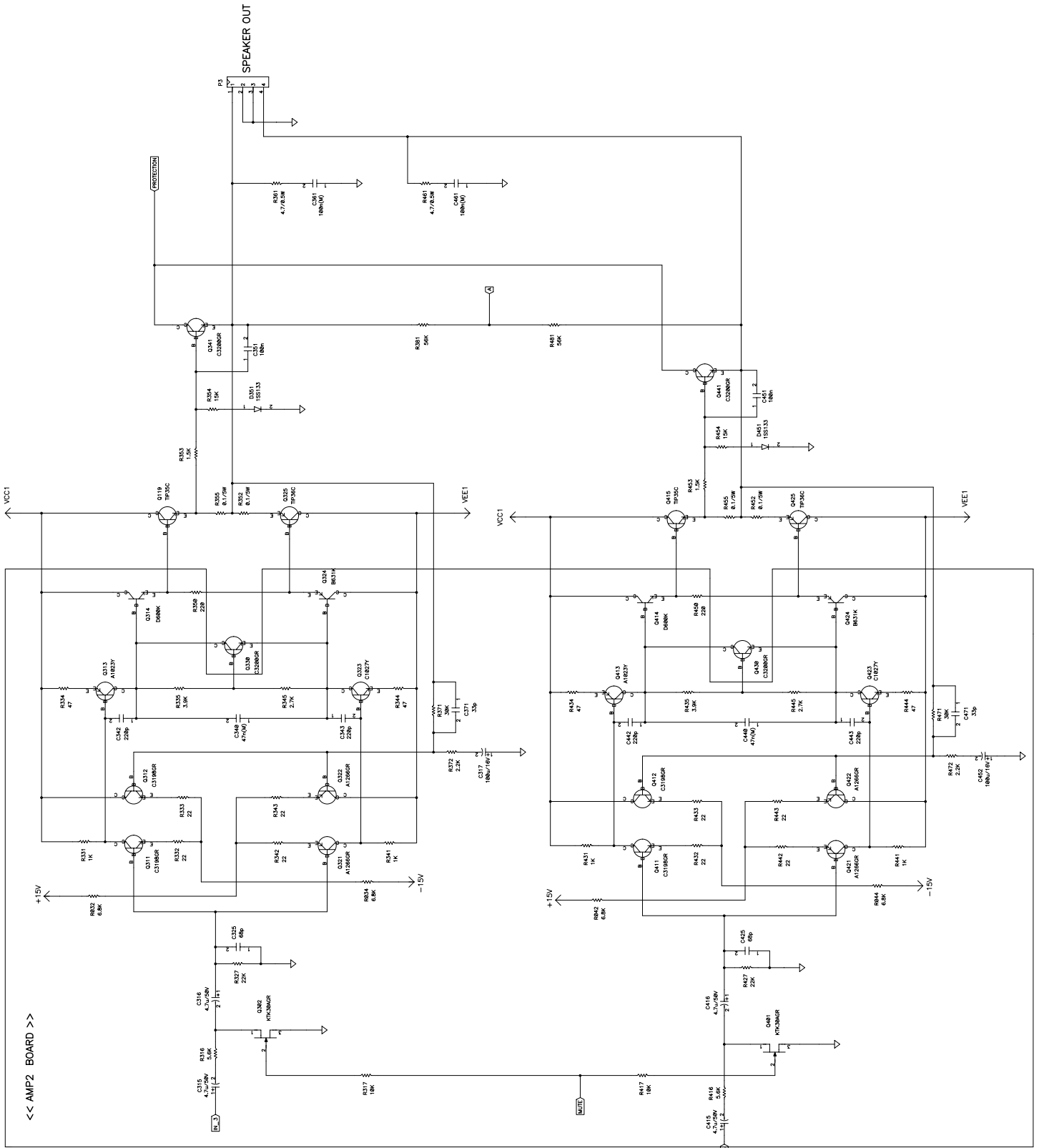
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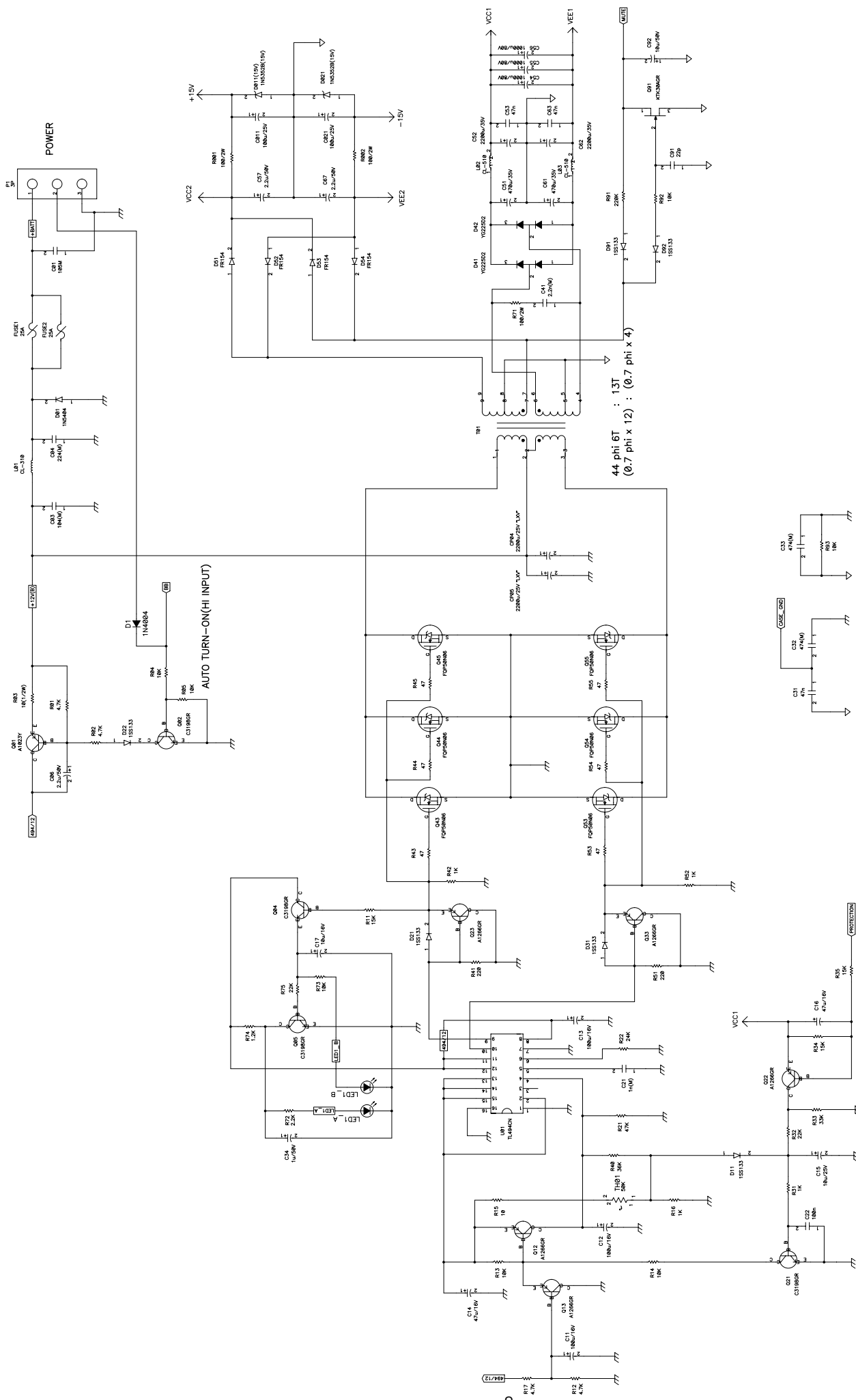
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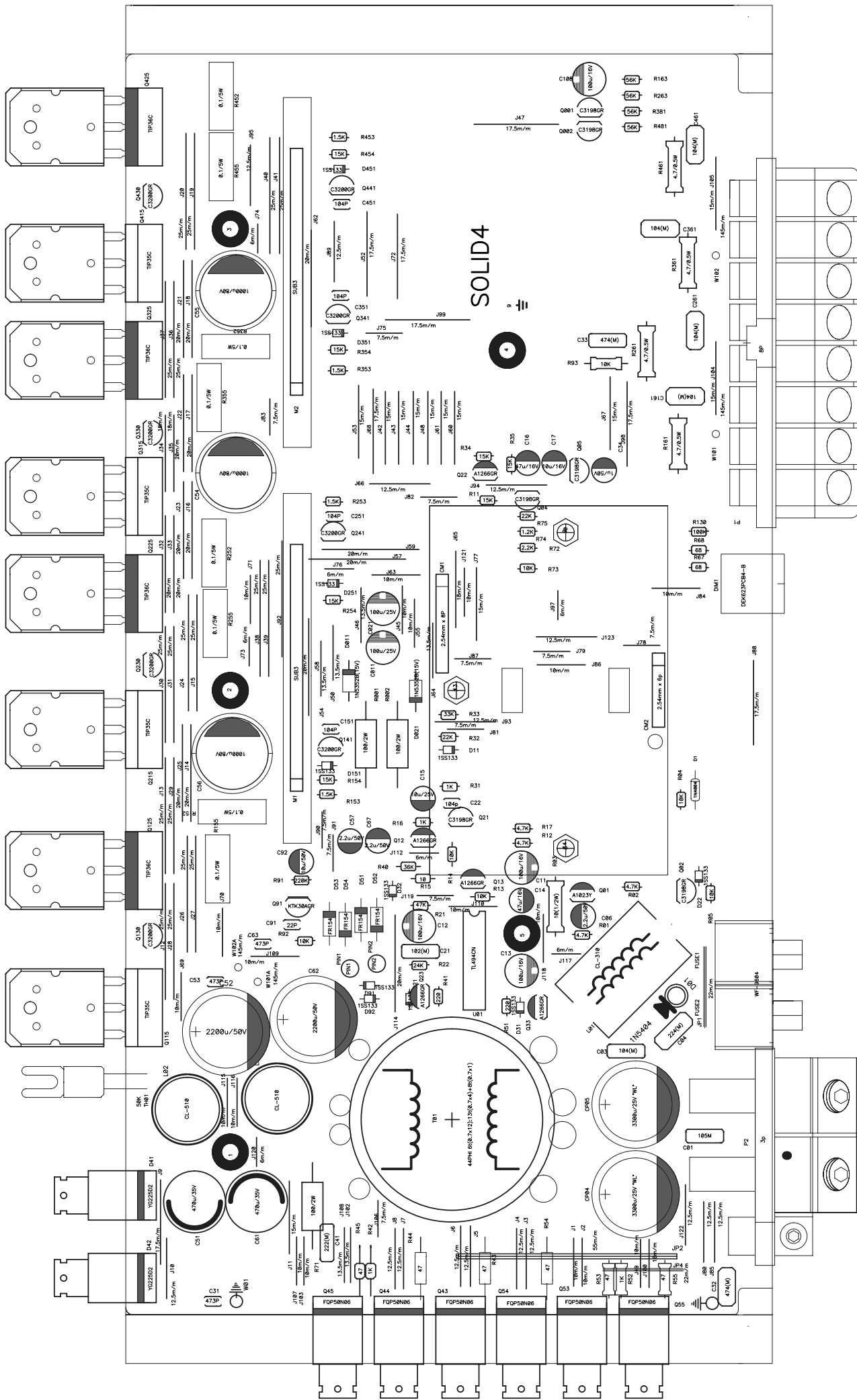
<< AMP1 BOARD >>

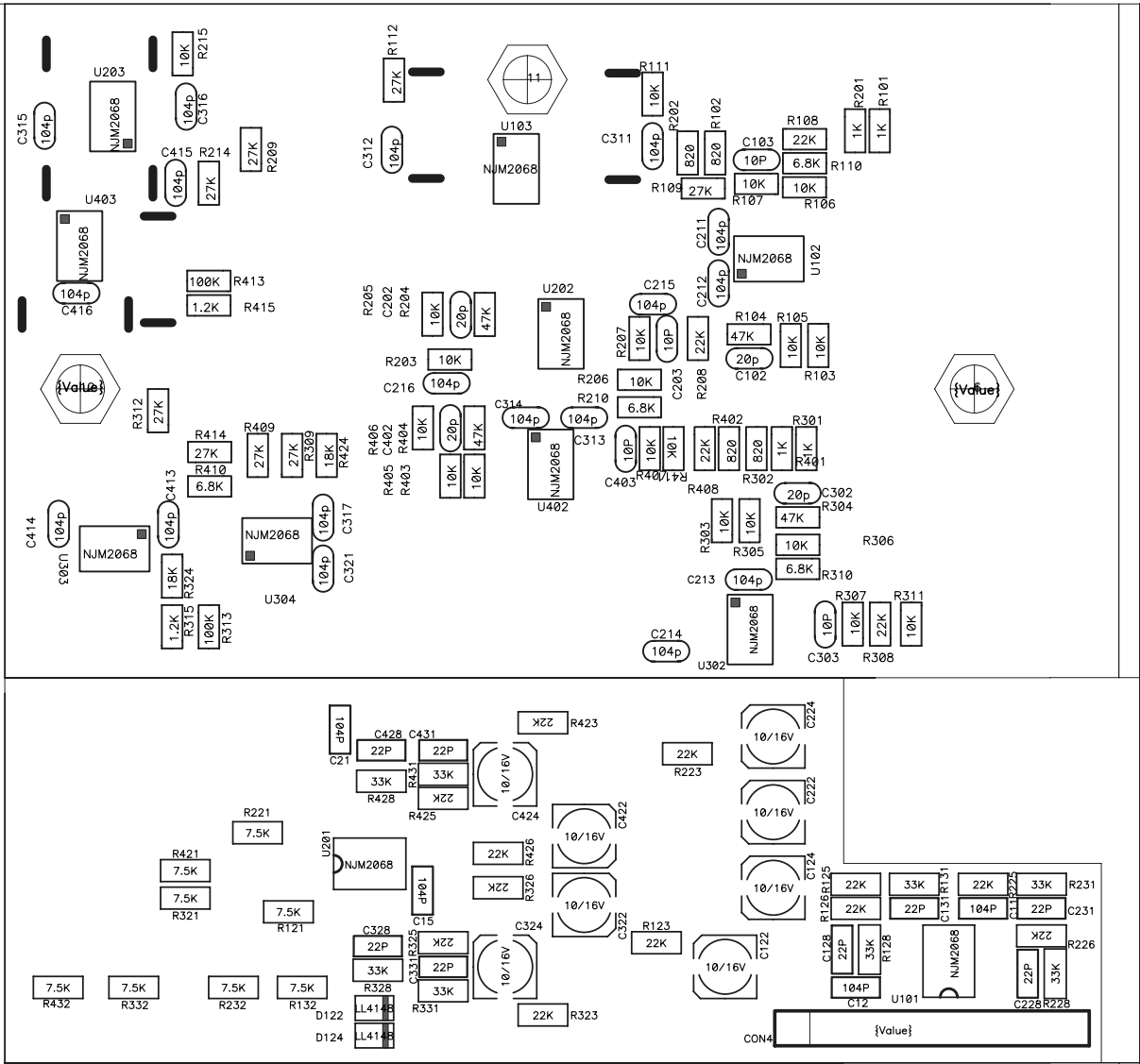
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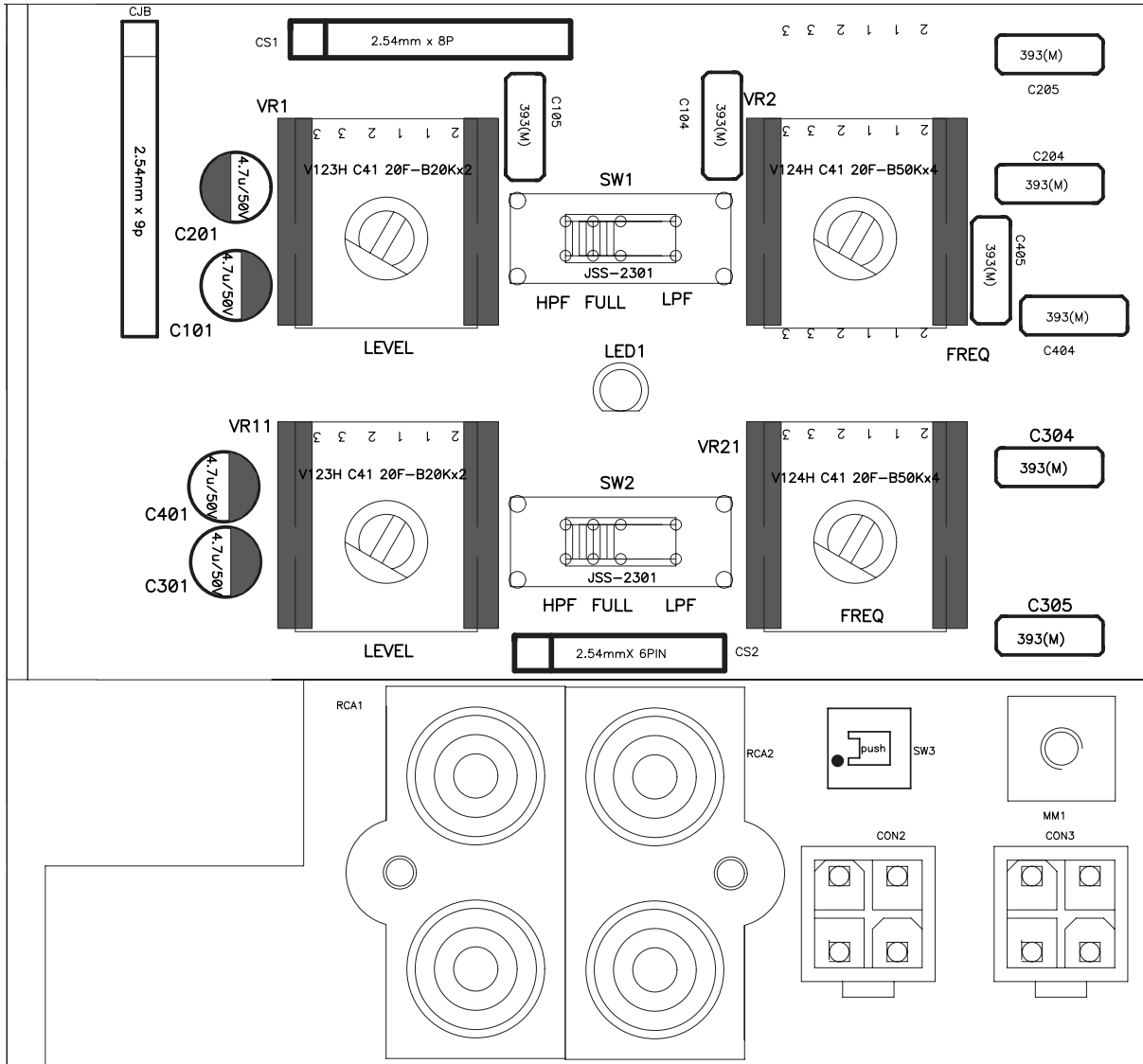




Title		SOLID4	
Size	Number	Rev	
A1		01	
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2008.03.25			5 of 5
Filename			







CUSTOMER: FOCAL		MODEL: SOLID 4 BLACK			
No	Material#	Material Name	Specifications	#of use	REFERENCE DESIGN NO
MAIN PCB AI PART					
1	4,1	36.1.SOLID411121	PCB		
2	4,1	36.1.SOLID411111	P.C.B	FR-1 单面板(1Oz 1.6T)"BLUE"134x263m/m	1
3	4,1	05.111.05YA1023	AUDION	SMALL SIGNAL PNPKTA1023Y	1
4	4,1	05.811.03GRA1266	AUDION	SMALL SIGNAL PNPKTA1266GR	5
5	4,1	05.811.03GRC3198	AUDION	SMALL SIGNAL NPNKTC3198GR	6
6	4,1	05.811.03GRC3200	AUDION	SMALL SIGNAL NPNKTC3200GR	4
7	4,1	04.111.31IN4148L	DIODE	SWITCHING1SS133	11
8	4,1	04.111.31FR154	DIODE	RECTIFIERFR154	4
9	4,1	04.111.31IN4004	DIODE	RECOVERY DIODE1N4004	1
10	4,1	04.113.31IN4744A	DIODE	ZENER DIODE (1W 15V)1N4744	2
11	4,1	01.1104.0940100	CARBON FILM RESISTOR	CARBON FILM 1/8W J10 OHM	1
12	4,1	01.1104.0940470	CARBON FILM RESISTOR	CARBON FILM 1/8W J47 OHM	1
13	4,1	01.1104.0940680	CARBON FILM RESISTOR	CARBON FILM 1/8W J68 OHM	2
14	4,1	01.1104.0940221	CARBON FILM RESISTOR	CARBON FILM 1/8W220	2
15	4,1	01.1104.0940102	CARBON FILM RESISTOR	CARBON FILM 1/8W J1K OHM	3
16	4,1	01.1104.0940122	CARBON FILM RESISTOR	CARBON FILM 1/8W J1.2K OHM	1
17	4,1	01.1104.0940152	CARBON FILM RESISTOR	CARBON FILM 1/8W J1.5K OHM	4
18	4,1	01.1104.0940222	CARBON FILM RESISTOR	CARBON FILM 1/8W2.2K	1
19	4,1	01.1104.0940472	CARBON FILM RESISTOR	CARBON FILM 1/8W4.7K	4
20	4,1	01.1104.0940103	CARBON FILM RESISTOR	CARBON FILM 1/8W10K	6
21	4,1	01.1104.0940153	CARBON FILM RESISTOR	CARBON FILM 1/8W15K	7
22	4,1	01.1104.0940223	CARBON FILM RESISTOR	CARBON FILM 1/8W22K	2
23	4,1	01.1104.0940243	CARBON FILM RESISTOR	CARBON FILM 1/8W24K	1
24	4,1	01.1104.0940473	CARBON FILM RESISTOR	CARBON FILM 1/8W J47K OHM	1
25	4,1	01.1104.0940333	CARBON FILM RESISTOR	CARBON FILM 1/8W33K	1
26	4,1	01.1104.0940363	CARBON FILM RESISTOR	CARBON FILM 1/8W36K	1
