

LZ1AQ / pa0nhc PN2222 Rxloop
Parts List. Pa0nhc 20190829_{a96s41 12:52}

Conrad orderNrs only given for your convenience, and checking brand and type.
 Check also "www.arrow.com" for availability.

C1,4,6,20	10u Tantalum 35V wired RM2.5/5 For bandwidth to 10 kHz.	TIP: In stead of 10u, 100n FILM (1%) will attenuate LW and MW to prevent overload of SDR.	Conrad 447034 (1235240=100n)
C3,11	220n FILM RM2.5/5 For bandwidth down to 10 kHz.	TIP: In stead of 220n, 2n2 FILM (1%) will attenuate LW and MW to prevent overload of SDR.	Conrad 1235241 (1235243=2n2)
C7,8,12,13,,21	100n	Ceramic RM 2.5	Conrad 458211
C5,10	150p ! NP0 ! For low IMD. <u>Paired value for balance.</u> <u>Flat Fchar, 28MHz -3dB.</u>	Ceramic RM 2.5. TIP : 180pF for still flatter Fchar, but -6dB sensitivity at less 28 MHz.	Conrad 451622
C9	10n	Ceramic RM 2.5	Conrad 453064
C14	0.47u 25V.	Ceramic RM 5	Conrad 453374
C15	47u / 16V low ESR.	RM2/3. ESR= 0.1 to 1.0 Ohm.	Conrad 442648
L1,2	0.33 uH (330nH)		Conrad 1405942
L3	33 uH	(Idc >= 150 mA)	Conrad 1405998
L7,10,12	20t bifilar enamel wire 0.23mm. Twisted 3 full turns every cm	Core ½ " dia => mix #31<= FairRite 26 31 480 102 Arrow.com	Arrow.com
L20	100 uH	RM8.5. (Idc >= 150 mA)	Conrad 1572836
Tr1	18 turns, 3 wires enamel wire 0.23mm. Twisted 3 turns every cm	Mix 77 ring core : FairRite 5977001901 See construction details.	Arrow.com
Tr2	12 turns 5 wires enamel wire 0.23mm. Twisted 3 turns every cm.	Mix 77 ring core : FairRite 5977001901 See construction details.	Arrow.com
CMC's on output coax, on USB cable and on network cable	Wind as much as possible turns THIN cable loosely through the core hole.	"Snaplts" core => mix #31<= FairRite 04 31 17 35 51 Arrow.com	Arrow.com
D1,2,3,4,5,6,7,8,9,10	1N4148	FAST switching diode	Conrad 1581846
R1,2	*51*	(or 56 // 560)	Conrad 1584962
R4,10	180		
R5,13	*20*	(or 22 // 220)	Conrad 1583647
R6,15	100		
R7,8	12		
R9,18,21,22	220		
R11,20,30	4k7		
R12,19	*1k3*	(or 1k5 // 12k)	Conrad 1583901
R25,31,32	100k	(R32 only in PCB 41 and later).	
Q1,2,3,4 Order 10 pieces for selecting equal Hfe.	PN2222A	Q1,2 : paired Hfe Q3,4 : paired Hfe	Arrow.com Conrad 563907
VR1	LM2940SX-10	Low drop. TO-263-3	Arrow.com aliexpress
LED	5mm RM2.5		Conrad 1603121

Z1	ZPD18V 500mW		Conrad 1581906
Z2, Z3	ZPD15V 500mW		Conrad 1581904
F1	Fuse holder	5x20 mm (see PCB) or wire connected bulk head type.	Conrad 532908 fits PCB.
	Fuse 200mA T	5x20 mm slow	Conrad 1576642
From Ant "Loop"	2 pole PCB screw connector, with wide holes and " Lift system ".	RM5.08 ! 1.5 mm² !	Conrad => 731986 <=
Amp Out, Splitter "From Amp"	RJ45 PCB bus VS-08-BK-RJ45/LP-1 or VS-08-BK-RJ45/LP or SS-6488S-A-NF	REM : many varieties exist with different pinning dimensions !	Arrow.com.
RFout	BNC. Screw into ALU box.	Jack, solder, bulkhead .	Conrad 1564888
12V	5.5mm DC jack, 2.1mm pin.	METAL bulkhead construction. Screw into ALU box.	Conrad ! 733946 ! is good quality
Amplifier PCB Splitter PCB			www.pa0nhc.nl See " Available PCBs "
Loop	ALU strip.25x2mm (or 15x2mm) .Length = 2m (or 3m if available).	TIP : Two loop windings in parallel , or THICK aluminum pipe, for lower antenna system noise floor.	Building market.
<u>Weatherproof</u> CAT5 cable	Standard "straight" 1=>1 network cable.	Warning : NO water may seep into the cable, as tis ruins its properties !	Aliexpress