

**HERTZ**

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**- SERVICE MANUAL -**

**EP 2**

*Issued in May 2008*

**HERTZ**

PART OF **ELETTROMEDIA** - 62018 Potenza Picena (MC) Italy • Tel. 0733.870870 • Fax. 0733.870880 • <http://www.elettromedia.it>

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## PART 1: ELECTRONIC PART

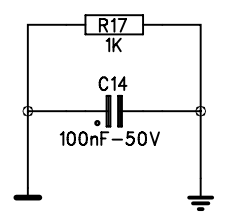
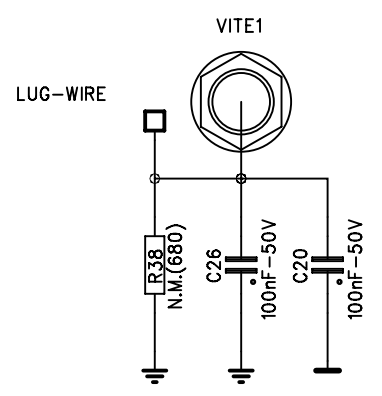
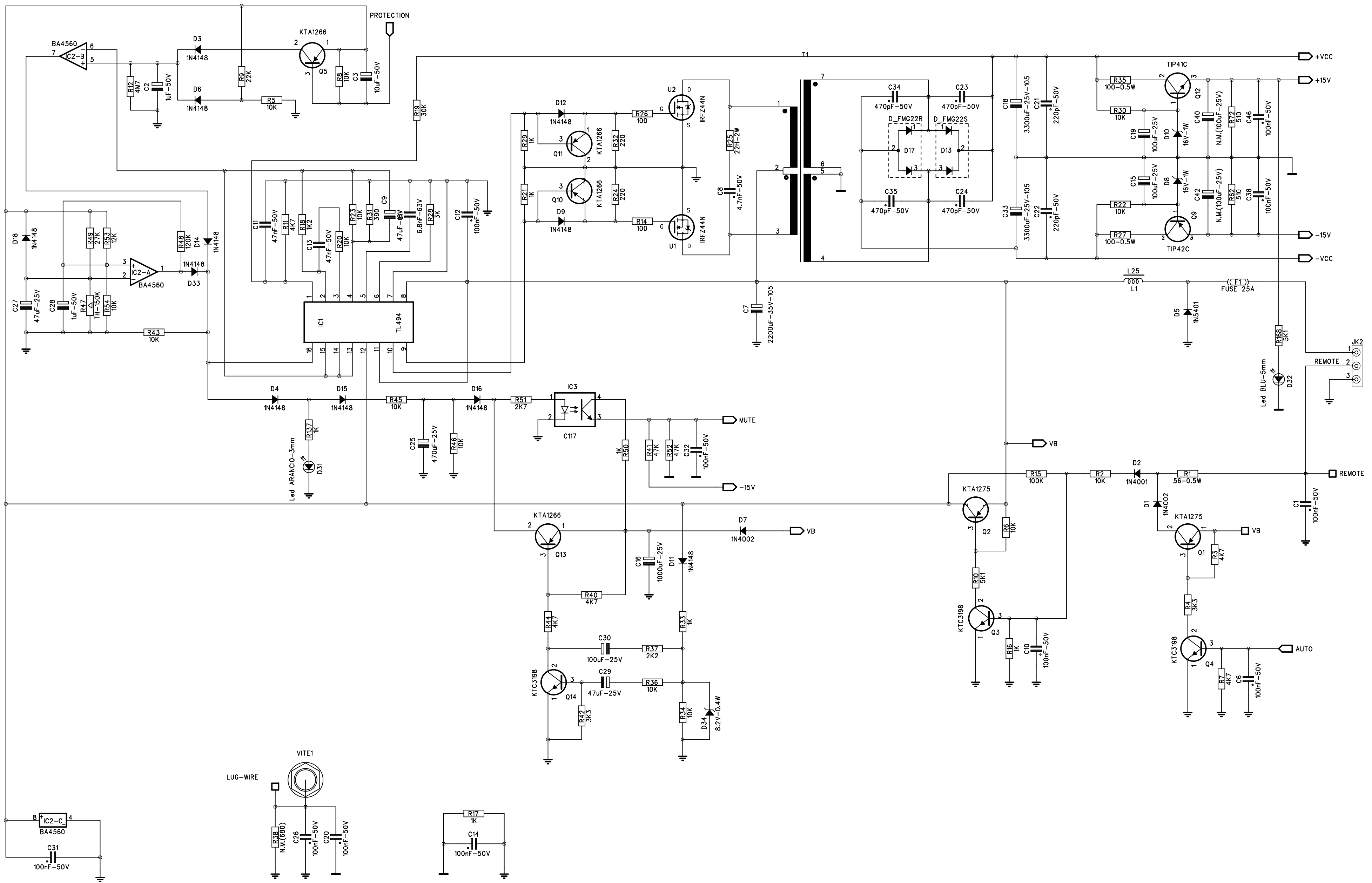
### Section A: PCB REV01