27	4,1	01.1104.0940563	CARBON FILM RESISTOR	CARBON FILM 1/8W J56K OHM	4
28	4,1	01.1104.0940104	CARBON FILM RESISTOR	CARBON FILM 1/8W J100K OHM	1
29	4,1	01.1104.0940224	CARBON FILM RESISTOR	CARBON FILM 1/8W J220K OHM	1
30	4,1	01.1104.0140470	CARBON FILM RESISTOR	CARBON FILM 1/4WJ47	5
31	4,1	01.1104.0140102	CARBON FILM RESISTOR	CARBON FILM 1/4WJ1K	1
32	4,1	01.1104.0140103	CARBON FILM RESISTOR	CARBON FILM 1/4WJ10K	1
33	4,1	01.1101.02204R7	CARBON FILM RESISTOR	METAL FILM 1/2WJ4.7/0.5W	4
34	4,1	01.1101.0220100	CARBON FILM RESISTOR	METAL FILM 1/2WJ10/0.5W	1
35	4,1	03.1103.0811050310501R02	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*11m/m1/50V	1
36	4,1	03.1103.0811050310502R22	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*11m/m2.2/50V	3
37	4,1	03.1103.0811050310161002	ELECTROLYTIC CAPACITOR	ELECTROLYTIC "SHL"10uF/16V	1
38	4,1	03.1103.0805040310251002	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*4m/m10/25V	1
39	4,1	03.1103.0811050310501002	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*11m/m10/50V	1
40	4,1	03.1103.0811050310164702	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*11m/m47/16V	2
41	4,1	03.1103.0811050310161012	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,5*11m/m100/16V	4
42	4,1	03.1103.0811050330251012	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" ,6*12m/m100/25V	2
43	4,1	03.1104.061001022	MYLAR CAPACITOR	MYLAR,100V 5%102(M)	1
44	4,1	03.1104.061002222	MYLAR CAPACITOR	MYLAR,100V 5%222(M)	1
45	4,1	03.1104.061001042	MYLAR CAPACITOR	MYLAR,100V 5%,BOX or TL104(M)	4
46	4,1	03.1101.061004742	MYLAR CAPACITOR	MYLAR,100V 5%474(M)	2
47	4,1	03.1101.060631052	MYLAR CAPACITOR	MYLAR,63V 5%,BOX or TL105(M)	1
48	4,1	03.1102.060502202	CERAMIC CAPACITOR	DISK TYPE, CERAMIC, 50V"NPO"22P	1
49	4,1	03.1102.070504732	CERAMIC CAPACITOR	DISK TYPE, CERAMIC, 50V473P	3
50	4,1	03.1111.070501042	CERAMIC CAPACITOR	DISK TYPE, CERAMIC, 50V104P	5
51	4,1	16.11.0R70006	JUMPER WIRE	0 OHM JUMPER6m/m	7
52	4,1	16.11.0R707R5	JUMPER WIRE	0 OHM JUMPER7.5m/m	11
53	4,1	16.11.0R70010	JUMPER WIRE	0 OHM JUMPER10m/m	20
54	4,1	16.11.0R712R5	JUMPER WIRE	0 OHM JUMPER12.5m/m	16
55	4,1	16.11.0R713R5	JUMPER WIRE	0 OHM JUMPER13.5m/m	6
56	4,1	16.11.0R70015	JUMPER WIRE	0 OHM JUMPER15m/m	12
57	4,1	16.11.0R717R5	JUMPER WIRE	0 OHM JUMPER17.5m/m	8
