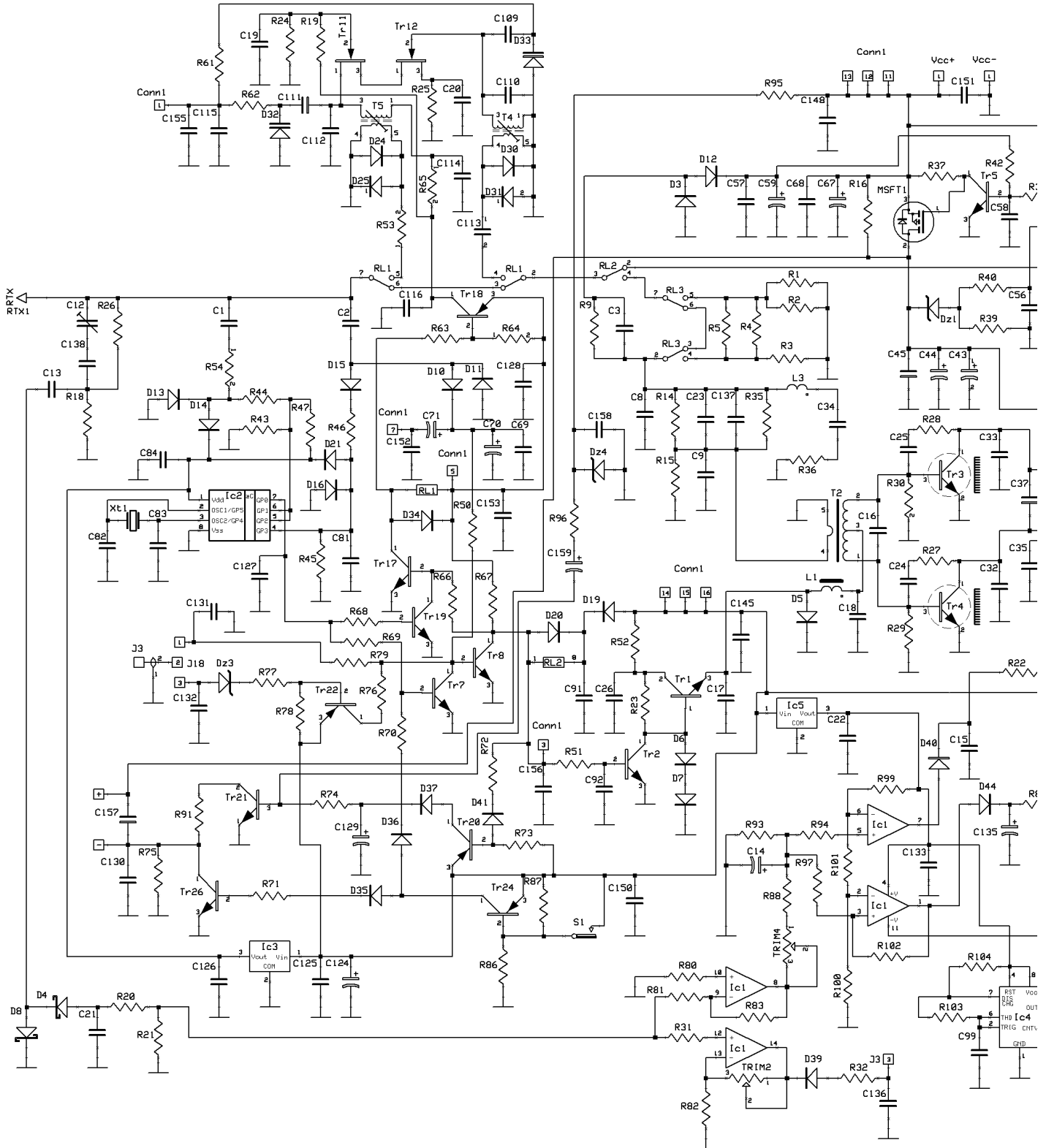**RM** Costruzioni Elettroniche
