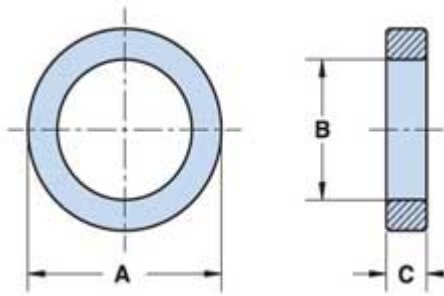


HF CHOKE BALUN

Enrico Guindani, IZ2NXF

www.qsl.net/iz2nxf

10 turns on Amidon Toroid FT-140-43



Mat. = 43

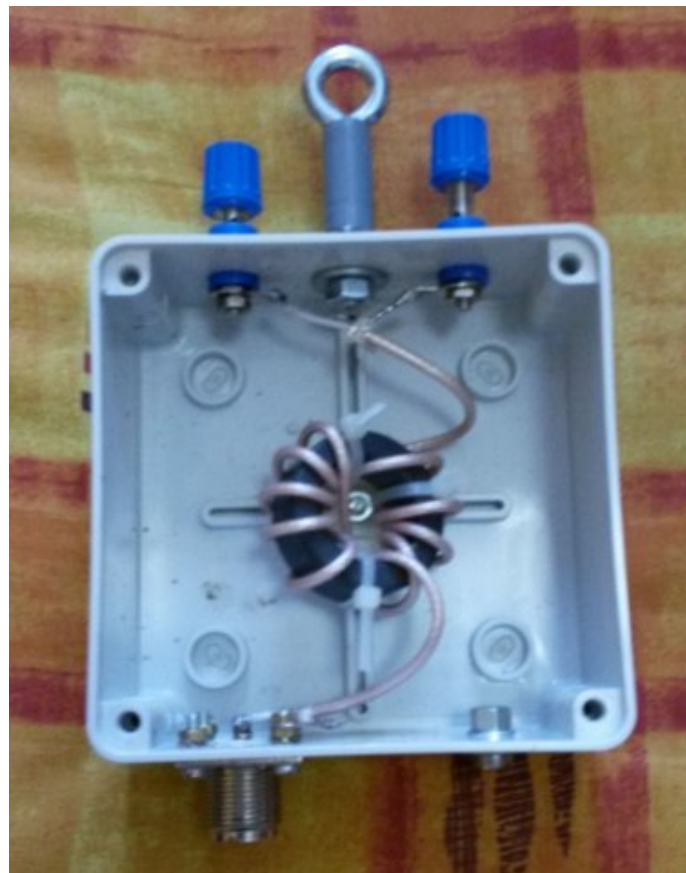
A = 35.55 mm

B = 23.0 mm

C = 12.7 mm

$\mu_i = 800$

