Placement of coils in crossover networks:

Fig. 1. Coils 20 cm apart: 1.144 mH

Fig. 2. Coils 10 cm apart: 1.137 mH.

Fig. 3. Coils as close as possible: 1.109 mH.

Fig. 4. Coils placed close as seen on picture, one coil turned upside down: 1.181 mH. Compare with fig. 3.

Fig. 5. Coils placed close as seen on picture: 1.147 mH.

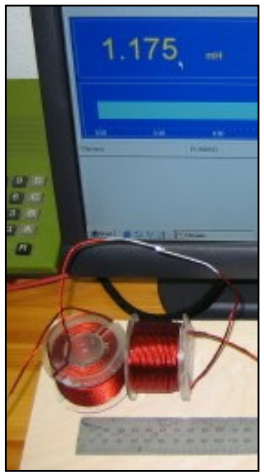
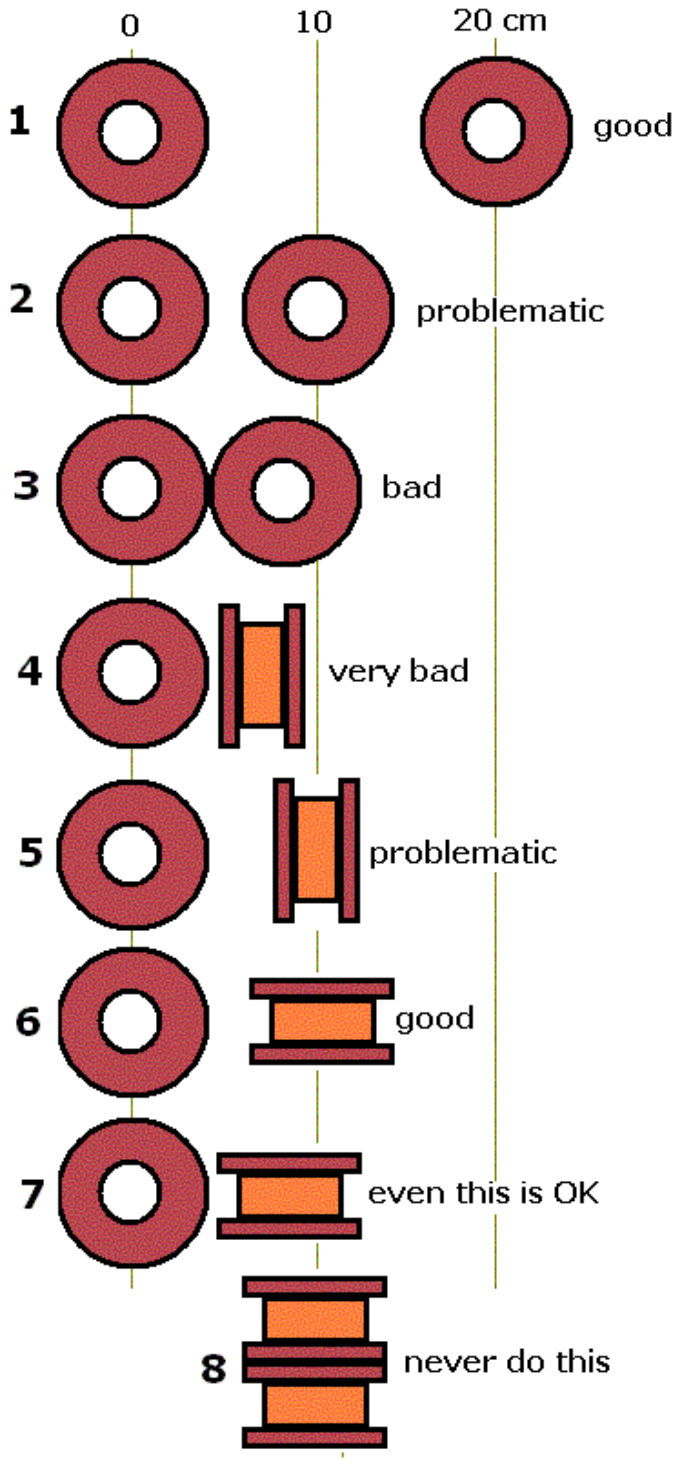


