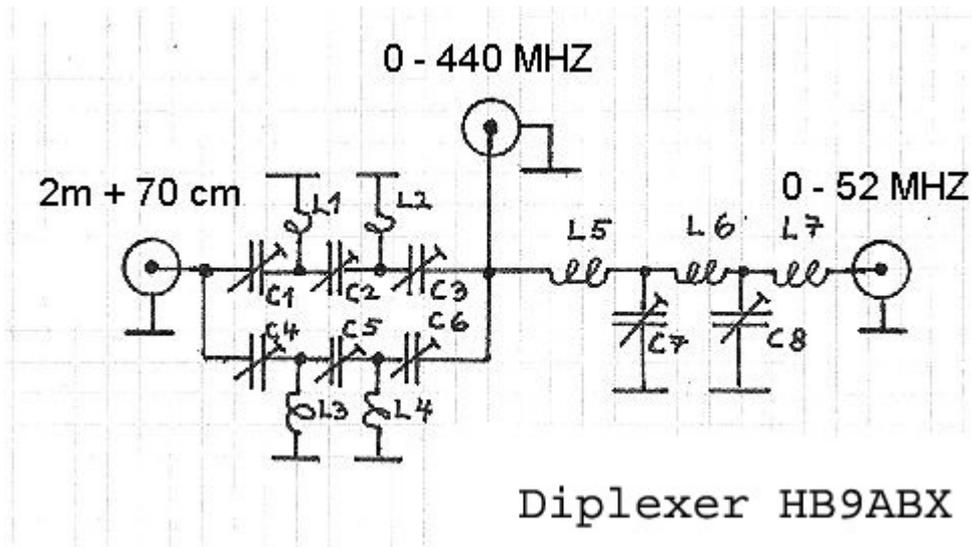


THE DUPLEXER: The project was found on Felix's HB9ABX site:



Component list:

all coils 1mm dia enameled copper wire

L1 = 1 turn 5 mm (id)

L2 = same as L1, orientation 90 degr in respect to L1

L3 = 1 1/2 turn 6 mm (id)

L4 = same as L3, orientation 90 degr in respect to L3

L5 = 7 turn 6 mm (id), 15 mm long

L6 = 11 turn 6 mm (id), 19 mm long

L7 = same as L5

C1 = foil trimmer cap. 9 pf (0.5-9 pf) see note in text

C2 = same as C1

C3 = same as C1

C4 = foil trimmer cap. 32 pf (3-32 pf)

C5 = same as C4

C6 = same as C4

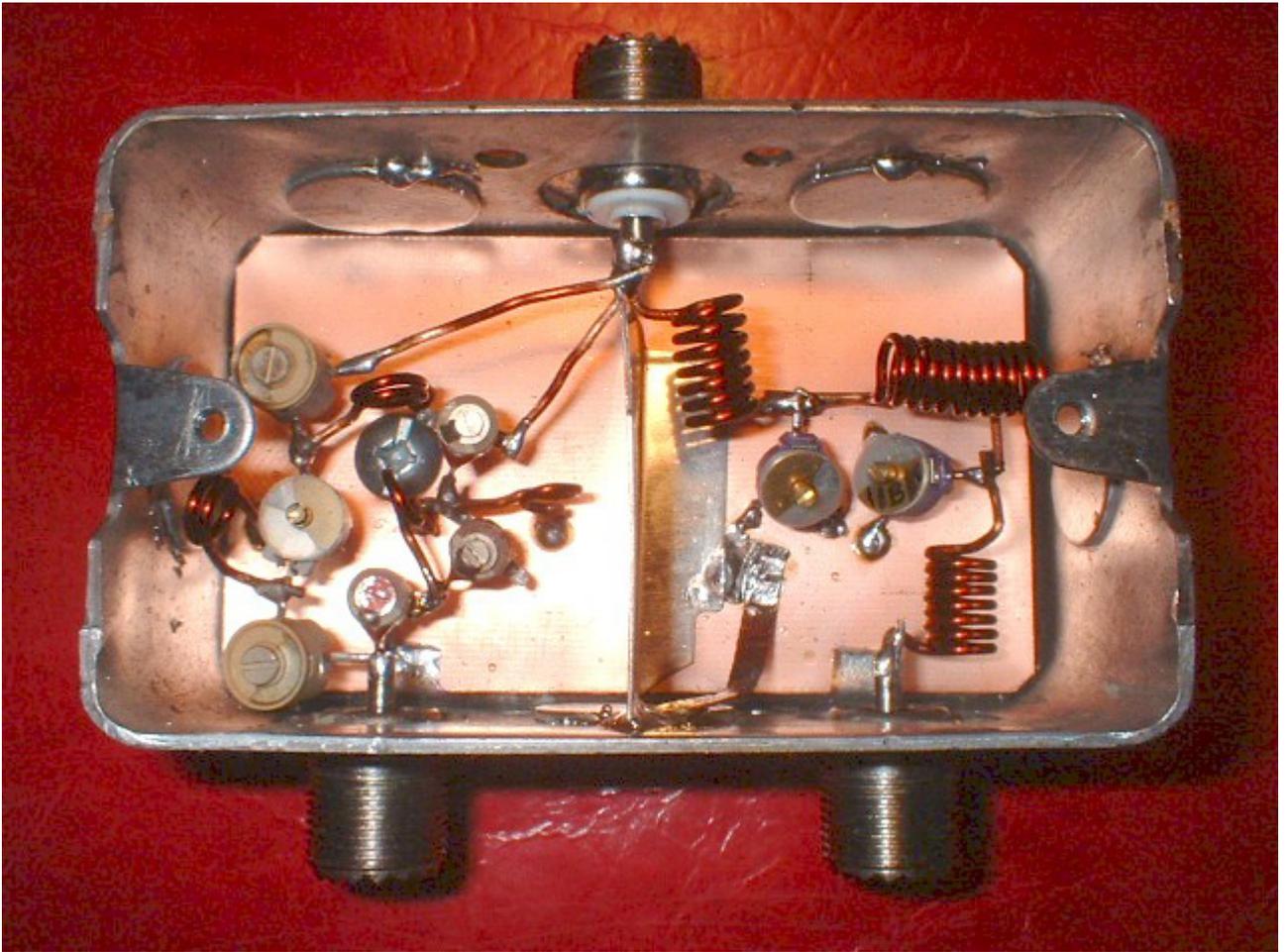
C7 = foil trimmer cap. 135 pf (5-135 pf)

