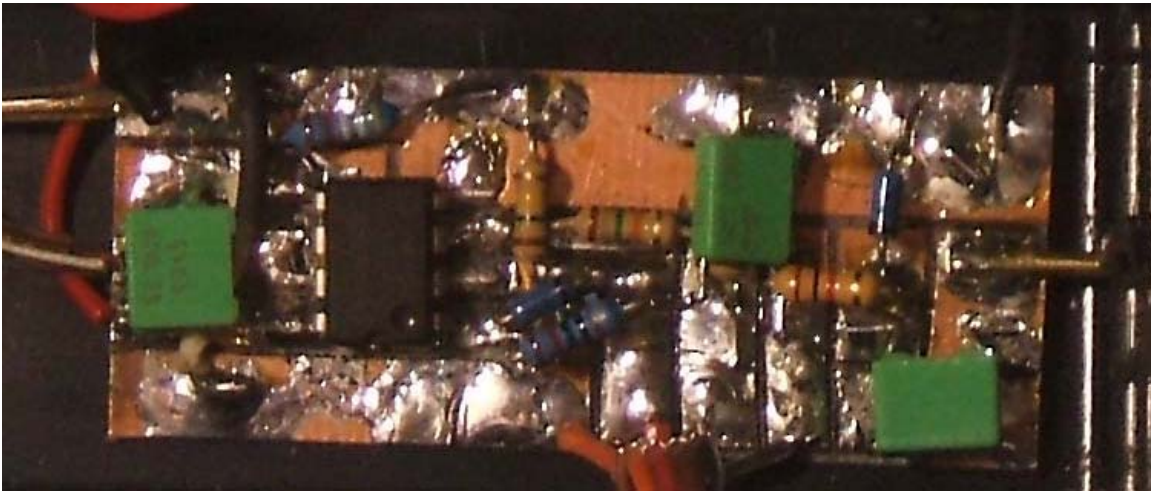


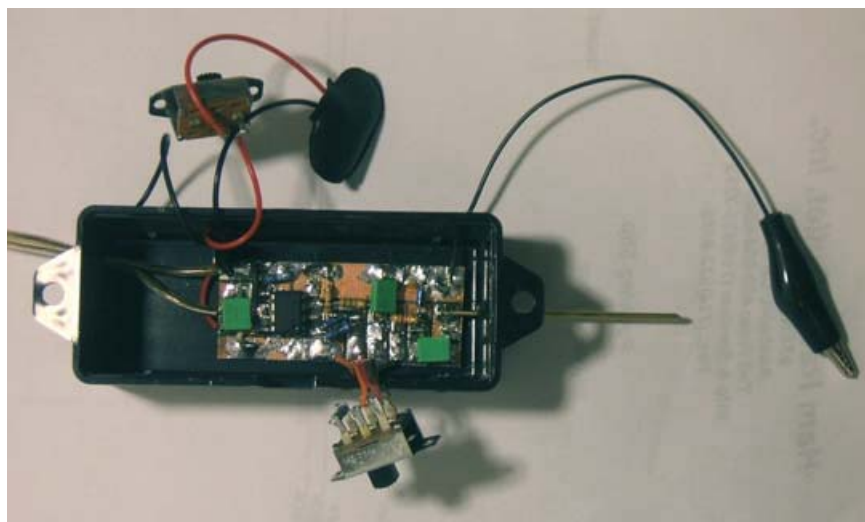
A Homebrew Accuprobe by KC0PET

The North Texas QRP Club was producing a kit called the “Accuprobe” which is an active RF probe that will read RF voltages down to about 50 mV. I waited for quite a while for them to re-kit this probe, but finally decided just to roll my own. The circuit is actually very simple. The only “unusual” part used in the circuit is the LMC6482AIN op-amp which I found at Digi-Key. Here is the link to the original Accuprobe manual: http://www.kk5na.com/kk5na_files/AccupManual.htm.