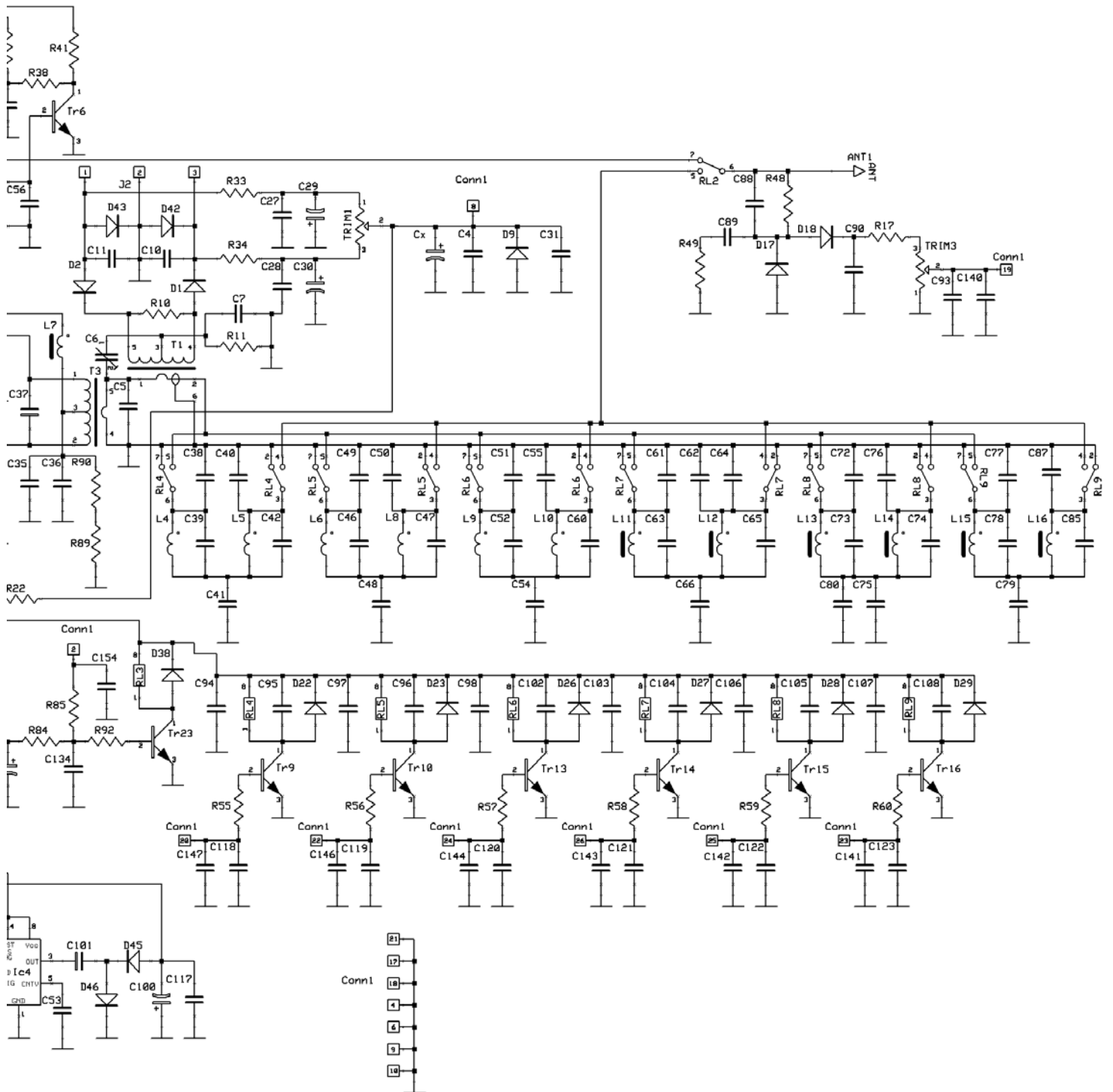di Marchioni Davide & Daniele s.n.c.
