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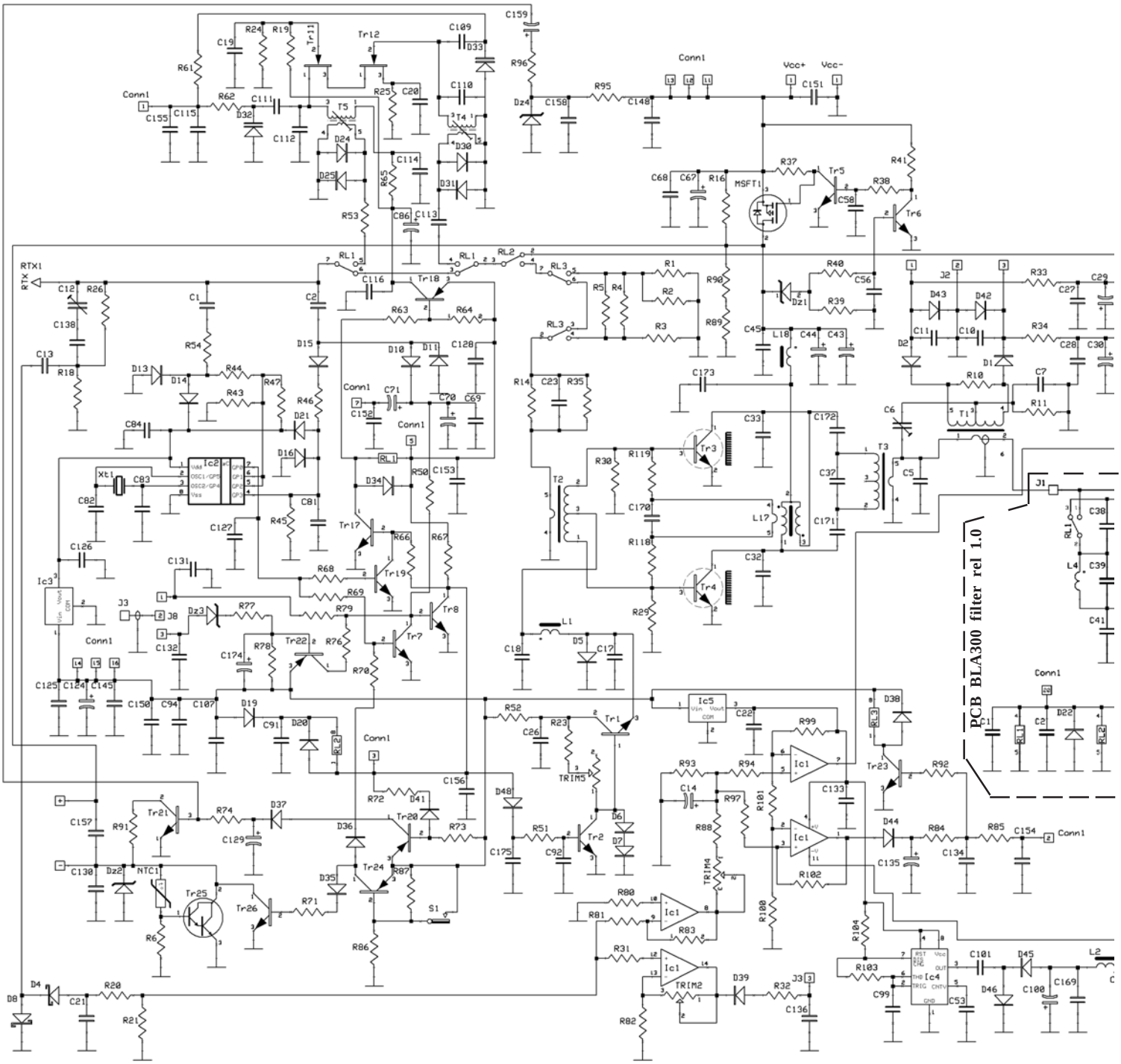
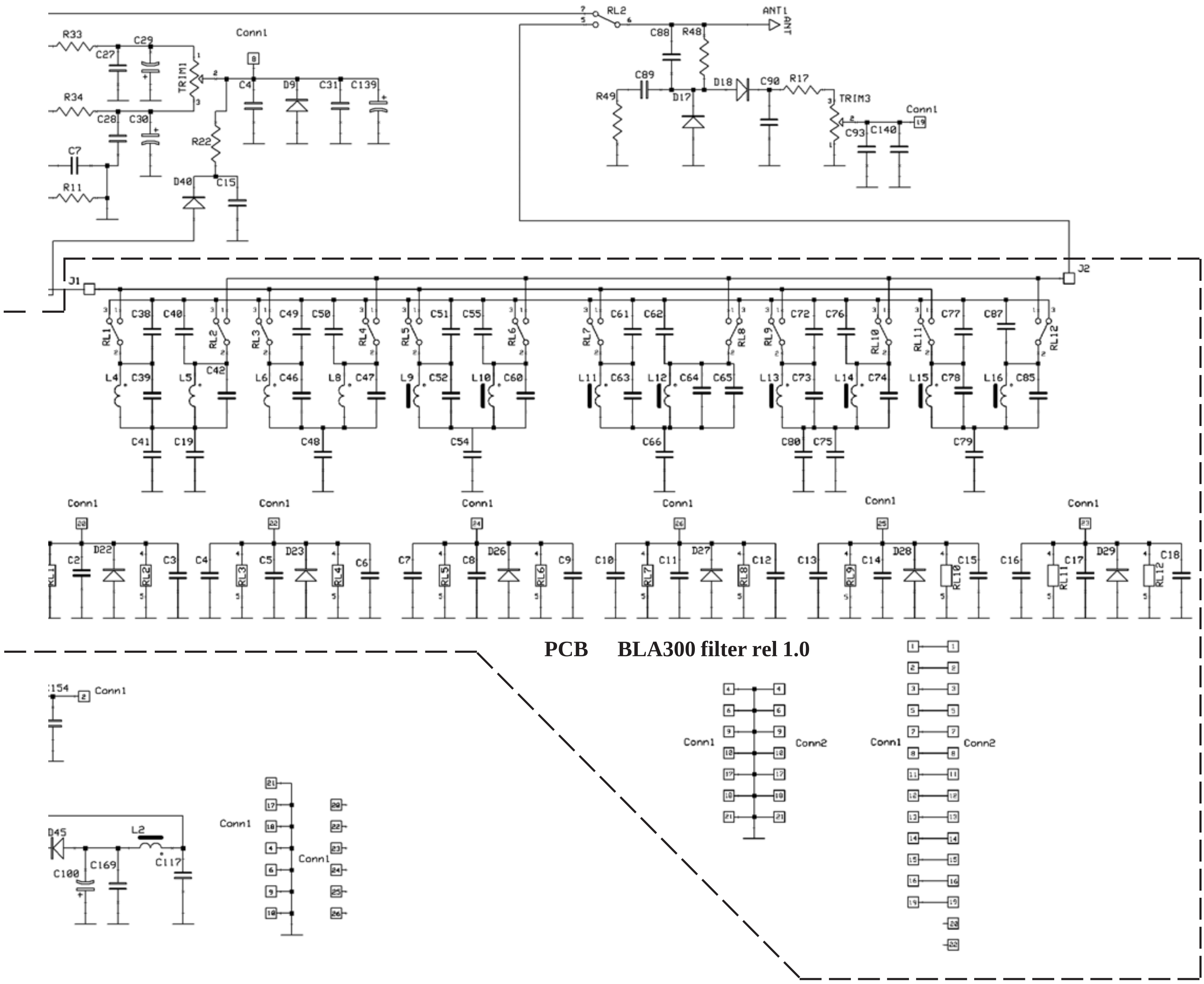
Mod. BLA 300 linear amplifier

Schematic diagram

Version 2.51





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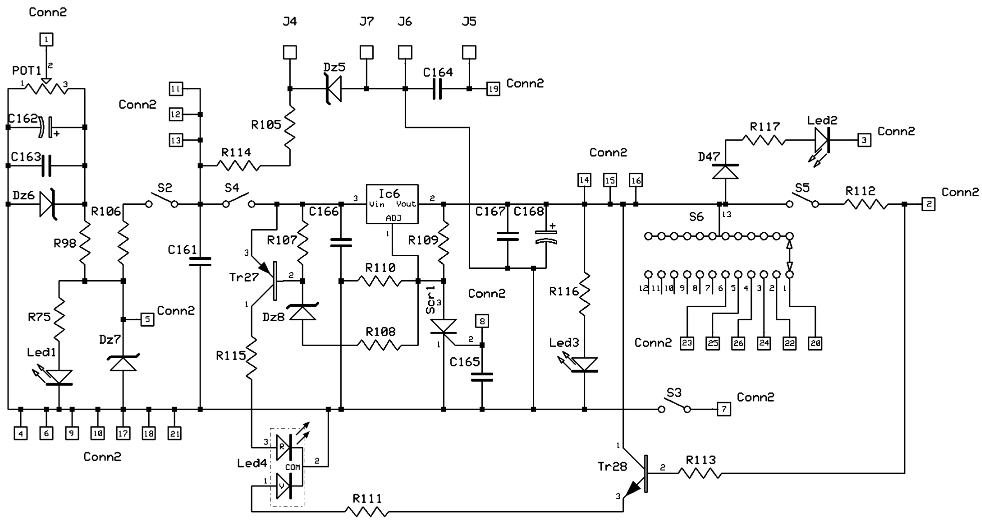

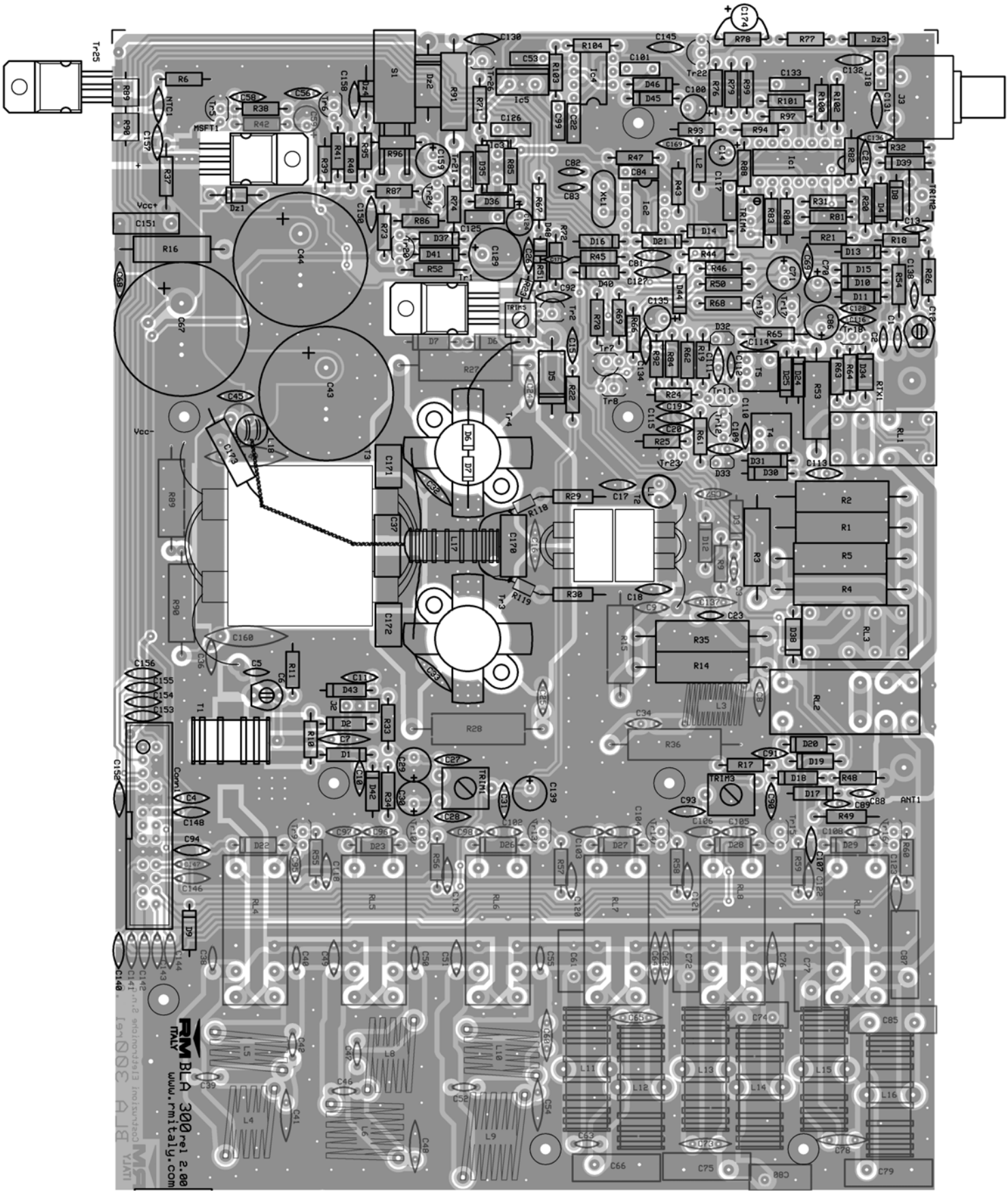
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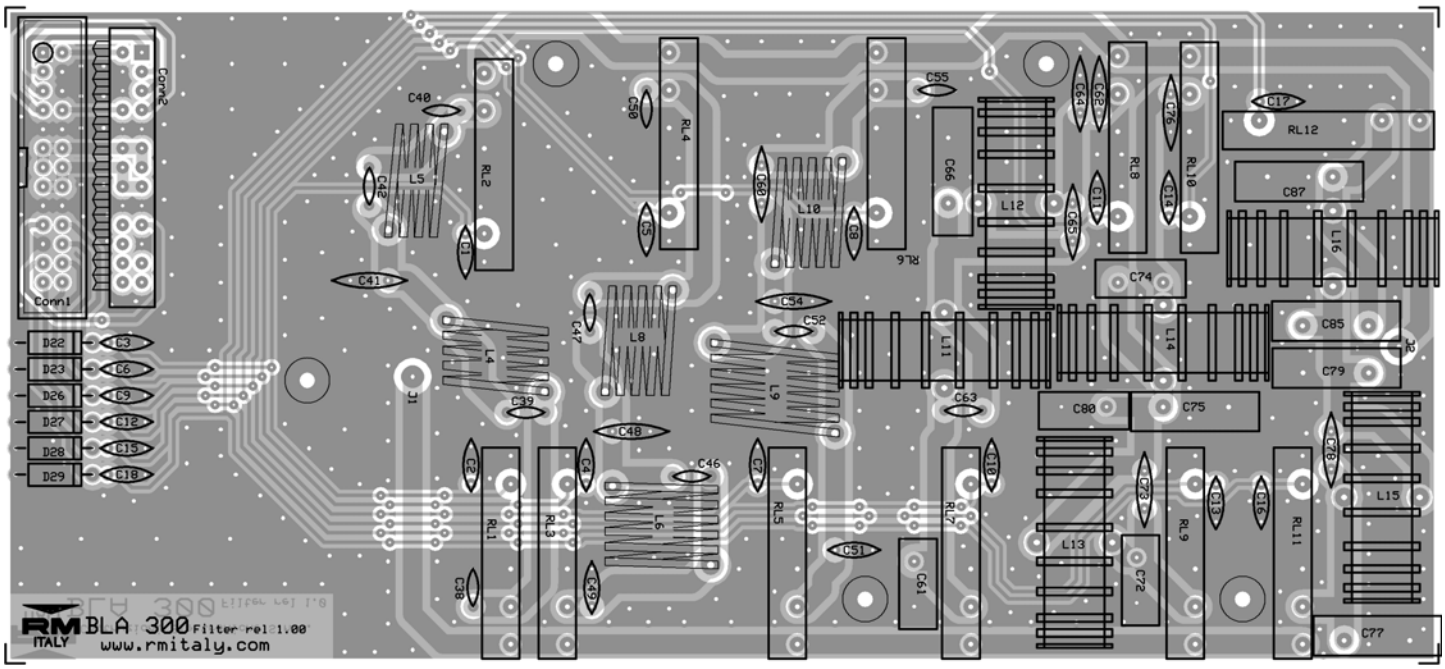

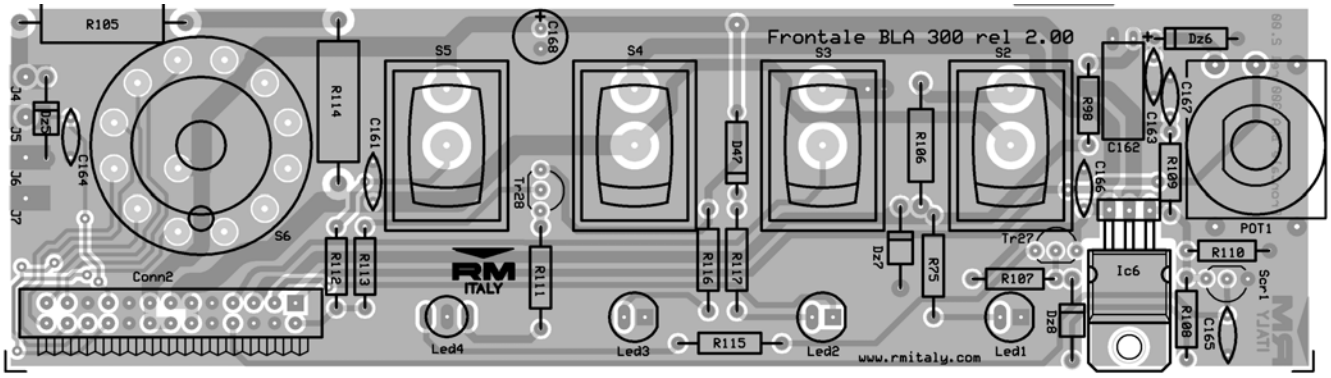

List of components

C 1 = 3,3 pF 50 V NP0
C 2 = 8,2 pF 50 V NP0
C 3 = not present
C 4 = 100 nF 50 V
C 5 = 68 pF 500 V NP0
C 6 = HCU06C100 3-10 pF (Bianco)
C 7 = 470 pF 50 V N750
C 8 = 47 pF 50 V NP0
C 9 = not present
C 10 - C 11 = 100 nF 50 V
C 12 = HCU06C100 1-5 pF (Blu)
C 13 = 22 pF 50 V NP0
C 14 = 10 µF 25 V
C 15 = 100 nF 50 V
C 16 = not present
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 50 V NP0
C 24 - C 25 = not present