58	4,1	16.11.0R70018	JUMPER WIRE	0 OHM JUMPER18m/m	3
59	4,1	16.11.0R70020	JUMPER WIRE	0 OHM JUMPER20m/m	16
60	4,1	16.11.0R70025	JUMPER WIRE	0 OHM JUMPER25m/m	19

CUSTOMER: FOCAL		MODEL: SOLID 4 BLACK			
No	Material#	Material Name	Specifications	#of use	REFERENCE DESIGN NO
MAIN PCB MI PART					
61	4,1	36.1.SOLID411131			
62	4,1	36.1.SOLID411121	PCB	1	
63	4,1	03.1101.060632242	MYLAR CAPACITOR MYLAR,63V 5%,BOX or TL224(M)	1	C04
64	4,1	03.1104.061001042	MYLAR CAPACITOR MYLAR,100V 5%,BOX or TL104(M)	1	C03
65	4,1	05.114.032SK30ATM	FET N-CH JFETTK30AGR	1	Q91
66	4,1	06.11.208TL494CN	IC PWMTL494CN	1	U01
67	4,1	05.114.01FQP50N06	FET N-CH MOSFETFQP50N06	6	Q43,44,45,53,54,55
68	4,1	05.811.13GRC3200	AUDION SMALL SIGNAL NPNKTC3200GR	4	Q130,230,330,430
69	4,1	05.811.02YTIP35C	AUDION AUDIO POWER NPN,TO-3P TIP35C	4	Q115,215,315,415
70	4,1	05.811.02YTIP36C	AUDION AUDIO POWER PNP,TO-3P TIP36C	4	Q125,225,325,425
71	4,1	04.111.31N5404	DIODE RECTIFIER1N5404	1	D01
72	4,1	04.815.33YG225D2	DIODE FAST RECOVERY, TO-220YG225D2	2	D41,42
73	4,1	01.1101.0420101	METAL FILM RESISTOR 2W J "BODY 11m/m"100 OHM	3	R71,001,002
74	4,1	01.1102.0780R10	CEMENT RESISTOR MPA, 5WJ0.1*2 OHM	8	R152,155,252,255,352,355,452,455
75	4,1	02.111.5032	THERMISTOR DISK TYPE,NTC 50KFTD5-350	1	TH01
76	4,1	03.8103.082518042025332102	ELECTROLYTIC CAPACITOR ELECTROLYTIC"LXV",18*25m/m3300/25V	2	CP04,05
77	4,1	03.8103.082516041035222101	ELECTROLYTIC CAPACITOR ELECTROLYTIC"MHA/SD",16*25m/m2200/35V	2	C52,62
78	4,1	03.1103.0825180410801021	ELECTROLYTIC CAPACITOR ELECTROLYTIC ,18*25m/m1000/80V	3	C54,55,56
79	4,1	03.1103.0819120330504712	ELECTROLYTIC CAPACITOR ELECTROLYTIC ,12*19m/m470/50V	2	C51,61
80	4,1	08.12.GTO755R60	INDUCTOR BAR CORECL-310	1	L01
81	4,1	08.13.GTO601R10	INDUCTOR CHOCK CORECL-510	2	L02,03
82	4,1	07.82.SOLID40	TRANSFORMER 44PHI,MAGNETICS 6I(0.7x9):13I(0.7x4)+8I(0.7x1)	1	T01
83	4,1	23.11.062R50	6P HEADER 6P, 2.54mm	1	CM2
84	4,1	23.11.082R50	8P HEADER 8P, 2.54mm	1	CM1
85	4,1	50.13.ZX2500R110	COPPER JUMPER WIRE NI-PLATE22m/m	2	JP1,4
86	4,1	50.13.ZX2500R114	COPPER JUMPER WIRE NI-PLATE55m/m	1	JP2
87	4,1	17.11.220602008	GROUND WIRE 1007,AWG#24, 3.2PHI RING LUG60m/m	3	W01, 02、束导线
88	4,1	27.131.04015014010221	REM 4P BLACKDEK623PCB4-B	1	DIM1
89	4,1	48.152.2000060R50	PAPER PAD 200.0*6.0*0.5t	0,7	垫功率管使用