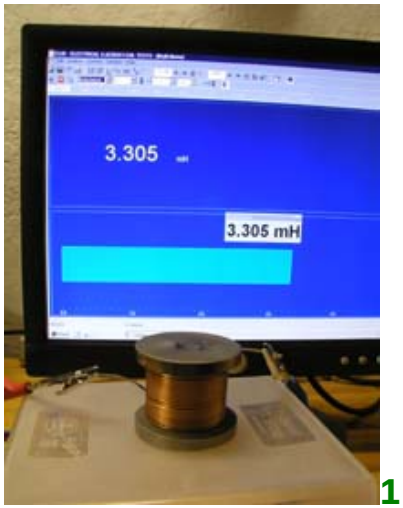
Fig. 6. Coils placed close as seen on picture: 1.175 mH

Fig. 7. Coils placed on top on one another, same orientation: 1.312 mH.

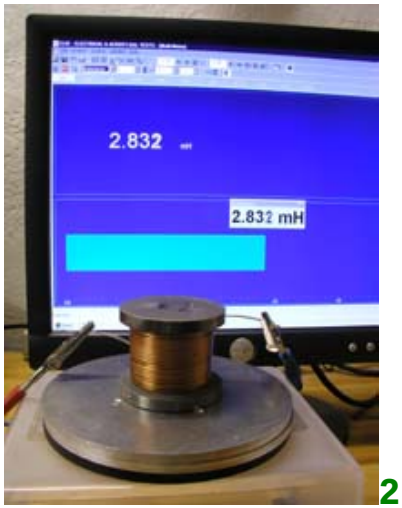
Fig. 8. Coils placed on top on one another, reverse orientation:1.015 mH.


0
10
20 cm
1
good
2
problematic
3
bad
4
very bad
5
problematic
6
good
7
even this is OK
8
never do this

More on coils in the vicinity of aluminium



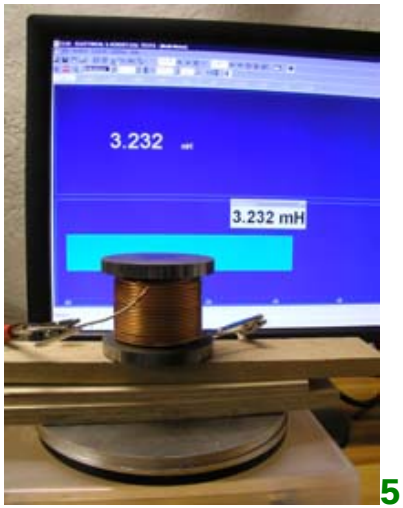
1



2

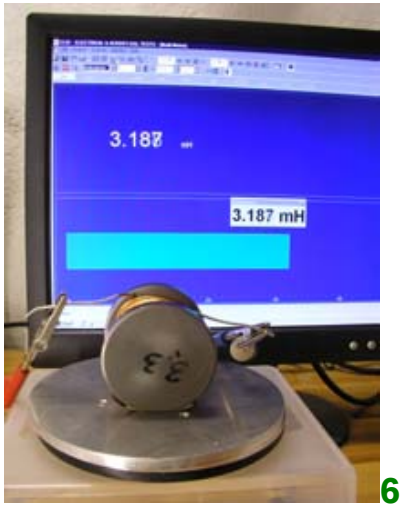
3

4



5

DUT: 3.3 mH cored coil, vertical orientation.
From left:
1: Coil on plastic surface
2: Coil on 15 mm alu
3: Coil on 15 mm alu + 10 mm plywood
4: Coil on 15 mm alu + 15 mm plywood
5: Coil on 15 mm alu + 25 mm plywood



6

7

8

DUT: 3.3 mH cored coil, horizontal orientation.
From left:
6: Coil on 15 mm alu
7: Coil on 15 mm alu + 15 mm plywood
8: Coil on 15 mm alu + 25 mm plywood

Conclusion to this small additional study:
Coils placed vertically near to aluminium display a significant reduction in inductivity. Coils should at least be 5 cm/2 inches from nearest aluminium surface. More is recommended.
Coils placed horizontally near to aluminium display only minor impact on inductivity, however 3-4 cm distance is recommended.