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 = not present
C 35 - C 36 = not present
C 37 = 180 pF 500 V Silvered mica
C 38 - C 42 == not present
C 43 - C 44 = 4700 µF 50 V 105°C
C 45 = 100 nF 50 V
C 46 - C 49 == not present
C 49 = not present
C 50 = 82 pF 500 V NP0
C 51 = not present
C 52 = not present
C 53 = 10 nF 63 V Polyester
C 54 = not present
C 55 = not present
C 56 = 100 nF 50 V
C 57 = Not present
C 58 = 100 nF 50 V
C 59 - C 66 == not present
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 - C 80 == not present

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 = not present
C 86 = 33 µF 25 V
C 87 = not present
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 = 100 nF 50 V
C 95 to C 98 = not present
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 106 = not present
C 107 = 100 nF 50 V
C 108 = not present
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 116 = 100 nF 50 V
C 117 = 100 nF 63 V Polyester
C 118 to C 123 = not present
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 = 1,0 pF 50 V NP0
C 139 = 47 µF 25 V
C 140 = 100 nF 50 V
C 141 to C 144 = not present
C 145 = 100 nF 50 V
C 146 = not present
C 147 = not present
C 148 = 100 nF 50 V
C 149 = not present
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
C 160 = not present
C 161 = 100 nF 50 V
C 162 = 10 µF 25 V
C 163 to C 167 = 100 nF 50 V
C 168 = 100 µF 35 V
C 169 = 100 nF 50 V
C 170 = 1100 pF 500 V Silvered mica
C 171 = 100 nF 250 V metallized polyphenylene
C 172 = 100 nF 250 V metallized polyphenylene
C 173 = 220 nF 275 Vac X2
C 174 = 10 µF 25 V
C 175 = 220 nF 50 V Multilayer
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 6 = 470 Ω ¼W
R 9 = not present
R 10 = 47 Ω ¼W
R 11 = 1,0 KΩ ¼W
R 14 = 68 Ω 5W
R 15 = not present
R 16 = 330 Ω 2W
R 17 = 47 KΩ ¼W
R 18 = 4,7 KΩ ¼W
R 19 = 120 KΩ ¼W
R 20 = 33 KΩ ¼W