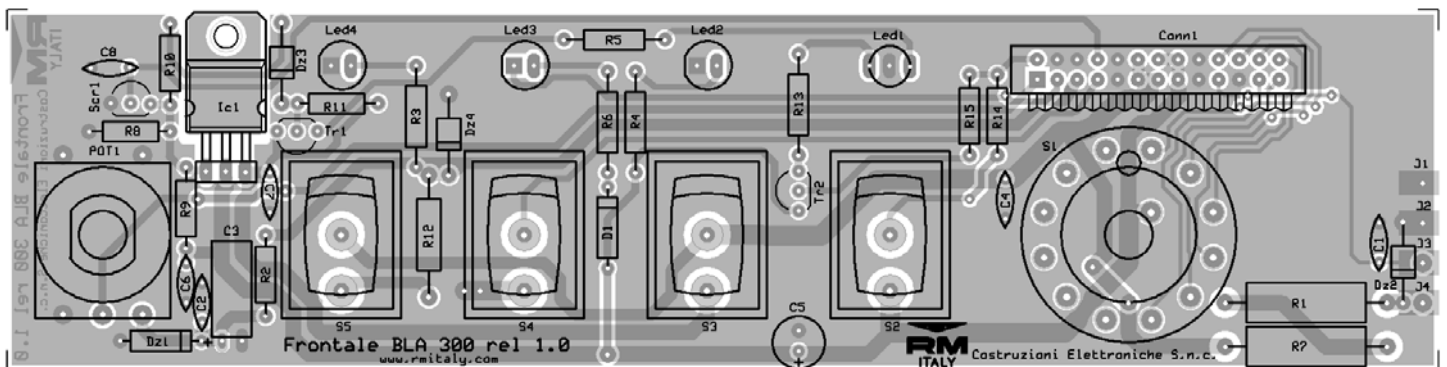
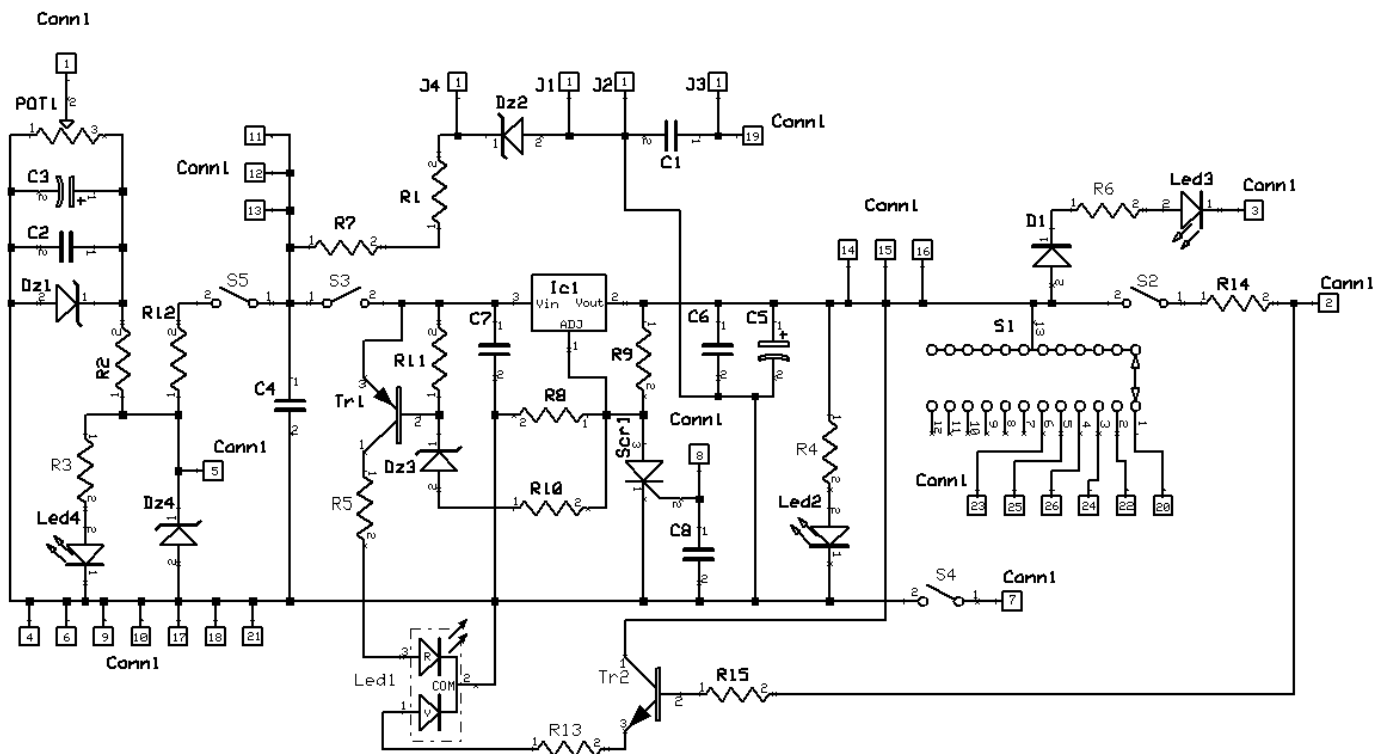# Mod. BLA 300 linear amplifier

Schematic diagram

Version 1.00
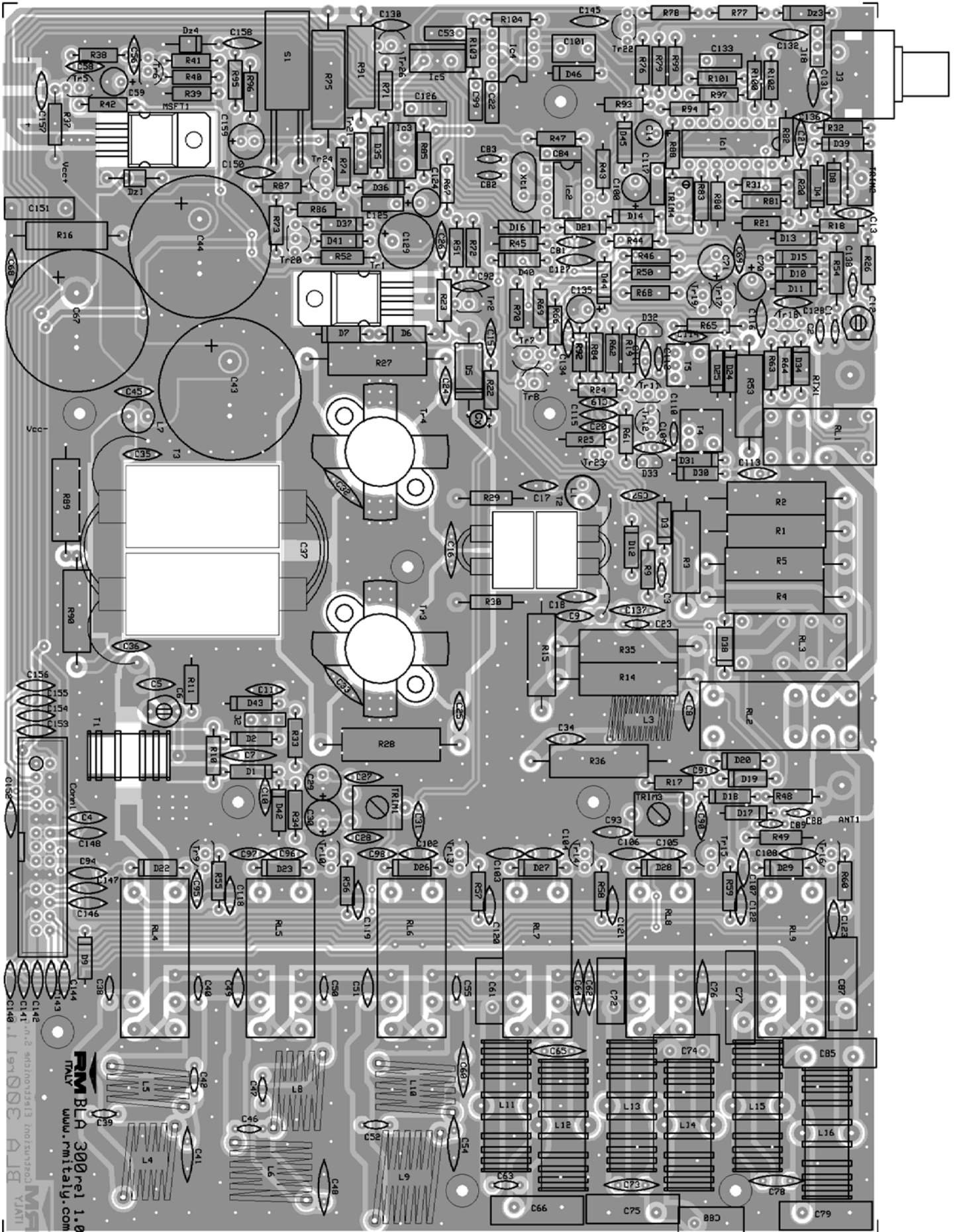
List of components

C 1	= 3,3 pF	50 V	NP0
C 2	= 8,2 pF	50 V	NP0
C 3	= 1,5 pF	50 V	NP0
C 4	= 100 nF	50 V	
C 5	= 8,2 pF	500 V	NP0
C 6	= HCU06C100 3-10 pF (Bianco)		
C 7	= 470 pF	50 V	N750
C 8	= not present		
C 9	= not present		
C 10 - C 11	= 100 nF	50 V	
C 12	= HCU06C100 1-5 pF (Blu)		
C 13	= 10 nF	50 V	
C 14	= 22 µF	25 V	
C 15	= 100 nF	50 V	
C 16	= 3 x 470 pF 50V		N750
C 17 - C 18	= 10 nF	50 V	
C 19 to C 21	= 100 nF	50 V	
C 22	= 100 nF	63 V	Polyester
C 23	= 82 pF	500 V	NP0
C 24 - C 25	= 47 nF	50 V	
C 26 to C 28	= 100 nF	50 V	
C 29	= 33 µF	25 V	
C 30	= 33 µF	25 V	
C 31	= 100 nF	50 V	
C 32 - C 33	= 220 pF	500 V	N750
C 34	= 10 nF	50 V	
C 35 - C 36	= 100 nF	50 V	
C 37	= 220 pF	500 V	Silvered mica
C 38	= 47 pF	500 V	NP0
C 39	= 12 pF	500 V	NP0
C 40	= 39 pF	500 V	NP0
C 41	= 150 pF	500 V	NP0
C 42	= 39 pF	500 V	NP0
C 43 - C 44	= 4700 µF	50 V	105°C
C 45	= 100 nF	50 V	
C 46	= 18 pF	500 V	NP0
C 47	= 47 pF	500 V	NP0
C 48	= 220 pF	500 V	N750
C 49	= 100 pF	500 V	NP0
C 50	= 82 pF	500 V	NP0
C 51	= 100 pF	500 V	NP0
C 52	= 56 pF	500 V	NP0
C 53	= 10 nF	63 V	Polyester
C 54	= 270 pF	500 V	N750
C 55	= 47 pF	500 V	NP0
C 56 to C 58	= 100 nF	50 V	
C 59	= 2,2 µF	25 V	