90	4,1	48.152.2000070R50	PAPER PAD 200.0*7.0*0.5t	0,5	垫场效应管, 二极管使用
91	4,1	17.12.122801000	LEAD AWG#12, GRAY,BLACK 280m/m	2	W101 to W101A,W102to102A
92	4,1	48.152.0500200010	PAPER PAD 单面背胶50*20*1.0t	1	贴在C55, 56
MAIN PCB RETOUCH PART					
93	4,1	27.112.03045030110220	POWER TERMINAL 3P POWER	1	P1
94	4,1	27.112.08076025110220	OUTPUT TERMINAL GOLD PLATED 8P,SPEAKER8P	1	P2
95	4,1	25.141.002101902520	FUSE HOLDER 2P WF-9604 25A	1	FUSE1,2
(SUB1) SMT PART					
96	4,1	36.1.SOLID420622	PCB		
97	4,1	36.1.SOLID420612	PCB GLASS EPOXY,FR-4 DOUBLE LAYER,1.6/1Oz 80x28m/m	1	INPUT SUB
98	4,1	06.82.203NJM2068M	IC DUAL OP AMP,SSOP-08 NJM2068M	2	U101,201
99	4,1	04.121.24IN4148L	DIODE SWITCHING SIGNAL MELFL4148	2	D122,124
100	4,1	03.1203.08101610022	CHIP ELECTROLYTIC CAPACITOR SMD ELECTROLYTIC"MVG"10/16V"4PHI"	8	C122,124,222,224,322,324,422,424
101	4,1	01.1211.0900752	CHIP RESISTOR SMD0805 J 7.5K OHM	8	R121,132,221,232,321,332,421,432
102	4,1	01.1211.0900223	CHIP RESISTOR SMD"0805"22K	12	R123,125,126,223,225,226,323,325,,326,423,425,426,
103	4,1	01.1211.0900333	CHIP RESISTOR SMD"0805"33K	8	R128,131,228,231,328,331,428,431
104	4,1	03.1202.060502204	CHIP CAPACITOR SMD"0805" CERAMIC , 50V"NPO"22P	8	C128,131,228,231,328,331,428,431
105	4,1	03.1202.070501044	CHIP CAPACITOR SMD"0805" CERAMIC , 50V104P	4	C11,12,15,21
SUB1 RETOUCH PART					
106	4,1	36.1.SOLID420632			
107	4,1	36.1.SOLID420622	PCB	1	
108	4,1	50.15.SOLID10	BRACKET MOUNT AE CHECK	1	MM1
109	4,1	26.141.211121	LOW LEVEL TERMINAL GOLD PLATED,2P 2P	1	RCA1
110	4,1	26.141.211111	LOW LEVEL TERMINAL GOLD PLATED,2P 2P	1	RCA2
111	4,1	21.112.044R200	HIGH LEVEL TERMINAL HI-INPUT,2X2P CHD1140-04	2	CON2,3
112	4,1	29.122.13R50	SWITCH SLIDE SW 立式柄长3.5MM	1	SW3
113	4,1	18.1090.2410060	WIRE 2464 AWG#24,9P 100m/m	1	CON1-CJB
(SUB2) SMT PART					
114	4,1	36.1.SOLID420623	PCB		
115	4,1	36.1.SOLID420613	PCB GLASS EPOXY,FR-4 DOUBLE LAYER,1.6/1Oz 76x49m/m	1	PRE AMP SUB
116	4,1	06.82.203NJM2068M	IC DUAL OP AMP,SSOP-08 NJM2068M	9	U102,103,202,203,302,303,304,402,403
117	4,1	01.1219.1500821	CHIP RESISTOR SMD"0603" 1/16WJ 820	4	R102,202,302,402
118	4,1	01.1219.1500102	CHIP RESISTOR SMD"0603" 1/16WJ 1K	4	R101,201,301,401
119	4,1	01.1219.1500122	CHIP RESISTOR SMD"0603" 1/16WJ 1K2	2	R315,415
120	4,1	01.1219.1500682	CHIP RESISTOR SMD"0603" 1/16WJ 6.8K	4	R110,210,310,410