R 21 = 4,7 KΩ ¼W
R 22 = 15 KΩ ¼W
R 23 = 2,2 KΩ ½W
R 24 = 22 KΩ ¼W
R 25 = 180 Ω ¼W
R 26 = 18 KΩ ¼W
R 27 = not present
R 28 = not present
R 29 = 10 Ω ½W
R 30 = 10 Ω ½W
R 31 = 10 KΩ ¼W
R 32 = 470 Ω ¼W
R 33 = 10 KΩ ¼W
R 34 = 1,0 KΩ ¼W
R 35 = 68 Ω 5W
R 36 = not present
R 37 = 3,3 KΩ ½W
R 38 = 4,7 KΩ ¼W
R 39 = 10 KΩ ¼W
R 40 = 4,7 KΩ ¼W
R 41 = 10 KΩ ¼W
R 42 = not present
R 43 = 10 KΩ ¼W
R 44 = 100 Ω ¼W
R 45 = 1,0 MΩ ¼W
R 46 = 56 KΩ ¼W
R 47 = 10 KΩ ¼W
R 48 = 100 KΩ ¼W
R 49 = 27 Ω ½W
R 50 = 2,2 KΩ ¼W
R 51 = 47 KΩ ¼W
R 52 = 1,0 Ω ½W
R 53 = 10 Ω 2W
R 54 = 1,0 KΩ ½W
R 55 to R 60 = not present
R 61 to R 63 = 47 KΩ ¼W
R 64 = 4,7 KΩ ¼W
R 65 = 2,2 KΩ ½W
R 66 = 47 KΩ ¼W
R 67 = 47 KΩ ¼W

R 68 = 1,0 KΩ ¼W
R 69 = 1,0 KΩ ¼W
R 70 = 10 KΩ ¼W
R 71 = 10 KΩ ¼W
R 72 = 10 KΩ ¼W
R 73 = 2,2 KΩ ¼W
R 74 = 10 KΩ ¼W
R 76 = 10 KΩ ¼W
R 77 = 10 KΩ ¼W
R 78 = 1,0 KΩ ¼W
R 79 = 2,2 KΩ ¼W
R 80 = 10 KΩ ¼W
R 81 = 10 KΩ ¼W
R 82 = 4,7 KΩ ¼W
R 83 = 68 KΩ ¼W