AL 1000 turns = 885 mH



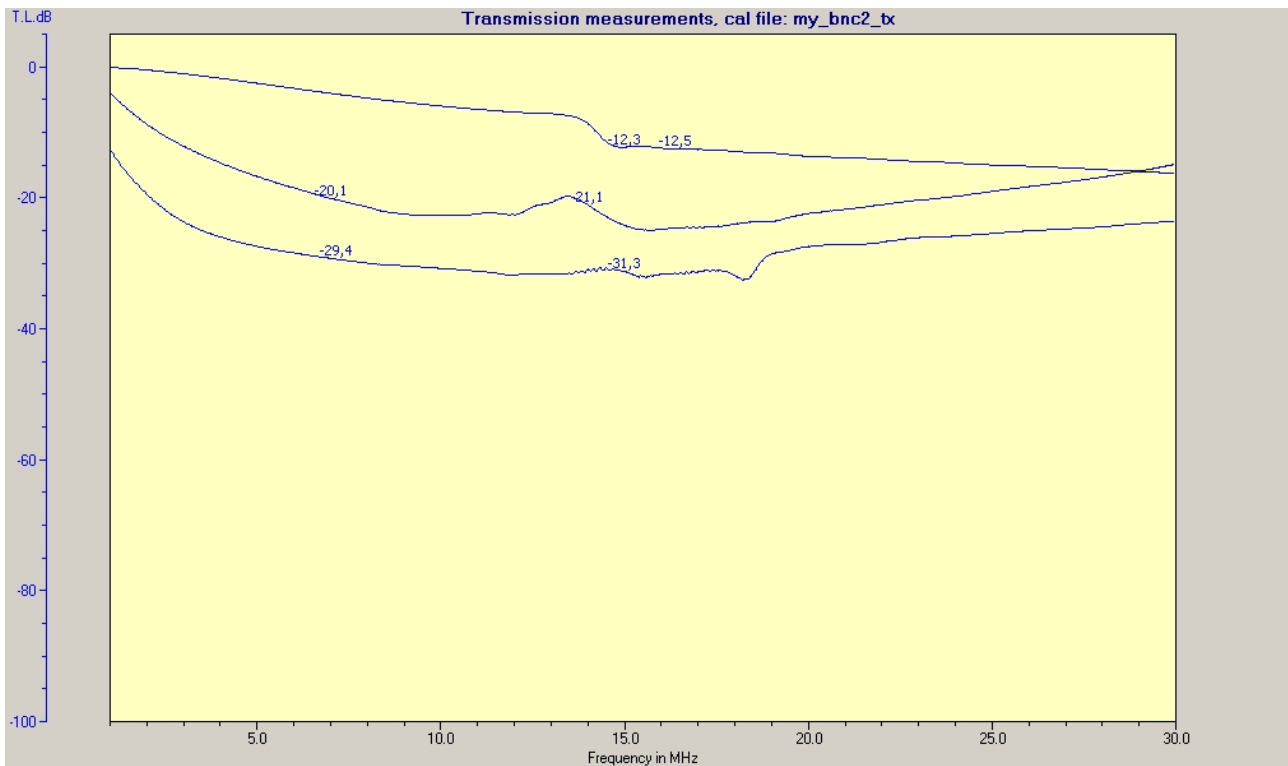
COMMON MODE ATTENUATION

from top to bottom:

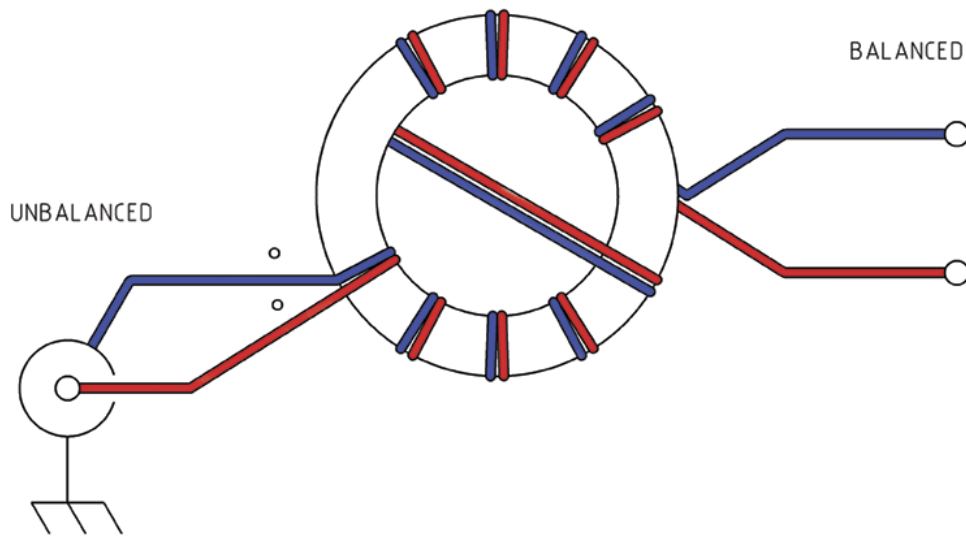
Guanella current balun (10 bi-filar turns on T-200-2 toroid)

Air choke (RG-58 cable 14 turns, 12cm diameter)

