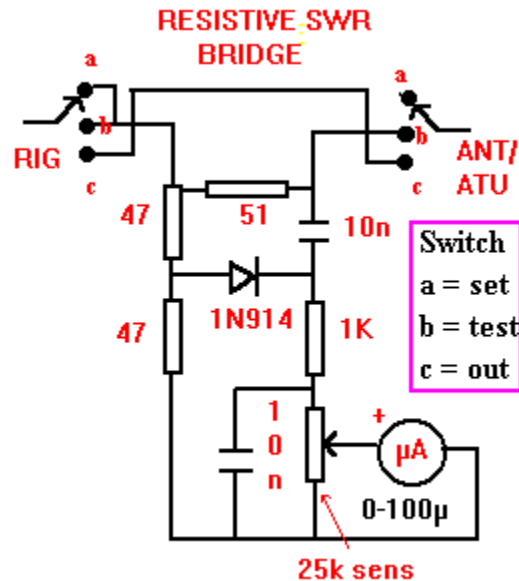


A RESISTIVE SWR BRIDGE

Below is an article I found from Frank G3YCC. I have built one of these and tried it out using my Supapix this week and it works like a charm. I am seriously thinking of designing a small PC Board with only a double pole double throw switch and including it inside my QRP Z-Match Tuner. Just the simple kind of project I like for cold Saturday afternoons while listening to HF. The reason for the double pole double throw switch is that once calibrated, you should not need to have the Forward/Reflected and out switch. What would be important is the reflected SWR and switching it out of circuit. The 25K potentiometer should in this case be replaced by a 25k preset potentiometer saving space and extra holes in the project case. I have changed my resistor values for half watt carbon 1% mil spec as I had these in stock from a previous project. The meter I am using is a battery indicator for a portable radio and only measures 15x10mm; I have about 10 of these, perfect for fitting to my Z-Match ATU.

Enjoy
73 de Kevin ZS6KMD



The bridge shown is popular with QRPers. There is no setting up to do and the circuit need not be laid out symmetrically as with other designs. I used a tiny meter bought from Kanga (UK), only about 0.75" x 1", but any meter less than 1 mA should do OK. Although a 3-way switch is shown, a DPDT toggle can be used, as once the bridge is calibrated, only an 'in/out' switch is required.

Note - This type of bridge must be switched out of circuit when transmitting. Tune the ATU for minimum SWR then switch out of circuit and transmit as normal. The resistors shown need only be 1/4 watt types.

The unit can be made very compact and can be useful in a portable set-up. I incorporated a bridge of this sort with a small L-match ATU for 20m, in a box 2.75" x 1.75". I used a plastic box, lined with PCB material for shielding, resulting in a light and small unit.

Frank, G3YCC