

Re: Ferrite Rods (or work alike)

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phaeton wrote:

Excellent, you guys.

As far as using wire to make an inductor, how about putting pieces in a plastic drinking straw for insulation? Work? No?

Sure, but not really needed. The ferrite is not a very good conductor. and the signal voltage is low, so the wire insulation is plenty.

As far as epoxying a bunch of beads together, does there need to be anything in the middle of them? Maybe just a plastic bolt to mount them somewhere with?

Nothing needed, but almost anything will work. Even a metal bolt, since most of the flux will pass parallel to it through the ferrite.

Now (the big question)

Which has a higher effect on the 'coarse tuning' of the inductor:

1) Number of turns of wire.

Proportional to almost turns squared, for turns in the middle third of the rod.

2) Length of ferrite core.

Almost proportional to length.

3) Diameter of ferrite core.

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Less than proportional.

4) Other

Location of turns on rod. Higher inductance for turns near center of rod, so fine adjustment by sliding the rod off center.

I realize that radios are 'fine tuned' with a variable capacitor. I know this is also not a very simple answer, so pointers to data is appreciated.

Also, the transmitter circuit calls for 3V–9V operation. If I were to modify the circuit for 18V–24V operation, would that increase its range?

If nothing burned up, probably. I would go with a longer rod, though.