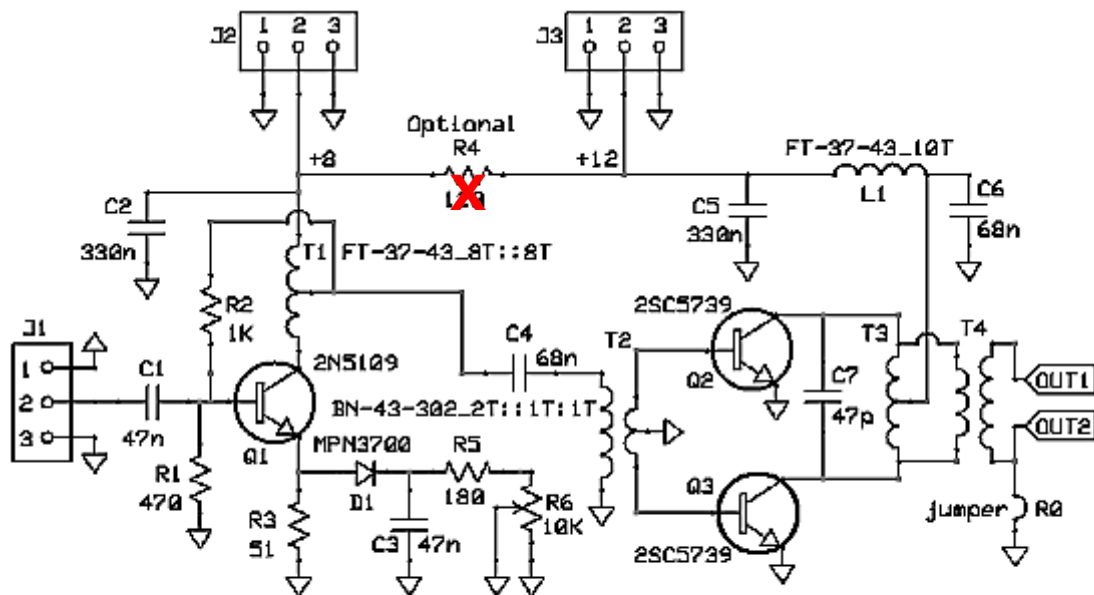


QRP 5 Watt Amplifier & 30M Band Pass Filter From Parts & Kits.com



Shown above is the QRP 5W Amp Kit I purchased from Parts and Kits.com. The kit sells for \$18.00 and has a low part count. I found the kit easy to build except for one thing. The website picture for winding T2 was correct, but the text was wrong. Except for that, the kit was easy to build.

After building the kit, I connected power and hit it with some RF from my MFJ Cub. As soon as I turned the amplifier on, it started to oscillate. Adjustment of R16 stopped the oscillation, but this isn't a good sign -hi! I now key the MFJ Cub and see 7W RF output from the amplifier. I then turned down the RF out of the MFJ Cub until it produced 5W output from the amplifier. All seems to work except I notice that in receive mode my current has increased from 65ma to 100ma?



total current draw is 660mA
 with power out at 5 Watts into 50 ohms
 R6 sets gain or negative feedback
 remove R4 when powered with 8 and 12 V
 remove jumper R0 for balanced output.

T3= BN-43-202_3T::3T
 T4= BN-61-202_6T::6T

QRP CW HF Amp 1.8-18 MHz		
Kits And Parts Dot Com		
by W8DIZ	Rev 1.0	27 Dec 2008

It seems driver transistor Q1 is biased on and draws about 35ma in receive mode. This isn't good and I need to stop the current draw on receive. It looks like Q1 is very sensitive and is also responsible for my oscillation. I decide not to use the driver as the MFJ Cub has plenty of RF drive for this amplifier. I simply remove R4 that supplies + Vcc to the driver transistor. This works much better now and the oscillation problem is gone! It seems that just coupling RF through the passive driver circuit is plenty for the amplifier as I now have a solid 5W RF output from it.

I now look at the current draw on receive and it's again 65ma. Transmit current is around 800ma and the side tone sounds fine. Now on to interface the amp with the MFJ Cub.