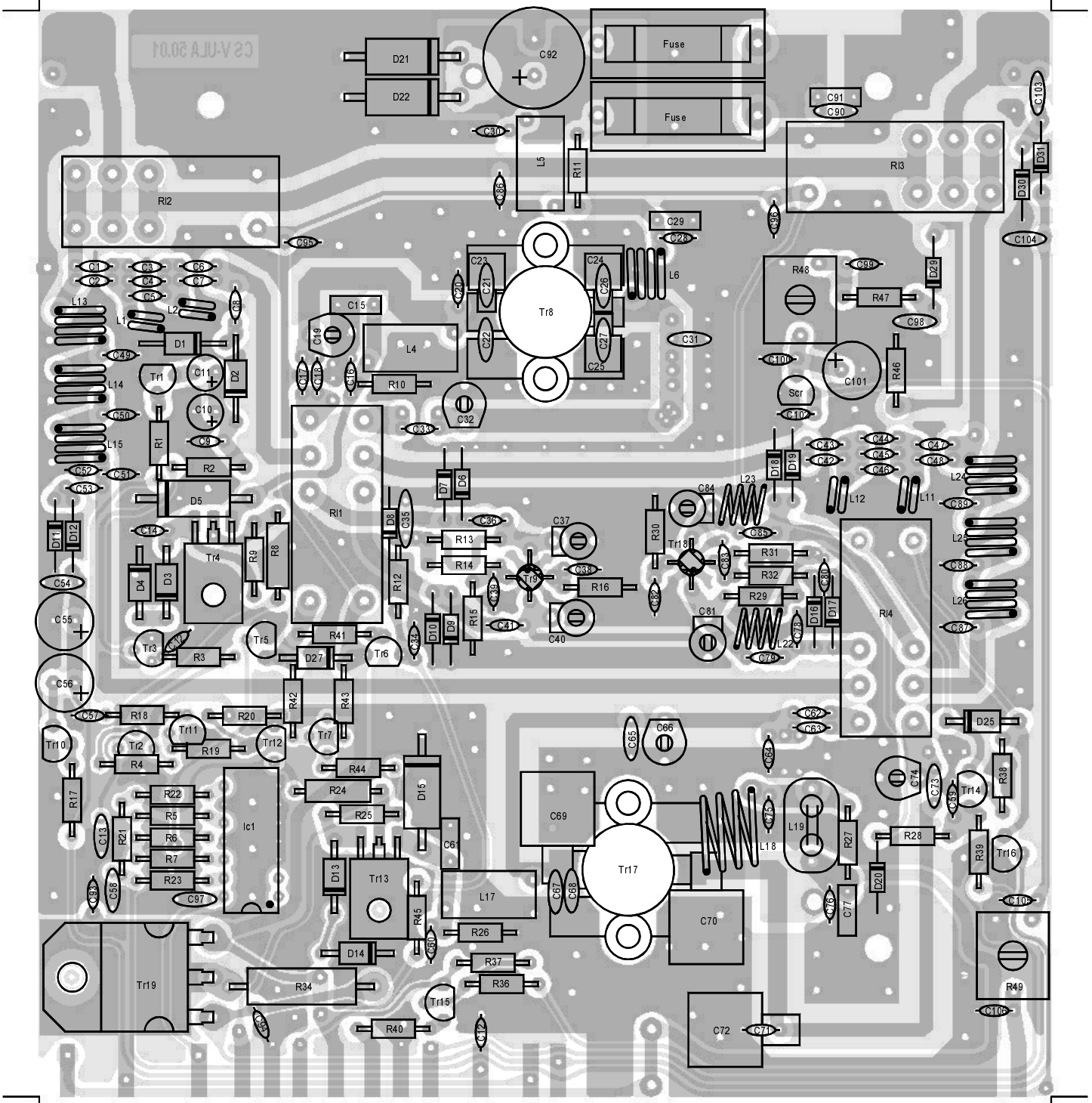
RM Costruzioni Elettroniche
di Marchioni Davide & Daniele s.n.c.

