Regenerative Receiver BARABASHKA- 3

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This simple regenerative receiver works well using a small wire antenna in length 2... 3 meters. The receiver is easy to tune up and does not contain hard- to find parts. At the design two amateurs bands are included- 40 and 20- meters. However it is possible to retune the receiver to any other bands. **Figure 1** shows schematic of the receiver.

Aperiodic RF- Amplifier made on VT1. VT2 and VT3 consist the heart of the receiver- the regenerative detector. First stage of the Audio Amplifier made on VT4. VT1, VT2, VT3 and VT4 would be any small power HF transistors. Gain should be not less the 100. Working frequency should be not less 100- MHz (off course, above the VT4). DA1 is voltage stabilizer that provides 5- V for regenerative stage. Final audio stage made on DD1. CD4001A is the full analog of the Russian chip.



Figure 1 Schematic of the Regenerative Receiver "BARABASHKA- 3"



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The receiver consumes near 10- milliampere. Inductors L1 and L2 are coiled by an enamel wire in diameter 0.2... 0.25- mm (30...32- AWG) on the plastic form (it was used a surplus form from an old receiver) in 5- mm diameter. The inductor is trimmed by a small ferrite rod to needed band. It is possible to use the inductor without a trimming rod. Trimmer capacitors C4 and C7 are used to change the border of the bands. Inductor L1 has 9 turns. Inductor L2 has 14 turns.

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The regenerative receiver made on one sided PCB plate by sizes 120 x 50- mm. **Figure 2** shows the PCB of the receiver. It is view on the printed lay. **Figure 3** shows the view on the PCB at the "mirror view" (view from the side of the parts). **Figure 4** shows PCB with installed parts on it. **Figure 5** shows the picture of the Regenerative Receiver.



Figure 2 PCB of the Regenerative Receiver



Figure 3 PCB of the Regenerative Receiver in the "Mirror View"



Figure 4 PCB of the Regenerative Receiver with Installed Parts on It



Figure 5 Picture of the Regenerative Receiver

If you are interested to get a kit for the receiver (the kit may include the PCB, all parts + coiled inductors, variable capacitor, headphones), please, contact directly to Rinat via his mail: radiorinat at mail.ru.