Electronic diagram  
Components layout  
PCB parts list

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sheet 4 to 4  
sheet 5 to 6

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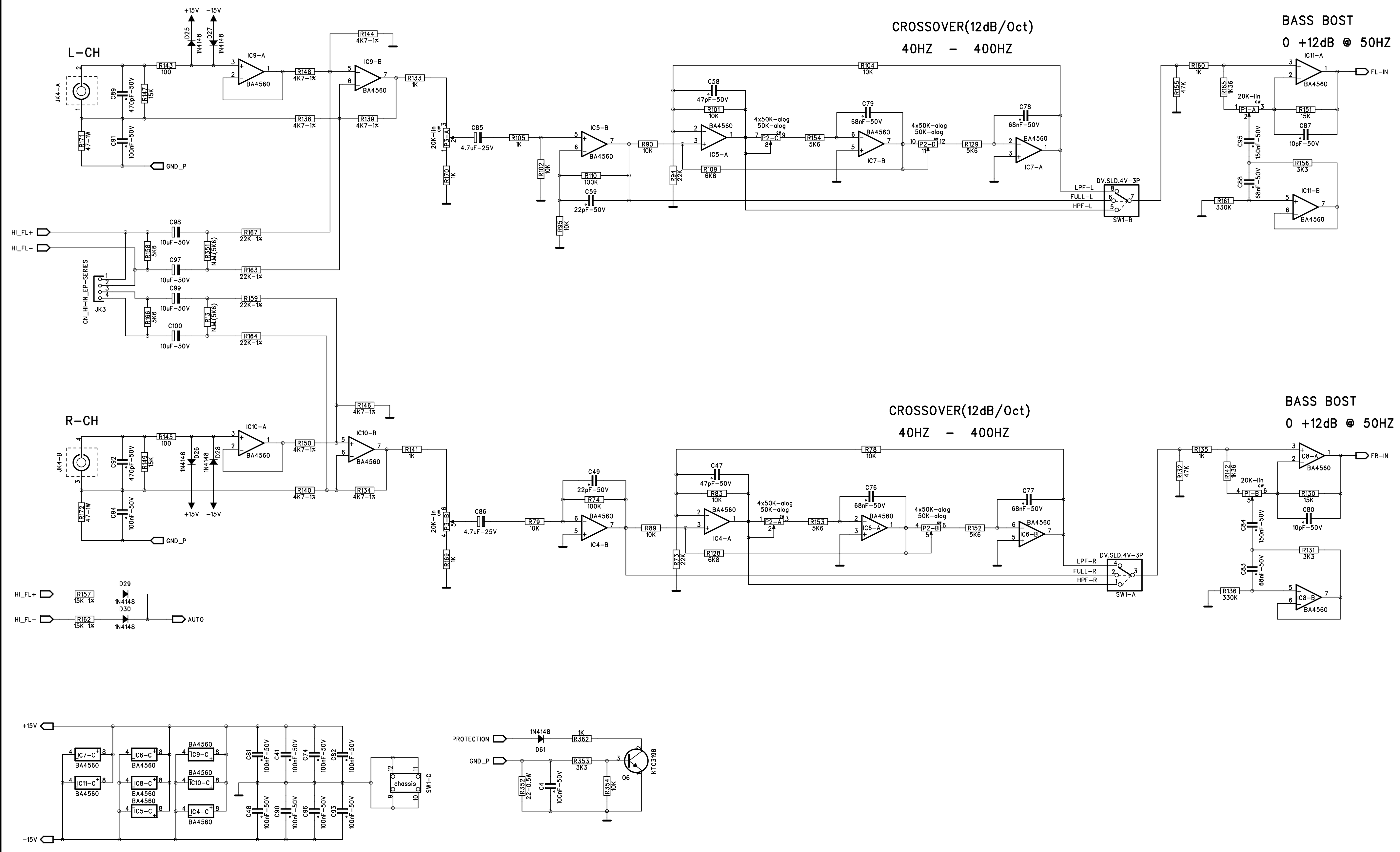
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TS:	<b>HERTZ</b>	Sheet description:	Product:	Type:	Rev/RK:
		POWER SUPPLY	EP2	POWER SUPPLY	.01
		PCB code:	EP2	Date:	Sheet:
				12/05/2008	1 of 3