R 84 = 22 KΩ ¼W
R 85 = 10 KΩ ¼W
R 86 = 10 KΩ ¼W
R 87 = 1,0 KΩ ¼W
R 88 = 4,7 KΩ ¼W
R 89 = 180 Ω 2W
R 90 = 180 Ω 2W
R 91 = 120 Ω 2W
R 92 = 22 KΩ ¼W
R 93 = 47 KΩ ¼W
R 94 = 10 KΩ ¼W
R 95 = 1,0 KΩ ¼W
R 96 = 4,7 KΩ ¼W
R 97 = 10 KΩ ¼W
R 99 = 22 KΩ ¼W
R 100 = 6,8 KΩ ¼W
R 101 = 2,2 KΩ ¼W
R 102 = 330 KΩ ¼W
R 103 = 22 KΩ ¼W
R 104 = 4,7 KΩ ¼W
R 118 = 3,3 Ω 2W
R 119 = 3,3 Ω 2W
NTC 1 = NTC 10 KΩ
Trim 1 = Trimmer PT10LV 10 KΩ
Trim 2 = Trimmer PT10LH 47 KΩ
Trim 3 = Trimmer PT10LV 220 KΩ
Trim 4 = Trimmer 10 KΩ multigiri
Trim 5 = Trimmer PT10LV 2,2 KΩ
D 1 to D 2 = 1N4148
D 3 = not present
D 4 = 1N5711
D 5 = 1N5400
D 6 to D 7 = 1N4007
D 8 = 1N5711
D 9 to D 11 = 1N4148
D 12 = not present
D 17 to D 18 = 1N4148
D 19 to D 20 = 1N4007
D 21 = 1N4148
D 22 to D 23 = not present
D 24 to D 25 = 1N4148
D 26 to D 29 = not present
D 30 to D 31 = 1N4148
D 32 to D 33 = KV1235
D 34 = 1N4007
D 35 to D 37 = 1N4148
D 38 = 1N4007
D 39 to D 46 = 1N4148
D 48 = 1N4148
Dz 1 = Zener 27 V 1W
Dz 2 = 1N5355B
Dz 3 = Zener 7,5 V ½W
Dz 4 = Zener 20 V 1,3W
Ic 1 = TL 084
Ic 2 = Micro RM1
Ic 3 = LM 7805
Ic 4 = LM 555
Ic 5 = LM 7815
Tr 1 = BD 241 BFP
Tr 2 = BC 547 B
Tr 3 - Tr 4 = SD 1407
Tr 5 - Tr 6 = BC 337-25
Tr 7 to Tr 8 = BC 547 B
Tr 9 to Tr 10 = not present
Tr 11 - Tr 12 = BF 245 B
Tr 13 to Tr 16 = not present
Tr 17 = BC 547 B
Tr 18 = BC 327-25
Tr 19 = BC 547 B
Tr 20 = BC 557 B
Tr 21 = BD 179
Tr 22 = BC 557 B
Tr 23 = BC 547 B
Tr 24 = BC 557 B
Tr 25 = BDX53BFP
Tr 26 = BC 337-25
Tr 28 = BC 547 B
MSFT 1 = IRF 4905
Xt 1 = Xtal 4.0 MHz
Rl 1 = 3022.7.024
Rl 2 = 4152.9.024
Rl 3 = 3022.7.024
Rl 4 to Rl 9 = not present
T 1 = ANRA 700/12 MIX43
T 2 = Input Transformers
T 3 = Output Transformers
T 4 - T 5 = KI/KH 4364
L 1 = FH002100
L 2 = 10 µH
L 3 - L 16 = not present
L 17 = ANRA 963
L 18 = VK200 2 wires
S 1 = Term. 80°C MB12A12

PCB Frontale BLA300 rel 1.0

C 161 = 100 nF 50 V