C 60	= 180 pF	500 V	NP0
C 61	= 390 pF	500 V	Silvered mica
C 62	= not present		
C 63	= 56 pF	500 V	NP0
C 64	= 180 pF	500 V	N750
C 65	= 180 pF	500 V	N750
C 66	= 620 pF	500 V	Silvered mica
C 67	= 4700 µF	50 V	105°C
C 68 - C 69	= 100 nF	50 V	
C 70	= 4,7 µF	25 V	
C 71	= 33 µF	25 V	
C 72	= 390 pF	500 V	Silvered mica
C 73	= 120 pF	500 V	NP0
C 74	= 390 pF	500 V	Silvered mica
C 75	= 560 pF	500 V	Silvered mica
C 76	= 270 pF	500 V	N750
C 77	= 560 pF	500 V	Silvered mica
C 78	= 220 pF	500 V	N750
C 79	= 1600 pF	500 V	Silvered mica
C 80	= 390 pF	500 V	Silvered mica
C 81	= 100 nF	50 V	
C 82	= 27 pF	50 V	NP0
C 83	= 27 pF	50 V	NP0
C 84	= 100 nF	63 V	Polyester
C 85	= 560 pF	500 V	Silvered mica
C 87	= 560 pF	500 V	Silvered mica
C 88	= 2,2 pF	50 V	NP0
C 89	= 33 pF	50 V	NP0
C 90 to C 92	= 100 nF	50 V	
C 93	= 10 nF	50 V	
C 94 to C 98	= 100 nF	50 V	
C 99	= 1,0 nF	63 V	Polyester
C 100	= 22 µF	25 V	
C 101	= 220 nF	63 V	Polyester
C 102 to C 108	= 100 nF 50 V		
C 109	= 10 nF	50 V	
C 110	= 10 pF	50 V	NP0
C 111	= 10 nF	50 V	
C 112	= 10 pF	50 V	NP0
C 113	= 10 nF	50 V	
C 114 to C 115	= 100 nF 50 V		
C 116	= 33 µF	25 V	
C 117	= 100 nF	63 V	Polyester
C 118 to C 123	= 100 nF 50 V		
C 124	= 10 µF	25 V	
C 125 - C 126	= 100 nF	63 V	Polyester
C 127 - C 128	= 100 nF	50 V	
C 129	= 330 µF	35 V	
C 130 to C 132	= 100 nF 50 V		
C 133	= 100 nF	63 V	Polyester
C 134	= 100 nF	50 V	