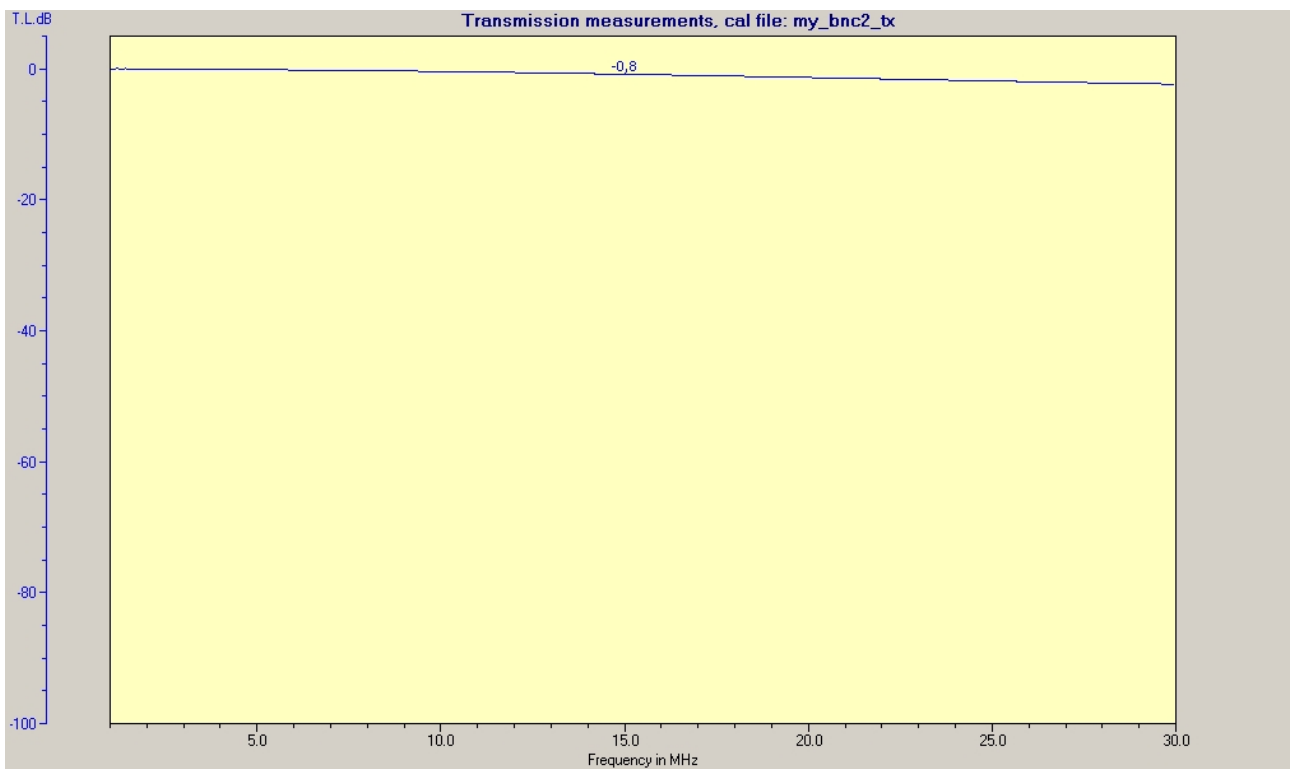
Choke balun (10 turns teflon-coax on FT-140-43 toroid)



Guanella current balun (10 bi-filar turns on T-200-2 toroid)