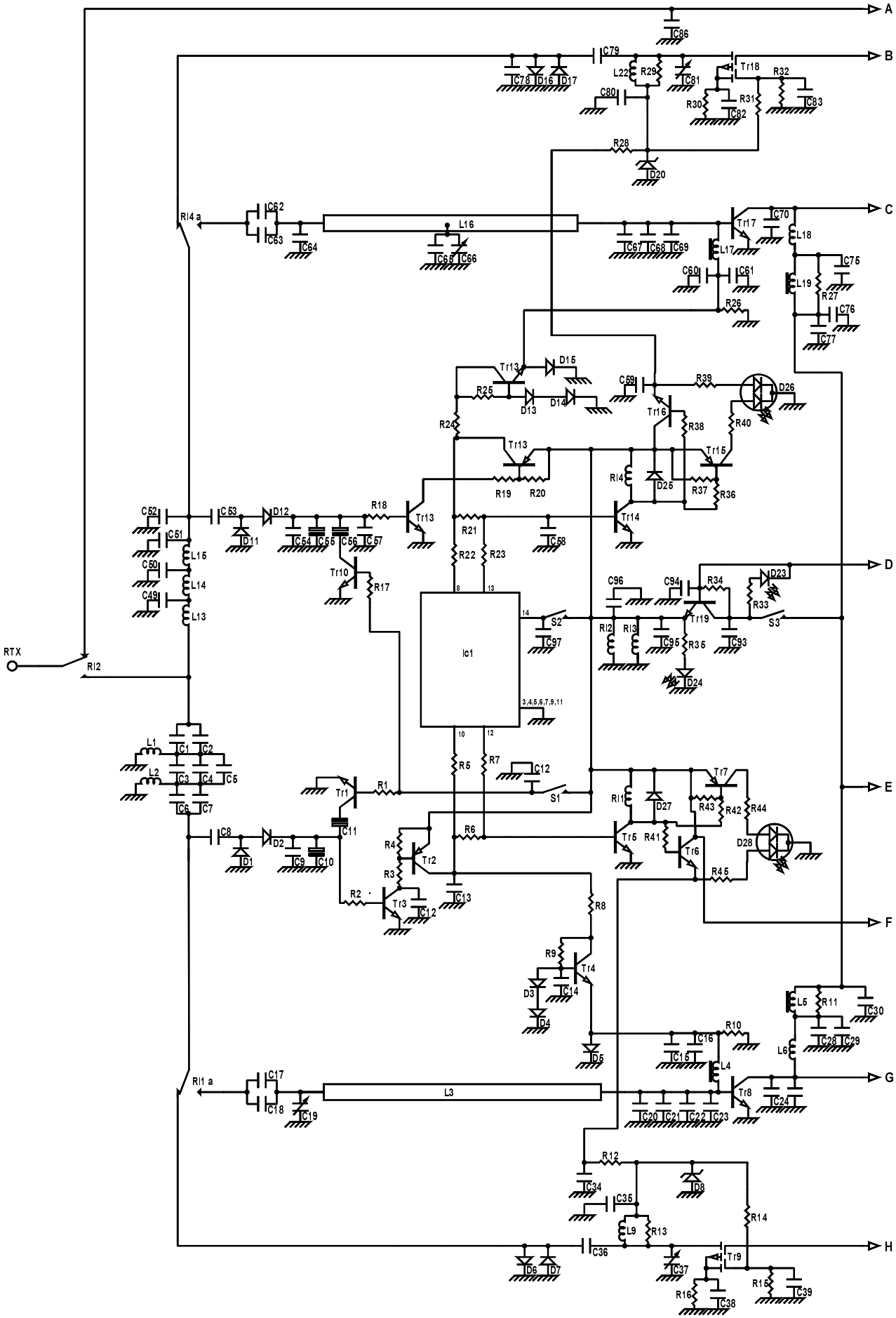
Via IV Novembre 215/5
Casella postale N° 33
40045 Ponte della Venturina (BO) ITALY
Tel +39 0534 60460
Fax +39 0534 60463
E-MAIL ufftec@rmitaly.com
http://www.rmitaly.com

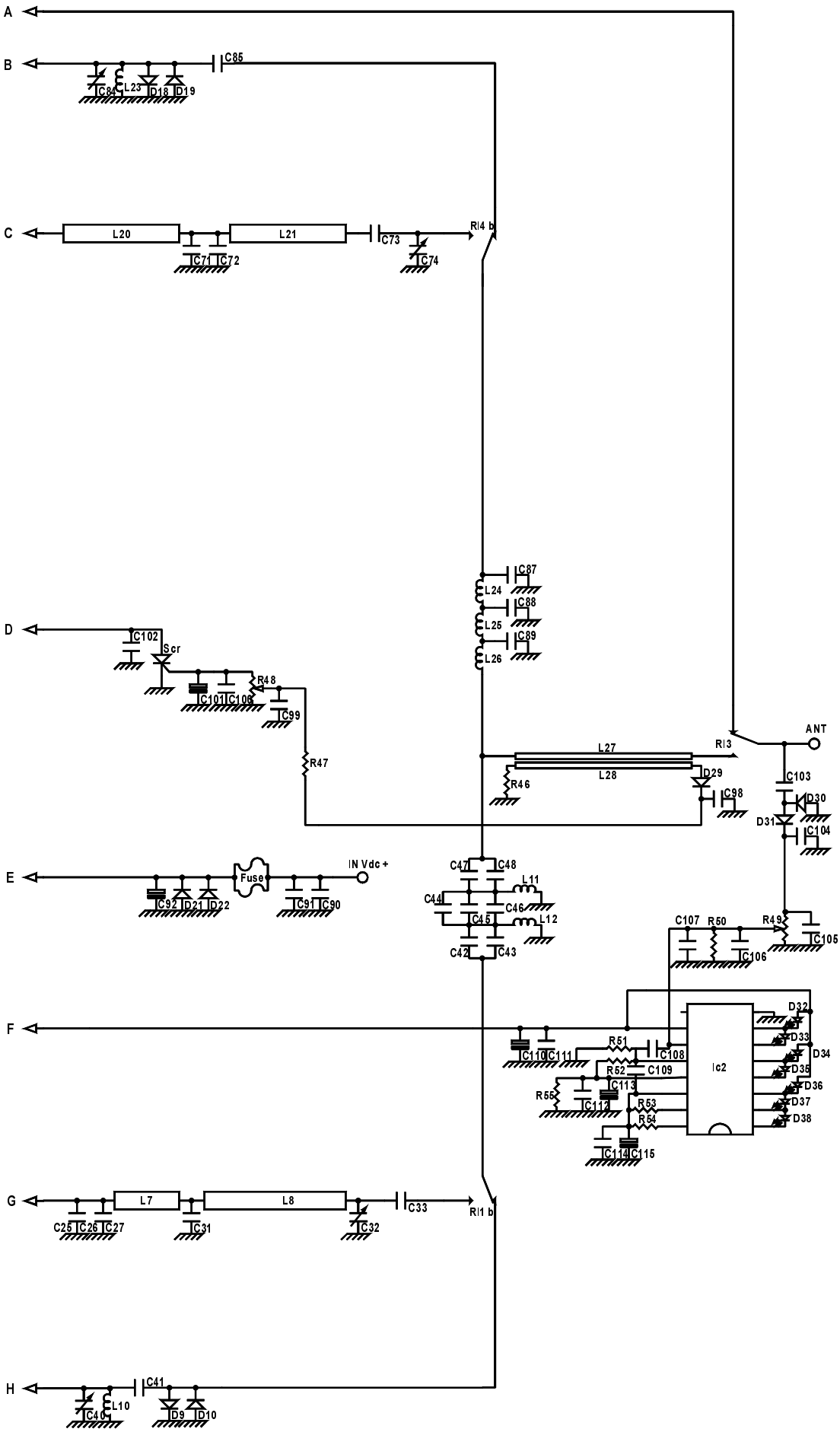
Mod. V-ULA 50 V-UHF linear amplifier

Version 1.01



Schematic diagram




A
B
C85
C84
L23
D18
D19
C
L20
L21
C73
RI4 b
C71
C72
C74
C87
L24
C88
L25
C89
L26
D
C102
Scr
R48
C101
C100
C99
R47
L27
RI3
ANT
L28
D29
R46
C98
C103
D30
D31
C104
E
IN Vdc +
Fuse
C92
D21
D22
C91
C90
C47
C48
L11
C44
C46
C45
L12
C42
C43
C107
R50
R49
C105
C106
F
D32
D33
D34
D35
D36
D37
D38
C110
C111
R51
C108
R52
C109
C113
R55
C112
R53
R54
C114
C115
Ic2
G
L7
L8
C33
RI1 b
C25
C26
C27
C31
C32
H
C41
C40
L10
D9
D10

List of components

C 1	=	3,9 pF	50 V	NP0
C 2	=	3,9 pF	50 V	NP0
C 3	=	2,2 pF	50 V	NP0
C 4	=	2,2 pF	50 V	NP0
C 5	=	1,8 pF	50 V	NP0
C 6	=	3,9 pF	50 V	NP0
C 7	=	3,9 pF	50 V	NP0
C 8	=	1,8 pF	50 V	NP0
C 9	=	1,0 nF	50 V	
C 10	=	4,7 µF	16 V	
C 11	=	33 µF	16 V	
C 12	=	1,0 nF	50 V	
C 13	=	1,0 nF	50 V	
C 14	=	1,0 nF	50 V	
C 15	=	220 nF	63 V	Multilayer
C 16	=	1,0 nF	50 V	
C 17	=	47 pF	50 V	NP0
C 18	=	47 pF	50 V	NP0
C 19	=	Trimmer 5 - 20 pF		NP0
C 20	=	10 pF	50 V	NP0
C 21	=	10 pF	50 V	NP0
C 22	=	6,8 pF	50 V	NP0
C 23	=	33 pF	300 V	Mica