C 162 = 10 µF 25 V
C 163 to C 167 = 100 nF 50 V
C 168 = 100 µF 35 V
R 75 = 2,2 KΩ ½W
R 98 = 2,7 KΩ ¼W
R 105 = 68 Ω 2W
R 106 = 330 Ω 1W

R 107 = 1,0 KΩ ¼W
R 108 = 10 KΩ ¼W
R 109 = 1,0 KΩ ¼W
R 110 = 15 KΩ ¼W
R 111 = 2,2 KΩ ½W
R 112 = 10 KΩ ¼W
R 113 = 10 KΩ ¼W
R 114 = 68 Ω 2W
R 115 = 2,2 KΩ ½W
R 116 = 2,2 KΩ ½W
R 117 = 2,2 KΩ ½W
POT 1 = P20KCF6 4,7 KΩ
D 47 = 1N4148
Dz 5 = Zener 20 V 1,3W
Dz 6 = Zener 12 V ½W
Dz 7 = Zener 24 V 1,3W
Dz 8 = Zener 20 V 1,3W
Led 1 = Yellow high eff.
Led 2 = Red high eff.
Led 3 = Green high eff.
Led 4 = dual-color high eff.
Ic 6 = LM 317T
Tr 27 = BC 557 B
SCR 1 = P0102
S 6 = 11R11ACNS 1 way 11 positions

PCB BLA300 filter rel 1.0

C 1 - C 18 = 100 nF 50 V
C 19 = 15 pF 500 V NP0
C 38 = 39 pF 500 V NP0
C 39 = 22 pF 500 V NP0
C 40 = 27 pF 500 V NP0
C 41 = 100 pF 500 V NP0
C 42 = 39 pF 500 V NP0
C 46 = 27 pF 500 V NP0
C 47 = 47 pF 500 V NP0
C 48 = 180 pF 500 V NP0
C 49 = 82 pF 500 V NP0
