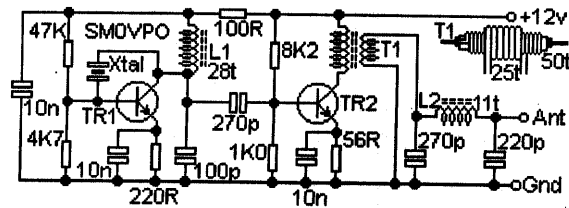
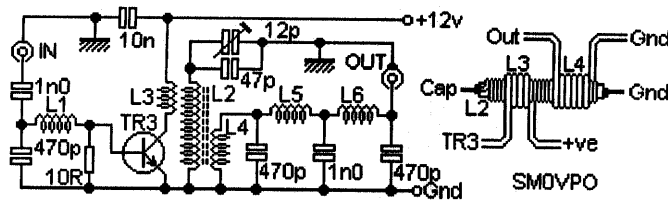


250mW TX by SMOVPO



Here is a simple little HF TX. It may be modified for all the HF bands, but the details given are only for the 7MHz band. The basic transmitter uses two transistors; BC547 (as usual) and will deliver over 250mW of power. CW keying may be achieved by disconnecting the 56 ohm resistor in the emitter of TR2, and connecting it to ground via the key. Increase the value of the 10nf in the emitter of TR2 if you need longer time-constant keying (keying envelope).



The optional PA stage will increase the RF output of the HF TX to over 3 watts. TR3 is one of those TO220 plastic transistors found in CB set PAs, I will leave the choice up to you as there are hundreds of them. The LAST one I used has the marking: "JECL45-02", although I have never been able to identify it properly. I recently received E-mail from one amateur who recommends "C2078". I have built several PAs with 100% success using different transistors on each occasion.

COILS

The coils are mainly wound on a TANDY (Radio Shack) RF choke. Do not discard the original wire removed from the chokes as this will be used. You may want to try using different former material. I built one of these transmitters and wound the coils on some long-thin ferrite beads after gluing some wire in the hole at each end. The beads were about 3mm dia x 15mm long.

TX

- L1 is 28 turns on an RS273-101 former wound with original wire
- L2 is 11 turns wound on an RS273-102 former, wound with original wire
- T1 primary is 50 turns wound on an RS273-101 former, wound with original wire
- T1 secondary is 22 turns wound on top of primary, wound with original wire

PA

- L1 is 11 turns on an RS273-101 former, wound with original wire
- L2 is 100 turns on an RS273-101 former, wound with original wire
- L3 is just 3 turnswound over L2 using 22 SWG enameled wire

L4 is 5 turns wound over L2 using 22 SWG enameled wire
L5 is 18 turns 12mm dia x 30mm long using 22 SWG enameled wire
L6 is 18 turns 12mm dia x 30mm long using 22 SWG enameled wire

Have fun, de HARRY, Upplands Vasby, Sweden.

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