

G3WDG025 13cm Preamp

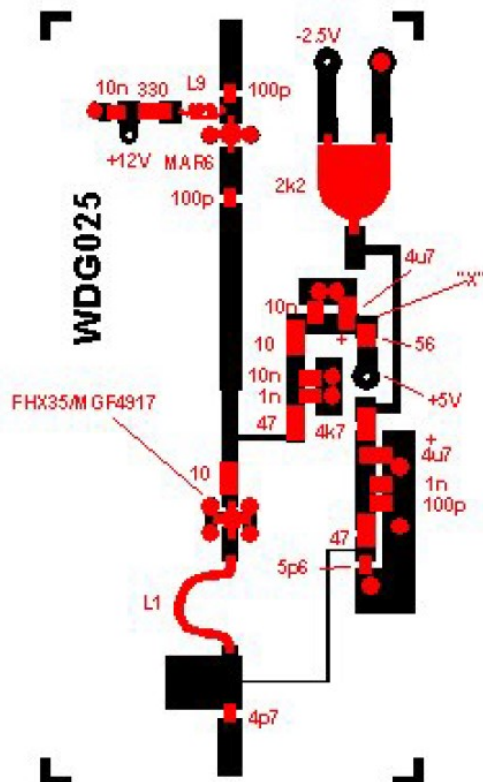
In response to a request from an ON station, a pcb has been developed for a 13cm preamp, based on the front end of the WDG010 13cm transverter, in turn based on the famous DJ9BV design. The new board is designated WDG025.

It can be a single or two stage preamp. In single stage mode the MAR6 is omitted and the gaps in the tracks bridged with 2mm wide thin metal strips (eg brass shim, or old FET leads etc).

For simplicity, the negative voltage generator is located in the lower part of the box (groundplane side) in common with other WDG modules. Construction follows the standard method described in the constructional notes page on this site.

Setup is straightforward: adjust the 2k2 pot (gate bias) to get about +4V at point "X". If NF meter is available, adjust gate bias for best NF, also try bending L1 up and down.

Performance of the prototype (single stage) has been measured at 2320MHz, with NF=0.3dB and Gain=17.5dB, using an MGF4919 HEMT

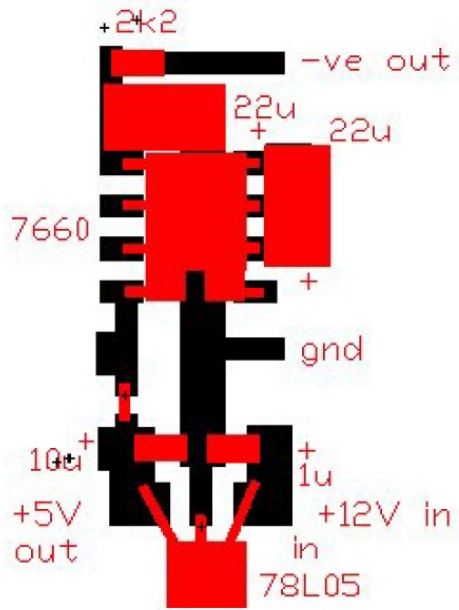


Coil Details

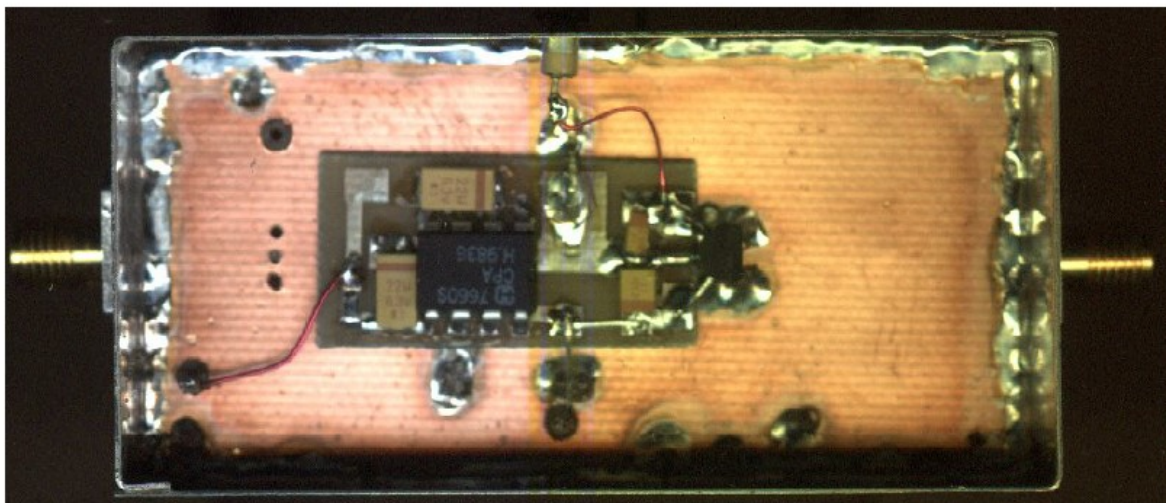
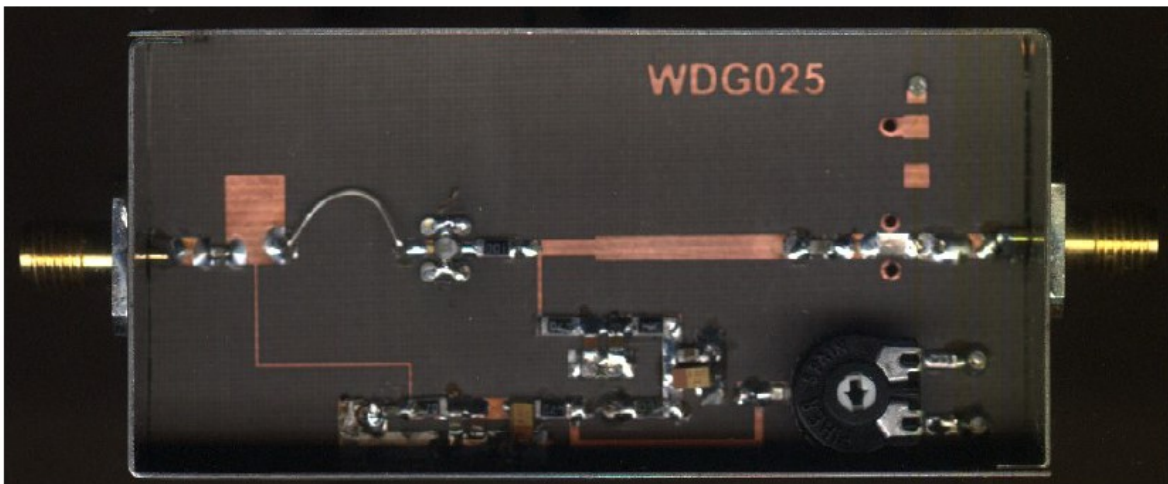
L1: 15.5mm long hairpin loop, 0.5mm silver plated wire

