



Low-pass Microstrip Filter

A low-pass microstrip filter is analyzed in FEKO and the results compared to published media

This article analyses a microstrip low-pass filter that was originally analyzed in [1]. The filter was implemented using CADFEKO with the substrate being approximated with a semi-infinite Green's function layer. Figure 1 presents the FEKO model and dimensions, while Figure 2 presents a comparison between the results of the FEKO S-parameter computation and the results from [1, Figure 4].

The FEKO simulated results compare well with the published results, validating the simulation techniques. Small differences between the FEKO and published results may be attributed to uncertainties between the published and CADFEKO geometries, e.g. length of the port stubs and the spacing between the port elements along the centre track.

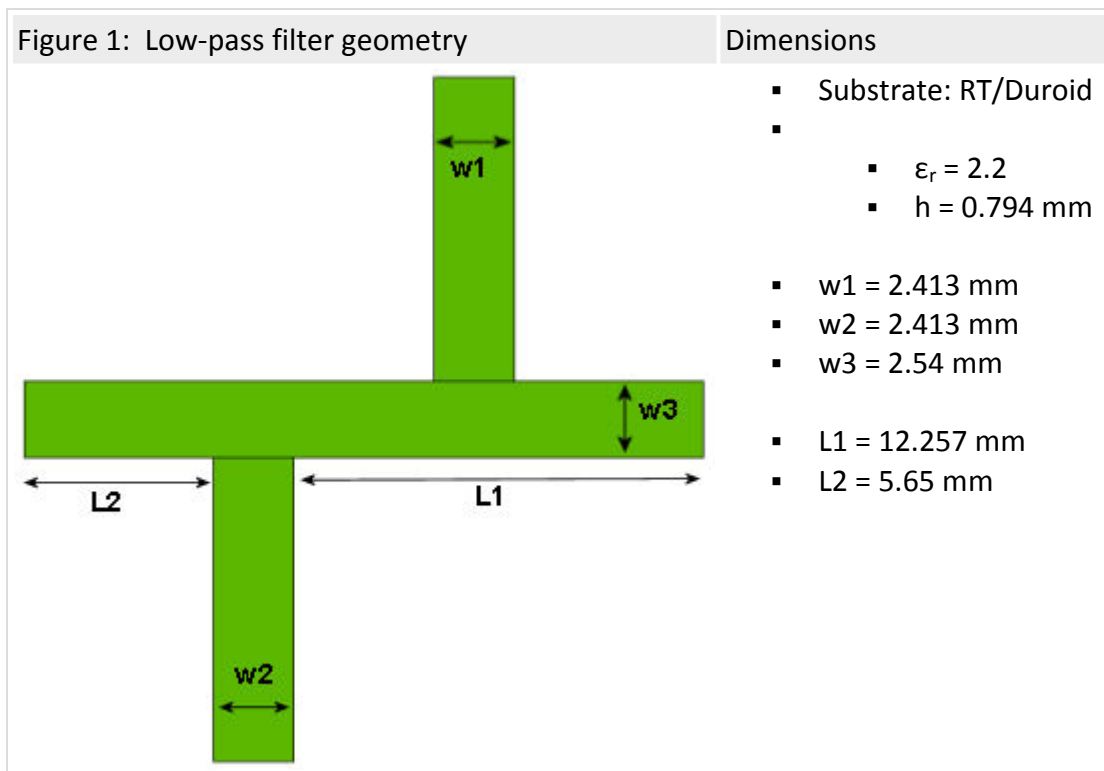
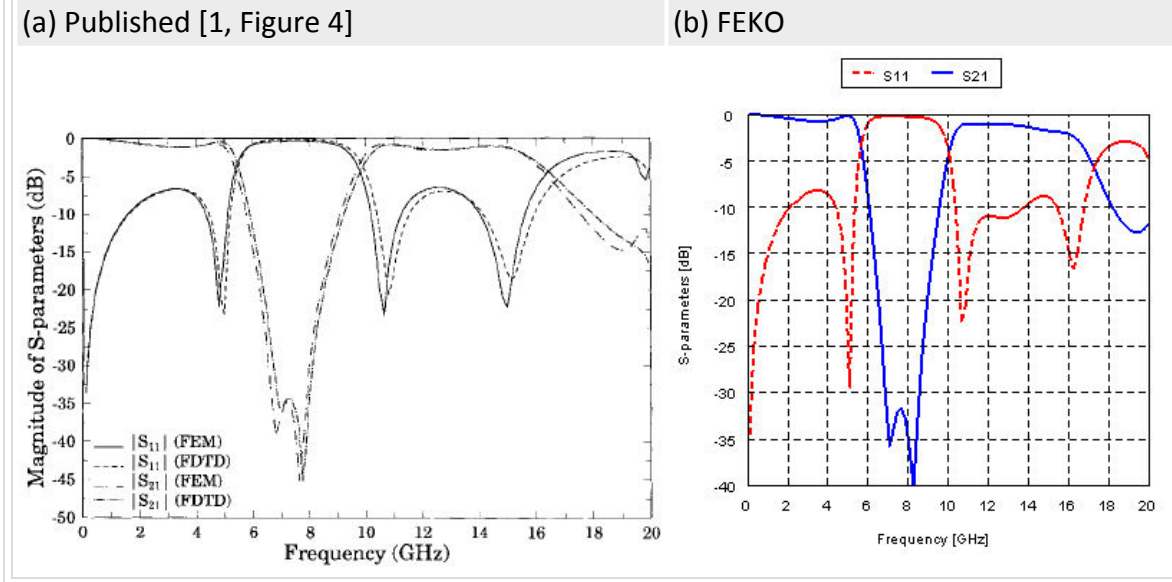


Figure 2: Comparative results



References

- [1] A.C. Polycarpou, P.A. Tirkas, and C.A. Balanis, "The Finite-Element Method for Modeling Circuits and Interconnects for Electronic Packaging," IEEE Trans. on Microwave Theory and Techniques, Vol. 45, No. 10, October 1997



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