Abstracts

Fast and rigorous CAD of phase delay equalizers by mode matching techniques including losses

R. Keller, W. Hauth, F.-J. Goertz, F. Arndt, T. Sieverding and U. Papziner. "Fast and rigorous CAD of phase delay equalizers by mode matching techniques including losses." 1998 MTT-S International Microwave Symposium Digest 98.2 (1998 Vol. II [MWSYM]): 921-924.

A fast and reliable analysis and optimization tool for complex waveguide structures, such as phase delay equalizers, is presented. The circuits are analyzed by the rigorous mode matching technique combined with nodal analysis. Losses are calculated with the perturbation method under full consideration of the field patterns at working conditions. Together with a sophisticated gradient optimization procedure, phase delay equalizers have been designed and realized. Mechanical tolerances have been taken into account. The theory is verified by measurements.

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