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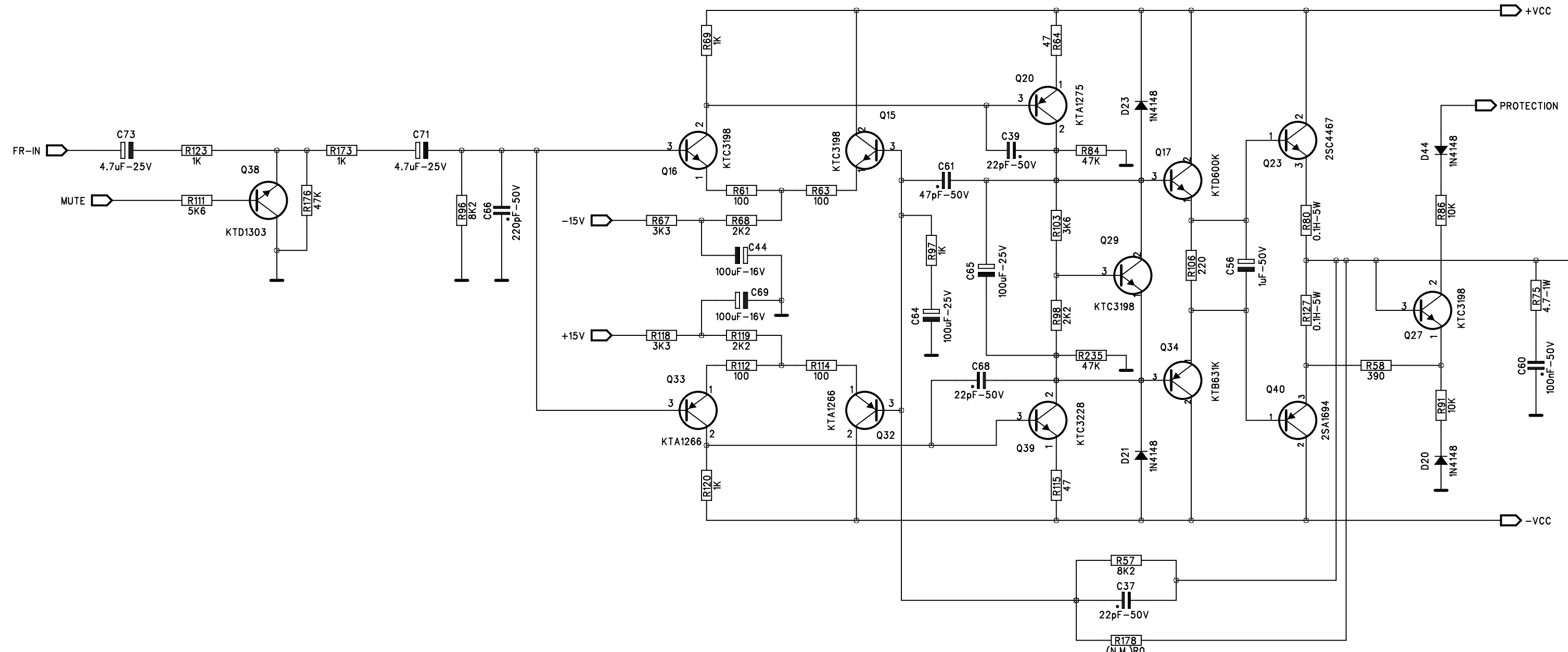


