

Super Tee Antenna Tuner by W3TS

This small but effective antenna tuner was designed by my friend, and elmer, W3TS, Mike. A kit of parts for this tuner is marketed by Kanga US (see links page).

Seven slide switches and seven separate inductors are used to get a wide range of inductance while keeping a high Q. Thus, the tuner losses are very low, an important consideration in QRP operation. Also, the slide switches make it easy to return to a particular setting when changing bands.

Another feature of this tuner is that the low side of the tuner is raised above ground, allowing the tuner to be used with a balanced line. When a coax or random wire is used, short the low side to ground. Because both sides of the tuner are above ground, the 330 pF variable must also be isolated from ground.

Parts List and Comments

T1 -- a 4:1 Trifilar Balun Transformer, on 2 BLN 43-202 cores end to end, or on one larger one

L1 -- 8uH, 35 T #22 (30"), T68-2

L2 -- 4uH, 25 T #22 (22"), T68-2

L3 -- 2uH, 18 T #22 (18"), T68-2

L4 -- 1uH, 12 T #22 (13"), T68-2

L5 -- .5uH, 7 T #22 (8"), T68-6

L6 -- .25uH, 5 T #22 (9.5"), Air wound, 1/2" x 1/2" dia.

L7 -- .12uH, 4 T #22 (8.5"), Air wound, 1/2" x 1/2" dia.

8 Switches (slide switches are easier to use)

Fixed capacitors are silver mica

The inductors can be mounted directly onto the switches

