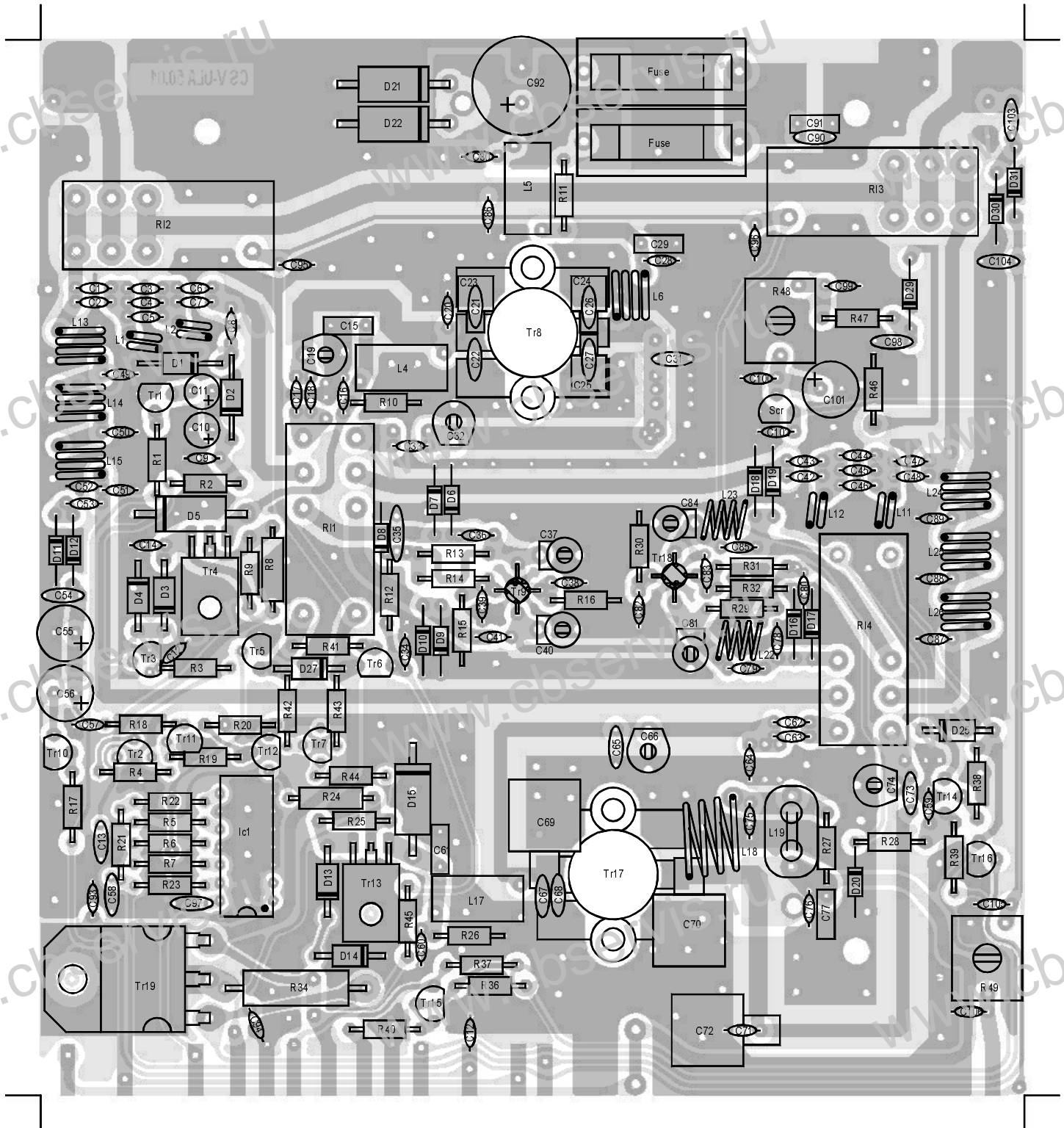