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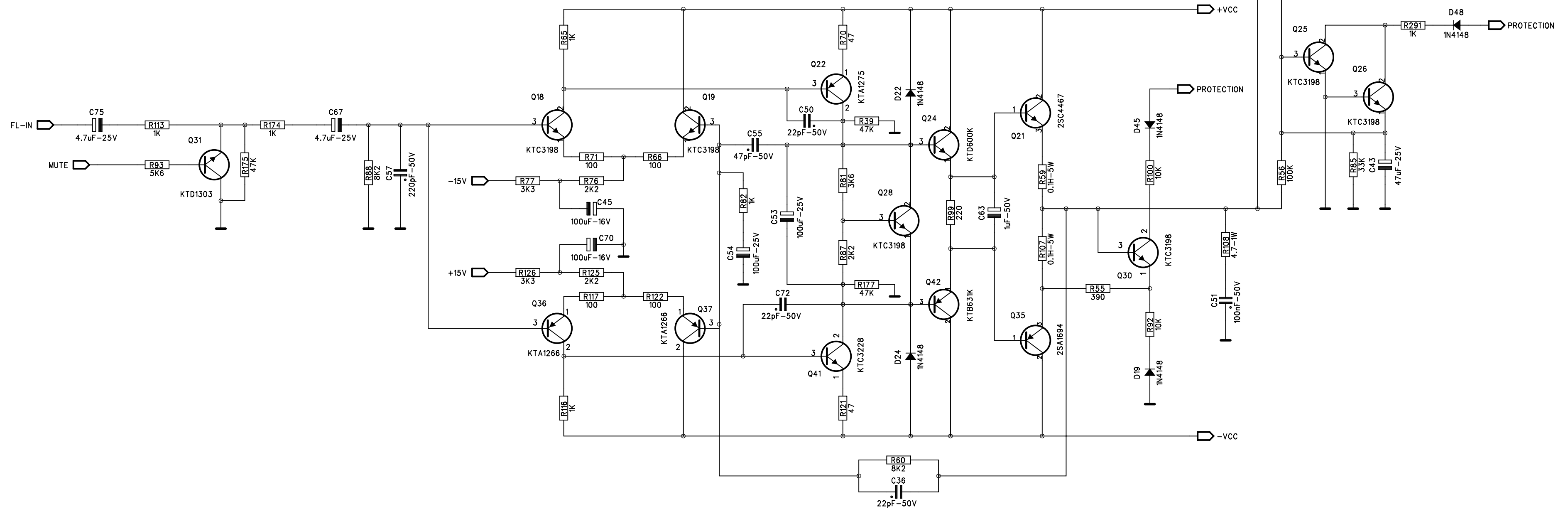
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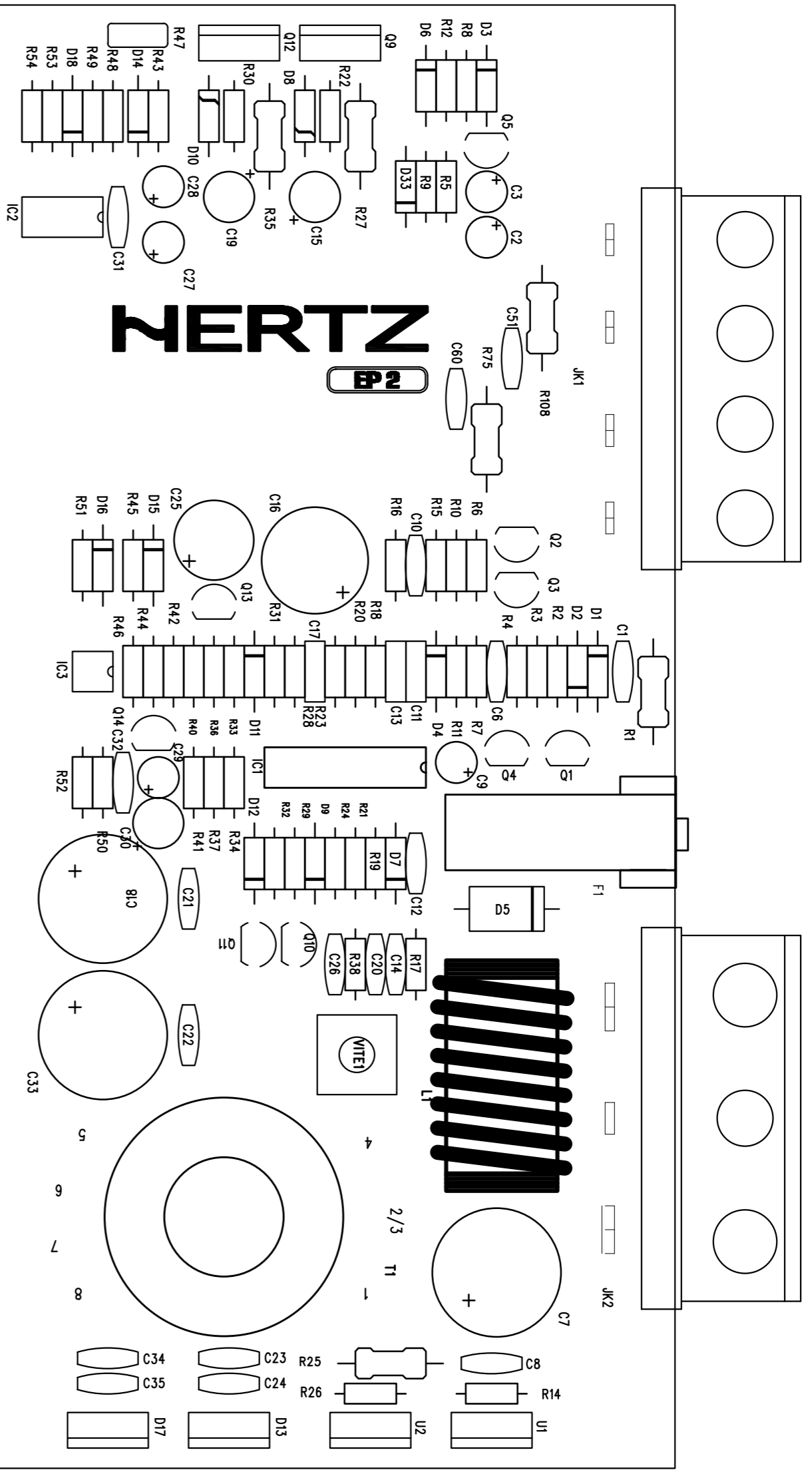
### CHANNEL RIGHT



