



RM

Costruzioni Elettroniche

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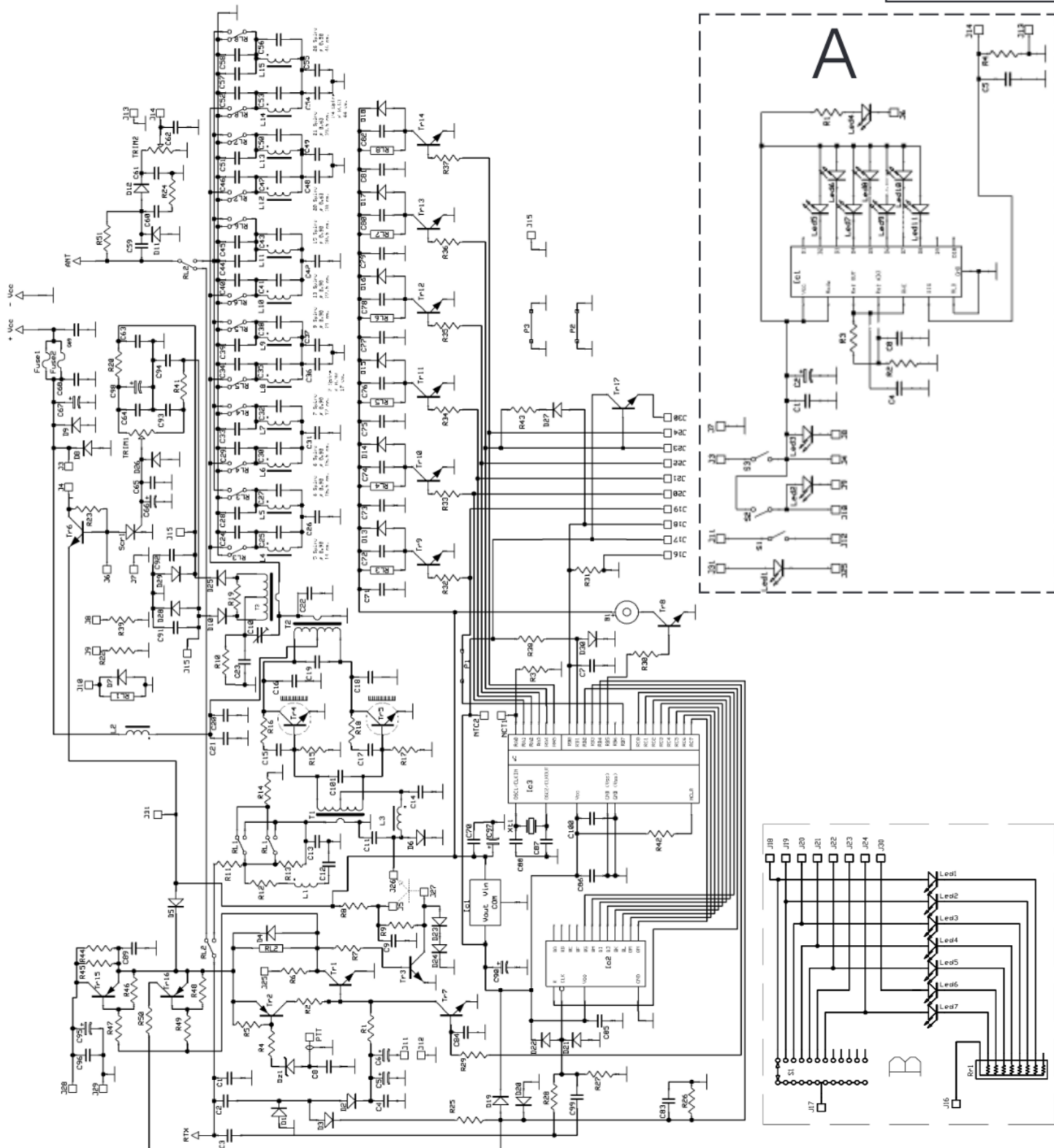
E-MAIL ufftec@rmitaly.com