C 135	= 4,7 µF	25 V	
C 136	= 100 nF	50 V	
C 137	= not present		
C 138	= 2,2 pF	50 V	NP0
C 140 to C 148	= 100 nF 50 V		
C 150	= 100 nF	50 V	
C 151	= 470 nF	100 V	Polyester
C 152 to C 158	= 100 nF 50 V		
C 159	= 100 µF	35 V	
Cx	= 10 µF	16 V	
R 1	= 470 Ω	5W	
R 2	= 470 Ω	5W	
R 3	= 330 Ω	2W	
R 4	= 33 Ω	5W	
R 5	= 33 Ω	5W	
R 9	= 12 KΩ	¼W	
R 10	= 47 Ω	¼W	
R 11	= 1,0 KΩ	¼W	
R 14	= 68 Ω	5W	

RM

R 15 = not present	R 82 = 4,7 KΩ ¼W	Tr 19 = BC 547 B
R 16 = 330 Ω 2W	R 83 = 56 KΩ ¼W	Tr 20 = BC 557 B
R 17 = 47 KΩ ¼W	R 84 = 22 KΩ ¼W	Tr 21 = BD 179
R 18 = 4,7 KΩ ¼W	R 85 = 10 KΩ ¼W	Tr 22 = BC 557 B
R 19 = 120 KΩ ¼W	R 86 = 10 KΩ ¼W	Tr 23 = BC 547 B
R 20 = 33 KΩ ¼W	R 87 = 1,0 KΩ ¼W	Tr 24 = BC 557 B
R 21 = 4,7 KΩ ¼W	R 88 = 10 KΩ ¼W	Tr 26 = BC 337-25
R 22 = 15 KΩ ¼W	R 89 = 180 Ω 2W	MSFT 1 = IRF 4905
R 23 = 2,2 KΩ ½W	R 90 = 180 Ω 2W	Xt 1 = Xtal 4.0 MHz
R 24 = 22 KΩ ¼W	R 91 = 120 Ω 2W	Rl 1 = 3022.7.024
R 25 = 180 Ω ¼W	R 92 = 22 KΩ ¼W	Rl 2 = 4152.9.024
R 26 = 8,2 KΩ ¼W	R 93 = 47 KΩ ¼W	Rl 3 = 3022.7.024
R 27 = 68 Ω 5W	R 94 = 10 KΩ ¼W	Rl 4 to Rl 9 = 4152.9.024
R 28 = 68 Ω 5W	R 95 = 1,0 KΩ ¼W	T 1 = ANRA 700/12
R 29 = 10 Ω ½W	R 96 = 4,7 KΩ ¼W	T 2 = Input Transformers
R 30 = 10 Ω ½W	R 97 = 10 KΩ ¼W	T 3 = Output Transformers
R 31 = 10 KΩ ¼W	R 99 = 18 KΩ ¼W	T 4 - T 5 = KI/KH 4364
R 32 = 47 KΩ ¼W	R 100 = 6,8 KΩ ¼W	L 1 = FH002100
R 33 = 10 KΩ ¼W	R 101 = 4,7 KΩ ¼W	L 3 = ANRA KL40
R 34 = 1,0 KΩ ¼W	R 102 = 470 KΩ ¼W	L 4 = ANRA 856/1
R 35 = 68 Ω 5W	R 103 = 22 KΩ ¼W	L 5 = ANRA 856
R 36 = 68 Ω 5W	R 104 = 4,7 KΩ ¼W	L 6 = ANRA 856/2
R 37 = 3,3 KΩ ½W	Trim 1 = Trimmer PT10LV 10 KΩ	L 7 = FH002110
R 38 = 4,7 KΩ ¼W	Trim 2 = Trimmer PT10LH 22 KΩ	L 8 = ANRA 856/3
R 39 = 10 KΩ ¼W	Trim 3 = Trimmer PT10LV 220 KΩ	L 9 = ANRA 856/4
R 40 = 4,7 KΩ ¼W	Trim 4 = Trimmer 10 KΩ multigiri	L 10 = ANRA 856/3
R 41 = 10 KΩ ¼W	D 1 to D 3 = 1N4148	L 11 = ANRA 725/5
R 42 = 4,7 KΩ ¼W	D 4 = 1N5711	L 12 = ANRA 725/4
R 43 = 10 KΩ ¼W	D 5 = 1N5400	L 13 = ANRA 725/7
R 44 = 100 Ω ¼W	D 6 to D 7 = 1N4007	L 14 = ANRA 725/6
R 45 = 1,0 MΩ ¼W	D 8 = 1N5711	L 15 = ANRA 725/9
R 46 = 56 KΩ ¼W	D 9 to D 18 = 1N4148	L 16 = ANRA 725/8
R 47 = 10 KΩ ¼W	D 19 to D 20 = 1N4007	S 1 = Term. 80°C MB12A12
R 48 = 100 KΩ ¼W	D 21 = 1N4148	
R 49 = 27 Ω ½W	D 22 to D 23 = 1N4007	
R 50 = 2,2 KΩ ¼W	D 24 to D 25 = 1N4148	
R 51 = 47 KΩ ¼W	D 26 to D 29 = 1N4007	
R 52 = 1,0 Ω ½W	D 30 to D 31 = 1N4148	
R 53 = 10 Ω 2W	D 32 to D 33 = KV1235	
R 54 = 1,0 KΩ ½W	D 34 = 1N4007	
R 55 to R 63 = 47 KΩ ¼W	D 35 to D 37 = 1N4148	
R 64 = 4,7 KΩ ¼W	D 38 = 1N4007	
R 65 = 2,2 KΩ ½W	D 39 to D 46 = 1N4148	
R 66 = 47 KΩ ¼W	Dz 1 = Zener 27 V 1W	
R 67 = 47 KΩ ¼W	Dz 3 = Zener 7,5 V ½W	
R 68 = 1,0 KΩ ¼W	Dz 4 = Zener 20 V 1W	
R 69 = 1,0 KΩ ¼W	Ic 1 = TL 084	
R 70 = 10 KΩ ¼W	Ic 2 = Micro RM1	