121	4,1	01.1219.1500103	CHIP RESISTOR SMD"0603" 1/16WJ 10K	18	R103,105,106,107,111,203,206,207,215,303,305,306,307,311,403,406,407,411
122	4,1	01.1220.1508251	CHIP RESISTOR SMD"0603" 1/16W F 8K25 ±1%	2	R205,405
123	4,1	01.1219.1500183	CHIP RESISTOR SMD"0603" 1/16WJ 18K	2	R324,424
124	4,1	01.1219.1500223	CHIP RESISTOR SMD"0603" 1/16WJ 22K	4	R108,208,308,408
125	4,1	01.1219.1500273	CHIP RESISTOR SMD"0603" 1/16WJ 27K	8	R109,112,209,214,309,312,409,414
126	4,1	01.1219.1500104	CHIP RESISTOR SMD"0603" 1/16WJ 100K	2	R313,413
127	4,1	01.1220.1304702	CHIP RESISTOR SMD"0603" 1/16WJ 47K ±1%	4	R104,304,204,404
128	4,1	03.1202.060501007	CHIP CERAMIC CAPACITOR SMD"0603" CERAMIC , 50V"NPO" 10P	4	C103,203,303,403
129	4,1	03.1202.060502007	CHIP CERAMIC CAPACITOR SMD"0603" CERAMIC , 50V"NPO" 20P	4	C102,202,302,402
130	4,1	03.1202.070501047	CHIP CERAMIC CAPACITOR SMD"0603" CERAMIC , 50V 104P	18	C211,212,213,214,215,216,311,312,313,314,315,316,317,321,413,414,415,416
(SUB2) AI PART					
131	4,1	03.1103.0805040310504R72	ELECTROLYTIC CAPACITOR ELECTROLYTIC"DSA/SE"4.7/50V	4	C102,201,301,401
132	4,1	03.1108.061003932	METAL CAPACITOR MYLAR,100V 5% 393M	8	C104,105,204,205,304,305,404,405

CUSTOMER: FOCAL		MODEL: SOLID 4 BLACK			
No	Material#	Material Name	Specifications	#of use	REFERENCE DESIGN NO
(SUB2) MI PART					
133	4,1	36.1.SOLID420633	SUB2		
134	4,1	36.1.SOLID420623	PCB	1	
135	4,1	10.132.2032142011	POT	20KbX2,41-CLICK V123H C41 20F-B20Kx2	2 VR1,11
136	4,1	10.132.5032094011	POT	50KbX4,41-CLICK V124H C41 20F-B50Kx4	2 VR2,21
137	4,1	29.112.30140	SWITCH	SLIDE SW立式 柄长14MM 2	2 SW1,2
138	4,1	04.112.33L-319VE4WW	LED	2COLIR(white & RED)?(AE CHECK)	1 LED1
139	4,1	22.111.062R501	PIN	STRAIGHT TYPE,6P 6P(AE CHECK)	1 CS2
140	4,1	22.111.082R501	PIN	STRAIGHT TYPE,8P 8P(AE CHECK)	1 CS1
(SUB2) RETOUCH PART					
141	4,1	21.111.092R590	PIN HEADER	STRAIGHT TYPE WAFER,9P	1 CJB
(SUB3) SMT PART					
142	4,1	36.1.SOLID410621	PCB		
143	4,1	36.1.SOLID410611	AMP PCB	FR-1 SINGLE LAYER,1.6t/1Oz 28x72m/m	1 MAIN AMP SUB
144	4,1	05.821.12GRA1504	CHIP AUDION	SMALL SIGNAL PNP,SOT-23 KTA1504GR	4 Q121,122,221,222
145	4,1	05.821.12GRKTC3875	CHIP AUDION	SMALL SIGNAL NPN,SOT-23 KTC3875GR	4 Q111,112,211,212