C 24	=	33 pF	300 V	Mica
C 25	=	33 pF	300 V	Mica
C 26	=	12 pF	500 V	NP0
C 27	=	15 pF	500 V	NP0
C 28	=	100 pF	500 V	NP0
C 29	=	220 nF	63 V	Multilayer
C 30	=	1,0 nF	50 V	
C 31	=	8,2 pF	500 V	NP0
C 32	=	Trimmer 3 - 10 pF		NP0
C 33	=	47 pF	500 V	NP0
C 34	=	1,0 nF	50 V	
C 35	=	1,0 nF	50 V	
C 36	=	2,2 pF	50 V	NP0
C 37	=	Trimmer 2 - 5 pF		NP0
C 38	=	1,0 nF	50 V	
C 39	=	1,0 nF	50 V	
C 40	=	Trimmer 2 - 5 pF		NP0
C 41	=	2,2 pF	50 V	NP0
C 42	=	3,9 pF	50 V	NP0
C 43	=	3,9 pF	50 V	NP0
C 44	=	1,8 pF	50 V	NP0
C 45	=	2,2 pF	50 V	NP0
C 46	=	2,2 pF	50 V	NP0
C 47	=	3,9 pF	50 V	NP0
C 48	=	3,9 pF	50 V	NP0
C 49	=	18 pF	50 V	NP0
C 50	=	18 pF	50 V	NP0
C 51	=	18 pF	50 V	NP0
C 52	=	22 pF	50 V	NP0
C 53	=	2,2 pF	50 V	NP0
C 54	=	1,0 nF	50 V	
C 55	=	4,7 µF	25 V	
C 56	=	33 µF	25 V	
C 57	=	10 nF	50 V	
C 58	=	1,0 nF	50 V	
C 59	=	1,0 nF	50 V	
C 60	=	1,0 nF	50 V	
C 61	=	220 nF	63 V	Multilayer
C 62	=	100 pF	50 V	NP0
C 63	=	100 pF	50 V	NP0
C 64	=	22 pF	50 V	NP0
C 65	=	56 pF	500 V	NP0
C 66	=	Trimmer 5 - 20 pF		NP0
C 67	=	100 pF	500 V	NP0
C 68	=	100 pF	500 V	NP0
C 69	=	390 pF	500 V	Mica
C 70	=	390 pF	500 V	Mica
C 71	=	22 pF	500 V	NP0
C 72	=	100 pF	500 V	Mica
C 73	=	2,2 nF	500 V	
C 74	=	Trimmer 5 - 20 pF		NP0
C 75	=	2,2 nF	500 V	
C 76	=	1,0 nF	50 V	
C 77	=	220 nF	63 V	Multilayer
C 78	=	4,7 pF	50 V	NP0