R 71 = 10 KΩ ¼W	Ic 3 = LM 7805	
R 72 = 10 KΩ ¼W	Ic 4 = LM 555	
R 73 = 2,2 KΩ ¼W	Ic 5 = LM 7815	
R 74 = 10 KΩ ¼W	Tr 1 = BD 241 BFP	
R 75 = Not present	Tr 2 = BC 547 B	
R 76 = 10 KΩ ¼W	Tr 3 - Tr 4 = SD 1407	
R 77 = 10 KΩ ¼W	Tr 5 - Tr 6 = BC 337-25	
R 78 = 1,0 KΩ ¼W	Tr 7 - Tr 10 = BC 547 B	
R 79 = 2,2 KΩ ¼W	Tr 11 - Tr 12 = BF 245 C	
R 80 = 10 KΩ ¼W	Tr 13 to Tr 17 = BC 547 B	
R 81 = 10 KΩ ¼W	Tr 18 = BC 327-25	

Frontale BLA 300 rel 1.0
www.rmitaly.com

List of components

Board Frontale

C 1	= 100 nF	50 V
C 2	= 100 nF	50 V
C 3	= 10 µF	25 V
C 4	= 100 nF	50 V
C 5	= 100 µF	35 V
C 6	= 100 nF	50 V
C 7	= 100 nF	50 V
C 8	= 100 nF	50 V
R 1	= 150 Ω	2W
R 2	= 2,7 KΩ	¼W
R 3	= 2,2 KΩ	½W
R 4	= 2,2 KΩ	½W
R 5	= 2,2 KΩ	½W
R 6	= 2,2 KΩ	½W
R 7	= 150 Ω	2W
R 8	= 15 KΩ	¼W
R 9	= 1,0 KΩ	¼W
R 10	= 10 KΩ	¼W
R 11	= 1,0 KΩ	¼W

R 12	= 330 Ω	1W
R 13	= 2,2 KΩ	½W
R 14	= 10 KΩ	¼W
R 15	= 10 KΩ	¼W
Pot 1	= 4,7 KΩ	Vert
D 1	= 1N4148	
Dz 1	= Zener 12 V ½W	
Dz 2	= Zener 10 V 1W	
Dz 3	= Zener 20 V 1W	
Dz 4	= Zener 24 V 1W	
Scr 1	= P0102	
Tr 1	= BC 557 B	
Tr 2	= BC 547 B	
Ic 1	= LM 317T	
Led1	= High efficiency dual-colours LED	
Led2	= High efficiency Green LED	
Led3	= High efficiency Red LED	
Led4	= High efficiency Yellow LED	
S 1	= band selectror (1 Way 6 positions)	
S 2	= -3dB ON/OFF switch	
S 3	= Lin ON/OFF switch	
S 4	= SSB Delay ON/OFF switch	
S 5	= Pre ON/OFF switch	