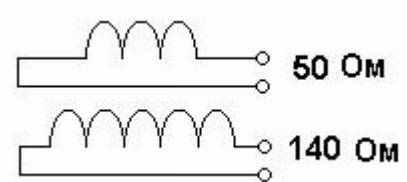


# Broadband Transformer 50/200- Ohm

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Credit Line: <http://qrz-e.ru/forum/29-786-2>

Below I describe a simple way to make broadband transformer 50/200 Ohm with isolated windings. (Theoretically the transformer is for 50/140- Ohm. However it works fine for most common using 50/200 Ohm.)



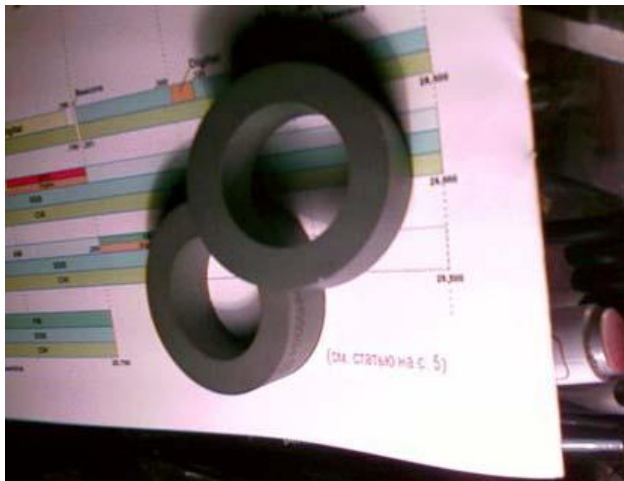
**Figure 1** shows schematic of the transformer. At first you need take a ferrite ring (or several identical ferrite rings) with permeability 600... 2000. OD should be 40-50- mm. Power going through the transformer depends on the sizes. I took two ferrite rings with permeability 2000 for the transformer. **Figure 2** shows the rings.

**Figure 1** Schematic of the Broadband Transformer 50/200 Ohm

The rings stuck together. Rings should be protected from atmospheric influences. It may be done with protection lacquer or just with electrical insulation tape. **Figure 3** shows two rings wrapped with electrical insulation tape. Of course, at the antenna the transformer should be protected from straight atmospheric influences with help of a simple cover.

Second winding has two turns around each turn of the first winding. Wires should be close and parallel each to other.

**Figure 6** shows beginning of the second winding at one side of the ring. In one turn (first winding) is in brown, two turns (second winding) are in yellow. **Figure 7** shows ready second winding.



**Figure 2** Rings for the Broadband Transformer



**Figure 3** Two Rings Wrapped with Electrical Insulation Tape

I used thin wire in diameter near 1.5- mm (14- AWG) for the windings. First winding contains 2 turns. **Figure 4** shows transformer with the winding. Then one turns is moved to the opposite side of the ring. It is the first winding. **Figure 5** shows the first winding.

First winding is for coaxial cable 50 Ohm the second one for antenna 200 Ohm. After that it is pressed the turns together and fixed it with electrical insulation tape. Transformer 50/200 Ohm is ready. **Figure 8** shows the transformer.



Figure 4 Transformer with 2 turns winding



Figure 7 Ready Second Winding



Figure 5 First Winding



Figure 8 50/200 Ohm Transformer

The transformer may use with an OCF (Windom) Antenna that is shown below. For DX communication feed points should be at up position compare to the long wire of the antenna.



Figure 6 Beginning of the Second Winding at One Side of the Ring



Для DX связей точка запитки должна быть вверху а полотно антенны наклонено вниз

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