C 79	=	4,7 pF	50 V	NP0
C 80	=	1,0 nF	50 V	
C 81	=	Trimmer 3 - 10 pF		NP0
C 82	=	1,0 nF	50 V	
C 83	=	1,0 nF	50 V	
C 84	=	Trimmer 3 - 10 pF		NP0
C 85	=	3,9 pF	50 V	NP0
C 86	=	3,9 pF	50 V	NP0
C 87	=	18 pF	50 V	NP0
C 88	=	18 pF	50 V	NP0
C 89	=	18 pF	50 V	NP0
C 90	=	100 nF	50 V	
C 91	=	220 nF	63 V	Multilayer
C 92	=	470 µF	25V	
C 93	=	1,0 nF	50 V	
C 94	=	1,0 nF	50 V	
C 95	=	1,0 nF	50 V	
C 96	=	1,0 nF	50 V	
C 97	=	1,0 nF	50 V	

C 98	=	1,0 nF	50 V	
C 99	=	1,0 nF	50 V	
C 100	=	1,0 nF	50 V	
C 101	=	10 µF	25 V	
C 102	=	1,0 nF	50 V	
C 103	=	2,2 pF	50 V	NP0
C 104	=	1,0 nF	50 V	
C 105	=	1,0 nF	50 V	
C 106	=	1,0 nF	50 V	
C 107	=	10 nF	50 V	
C 108	=	10 nF	50 V	
C 109	=	10 nF	50 V	
C 110	=	10 µF	25 V	
C 111	=	10 nF	50 V	
C 112	=	10 nF	50 V	
C 113	=	4,7 µF	25 V	
C 114	=	10 nF	50 V	
C 115	=	10 nF	50 V	
R 1	=	12 KΩ	¼ W	
R 2	=	2,2 KΩ	¼ W	
R 3	=	1,0 KΩ	¼ W	
R 4	=	100 Ω	¼ W	
R 5	=	12 KΩ	¼ W	
R 6	=	2,2 KΩ	¼ W	
R 7	=	2,2 KΩ	¼ W	
R 8	=	1,0 Ω	½ W	
R 9	=	1,2 KΩ	¼ W	
R 10	=	6,8 Ω	¼ W	
R 11	=	10 Ω	¼ W	
R 12	=	470 Ω	¼ W	
R 13	=	1,0 KΩ	¼ W	
R 14	=	6,8 KΩ	¼ W	
R 15	=	3,3 KΩ	¼ W	
R 16	=	10 Ω	¼ W	
R 17	=	12 KΩ	¼ W	
R 18	=	2,2 KΩ	¼ W	
R 19	=	1,0 KΩ	¼ W	
R 20	=	100 Ω	¼ W	
R 21	=	2,2 KΩ	¼ W	
R 22	=	12 KΩ	¼ W	
R 23	=	2,2 KΩ	¼ W	
R 24	=	1,0 Ω	½ W	
R 25	=	1,2 KΩ	¼ W	
R 26	=	4,7 Ω	¼ W	
R 27	=	10 Ω	¼ W	
