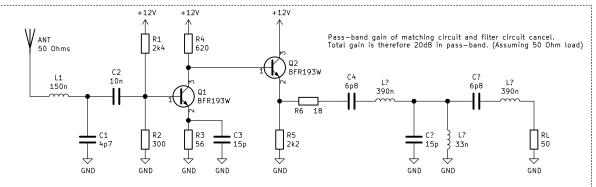
RF Matching, RF Amplifier, and Pass-Band RF Filter



Matched to single-ended 50 Ohm antenna. Matching circuit is of low-pass filter type. Gain of matching circuit @ passband: 7dB Matching bandwidth (-3dB): 76MHz to 132MHz

Gain of amplifier @ passband: 20dB Nominal amplifier bandwidth (-3dB): 65kHz to 169MHz Amplifier Rout = 50 Ohms

3rd order Chebyshev band-pass filter Bandwidth (-3dB): 80 MHz to 120 MHz

BJTs may require series base resistors or ferrite beads to avoid oscillations.

Additionally, could use RF choke from power supply to feed bias resistors and emitter follower. Will help mitigate RF leaking back into the PSU.

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