Abstracts

Fast and Accurate Analytic Formulas for Calculating the Parameters of a General Broadside-Coupled Coplanar Waveguide for (M)MIC Applications

S.S. Bedair and I. Wolff. "Fast and Accurate Analytic Formulas for Calculating the Parameters of a General Broadside-Coupled Coplanar Waveguide for (M)MIC Applications." 1989 Transactions on Microwave Theory and Techniques 37.5 (May 1989 [T-MTT]): 843-850.

Fast and accurate analytic formulas for calculating the quasi-static TEM parameters of a general broadside-coupled coplanar waveguide (GBSC CPW) are presented. Simplicity, high speed of computation, and accuracy recommend the use of these formulas for (M)MIC CAD programs. Numerical calculations are presented in order to investigate various electrical properties of the structure. An asymmetrical BSC CPW, as well as the single CPW resulting from connecting the two coupled strips of the GBSC CPW at the input and the output ports, is also analyzed. Criteria are obtained to ensure the coplanar behavior of the structure.

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