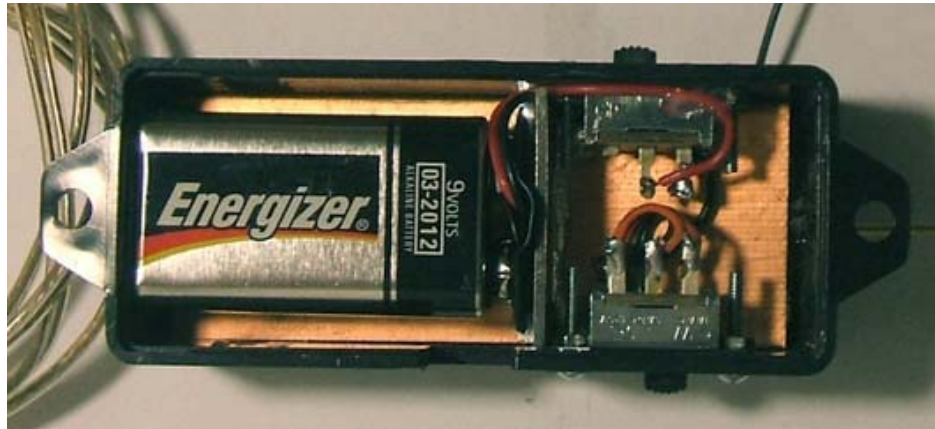
I scratched up some plans (a pretty apt description of my handwriting and drawing skills) and found a plastic enclosure and most of the parts for the probe in my shack. An order to Digi-Key took care of the rest of the needed items. For the board, I chose to make a “routed” board from some double-sided board material. The bottom of the board is ground plane and is bonded to the ground section on the top of the board. Here is a photo of the completed board:



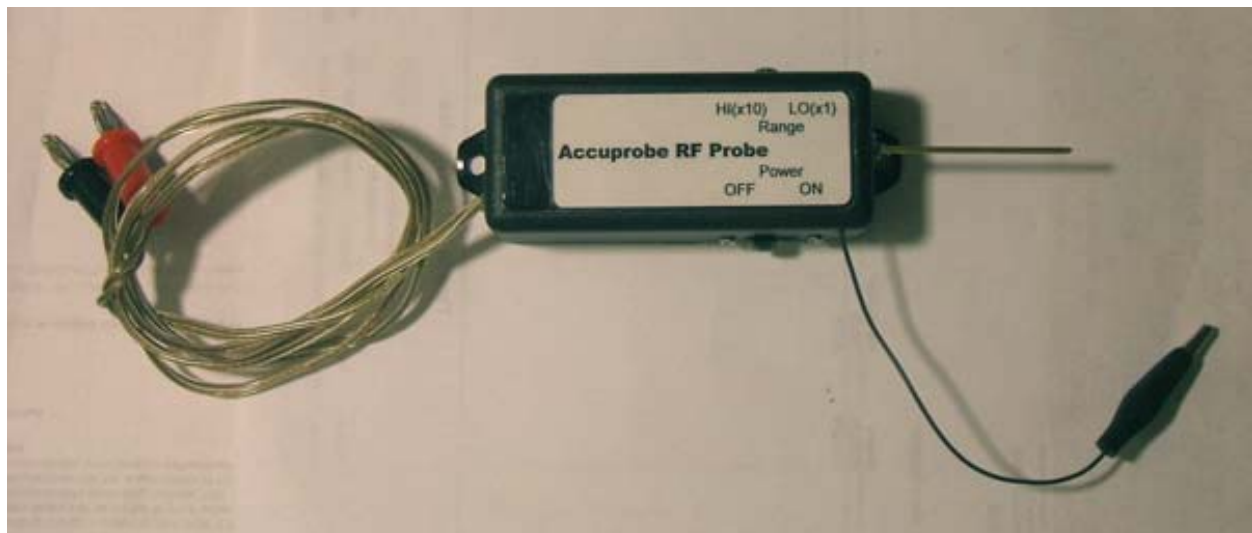
The Accuprobe kit used header jumpers as switches; I got real fancy and used slide switches instead. For the probe itself, I used a piece of small brass rod stock and soldered it directly to the board. Here is the board installed in the enclosure:



To provide some shielding in the plastic enclosure, I installed a second piece of double sided board on top of the circuit and bonded both sides to ground. This also allowed me to fashion a compartment for the 9V battery:



The completed Accuprobe has a nice feel to it and coupled with a digital multi-meter will read below 50 mV RF at HF frequencies. I have not tested it above HF, but the manual indicates it will function into VHF.



73s,

Rick, KC0PET