C 50 = 56 pF 500 V NP0
C 51 = 82 pF 500 V NP0
C 52 = 47 pF 500 V NP0
C 54 = 240 pF 500 V Silverd Mica
C 55 = 56 pF 500 V NP0
C 60 = 180 pF 500 V NP0
C 61 = 270 pF 500 V NP0
C 62 = 150 pF 500 V NP0
C 63 = 39 pF 500 V NP0
C 64 = 12 pF 500 V NP0
C 65 = 120 pF 500 V NP0
C 66 = 560 pF 500 V Silverd Mica
C 72 = 390 pF 500 V Silverd Mica
C 73 = 68 pF 500 V NP0
C 74 = 240 pF 500 V Silverd Mica
C 75 = 620 pF 500 V Silverd Mica
C 76 = 220 pF 500 V NP0
C 77 = 330 pF 500 V Silverd Mica
C 78 = 240 pF 500 V Silverd Mica
C 79 = 1600 pF 500 V Silverd Mica
C 80 = 270 pF 500 V NP0
C 85 = 620 pF 500 V Silverd Mica
C 87 = 560 pF 500 V Silverd Mica
D 22 to D 23 = 1N4007
D 26 to D 29 = 1N4007
L 4 = ANRA 856/1
L 5 = ANRA 856
L 6 = ANRA 856/2
L 8 = ANRA 856/3
L 9 = T94-6/7
L 10 = T94-0/14
L 11 = 725/5
L 12 = 725/4
L 13 = 725/7
L 14 = 725/6
L 15 = 725/9
L 16 = 725/8
L 17 = ANRA 963
L 17 = ANRA 963
Rl 1 - Rl 12 = 34.51.7.024.0100