

## Active Preamp v.2.01

Q1	MMBFJ310	N Channel JFET, Mouser 512-MMBFJ310
Q2	MMBFJ309	N Channel JFET, Mouser 512-MMBFJ309
Q3	MMBT4403	PNP bipolar, Mouser 512-MMBT4403
Q4	MMBT4401	NPN bipolar, Mouser 512-MMBT4401
Q5	BFQ19	NXP RF NPN, Mouser 771-BFQ19 (Marked FB)
Q6	BFQ149	NXP RF PNP, Mouser 771-BFQ149 (Marked FG)
L1, L2	100uH	Panasonic ELL-6RH101M (srf > 8MHz), Digikey PCD1357
L3	6.8uH	Coilcraft 1008LS-682XKBC (srf > 80MHz)
L4	1.0uH	Coilcraft 1008LS-102XKBC (srf > 200MHz), Pulse PE-1008CD102KTT, UltraCoil 1008CW10B
R1	1.00 Meg	1% or 5%, 0805 or 0603
R2	357k	1% or 5%(360k), 0805 or 0603
R3	100	1% or 5%, 0805 or 0603
R4, R6	49.9k	1% or 5%(51k), 0805 or 0603
R5	4.02k	1% or 5%(3.9k), 0805 or 0603, this value may need to be adjusted
R7, R8	1.50k	1% or 5%, 0805 or 0603
R9	10	1% or 5%, 0805 or 0603
R10	22.1 or smaller	1% or 5%(22), 0805 or 0603 (reducing value to 0 increases output level ~3dB)
R11, R15	383	1% or 5%(390), 0805 or 0603
R12, R13	150	1% or 5%, 0805 or 0603
R14	3.57k	1% or 5%(3.6k), 0805 or 0603
R16	10k	1% or 5%, 0805 or 0603
C1	220pF	5% or 10%, 0805 or 0603
C2, C3, C4,	.01uF	5% or 10%, 0805 or 0603
C6	10uF	Tantalum 35V, Case size "D"
C7, C8, C10	.1uF	5% or 10%, 0805 or 0603
C11	2.2pF	NPO, 2% or 5%, 0805 or 0603 (2.0pF also OK)
C12	10pF	5% or 10%, 0805 or 0603
D1	1N400X	SMD or thru hole, 1N4001, 1N4002, etc. (Optional)
D2, D3	BAV99	Dual Diode Fairchild, Mouser 512-BAV99 (Marked A7)
FB1, FB2,	Z=200 to 800	Würth 74279220601 (600 ohms @ 100 MHz has ~2dB rolloff from 30MHz to 100Mhz), Anything

### If no input filter is desired:

Omit: R11, R12, R13, R15, C11, C12, L1, L2, L3, & L4.

Add 500 ohm - 1k resistor to location C12, change R14 to 100k (100k - 1meg static bleed)

Connect antenna to J6 (J1 = no connect)