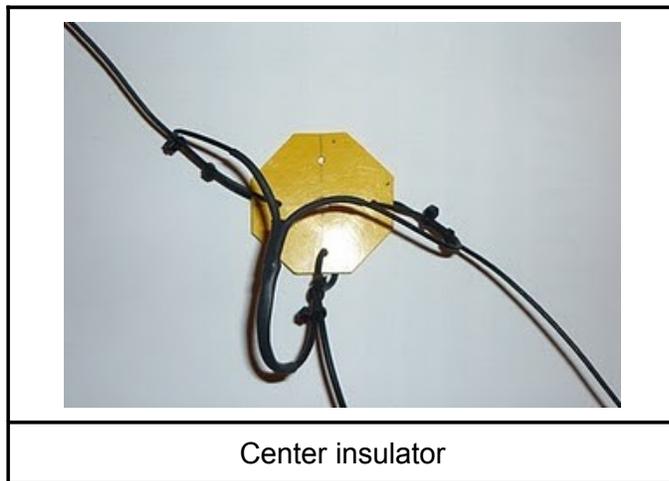


SOTA DUOBAND Dipole 40/20m QRP version

Here is description of simple trapped dipole for 40m and 20m band. Can be used as inverted V on some fishing pole. Length of the section for 20 meters band is 5.2 m. Length 40 m section is 4.5 m. Dipole begin with sections for 20m. Then follows a trap and band 40m. It is good to make the section a little longer and shorten tuning.



The center insulator and insulator under the trap is CNC made from plastic plate. The center insulator has a hole with 7mm diameter, which serves to plug the fiberglass whip. Design of center insulator is evident from the figure, the fixing is made from cable ties and heat-shrinkable tubing.



Trap is made from Amidon toroid T50-2 and there are **24** windings. Coil wire with a diameter of 0.4 mm. A capacitor is 47pF/500V. This trap is designed for **QRP** use. Trap is a good fit after testing by epoxy glue.

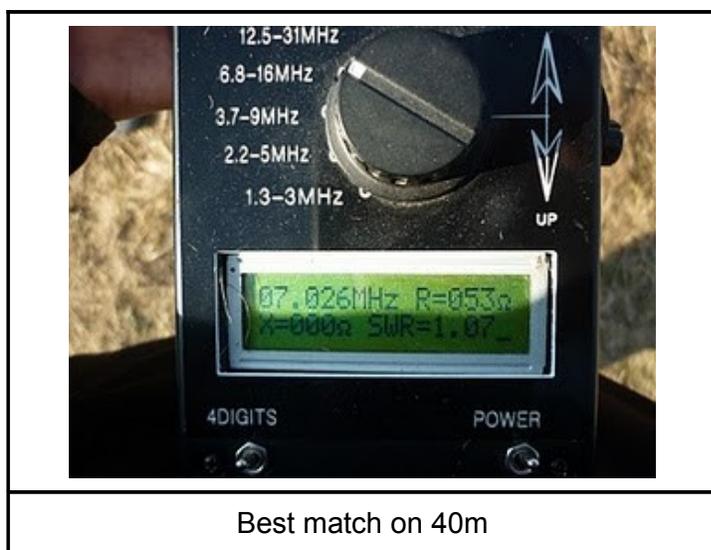
Weight of the whole antenna including a coaxial cable (10m of RG-174) is 325 g.

It will follow the tuning procedure and the measurement antenna.

I put the antenna in real terms as the inverted V fiberglass whip length 7m. The center of the dipole was at about 6.5 m above the ground. For tuning I use terminal connections (see picture). Tuning is necessary to start on 20m band. After the first measurement, the antenna resonated well below the band. I gradually shortened compared to the calculated length of both halves of the 20 m section. Length of one half of the tune is based on 4.4 m (which is less than 0.8 m calculation). After tuning range should be shorter and tune it remaining. There came a length of 4.4 meters (about 0.1 meters shorter than the calculation).



Trap with terminal for tuning



Best match on 40m



Best match on 20m

This antenna is only for QRP use (max 20W)!!!!.