### CHANNEL LEFT



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			PCB code:	Date:	Sheet:
			EP2	12/05/2008	3 of 3



29/06/2007 EP2.01

SILKSCREEN TOP

# PART LIST

NO	CODE	ITEM	SPEC	Q'TY	LOCATION
1	APBK-0005-00	PCB SUPPORT	t=1.0(Sn)	1.0000	VITE1
2	CCEF-100CH-T	CERAMIC CAPACITOR	10pF/50V 5% CH *5 TAPPING	2.0000	C80,C87
3	CCEF-220SL-T	CERAMIC CAPACITOR	22pF/50V 5% SL *5 TAPPING	8.0000	C36,C37,C39,C49,C50,C59,C68,C72
4	CCEF-221BK-T	CERAMIC CAPACITOR	220pF/50V 10% BK *5 TAPPING	4.0000	C21,C22,C57,C66
5	CCEF-470CH-T	CERAMIC CAPACITOR	47pF/50V 5% CH *5 TAPPING	4.0000	C47,C55,C58,C61
6	CCEF-471BK-T	CERAMIC CAPACITOR	470pF/50V 5% BK *5 TAPPING	6.0000	C23,C24,C34,C35,C89,C92
7	CEAD-101A0511T2	ELECTROLYTIC AL. CAP	100uF/25V +85 5 x 11 SD/2.5 mm TAPPING	11.0000	C15,C19,C30,C44,C45,C53,C54,C64,C65,C69,C70
8	CEAD-102A1316T5	ELECTROLYTIC AL. CAP	1000uF/25V 12.5x16 +85 5mm BULK	1.0000	C16
9	CEAD-222B1625T7	ELECTROLYTIC AL. CAP	2200uF/25V 16x25 +105 RD 7.5mm TAPPING	1.0000	C7
10	CEAD-470A0511T2	ELECTROLYTIC AL. CAP	47uF/25V +85 5x11 SD 2.5mm TAPPING	4.0000	C9,C27,C29,C43
11	CEAE-332B1632T7	ELECTROLYTIC AL. CAP	3300uF/35V 16x31.5 +105 7mm TAPPING NHA	2.0000	C18,C33
	CEAE-471A1016T5	ELECTROLYTIC AL. CAP	470uF/35V +85 10x16 SD/5 mm TAPPING	1.0000	C25
12	CEAF-010A0511T2	ELECTROLYTIC AL. CAP	1uF/50V +85 5x11 SD/2.5 mm TAPPING	4.0000	C2,C28,C56,C63
13	CEAF-100A0511T2	ELECTROLYTIC AL. CAP	10uF/50V +85 5x11 SD/2.5 mm TAPPING	5.0000	C3,C97,C98,C99,C100
14	CEAF-4R7A0511T2	ELECTROLYTIC AL. CAP	4.7uF/50V +85 5x11 SD 2.5mm TAPPING	6.0000	C67,C71,C73,C75,C85,C86
15	CMAI-104J-T	MYLAR CAPACITOR	0.1uF/100V 5% TAPPING	24.0000	C1,C4,C6,C10,C12,C14,C20,C26,C31,C32,C38,C41,C46,C48 C51,C60,C74,C81,C82,C90,C91,C93,C94,C96
16	CMAI-154J-T	MYLAR CAPACITOR	0.15uF/100V 5%	2.0000	C84,C95
17	CMAI-472J-T	MYLAR CAPACITOR	0.0047uF/100V 5% TAPPING	1.0000	C8
18	CMAI-473J-T	MYLAR CAPACITOR	0.047uF/100V 5% TAPPING	2.0000	C11,C13
19	CMAI-682J-T	MYLAR CAPACITOR	0.0068uF/100V 5% TAPPING	1.0000	C17
20	CMAI-683J-T	MYLAR CAPACITOR	0.068uF/100V 5% TAPPING	6.0000	C76,C77,C78,C79,C83,C88
21	COIL-COB101-01	BAR CHOKE COIL	COB-101-01	1.0000	L1
22	CORE-RING-29	CORE RING	*29x3T	1.0000	T1
23	DIODE-1N4007	DIODE	1N4007	2.0000	D1,D2
24	DIODE-1N4745	ZENER DIODE	1N4745 16V 1W	2.0000	D8,D10
25	DIODE-1N5402	DIODE	1N5402	1.0000	D5
26	DIODE-1SS133	DIODE	1SS133/1N4148	28.0000	D3,D4,D6,D7,D9,D11,D12,D14,D15,D16,D18,D19,D20,D21, D22,D23,D24,D25,D26,D27,D28,D29,D30,D33,D44,D45,D48 D61
27	DIODE-HER1004G	FAST RECOVERY	HER1004G 10A	1.0000	D13
28	DIODE-HER1004GA	FAST RECOVERY	HER1004GA 10A	1.0000	D17
29	FET-SFP50N06	FET	SFP50N06	2.0000	U1,U2
30	FHD-001-01	FUSE HOLDER	DKF-08051 1P	1.0000	F1

