

Pa0nhc improved version of Pa0rdt "Miniwhip" active wideband receiving antenna.

20171218

Assemblage.

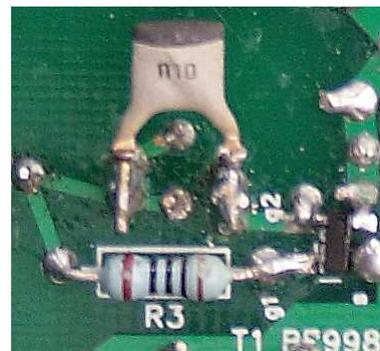
MODs for PCB #13 :

1. C10 must NOT be placed. Leave location C10 open.
2. C14 (100p NP0) must be soldered onto the PCB bottom surface, **see photo ==>>**
3. For L1 do not use 4.7 uH, but **instead place a wire link.**

If you mainly are interested in VLF reception (< 100 kHz) :

Change C4,7 to 1 uF FOIL capacitor (or in parallel with existing C4 and C7),

Change L2,3 must be 1mH low Ri (Imax = 200mA or higher).



The location of C14 (100 pF NP0) at the PCB bottom side.

While screwing the splitter/combiner PCB into a metal box, use at each screw through h1 and h2 two extra nuts M3 on top of each other, used as spacers between the PCB and the box.

For stable mechanical and grounding contact, use tooth locking rings :

- a.. under the M3 PCB top nuts.
- b. under the outside flanges of both BNC bushes.

WARNING: carefully check the type and value of EVERY part, BEFORE soldering.

Measure resistors using a digital ohm meter. Removing later on can be difficult.

- Solder wire bridge R13 on the bottom plane of the antenna PCB. Prevent a short circuit with ground. Wire ends may not be above the top copper surface.
- Solder all resistors.
- Solder all ceramic capacitors.
- Solder all film capacitors and the fuse holder.
- Solder the elco's and the coils.
- Solder the BNC bus onto the antenna PCB. Check for short circuit between R13 and ground.

Now take anti-static measures,

- Connect the soldering iron to the pcb mass surface
 - Connect yourself to the PCB mass surface
 - Prevent over heating while soldering the transistors.
 - Solder fast with little solder, and let cool down after every single solder connection.
- Solder on the PCB bottom surface the MOSfet T1.
REM : The broad pin is drain.
The FETs legs should be facing down towards the solder pads on the PCB.
 - Solder the SHF transistor T2.
First solder the three small pins, and as last the broad cooling fin.

