Abstracts

Rigorous Full-Wave Space-Domain Solution for Dispersive Microstrip Lines

N. Fache and D. De Zutter. "Rigorous Full-Wave Space-Domain Solution for Dispersive Microstrip Lines." 1988 Transactions on Microwave Theory and Techniques 36.4 (Apr. 1988 [T-MTT]): 731-737.

The eigenmode problem for the open microstrip line is analyzed in the space domain starting from the calculation of a dyadic Green's function in the spectral domain. The transverse and the longitudinal current are discretized using the method of moments. A point-matching technique is used to impose the boundary condition, i.e., zero tangential electric field, on the strip. The edge conditions at the end points of the strip are explicitly incorporated and special care is taken to accurately retain the static behavior of the fields on and near the strip. Special attention is devoted to the variation of the current distribution as a function of frequency.

❑ Return to main document.