146	4,1	01.1214.0900000	CHIP RESISTOR	SMD"0805" 1/8WJ 0	23 R00,01,02,03,04,05,06,07,08,09,10,013,11,12,13,14,15,16,17,18,19,20,21,
147	4,1	01.1211.0900220	CHIP RESISTOR	SMD"0805" 1/8WJ 22	8 R132,133,142,143,232,233,242,243
148	4,1	01.1211.0900470	CHIP RESISTOR	SMD"0805" 1/8WJ 47	4 R134,144,234,244
149	4,1	01.1211.0900221	CHIP RESISTOR	SMD"0805" 1/8WJ 220	2 R150,250
150	4,1	01.1211.0900102	CHIP RESISTOR	SMD"0805" 1/8WJ 1K	4 R131,141,231,241
151	4,1	01.1211.0900222	CHIP RESISTOR	SMD"0805" 1/8WJ 2.2K	2 R172,272
152	4,1	01.1211.0900272	CHIP RESISTOR	SMD"0805" 1/8WJ 2.7K	2 R145,245
153	4,1	01.1211.0900392	CHIP RESISTOR	SMD"0805" 1/8WJ 3.9K	2 R135,235
154	4,1	01.1211.0900562	CHIP RESISTOR	SMD"0805" 1/8WJ 5.6K	2 R116,216
155	4,1	01.1211.0900682	CHIP RESISTOR	SMD"0805" 1/8WJ 6.8K	4 R012,014,022,024
156	4,1	01.1211.0900103	CHIP RESISTOR	SMD"0805" 1/8WJ 10K	2 R117,217
157	4,1	01.1211.0900223	CHIP RESISTOR	SMD"0805" 1/8WJ 22K	2 R127,227
158	4,1	01.1211.0900303	CHIP RESISTOR	SMD"0805" 1/8WJ 30K	2 R171,271
159	4,1	03.1202.060503304	CHIP CERAMIC CAPACITOR	SMD"0805" CERAMIC , 50V"NPO" 33P	2 C171,271
160	4,1	03.1202.060506804	CHIP CERAMIC CAPACITOR	SMD"0805" CERAMIC , 50V"NPO" 68P	2 C125,225
161	4,1	03.1202.060502214	CHIP CERAMIC CAPACITOR	SMD"0805" CERAMIC , 50V"NPO" 220P	4 C142,143,242,243
162	4,1	03.1202.060504734	CHIP CERAMIC CAPACITOR	SMD"0805" MYLAR , 50V 473(M)	2 C140,240
(SUB3) AI PART					
163	4,1	05.111.05YA1023	AUDION	SMALL SIGNAL PNPKTA1023Y	2 Q113,213
164	4,1	05.111.05YC1027	AUDION	SMALL SIGNAL PNP,TO-92LKTC1027Y	2 Q123,223
165	4,1	16.11.0R70020	JUMPER WIRE	0 OHM JUMPER 20m/m	1 J1
166	4,1	16.11.0R70025	JUMPER WIRE	0 OHM JUMPER 25m/m	1 J3
167	4,1	03.1103.0805040310502R22	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" 2.2/50V	2 C116,216
168	4,1	03.1103.0805040310504R72	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" 4.7/50V	2 C115,215
169	4,1	03.1103.0805060310161012	ELECTROLYTIC CAPACITOR	ELECTROLYTIC"MHA" 100/16V	2 C117,217
(SUB3) MI PART					
170	4,1	36.1.SOLID410631			
171	4,1	36.1.SOLID410621	PCB		
172	4,1	05.114.032SK30ATM	FET	N-CH JFET,TO-92 KTK30AGR	4 Q101,201
173	4,1	05.811.07YB631K	AUDION	DRIVE PNP,TO-126 KTB631K	2 Q124,224
174	4,1	05.811.07YD600K	AUDION	DRIVE NPN,TO-126 KTD600K	2 Q114,214
175	4,1	16.11.0R70010	JUMPER WIRE	0 OHM JUMPER 10m/m	1 J2
(SUB3) RETOUCH PART					
