

## DIY RF Current Probe Assembly Instructions

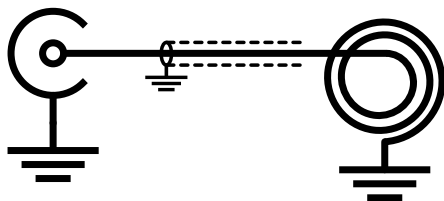


- 1 RG174 (TME YWL50-0.45/1.3-GR)
- 2 BNC Connector (TME BNC-006)
- 3 M3x10mm Countersinking Screws
- 4 M3x5,7 threaded inserts (eg. Ruthex, Turmberg3d, ...)
- 5 3d printed parts (<https://www.diyemc.com/Products/cp1>)
- 6 Ferrite Core (Würth 74270097)

### Optional:

- cable-tie
- double sided tape

## Operation Principle



The operating principle is simple. A winding with 8 turns is formed by a coaxial cable. The inner conductor forms the current-transformer and the outer shield is an electrostatic shield.

It is important that the coax shield is connected to one side, only!

More detailed information can be found under:

<https://DiyEMC.com>

# Step 1



Put a winding with 8 turns on the core as shown.

The cable-tie is optional but helps with further handling.

# Step 2



Cut the two ends as shown.

# Step 3



Strip about 10mm of both ends.  
Remove the shield on the shorter end.

## Step 4



Connect the shield and inner conductor of the longer end to ground.  
Connect the inner conductor of the shorter end to the BNC connector as shown.

## Step 5



Prepare the top cover.

The core has quite some mechanical tolerance.  
To prevent rattling, a short length of double-sided tape may be optionally placed on the core.  
3M VHB tape is suggested.

## Step 6 / Finish



Last but not least, tighten the screws,  
and your RF current probe is done.