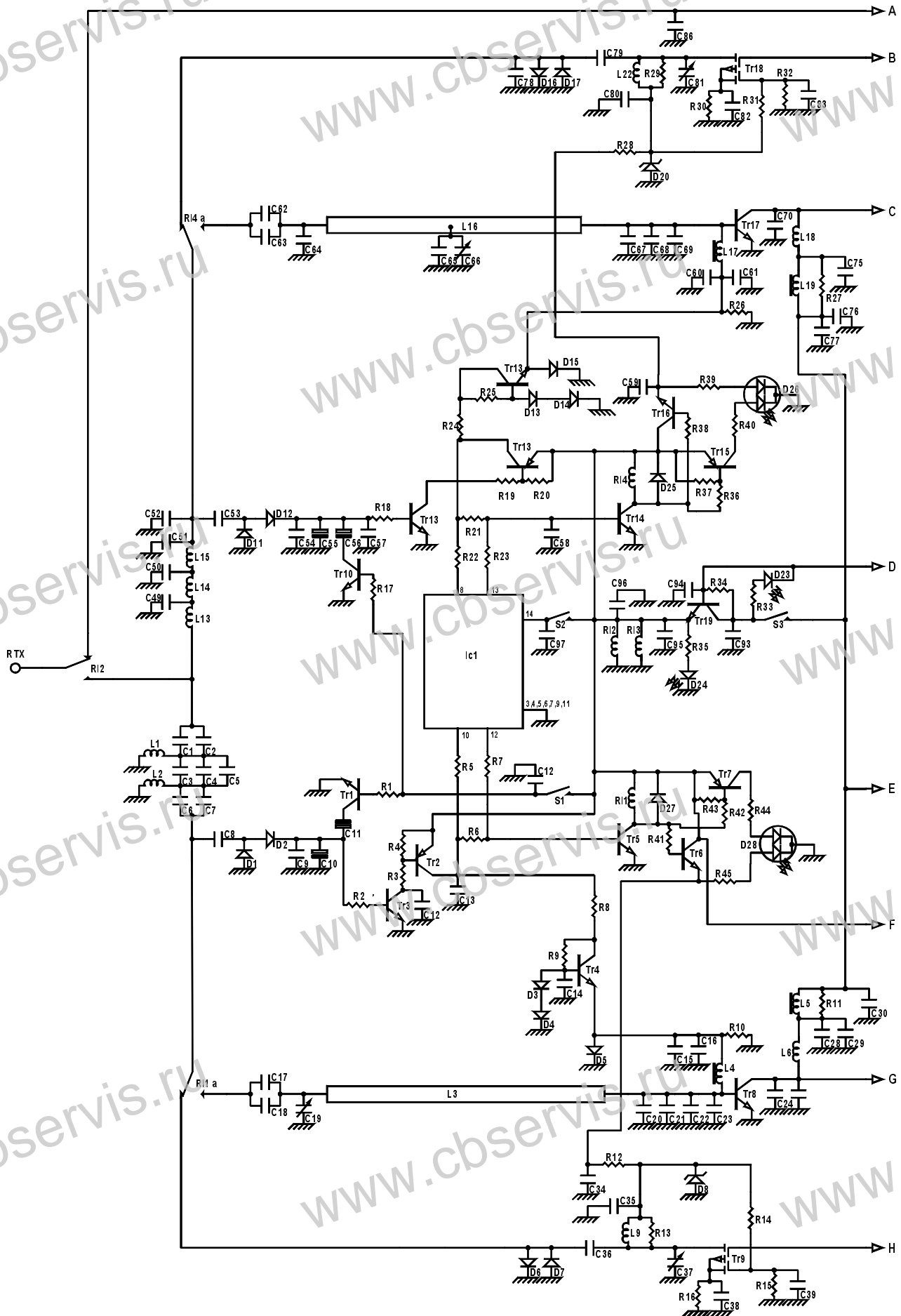