176	4,1	22.121.202R500	PIN	2.54m/m PITCH 20P	2 CMM1

CUSTOMER: FOCAL		MODEL: SOLID 4 BLACK			
No	Material#	Material Name	Specification	#of Use	REFERENCE DESIGN NO
186	1	99.1SOLID4B			
PCB					
187	2,1	36.1.SOLID411131	MAIN BOARD	1	
188	2,1	36.1.SOLID420632	SUB1	1	
189	2,1	36.1.SOLID420633	SUB2	1	
190	2,1	36.1.SOLID410631	SUB3	2	
191	3,1	99.1SOLIDRCU	REMOTE CONTROL	1	
ASSEMBLY PART					
192	4,1	41.1.SOLID4B70	HEAT SINK	AL/Die-Casting L=300.0mm	1 BLACK SPRAY
193	4,1	41.1.SOLID1B71	TOP COVER	AL/Die-Casting L=252.0mm	1 BLACK SPRAY
194	4,1	43.11.SOLID10	ACRYL	ACRYL 3.7t	1 SMOKE COLOR
195	4,1	44.11.SOLID4B70	FRONT PANEL	SECC,1.0t	1 BLACK SPRAY / SILVER SILK
196	4,1	42.1.SOLID1B70	BOTTOM COVER	SECC,1.0t	1 BLACK POWER SPRAY
197	4,1	44.11.SOLID471	FUNCTION TOP COVER	SECC,0.5t	1 BLACK SPRAY / SILVER SILK
198	4,1	53.14.030001500371	CLAMP	SPCC 30.0x15.0x3.0t	1 带纸垫48.152.0280130011
199	4,1	53.14.046001500371	CLAMP	SPCC 46.0x15.0x3.0t	4 带纸垫48.152.0450140011
200	4,1	53.15.24R500190R60	CLAMP	SUS301 ,L=24.5mm	3
201	4,1	48.171.0120070R30	FELT	FELT 12.0x7.0x0.3t	2
202	4,1	35.1.SOLID30	KNOB	ABSXR401	4 VOLUME
203	4,1	33.15.2R5006R201	PAD	P.C 0.2t	4 TOP WINDOW
204	4,1	48.142.145023R201	SILICON PAD	SP1000 145.0x23.0x0.2t	1
205	4,1	48.142.050023R201	SILICON PAD	SP1000 50.0x23.0x0.2t	1
206	4,1	48.142.080023R201	SILICON PAD	SP1000 80.0x23.0x0.2t	1
207	4,1	48.132.0100100020	RUBBER PAD	RUBBER,10.0x10.0x2.0t	4
208	4,1	31.13.0263R00800	SCREW	STT2 PH 3x8 BK	1 FUSE(1)
209	4,1	31.13.0563R00800	SCREW	STT2 BH 3x8 BK	4 RCA(2),TERMINAL(2)
210	4,1	31.11.0513R00600	SCREW	SMB 3x6 BK	1 PCB SUPPORT(1)
211	4,1	31.11.0513R00610	SCREW	SMB 3x6 NI-P	7 PCB(7),
212	4,1	31.11.0413R00600	SCREW	SMF 3x6 BK	5 BOTTOM COVER (5)
213	4,1	31.11.0213R00610	SCREW	SMP 3x6 NI-P	12 锁铜柱(6):"L"CLIP(6)
214	4,1	31.13.0563R00610	SCREW	STT2 BH 3x6 NI-P	1 用于热敏电阻(1)
215	4,1	31.11.0564R01411	SCREW	SMB 4X14 NI-P LOCK HEAD	5 TR BRACKET
216	4,1	31.11.0863R00810	SCREW	SML 3x8 NI-P	4 TOP WINDOW+TOP PANEL+HEATSINK
217	4,1	48.152.2600200010	PAPER PAD	单面背胶260*20*1.0	1
218	4,1	48.152.0800060R50	PAPER PAD	80*6*0.5t	2
219	4,1	48.152.1200060R50	PAPER PAD	120*6*0.5t	3
220	4,1	48.132.0126R60020	RUBBER PAD	RUBBER PHI12.0xPHI6.6x2.0T	5 ACCESSORY
221	4,1	34.19.0142R40054	ALUMINIUM POST	H5,L=14MM;M3 本色铝	3
PACKING					