# PART LIST

NO	CODE	ITEM	SPEC	Q'TY	LOCATION
31	FUSE-25A-10021	AUTO FUSE	25A PAT10021	1.0000	F1
32	IC-BA4560	IC	BA4560	9.0000	IC2,IC4,IC5,IC6,IC7,IC8,IC9,IC10,IC11
33	IC-KIA494P	PWM IC	KIA494P (DIP-16)	1.0000	IC1
34	LED-BLUE*3	LED	FG-451013V-FE(BLUE) *3mm BLUE	1.0000	D32
35	LED-ORANGE*3	LED	ORANGE LED *3 *3mm LED	1.0000	D31
36	PAD-HF425-01	SILICON PAD	10mm 23mm	24.0000	110mm / 130mm
37	PCB-PMC422-12	MAIN PCB	178x184x1.6t FR4 1oz BLUE	1.0000	
38	PHOTO-KPC117	PHOTO COUPLE	KPC117	1.0000	IC3
39	RCA2-004-02	2P RCA JACK	JE0200591N-RW NI-PLAT/UP-RED/DOWN-WHITE	1.0000	JK4
40	RES1/2W-560M	RESISTOR	RES 1/2W MINI 56ohm	1.0000	R1
41	RES1/4-101	RESISTOR	RES 1/4W 100 ohm	12.0000	R14,R26,R61,R63,R66,R71,R112,R114,R117,R122,R143, R145
42	RES1/4-102	RESISTOR	RES 1/4W 1K ohm	28.0000	R16,R17,R21,R29,R33,R50,R62,R65,R69,R72,R82,R97,R105 R113,R116,R120,R123,R133,R135,R137,R141,R160,R169, R170,R173,R174,R291,R362
43	RES1/4-103	RESISTOR	RES 1/4W 10K ohm	28.0000	R2,R5,R6,R8,R20,R22,R23,R30,R34,R36,R43,R45,R46,R54 R78,R79,R83,R86,R89,R90,R91,R92,R95,R100,R101,R102, R104,R354
44	RES1/4-104	RESISTOR	RES 1/4W 100K ohm	5.0000	R15,R56,R74,R110,R124
45	RES1/4-122	RESISTOR	RES 1/4W 1.2K ohm	1.0000	R18
46	RES1/4-123	RESISTOR	RES 1/4W 12K ohm	1.0000	R53
47	RES1/4-1361	RESISTOR	RES 1/4W 1.36Kohm 1% RESISTOR	2.0000	R142,R165
48	RES1/4-1502	RESISTOR	RES 1/4W 15.0K ohm 1% RESISTOR	2.0000	R157,R162
49	RES1/4-153	RESISTOR	RES 1/4W 15K ohm	5.0000	R51,R130,R147,R149,R151
50	RES1/4-2202	RESISTOR	RES 1/4W 22.0Kohm 1% RESISTOR	4.0000	R159,R163,R164,R167
51	RES1/4-221	RESISTOR	RES 1/4W 220 ohm	4.0000	R24,R32,R99,R106
52	RES1/4-222	RESISTOR	RES 1/4W 2.2K ohm	7.0000	R37,R68,R76,R87,R98,R119,R125
53	RES1/4-223	RESISTOR	RES 1/4W 22K ohm	3.0000	R9,R73,R94
54	RES1/4-224	RESISTOR	RES 1/4W 220K ohm	1.0000	R48
55	RES1/4-273	RESISTOR	RES 1/4W 27K ohm	1.0000	R49
56	RES1/4-302	RESISTOR	RES 1/4W 3K ohm	1.0000	R28
57	RES1/4-303	RESISTOR	RES 1/4W 30K ohm	1.0000	R19
58	RES1/4-332	RESISTOR	RES 1/4W 3.3K ohm	9.0000	R4,R42,R67,R77,R118,R126,R131,R156,R353
	RES1/4-333	RESISTOR	RES 1/4W 33K ohm	1.0000	R85