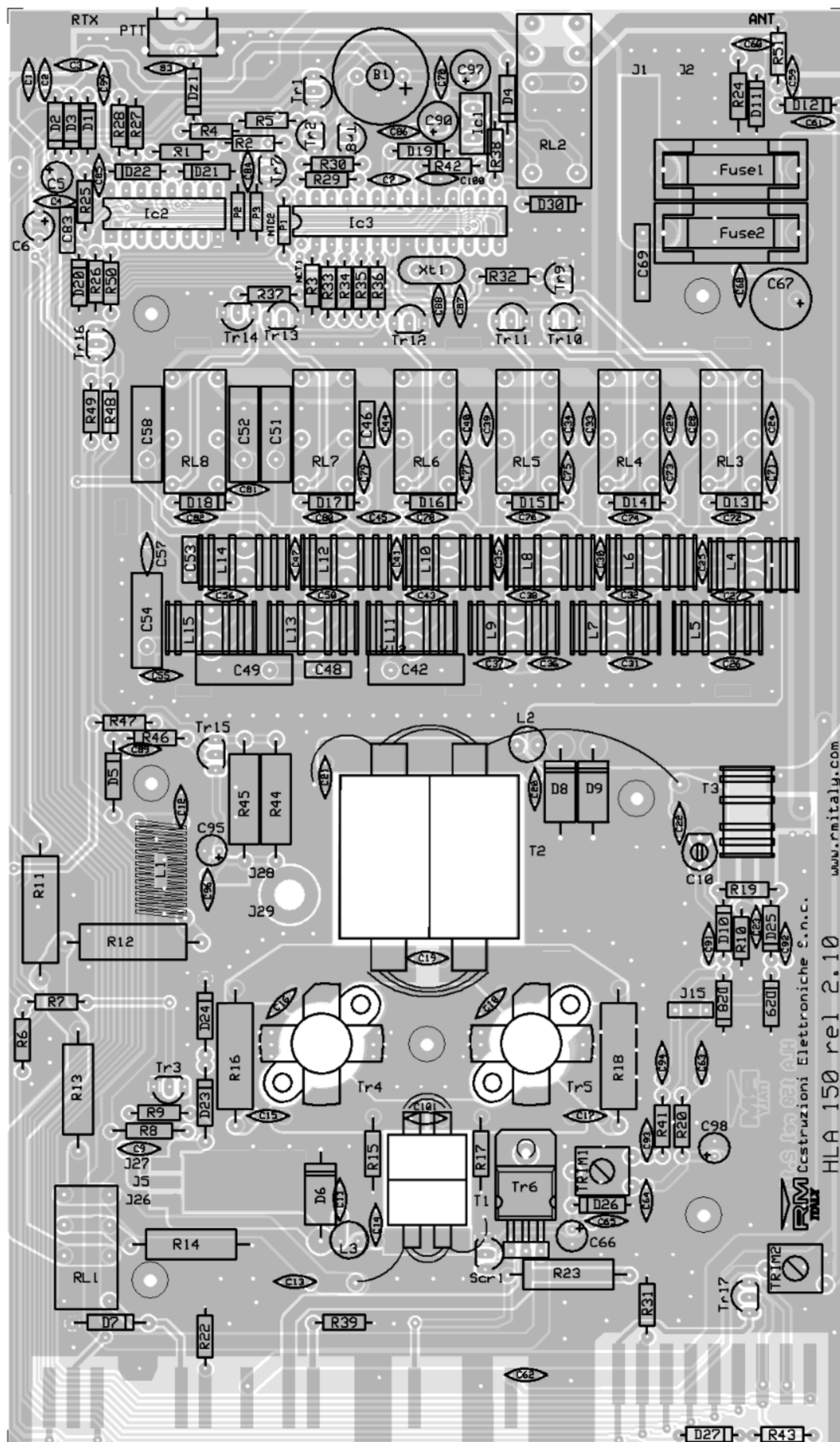
<http://www.rmitaly.com>

Mod. HLA 150 linear amplifier

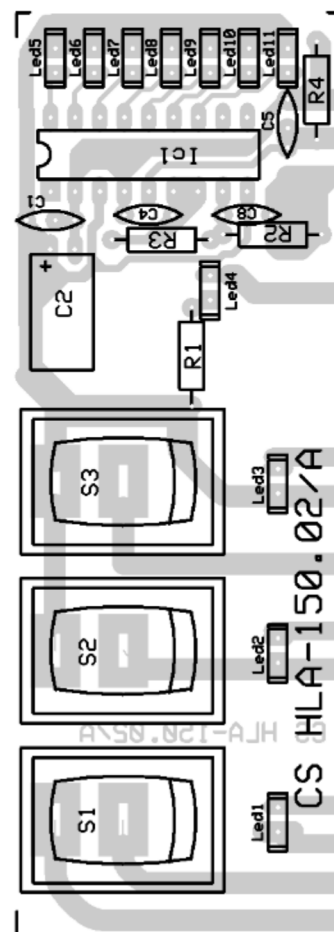
Schematic diagram

Version 2.10

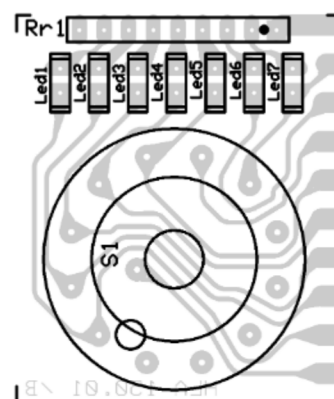




Board A



Board B



List of components

C 1	=				C 58	= 620 pF	500 V	Silveredmica
C 2	= 8,2 pF	50 V		NP0	C 59	= 2,2 pF	50 V	NP0
C 3	= 15 pF	50 V		NP0	C 60	= 33 pF	50 V	NP0
C 4	= 100 nF	50 V			C 61	= 100 nF	50 V	
C 5	= 2,2 μF	16 V			C 62	= 10 nF	50 V	
C 6	= 33 μF	16 V			C 63	= 100 nF	50 V	
C 8	= 10 nF	50 V			C 64	= 100 nF	50 V	
C 9	= 100 nF	50 V			C 65	= 100 nF	50 V	
C 10	= 3 - 10 pF	Trimmer	50 V	NP0	C 66	= 10 μF	25 V	
C 11	= 100 nF	50 V			C 67	= 470 μF	25 V	
C 12	= 10 nF	50 V			C 68	= 100 nF	50 V	
C 13	= 150 pF	50 V		NP0	C 69	= 470 nF	63 V	Polyester
C 14	= 100 nF	50 V			C 70 to C 82	= 100 nF	50 V	
C 15	= 47 nF	50 V			C 83	= 10 nF	63 V	Polyester
C 16	= 220 pF	500 V		NP0	C 84	= 10 nF	50 V	
C 17	= 47 nF	50 V			C 85	= 100 nF	50 V	
C 18	= 220 pF	500 V		NP0	C 86	= 100 nF	50 V	
C 19	= 1300 pF	500 V		Silveredmica	C 87	= 27 pF	50 V	NP0
C 20	= 100 nF	50 V			C 88	= 27 pF	50 V	NP0
C 21	= 100 nF	50 V			C 89	= 100 nF	50 V	
C 22	= 47 pF	1 KV		NP0	C 90	= 22 μF	25 V	
C 23	= 470 pF	50 V		N750	C 91	= 100 nF	50 V	
C 24	= 22 pF	500 V		NP0	C 92	= 100 nF	50 V	
C 25	= 33 pF	500 V		NP0	C 93	= 100 nF	50 V	
C 26	= 150 pF	500 V		NP0	C 94	= 100 nF	50 V	