222	4,1	55.11.450300R0321	PLASTIC BAG	VINYL. 450x300x0.03T开通气孔	1 SET/包装产品
223	4,1	56.11.SOLID10	BRAND LABEL		1
224	4,1	56.18.SOL4N1	CARTON LABEL		1/2
225	4,1	56.18.SOL4N0	GIFT BOX LABEL		2
226	4,1	56.13.SOLID41	SERIAL NUMBER LABEL		1
227	4,1	89.11.0250052	LABEL		1 打印56.13.SOLID21
228	4,1	55.11.350120R0321	PLASTIC BAG		1
229	4,1	57.12.SOLID10	EPS	EPS, 246.0x93.0x90.0 / :50	2
230	4,1	59.11.SOLID4	GIFT BOX LABEL	SW#1(B TYPE) 414*251*98	1 装功放使用
231	4,1	58.11.SOLID40	MASTER CARTON	DW#2, 422*413*276	1/4 装礼盒使用
232	4,1	38.11.SOLID10	USER MANUAL	ART PAPER	1 系列機種共用
233	4,1	39.103.0001	DRYER	3g	1
234	4,1	80.19.SOLID0	RUBBER BAND		1
ACCESSORY					
235	4,1	24.11.002590	FUSE	FUSE AUTO FUSE : 25A	2 ACCESSORY
236	4,1	65.1.022	WRENCH	HEXA 2.0 mm (NI-P)	1 ACCESSORY
237	4,1	65.1.032	WRENCH	HEXA 3.0 mm (NI-P)	1 ACCESSORY
238	4,1	65.1.042	WRENCH	HEXA 4.0 mm (NI-P)	1 ACCESSORY
239	4,1	65.1.052	WRENCH	HEXA 5.0 mm (NI-P)	1 ACCESSORY
240	4,1	31.13.0856R05210	SCREW	STT1 LH 6x52 NI-P	5 ACCESSORY
241	4,1	31.13.0223R01600	SCREW	STT1 PH 3x16 BK	2 REMOTE ACCESSORY
242	4,1	55.11.120080R0331	PLASTIC BAG	VINYL, 120.0x80.0x0.3t不开通气孔	1 附件包/ACC'Y
243	4,1	18.1042.2029010	HIGH LEVEL WIRE	1015 AWG20# 290MM 一端带插头	2

CUSTOMER: FOCAL MODEL: SOLID 4 BLACK						
NO		Material#	Material Name	Specifications	#of use	REFERENCE DESIGN NO
248	1,1	99.1SOLIDRCU				
REMOTE CONTROL PART						
249	4,1	36.1.SOLID111430				
250	4,1	36.1.SOLID111410	PCB	32*36MM FR-1 1.6MM	1	
251	4,1	10.131.2031152081	POT	B20K±10% 中间带1个卡点	1	VR1
252	4,1	27.131.04015014010221	REM	GOLD PLATED,4P,BLACKDEK623PCB 4-B	1	4P
RETOUCH PART						
253	4,1	04.112.33L-314WW	LED	2PIN white	1	LED1
ASSEMBLY PART						
254	4,1	35.1.PA27530	VOLUME KNOB	REM KNOB BK	1	
255	4,1	41.1.SOLID70	REMOTE TOP COVER	REM TOP COVER BK	1	
256	4,1	42.1.SOLID70	REMOTE BOTTOM COVER	REM BOTTOM COVER BK	1	
257	4,1	31.13.0242R60400	SCREW	BLACK 2.6×4mm	4	
PACKING						
258	4,1	18.1041.2650030	WIRE	L=5M, 两端带水晶头	1	



LIST OF SPARE PARTS

SOLID4		
REFERENCE DESIGN NO	DESCRIPTION	REFERENCE
Q43;44;45;53;54;55	FET TRANSISTOR	FQP50N06
U01	INTEGRATED CIRCUIT	TL494CN
D41;42	DIODE	YG225D2
Q115;215;315;415	TRANSISTOR	TIP35C
Q125;225;325;425	TRANSISTOR	TIP36C
Q124;224	TRANSISTOR	2SB631K
Q114;214	TRANSISTOR	KTD600K
	REMOTE CONTROL	



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