

## Materials. See parts list.

C55 is a tantal elco.

All other capacitors should be (ceramic) multi layer types with low self inductance. Resistors are 0.25W metal film.

Chokes are radial 3x7 mm ferrite types. Bend their wires to RM 7.5mm or RM 10mm.

### IC.

The AD8361ARTZ 6lead SOT-23 IC can be ordered at the Internet (cheapest at "Verical" ?). Also available at **mouser.com**. Be sure to order the **6-lead ARTZ** type!

### Ferrite rod.

**Do not use a MW or LW radio receiver rod, as that ferrite has wrong properties for SW use..**

A small and cheap 8 x 50 mm rod  $U_i=300$  (**Conrad 535575**), with 42 turns 1mm thick wire wound on it, showed a self inductance is abt. 50uH. Damped by the low input resistance of IC1, its Q is a vey low 0.25, and band width possably more than 10 MHz large.

A long cheap 150x8 mm Philips rod,  $U_i=250$ , is available at "Amidon.de". Type **FS-150x8-4B**.

However, the best ferrite material for wide band SW use is Amidon / Fairite #61  $U_i=125$ . It is suitable for frequencies up to 30MHz. Available among others at **amidon.de**.

These are far more expensive. And long ferrite rods demand a bigger and more expensive housing.

### Winding examples for abt 50uH coil inductance :

Amidon R61-025-400, 42 turns 2mm insulated wire

Amidon R61-037-300, 38 turns 2mm insulated wire

Amidon R61-050-400, 33 turns 2mm insulated wire

Amidon R61-050-400, 31 turns 2mm insulated wire

### PCBs.

The double sided **antenna PCB** contains three holes : Two holes for screwing the PCB into a Hammond 1554BGY or **weather resist 1554B2GY** enclosure. And one hole for fixing the ferrite antenna rod using a ty wrap.

The moving coil meter (**Conrad 103538**) and the meter PCB fit nicely into a **Hammond 1554EGY** enclosure. There is ample room on the PCB for drilling holes to fit different moving coil meter connections.

The three wires of the twisted signal cable are connected to PCB terminal blocks.

A 5-pole DIN plug connection on the meter unit is sturdy and handy.

