

Ordering Information for Constructing a Low Noise Amplifier for Observing the 1420 MHz Signal

- An LNA can be constructed according to the circuit diagram using small, surface-mount circuit elements and a pre-fabricated printed circuit board.
- The pre-fabricated printed circuit board designed for this LNA can be purchased from Oshpark at https://oshpark.com/shared_projects/zvqWjxWi
- Most of the circuit parts can be ordered from Digikey at digikey.com, as listed in the table below. The RF shield can be ordered from Leader Tech at leadertechinc.com.
- The amplifier chips, U1 – U5, can be obtained from Mini-Circuits at minicircuits.com. You can request free “samples” from the web page.
- The items are grouped by the part type on this page, and on the next page the items are listed by their circuit diagram label.

LNA Circuit Parts Ordering Information

Circuit Diagram Part	Description	Digikey Part #	Quantity
C1, C5, C6	27 pF	712-1334-2-ND	3
C2, C3, C7, C8, C9, C10, C11, C12, C13, C14	330 pF	478-1181-2-ND	10
C4	4700 pF	399-14206-2-ND	1
C15	6.8 pF	712-1364-2-ND	1
C16	10 μ F	399-8153-1-ND	1
R1	33 k Ω	311-33.0KHRTR-ND	1
R2	27 Ω	P26.1HTR-ND	1
R3, R8	50 Ω	RR08Q49.9DTR-ND	2
R4, R13	43 Ω	311-43.0HRTR-ND	2
R5	4.7 k Ω	541-4.70KHTR-ND	1
R6	17.4 Ω	541-17.4HTR-ND	1
R7, R14	5.8 Ω	311-5.76HRTR-ND	2
R9, R10	287 Ω	541-287HTR-ND	2
R11, R12, R15, R16	870 Ω	311-866HRTR-ND	4
L1, L3, L4, L5, L6	100 nH	490-5664-2-ND	5
L2	10 nH	490-5648-2-ND	1
IC1	LM2940 voltage regulator	LM2937IMPX-5.0/NOPBTR-ND	1
X1	CONN SMA RCPT STR 50 OHM PCB	WM5543-ND	1
X2	CONN SMA JACK R/A 50 OHM PCB	931-1361-ND	1
Other Manufacturers			
Circuit Diagram Part	Description	Manufacturer	Part No.
U1, U3	Amplifier	Mini-Circuits	GALI 39+
U2	Amplifier	Mini-Circuits	SAV-541+
U4, U5	LTCC Band Pass Filter	Mini-Circuits	BFCN-1445+
Circuit Board Shielding	RF shield for circuit board	Leader Tech	14R-CBSA-0.5X2.75X0.13