QRP - projects from UR- QRP- C

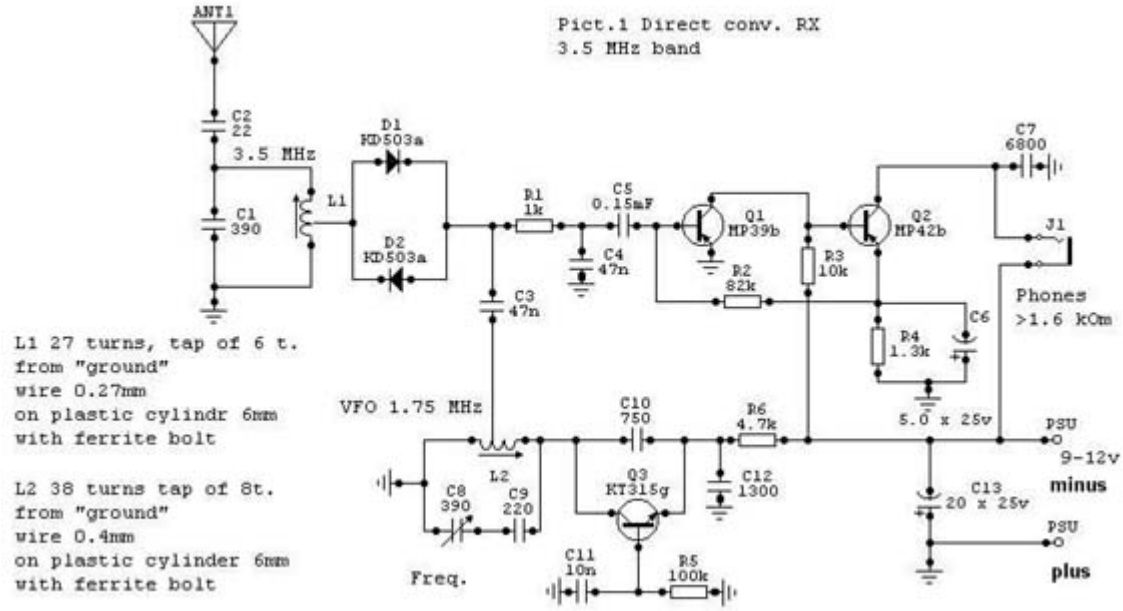
RU-QRP- C presented for you several QRP- projects of their members.

My First QRP-Station

Three transceivers from Oleg Borodin, RV3GM/QRP E-mail master72@lipetsk.ru

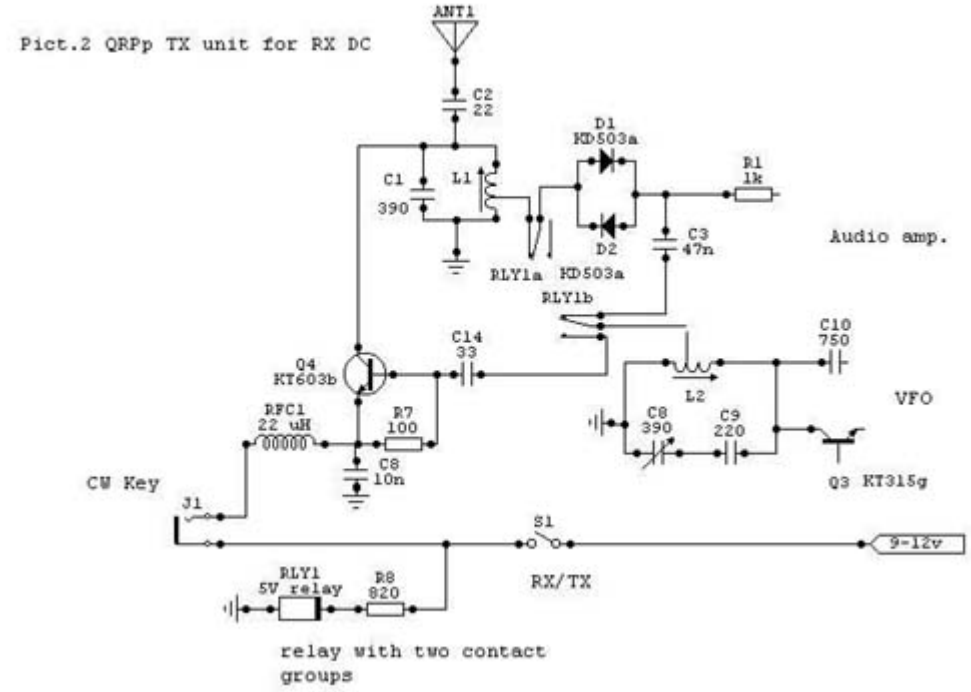
*Remember, '70-th when I was a young SWL, I has build my first direct conversional receiver (**pict. 1**) It was too wonderful for me because he is very simple, just a three transistors are in receiver's circuit and a few any details. I powered this RX by 9 volts battery of pocket broadcast receiver. I has not a good antenna and I used a piece of wire in my room. For the first testing construction I did not made a PCB and build this RX as "space" style on a piece of printed board. It was a 80m band version. Results was shocked me at once!*

