Abstracts

An innovative fast powerful method for tackling electromagnetic eigenvalue problems for multistrip transmission lines

A full-wave electromagnetic technique is developed for the rapid and accurate calculation of dispersion characteristics in multiconductor and multilayer planar transmission lines. The proposed method is based on the Mrozowski and Przybyszewski algorithms. This powerful method calculates an approximate value of propagation constant at a desired frequency based on more accurate computations of the field distribution and propagation constant at a few selected frequency points. Comparison with previously accurate published data and numerical tests are first performed to confirm the accuracy of our procedure. Numerical results for several configurations are presented.

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