R 28	=	470 Ω	¼ W	
R 29	=	1,0 KΩ	¼ W	
R 30	=	220 Ω	¼ W	
R 31	=	6,8 KΩ	¼ W	
R 32	=	3,3 KΩ	¼ W	
R 33	=	1,0 KΩ	¼ W	
R 34	=	330 Ω	2 W	
R 35	=	1,0 KΩ	¼ W	
R 36	=	12KΩ	¼ W	
R 37	=	1,0 KΩ	¼ W	
R 38	=	2,2 KΩ	¼ W	
R 39	=	1,0 KΩ	¼ W	
R 40	=	1,0 KΩ	¼ W	
R 41	=	2,2 KΩ	¼ W	
R 42	=	12 KΩ	¼ W	
R 43	=	1,0 KΩ	¼ W	
R 44	=	1,0 KΩ	¼ W	
R 45	=	1,0 KΩ	¼ W	
R 46	=	100 Ω	¼ W	
R 47	=	2,2 KΩ	¼ W	
R 48	=	Trimmer 4,7 KΩ		
R 49	=	Trimmer 220 KΩ		
R 50	=	470 Ω¼ W		
R 51	=	1,0 KΩ	¼ W	
R 52	=	1,0 KΩ	¼ W	
R 53	=	22 KΩ	¼ W	
R 54	=	10 KΩ	¼ W	
R 55	=	1,0 KΩ	¼ W	
D 1	=	1N 4148		
D 2	=	OA 118		
D 3	=	1N 4004		
D 4	=	1N 4004		
D 5	=	1N 5400		
D 6	=	1N 4148		
D 7	=	1N 4148		
D 8	=	Zener 5,1 V ½ W		
D 9	=	1N 4148		
D 10	=	1N 4148		
D 11	=	1N 4148		
D 12	=	1N 4148		
D 13	=	1N 4004		
D 14	=	1N 4004		
D 15	=	1N 5400		
D 16	=	1N 4148		
D 17	=	1N 4148		
D 18	=	1N 4148		
D 19	=	1N 4148		
D 20	=	Zener 5,1 V ½W		
D 21	=	1N 5400		
D 22	=	1N 5400		
D 23	=	Red LED		
D 24	=	Green LED		
D 25	=	1N 4004		

D 26 = Bicolor LED
D 27 = 1N 4004
D 28 = Bicolor LED
D 29 = 1N 4148
D 30 = 1N 4148
D 31 = 1N 4148
D 32 = Green LED
D 33 = Green LED
D 34 = Green LED
D 35 = Green LED
D 36 = Green LED
D 37 = Green LED
D 38 = Green LED
Tr 1 = BC 547
Tr 2 = BC 327
Tr 3 = BC 547
Tr 4 = BD 179
Tr 5 = BC 547
Tr 6 = BC 337
Tr 7 = BC 557