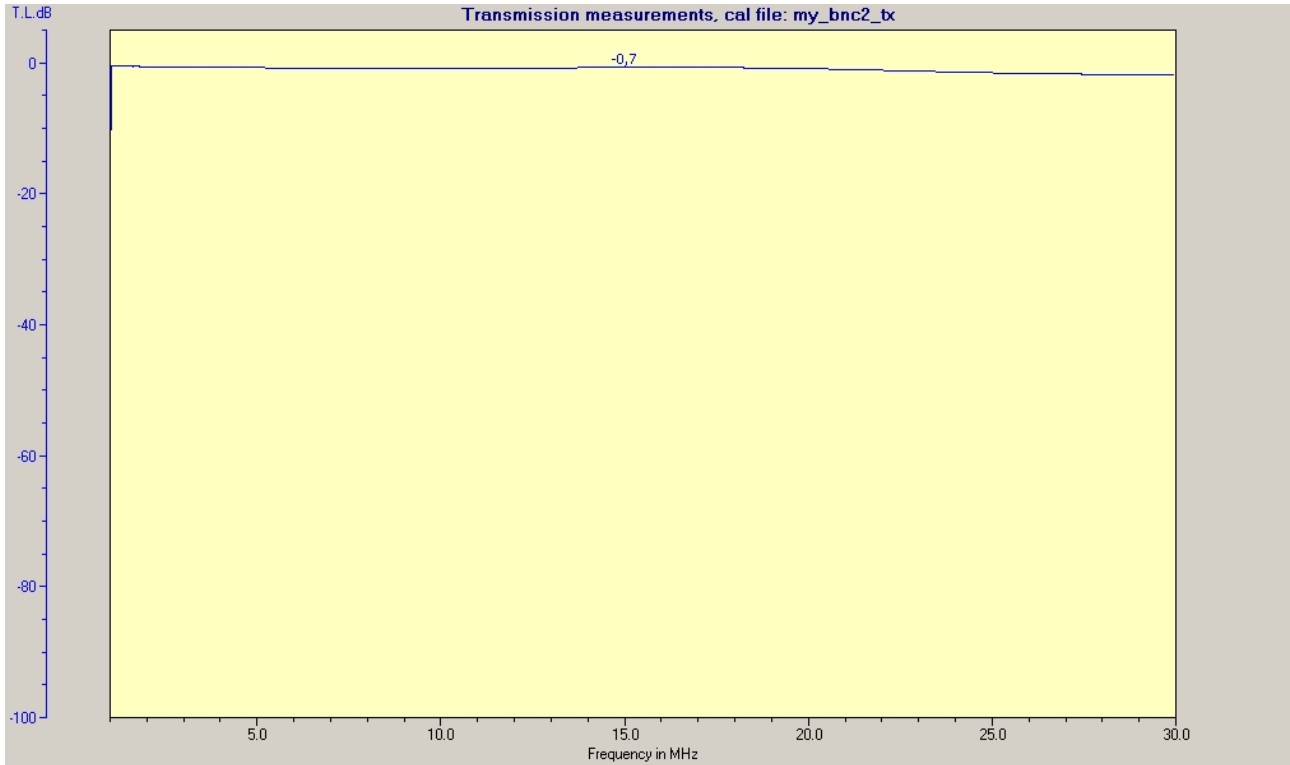


SIGNAL ATTENUATION

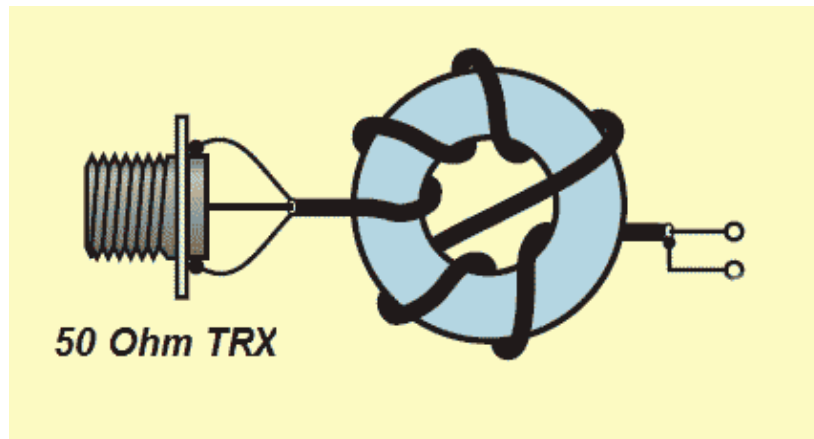


Air choke (14 turns RG-58 cable, 12cm diameter)

