

High Gain 70cm Preamp

By G8MNY

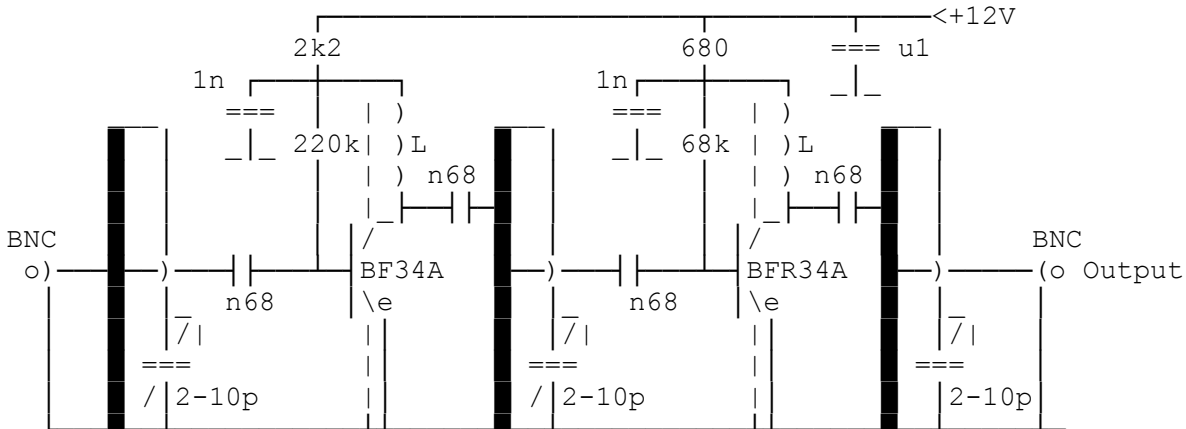
(New Dec 09)

(8 Bit ASCII graphics use code page 437 or 850, Terminal Font)

This is a design I used for ATV Rx as well as a linear 400W SSB PA wrap around RX path.

I used it in a 1 or 2 stage configuration giving 14 or 33dB gain, one of the main advantages is it is a narrow highly tuned design keeping out strong out of band signals.

CIRCUIT



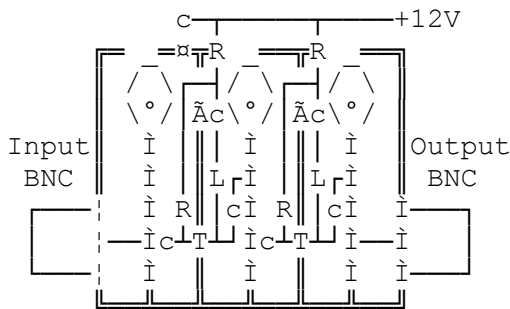
HOW IT WORKS

The 1st transistor is lightly biased for 2-3mA to give the lowest noise figure, the base Z is low, so it is fed at the 50ohm air spaced strip line point. The collectors are all both tapped into 2-3x the length of the 50ohm point for best match (200-500Ω).

The collector chokes Ls are 3cm of thin enamelled wire coiled up on a 2mm drill former. The base C has next to no leads on it.

The 2nd stage is biased for 10mA for max gain & higher power handling. If only a single stage is used just put in the BNC socket as on the 2nd stage.

LAYOUT



The PCB box is built around the BNC sockets that fill in the lower 2 corners. Start with bottom side & input corner, then solder in the strip. Middle partitions have 2 holes, 1 for the transistor & 2nd for the bias wire. With all the outer walls in place & all the components fitted it can be powered up. Check the currents are about right if not change the bias Rs to suite your Transistor.

== =Double sided PCB box & dividers | = brass/copper strips 3cm long  
/ \ = a 10pf Trimmer. c = capacitor. L = Choke. T = Transistor.  
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When all is OK and the preamp all tunes and peaks the band, tack on a lid (you may need to unsolder it!) and the gain and selectivity will improve.

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP