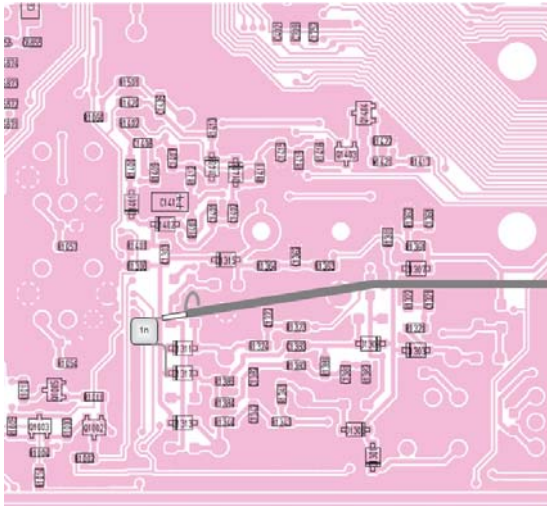


Connecting the RG174 cable to the PCB

The 455kHz bidirectional port of the IC-703 is on the bottom side of the top circuit board. The RG174 cable center is soldered onto a 1nF ceramic decoupling capacitor.



The Layout design drawing (left) and the picture of the actual PCB (below).



The other lead of the capacitor is bent by 90 degrees and soldered onto the cathode side of D311 and D317. For mechanical stability, it is advisable to solder to both diodes. During this process, care has to be taken to not overheat the SMD components. The shield of the coaxial cable is soldered to the ground pin on the PCB. Cover the exposed shield with heat shrink as shown in the picture above.

Routing the cable and reassembling of the transceiver

There is enough clearance to route the cable underneath the PCB. Because there is not enough space to bring the cable up on the sides, it has to be routed through the front and then all the way back again to the rear wall where the hole was drilled.



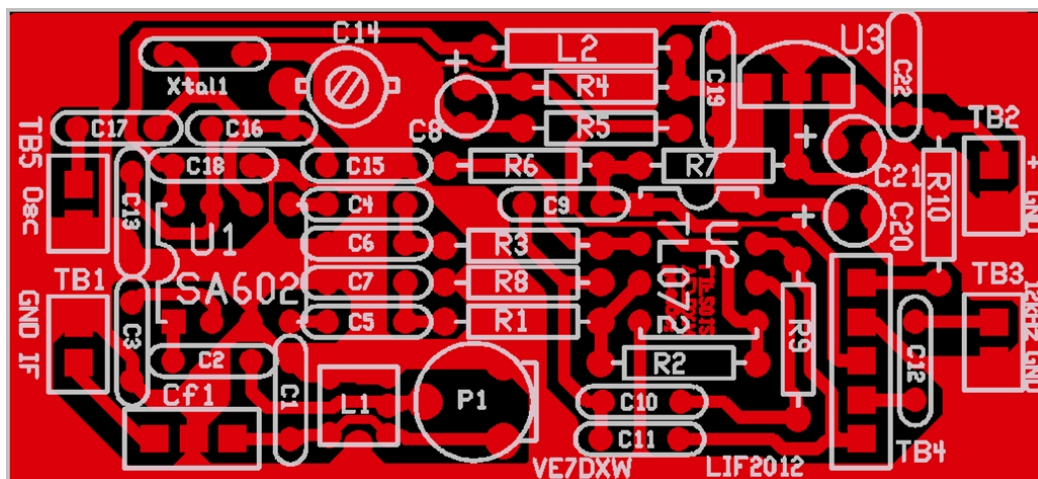
When placing the PCB into the enclosure, the rear has to line up first and then, with a twisting motion, the rear connectors will move into the proper holes. While doing this, hold the ribbon cables so that they do not get stuck under the board. Now replace all the screws and the metal clip holding down the PLL shield. Plug in the red and green coaxial cables and the three white ribbon cables (do not twist them; align them properly before pushing them gently into place).

Recheck all the connections and the placement of all the screws. Now place the lid onto the transceiver, plug in the speaker cable and push the lid into place. Replace all the screws into the lid.

Connection of the LIF converter (RX-only)

The LIF RX output of the transceiver connects to the IN port (TB1) of the LIF assembly and the audio Line out (TB3) connects to the tip line-in of the sound card. TB2 provides power (+12V). TB5 is not used for the RX-only version. A jumper has to be placed on TB4 between 3-4 to by pass the 7kHz high pass filter or between 4-5 to enable it.

Note: The transmit audio is still filtered with the existing filter inside the IC-703. If the MDSR is properly configured the standard microphone can be used to transmit, while the RX is processed through the computer. For more details see “Lock to TXCR” the MDSR help menu.

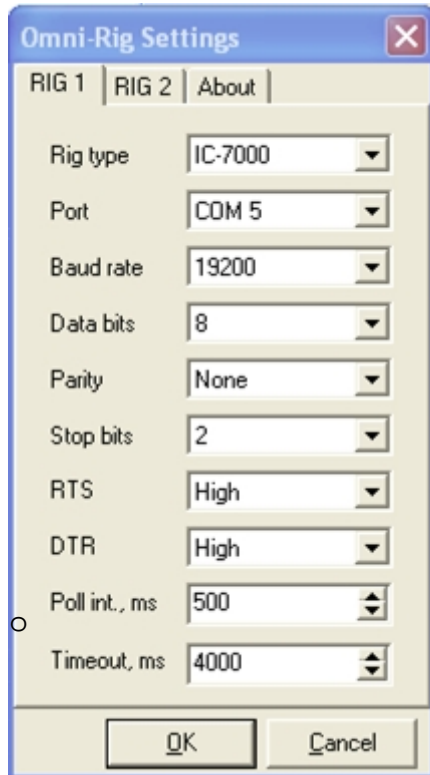


Setup of the CAT interface

The MDSR software controls the transceiver via the CAT port. The connector cable CI-V is the Icom version of the interface cable that plugs into the back of the radio and the RS-232 port of the computer. There are also virtual RS-232 cables available that connect via the USB bus to the computer.

OmniRig Setup for the IC-703 series transceivers

To enter setup menu in MDSR-SA, select the tool icon at the bottom right and select “OmniRig Configuration & Status”, select the key icon “Configure OmniRig”. Only configure RIG 1.



- Select the transceiver to be controlled from the drop down menu (IC-703).
- Select the port of the computer. If the Com port is not known, go to the “Device Manager” and select the ports icon. The port number should be listed there.
- The Baud Rate has to match the setting in the Transceiver. The default setting for the IC-703 is “auto”. The highest rate is 19200.
- All the other settings should be as displayed here.

That completes the installation of the LIF port of the FT-950. The MDSR team wishes you all the best. If you like the performance of the MDSR software please tell all your friends about it.

73

The MDSR development team

To order the PCB kit or for more information please go to;

Note: if you are interested in the TX – BiLiF option contact VE7DXW directly.

<http://users.skynet.be/myspace/mdsr>

specify: 455k IF