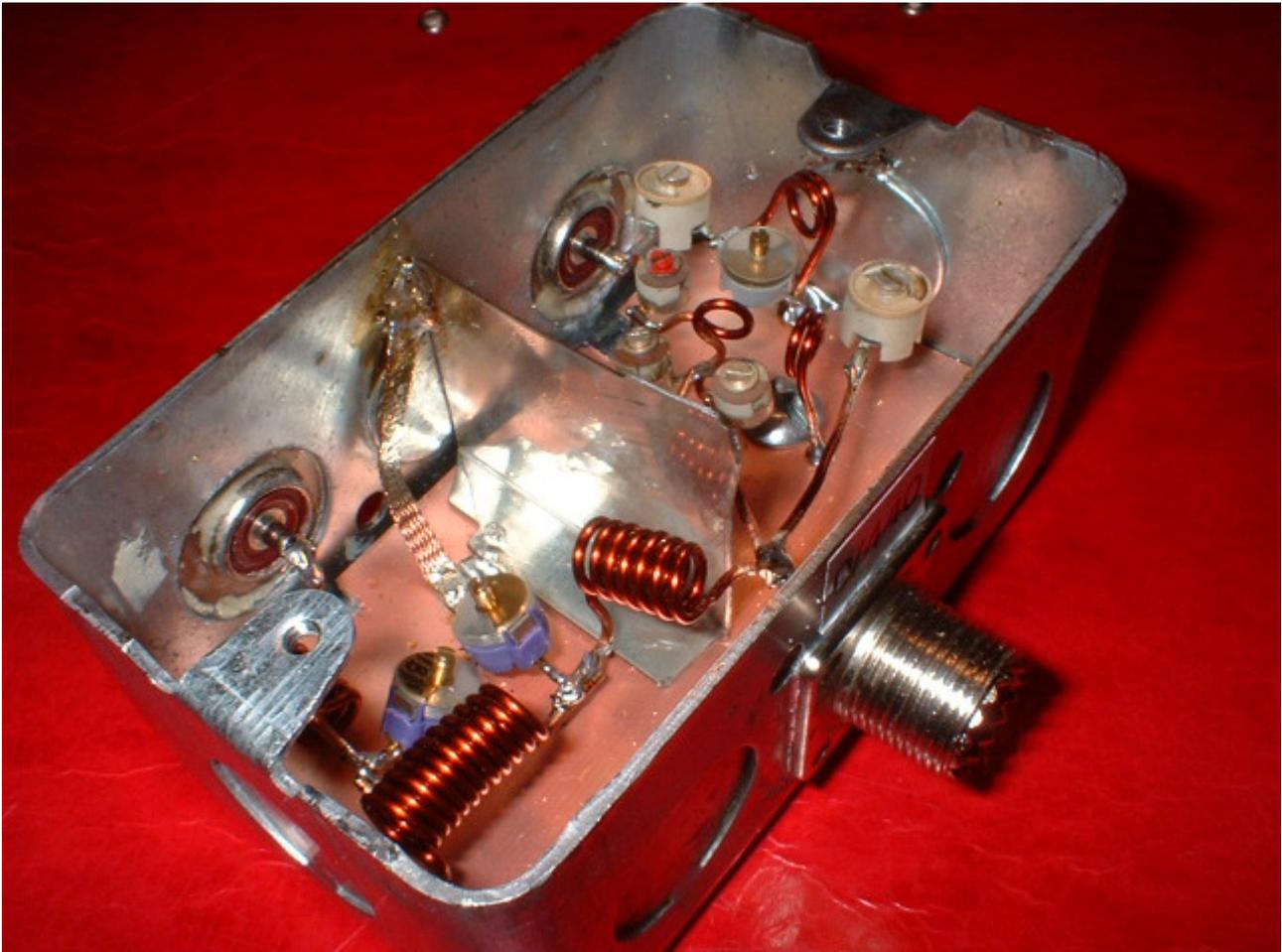
C8 = same as C7

3 HF chassis plugs 50 Ohm

1 metallic box (solderable)







Adjustment procedure:

1. Connect 50 Ohm dummyload to plug 0 - 440 MHz .
 2. Connect SWR meter between 0 - 52 MHz plug and TX (51 Mc carrier low power).
(If no 6m TX available addjust on 10m band)
Adjust C7 and C8 to obtain SWR < 1.1 .
 3. Connect SWR meter between 2 m plug and TX on 2 m (145 Mc carrier low power).
Adjust C4, C5, and C6 to obtain SWR < 1.1 .
C4 and C6 should reach the same value.
 4. SWR meter same as step 3, but TX on 70 cm (435 Mc carrier low power).
Adjust C1, C2, and C3 to obtain SWR < 1.1 .
C1 and C3 should reach the same value.
- Repeat steps 2 - 4 , as adjustment of one band influences the other.
You will need some patiance to reach proper adjustment on all bands!

Now your diplexer is ready for use.

I built the diplexer in an electrical box on copper board. There is isolation between the sections and the SO-239 connectors are soldered to the box. Works great, tested to 100w.