Tr 8 = BLU 45/12
Tr 9 = BF 966 S
Tr 10 = BC 547
Tr 11 = BC 547
Tr 12 = BC 327
Tr 13 = BD 179
Tr 14 = BC 547
Tr 15 = BC 557
Tr 16 = BC 337
Tr 17 = SD 1477
Tr 18 = BF 966 S
Tr 19 = TIP 142
Scr = P0102
Fuse = 2 x 6 A
IC 1 = CD 4013
IC 2 = KA 2288
L 1 = 2 turns wire ϕ 1 mm on ϕ 3 mm
L 2 = 2 turns wire ϕ 1 mm on ϕ 3 mm
L 3 = Strip line
L 4 = VK 200
L 5 = VK 200
L 6 = 2 turns wire ϕ 1 mm on ϕ 6 mm
L 7 = Strip line
L 8 = Strip line
L 9 = Strip line
L 10 = Strip line
L 11 = 2 turns wire ϕ 1 mm on ϕ 3 mm
L 12 = 2 turns wire ϕ 1 mm on ϕ 3 mm
L 13 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 14 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 15 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 16 = Strip line
L 17 = VK 200
L 18 = 3 turns wire ϕ 1,5 mm on ϕ 8 mm
L 19 = 2 turns wire ϕ 1,3 mm on ½ Balum
L 20 = Strip line
L 21 = Strip line
L 22 = 4 turns wire ϕ 0,8 mm on ϕ 5 mm
L 23 = 4 turns wire ϕ 0,8 mm on ϕ 5 mm
L 24 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 25 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 26 = 4 turns wire ϕ 1 mm on ϕ 5 mm
L 27 = Strip line
L 28 = Strip line
Rl 1 = 4052-12
Rl 2 = 4052-12
Rl 3 = 4052-12
Rl 4 = 4052-12
S 1 = Switch 3A (FM - SSB)
S 2 = Switch 3A (Simplex - Duplex)
S 3 = Switch 3A (ON - OFF)