Before I used for SWL old broadcast receiver by 6 valves with home-made local oscillator. Having heard an ether on my new DC RX and at once forgot about the old lamp receiver. The sound was clear, sensitivity very high and I has heard a lot of DXs during some evenings and nights. After my first fun I has developed PCB and rebuild the RX for the box of printed boards also.



Alongside to this 80m variant receivers under the similar circuit on 40 and 20 m bands are also were constructed. The results were obtained also excellent.

My next step with Direct Convertional was when I get a HAM license. I began to experiment the receiver in hope to transform it into the transceiver. First of all I have decided to submit a VFO signal to the antenna through a keyed amplifier stage (**pict.2**). It worked well. There was even a frequency shift by transmission about 1 kHz that enabled to hear stations without additional RIT. But, taking into account, that VFO works on frequency twice below, than the received frequency, power of a transmitting signal in the antenna was rather small, just few decimals of milliwatts. I has just a few nearest QSOs with this QRPp on 80m band only. It is impossible to use this circuit on 40 or 20m bands because the friequency shift is too large (5 to 10 kHz) and your signals will be outside from a signals of your correspondents.

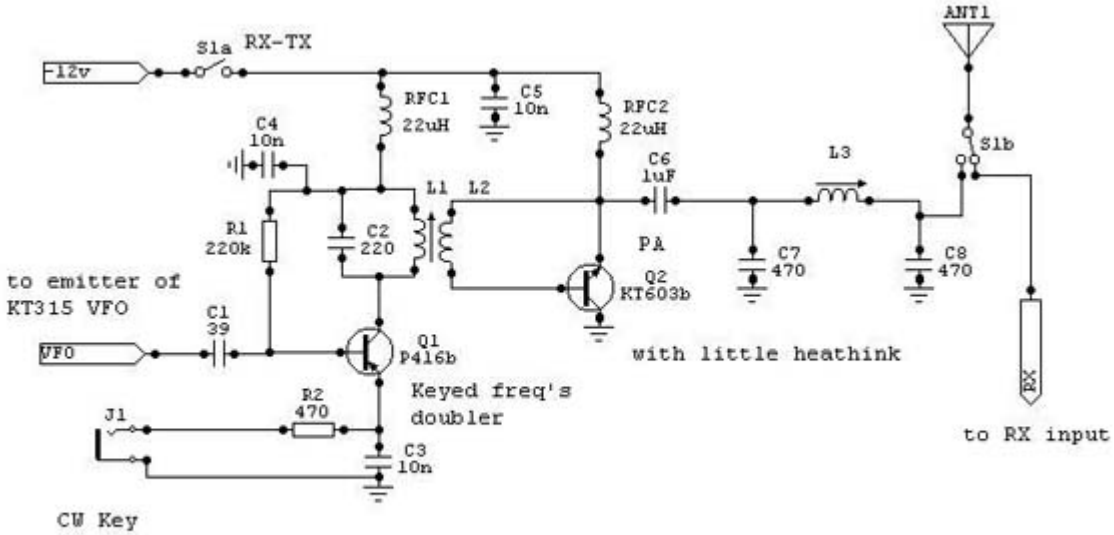


The following version of the transceiver based on receiver (**fig. 3**) consist in addition keyed freq's doubler and stage of an amplifier. It gives me a good 0.75 watt output at 80 and 40 m bands and 0.3 watt at 20m. I only needed to add the RIT and sidetone.

I has a many pleasure days with this transceivers. I build a three tcvrs for any bands. I did not made a multi-band trcvr because the complicating of commutation bands chains would necessarily be mirrored in quality of the transceiver in the worse side . The frequency stability would worsen, be sure. Well also it is not necessary to forget that the main advantage of direct conversion equipment is a simplicity.

The kits of parts and PCB of these receivers or transceivers are available at me, send me your orders by e-mail or post.

72! from RV3GM/QRP



Pict.3 Transceiver's unit for RX DC