# PART LIST

NO	CODE	ITEM	SPEC	Q'TY	LOCATION
59	RES1/4-334	RESISTOR	RES 1/4W 330K ohm	2.0000	R136,R161
60	RES1/4-3471	RESISTOR	RES 1/4W 3.47Kohm 1% RESISTOR	2.0000	R81,R103
61	RES1/4-391	RESISTOR	RES 1/4W 390 ohm	3.0000	R31,R55,R58
62	RES1/4-470	RESISTOR	RES 1/4W 47 ohm	4.0000	R64,R70,R115,R121
63	RES1/4-4701	RESISTOR	RES 1/4W 4.70Kohm 1% RESISTOR	8.0000	R134,R138,R139,R140,R144,R146,R148,R150
64	RES1/4-472	RESISTOR	RES 1/4W 4.7K ohm	5.0000	R3,R7,R11,R40,R44
65	RES1/4-473	RESISTOR	RES 1/4W 47K ohm	10.0000	R39,R41,R52,R84,R132,R155,R175,R176,R177,R235
66	RES1/4-475	RESISTOR	RES 1/4W 4.7M ohm	1.0000	R12
67	RES1/4-512	RESISTOR	RES 1/4W 5.1K ohm	2.0000	R10,R168
68	RES1/4-562	RESISTOR	RES 1/4W 5.6K ohm	8.0000	R93,R111,R129,R152,R153,R154,R158,R166
69	RES1/4-682	RESISTOR	RES 1/4W 6.8K ohm	2.0000	R109,R128
70	RES1/4-822	RESISTOR	RES 1/4W 8.2K ohm	4.0000	R60,R88,R96,R178
71	RES1W-101M	RESISTOR	RES 1W MINI 100 ohm	2.0000	R27,R35
72	RES1W-220M	RESISTOR	RES 1W MINI 22 ohm	1.0000	R352
73	RES1W-470M	RESISTOR	RES 1W MINI 47 ohm	2.0000	R171,R172
74	RES1W-4R7M	RESISTOR	RES 1W MINI 4.7ohm	2.0000	R75,R108
75	RES2W-220M	RESISTOR	RES 2W MINI 22 ohm	1.0000	R25
76	RES5W-R10WIRE	RESISTOR	RES 5W 0.1 ohm WIRE 6mm FORMING/R FORMING	4.0000	R59,R80,R107,R127
77	SWL-2C3P-05	SLIDE SWITCH	SK-23D04-G-G 9mm	1.0000	SW1
78	TER-003-30	3P TERMINAL	JSZ3-05 DOWN/"+"Ni/BLACK	1.0000	JK2
79	TER-004-30	4P TERMINAL	JSZ4-05 DOWN/"+"Ni/BLACK	1.0000	JK1
80	TH-M-150K	THERMISTOR	150K	1.0000	R47
81	TR-2SA1694	TRANSISTOR	2SA1694	2.0000	Q35,Q40
82	TR-2SC4467	TRANSISTOR	2SC4467	2.0000	Q21,Q23
83	TRANS-PTS346-01	POWER TRANS	29-0.8x12*6-1.4x2*12	1.0000	T1
84	TR-KTA1266-T	TRANSISTOR	KTA1266 TAPPING	8.0000	Q5,Q10,Q11,Q13,Q32,Q33,Q36,Q37
85	TR-KTA1275-T	TRANSISTOR	KTA1275 TAPPING	4.0000	Q1,Q2,Q20,Q22
86	TR-KTB631K	TRANSISTOR	KTB631K	2.0000	Q34,Q42
87	TR-KTC3198-B	TRANSISTOR	KTC3198 BULK	2.0000	Q28,Q29
88	TR-KTC3198-T	TRANSISTOR	KTC3198 TAPPING	12.0000	Q3,Q4,Q6,Q14,Q15,Q16,Q18,Q19,Q25,Q26,Q27,Q30
89	TR-KTC3228-T	TRANSISTOR	KTC3228 TAPPING	2.0000	Q39,Q41
90	TR-KTD1303-T	TRANSISTOR	KTD1303 TAPPING	2.0000	Q31,Q38
91	TR-KTD600K	TRANSISTOR	KTD600K	2.0000	Q17,Q24
92	TR-TIP41C	TRANSISTOR	TIP41C	1.0000	Q12

# PART LIST

NO	CODE	ITEM	SPEC	Q'TY	LOCATION
93	TR-TIP42C	TRANSISTOR	TIP42C	1.0000	Q9
94	VR09-2070	MAIN VOLUME	15RS 15B 20Kohm 2 RV095GB Co KNOB	2.0000	P1,P3
95	VR09-4013	MAIN VOLUME	15RS 15C 50K ohm 4 RV095 4GB-1 Co KNOB	1.0000	P2
96	WAFER-S4B-XH-A	WAFER	S4B-XH-A 2.5mm 4P ANGLE WHITE	1.0000	JK3
97	WIRE-CON-004-18	MINI CONNECTOR	CON-004-18 #24 4P 150mm	1.0000	JK3