L9: 4 turns 2mm dia 0.25mm wire, turns spaced ~0.25mm

Note: All coils spaced ~23mm above pcb, with the exception of L1 which needs to be almost flat on the pcb

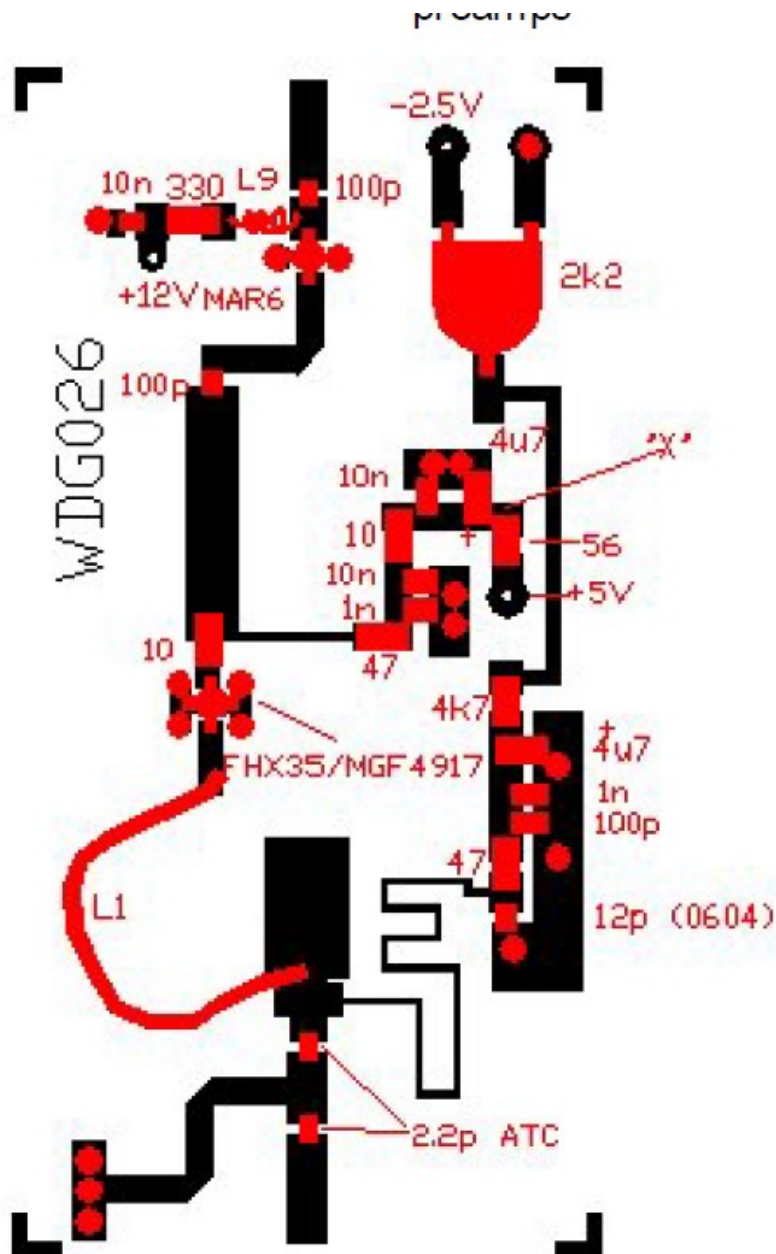


Layout of negative voltage generator (FRE023)



G3WDG026 23cm Preamp

A 23cm preamp similar to the above is also under development. The only difference between it and the 13cm one is the length of the input inductor and the small coil. For constructional notes please refer to the 13cm preamp.



Coil Details

L1: 36mm long hairpin loop, 0.8mm silver plated wire

L9: 5 turns 2mm dia 0.25mm wire, turns spaced ~0.25mm

Note: All coils spaced ~23mm above pcb, with the exception of L1 which needs to be almost flat on the pcb