C 27	= 12 pF	500 V		NP0	C 95	= 22 μF	25 V	
C 28	= 100 pF	500 V		NP0	C 96	= 100 nF	50 V	
C 29	= 47 pF	500 V		NP0	C 97	= 10 μF	25 V	
C 30	= 33 pF	500 V		NP0	C 98	= 33 μF	16 V	
C 31	= 220 pF	500 V		NP0	C 99	= 4,7 pF	50 V	NP0
C 32	= 15 pF	500 V		NP0	C 100	= 220 nF	50 V	Multilayer
C 33	= 100 pF	500 V		NP0	C 101	= 2 x 470 pF	50 V	N750
C 34	= 82 pF	500 V		NP0	R 1	= 2,2 KΩ	¼W	
C 35	= 82 pF	500 V		NP0	R 2	= 4,7 KΩ	¼W	
C 36	= 100 pF	500 V		NP0	R 3	= 4,7 KΩ	¼W	
C 37	= 220 pF	500 V		NP0	R 4	= 10 KΩ	¼W	
C 38	= 56 pF	500 V		NP0	R 5	= 2,2 KΩ	¼W	
C 39	= 150 pF	500 V		NP0	R 6	= 1,0 KΩ	¼W	
C 40	= 220 pF	500 V		NP0	R 7	= 2,2 KΩ	¼W	
C 41	= 100 pF	500 V		NP0	R 8	= 1,0 Ω	½W	
C 42	= 620 pF	500 V		Silveredmica	R 9	= 1,2 KΩ	¼W	
C 43	= 33 pF	500 V		NP0	R 10	= 1,0 KΩ	¼W	
C 44	= 220 pF	500 V		NP0	R 11	= 33 Ω	5W	
C 45	= 100 pF	500 V		NP0	R 12	= 33 Ω	5W	
C 46	= 390 pF	500 V		Silveredmica	R 13	= 39Ω	2W	
C 47	= 150 pF	500 V		NP0	R 14	= 150 Ω	2W	
C 48	= 390 pF	500 V		Silveredmica	R 15	= 10 Ω	½W	
C 49	= 620 pF	500 V		Silveredmica	R 16	= 68 Ω	5W	
C 50	= 82 pF	500 V		NP0	R 17	= 10 Ω	½W	
C 51	= 620 pF	500 V		Silveredmica	R 18	= 68 Ω	5W	
C 52	= 620 pF	500 V		Silveredmica	R 19	= 47 Ω	¼W	
C 53	= 390 pF	500 V		Silveredmica	R 20	= 1,0 KΩ	¼W	
C 54	= 1600 pF	500 V		Silveredmica	R 22	= 1,0 KΩ	¼W	
C 55	= 270 pF	500 V		NP0	R 23	= 330 Ω	2W	
C 56	= 150 pF	500 V		NP0	R 24	= 27 Ω	½W	
C 57	= 150 pF	500 V		NP0	R 25	= 10 KΩ	¼W	

