Abstracts

The continuously varying transmission-line technique - application to filter design

M. Le Roy, A. Perennec, S. Toutain and L.C. Calvez. "The continuously varying transmission-line technique - application to filter design." 1999 Transactions on Microwave Theory and Techniques 47.9 (Sep. 1999, Part I [T-MTT]): 1680-1687.

In this paper, an original approach to analyze and optimize continuously varying transmission lines (CVTLs) is used to design planar microwave filters. The method is based on exact solutions of the telegrapher's relations of nonuniform transmission lines. The CVTL scattering parameters are investigated in detail in the frequency domain. In order to validate the method, several different CVTLs are built using microstrip and coplanar-waveguide technology. Measured data are presented and compared with theory over a wide frequency range.

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