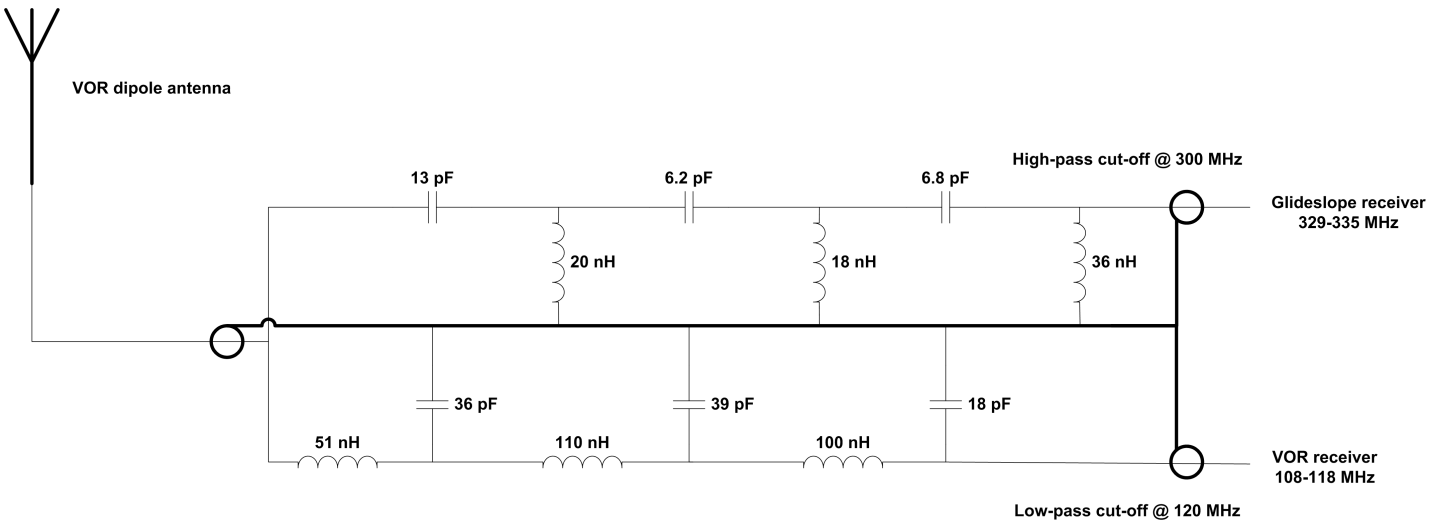
VOR/GS Diplexer



Applicability

You would use this design in your experimental aircraft as a low cost replacement for diplexers like the Comant CI-507 or similar, to connect a VOR and a Glideslope receiver to a single antenna

Notes:

- this design is for experimental aviation application only, validate this design yourself and use at your own risk
- assemble this diplexer using ‚best practices' for HF-devices
- use close tolerance components only (5%, or better where & when available…)
- I do retain the copyrights to this design, but….
- I herewith grant anyone permission to use it for personal, non-commercial applications

Specifications:

- this diplexer is set up as a combination of a high-pass and a low-pass filter
- the high-pass filter passes signals above 300 MHz, which is suitable for your glideslope receiver
- the low-pass filter passes signals below 120 MHz, which is suitable for your VOR receiver
- both filters are configured as a 6-pole Chebyshev filter
- input impedance is 50 Ohms
- the impedances of both outputs are slightly higher, about 54-55 Ohms, which causes only a minimal mismatch
- the VSWR for the VOR and GS frequency bands should be at or below 1 : 1.2

WARNING

This diplexer is for two RECEIVERS only, DON'T put a transmitter on either end !!!

In closing:

If you've actually built this design and/or are using it, please let me know how you fare.
On my website http://ibis.experimentals.de/ you'll be able to retrieve my email-address if you select the „IBIS, say what?" menu, and from there select the „Meet the builder" sub-menu. Thanks for any feedback!

ENJOY ! ☺