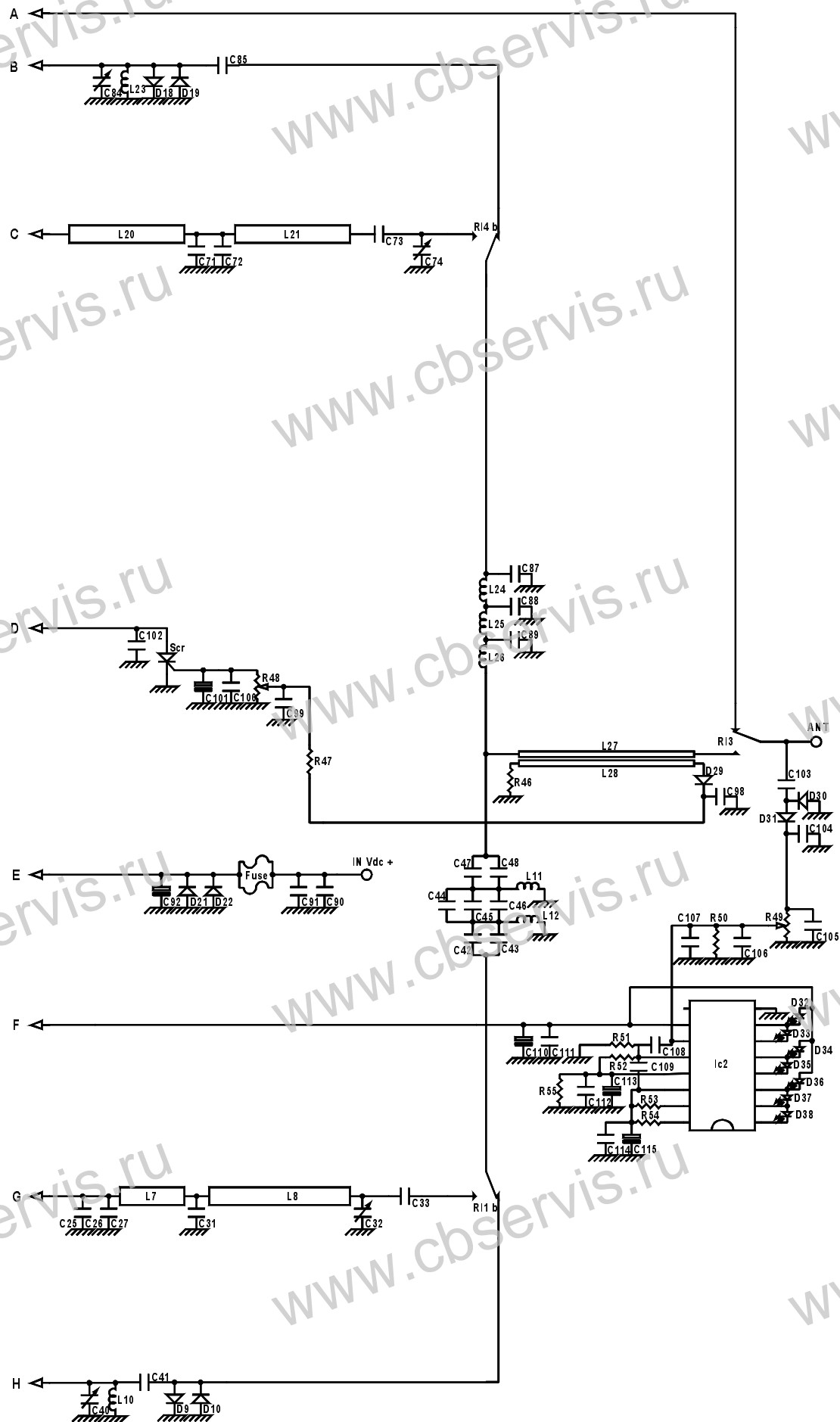
Mod. V-ULA 50 V-UHF linear amplifier

Version 1.02



Schematic diagram





List of components

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

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

NPO

D ₂₆ =	BicolorLED	L ₁₄ =	4 turns wire ϕ 1 mm on ϕ 5 mm
D ₂₇ =	1N 4004	L ₁₅ =	4 turns wire ϕ 1 mm on ϕ 5 mm
D ₂₈ =	Bicolor LED	L ₁₆ =	Strip line
D ₂₉ =	1N 4148	L ₁₇ =	VK 200
D ₃₀ =	1N 4148	L ₁₈ =	3 turns wire ϕ 1,5 mm on ϕ 8 mm
D ₃₁ =	1N 4148	L ₁₉ =	2 turns wire ϕ 1,3 mm on $\frac{1}{2}$ Balun
D ₃₂ =	Green LED	L ₂₀ =	Strip line
D ₃₃ =	Green LED	L ₂₁ =	Strip line
D ₃₄ =	Green LED	L ₂₂ =	4 turns wire ϕ 0,8 mm on ϕ 5 mm
D ₃₅ =	Green LED	L ₂₃ =	4 turns wire ϕ 0,8 mm on ϕ 5 mm
D ₃₆ =	Green LED	L ₂₄ =	4 turns wire ϕ 1 mm on ϕ 5 mm
D ₃₇ =	Green LED	L ₂₅ =	4 turns wire ϕ 1 mm on ϕ 5 mm
D ₃₈ =	Green LED	L ₂₆ =	4 turns wire ϕ 1 mm on ϕ 5 mm
Tr ₁ =	BC 547	L ₂₇ =	Strip line
Tr ₂ =	BC 327	L ₂₈ =	Strip line
Tr ₃ =	BC 547	Rl ₁ =	4052-12
Tr ₄ =	BD 179	Rl ₂ =	4052-12
Tr ₅ =	BC 547	Rl ₃ =	4052-12
Tr ₆ =	BC 337	Rl ₄ =	4052-12
Tr ₇ =	BC 557	S ₁ =	Switch 3A (FM - SSB)
Tr ₈ =	BLU 45/12	S ₂ =	Switch 3A (Simplex - Duplex)
Tr ₉ =	BF 966 S	S ₃ =	Switch 3A (ON - OFF)
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		