R₂₆ = 1,0 MΩ ¼W
 R₂₇ = 47 KΩ ¼W
 R₂₈ = 4,7 KΩ ¼W
 R₂₉ = 1,0 KΩ ¼W
 R₃₀ = 4,7 KΩ ¼W
 R₃₁ = 10 KΩ ¼W
 R₃₂ = 4,7 KΩ ¼W
 R₃₃ = 4,7 KΩ ¼W
 R₃₄ = 4,7 KΩ ¼W
 R₃₅ = 4,7 KΩ ¼W
 R₃₆ = 4,7 KΩ ¼W
 R₃₇ = 4,7 KΩ ¼W
 R₃₈ = 4,7 KΩ ¼W
 R₃₉ = 1,0 KΩ ¼W
 R₄₁ = 10 KΩ ¼W
 R₄₂ = 1,0 KΩ ¼W
 R₄₃ = 220 Ω ¼W
 R₄₄ = 68 Ω 2W
 R₄₅ = 68 Ω 2W
 R₄₆ = 470 Ω ¼W
 R₄₇ = 2,2 KΩ ¼W
 R₄₈ =
 R₄₉ =
 R₅₀ =
 R₅₁ = 10 KΩ ¼W
 P₁ = P₂ = P₃ = Ponte 0 Ω ¼W
 B₁ = Buzzer 12V ARIMB12A12
 Trim₁ = Timmer PT10 10 KΩ
 Trim₂ = Timmer PT10 10 KΩ
 D₁ = 1N4148
 D₂ = 1N4148
 D₃ = 1N4148
 D₄ = 1N4007
 D₅ = 1N4007
 D₆ = 1N5400
 D₇ = 1N4007
 D₈ = 1N5400
 D₉ = 1N5400
 D₁₀ - D₂₂ = 1N4148
 D₂₃ = 1N4007
 D₂₄ = 1N4007
 D₂₅ - D₃₀ = 1N4148
 Dz₁ = Zener 7,5 V ½W
 Fuse₁ = 12 A Fast
 Fuse₂ = 12 A Fast
 Ic₁ = LM 7805
 Ic₂ = 74HC4020
 Ic₃ = Micro RM3
 Tr₁ = BC 547 B
 Tr₂ = BC 557 B
 Tr₃ = BC 547 B
 Tr₄ - Tr₅ = SD 1446
 Tr₆ = BD 241
 Tr₇ - Tr₁₄ = BC 547 B
 Tr₁₅ = BC 327
 Tr₁₆ =
 Tr₁₇ = BC 547 B

Tr₁₈ = BD 241 BFP
 Xt₁ = Xtal 11.059 MHz
 Scr₁ = P0102
 Rl₁ = 3022
 Rl₂ = 4152
 Rl₃ - Rl₈ = 3022
 T₁ = Input Transformer
 T₂ = Output Transformer
 T₃ = ANRA 700/12
 L₁ = ANRA 455
 L₂ = FH002110
 L₃ = FH002100
 L₄ = ANRA 700
 L₅ = ANRA 700/1
 L₆ = ANRA 700/1
 L₇ = ANRA 700/2
 L₈ = ANRA 700/2
 L₉ = ANRA 700/3
 L₁₀ = ANRA 700/5
 L₁₁ = ANRA 700/6
 L₁₂ = ANRA 700/7
 L₁₃ = ANRA 700/8
 L₁₄ = ANRA 700/9
 L₁₅ = ANRA 700/10
 Conn₁ = CQQ/A2/6,3
 NTC₁ = 4,7 KΩ ø 5mm

Board A

C₁ = 10 nF 50 V
 C₂ = 10 µF 16 V
 C₄ = 10 nF 50 V
 C₅ = 10 nF 50 V
 C₈ = 10 nF 50 V
 R₁ = 1,0 KΩ ¼W
 R₂ = 8,2 KΩ ¼W
 R₃ = 1,0 KΩ ¼W
 R₄ = 4,7 KΩ ¼W
 Ic₁ = LM 3915
 Led₁ - Led₁₁ = LED

BoarB

S₁ = Switch 1 way 7 positions
 Rr₁ = Resistor networks 7 x 220 Ω
 Led₁ - Led₇ = LED