

Modifying Tunable HF Preamp for AM

I want to modify the Tunable HF Preamplifier (January 2020; siliconchip.com.au/Article/12219) for connection to a standard AM radio, to improve reception in fringe areas. Would it be feasible to just change the number of turns on T1 to extend the range down to the AM broadcast band? If not, has SILICON CHIP produced an article/kit for AM radio range boosting? (G. R., Denistone, NSW)

● Yes, the frequency range can be extended down to the AM band. The tuning capacitor range allows this, but you need a 500 μ H inductance in the input tuned circuit.

This would give a tuning range from 520kHz to about 2MHz. With the toroid shown, this means about 156 turns; that may be difficult to manage on that size core.

It would be easier to use a fixed choke of 470 μ H instead. Adjusting the trimmer capacitors on the back of the tuning capacitor would extend the tuning range to just below the broadcast band. You may have to experiment with the number of turns wound around this inductor, as the impedance of the antenna is rather indeterminate.