

# Transceiver "POLEVIK"

By: Vladimir Polaykov, RA3AAE

Credit Line: CQ-QRP # 13 (magazine of the UR- QRP-C)

The schematic of the transceiver is just a project and required the practical test. Author will be really appreciated those who test the transceiver.

Schematic of the transceiver is shown on Figure 1. It is DC transceiver.

**Transistors VT1 and VT2:** They work like a mixer at RX mode and like a PA and doubler (key down) at TX mode.

It is necessary to use MOSFET with the "right" gate/drain characteristic. At such transistor drain current is absent when gate connected to source and voltage is across drain/source. To open the MOSFET you need connect the gate with DC in positive polarity (relative to source). Cutting voltage for such transistors may be 0.5- 2.0- V.

If you have no MOSFET with the "right" gate/drain characteristic you may use usual MOSFET with the "left" gate/drain characteristic. However at the case the MOSFET should be closed by some negative polarity across gate- source. Transistors VT1 and VT2 should be matched pair (have the same parameters).

**Transistor VT3:** It is Quartz- RF Generator. It works at the same mode at RX and TX. Quartz has resonance frequency twice lower the working frequency. At RX/TX it should be some frequency shift that allows work at the transceiver mode.

**Transistors VT4 and VT5:** They work at audio amplifier. Transformer Tp1 is an ordinary output transformer from an old transistor radio.

**Tuning and Adjustment:** At first at transmitting mode (key down) tune the PA to maximum power. It does with help symmetrical L3 (find necessary numbers of turns) and tuning L4C7 to resonance (F/2). Maximum power into antenna (or dummy load) is depend on L1 and C1. PA tuned to the maximum power should provide maximum sensitivity at RX mode.

**Attention:** It should not be any current through VT1 and VT2 when the Quartz is removed.

73/72! De RA3AAE

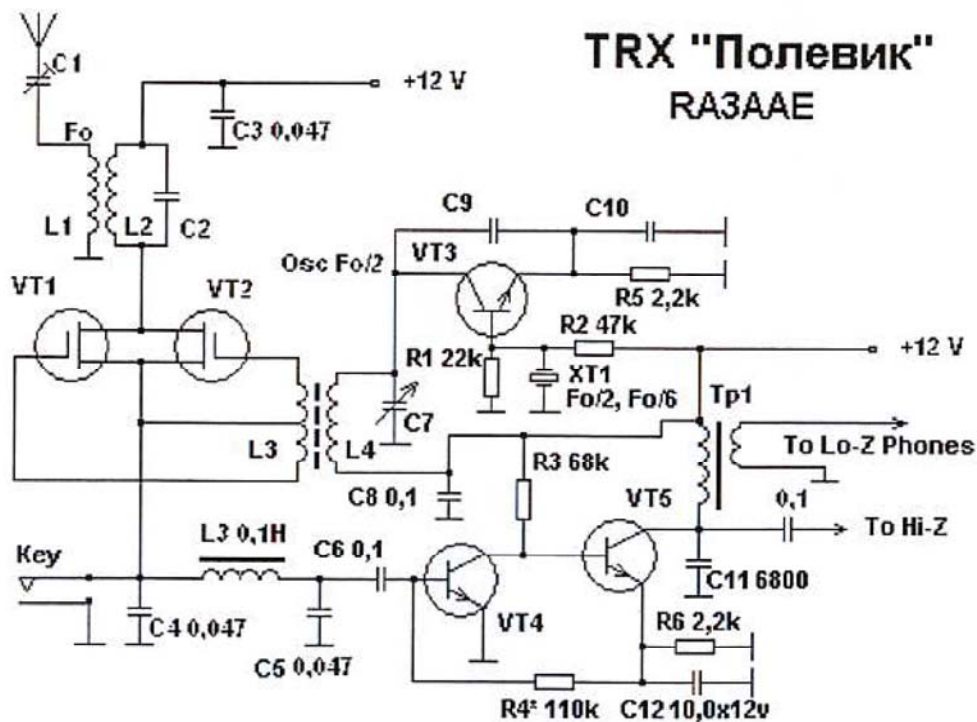


Figure 1 Transceiver "POLEVIK"  
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