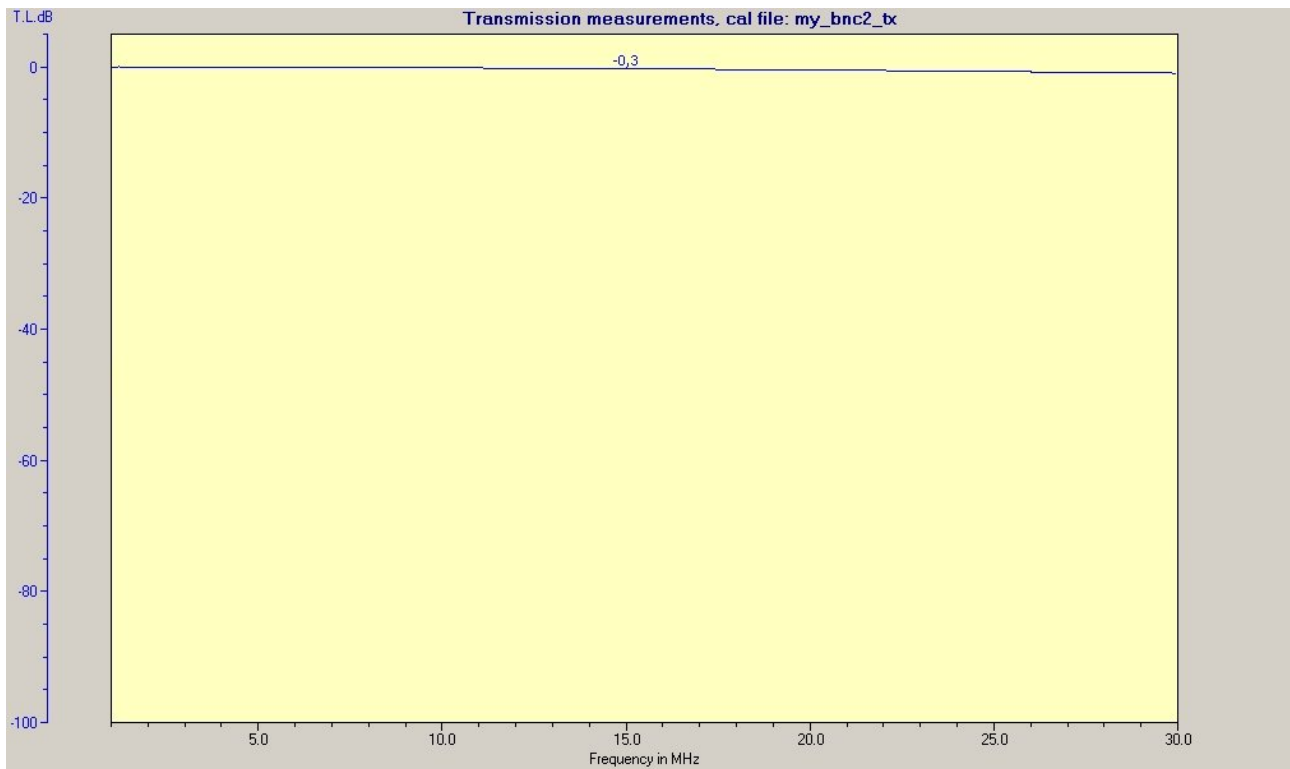
SIGNAL ATTENUATION



Choke balun (10 turns teflon-coax on FT-140-43 toroid)



SIGNAL ATTENUATION



CONCLUSION

Toroid T-200-2 is unable to be used as a wide-band choke due its low permeability.
On-air test denotes significant RFI in the shack.

Air choke has a better behaviour.
On-air test denotes no RFI in the shack above 10 MHz.

FT-140-43 has the best common mode attenuation and the smaller signal attenuation due its high permeability.
On-air test (above 7 MHz) denotes no RFI in the shack.