Abstracts

Analysis of Microstrip-Like Transmission Lines by Nonuniform Discretization of Integral Equations

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The nonuniform discretization of the integral equation on the tangential electromagnetic (EM) field on the boundary surface is proposed as a numerically efficient method to analyze the microstrip-like transmission lines. The calculated results of the propagation constant of the microstrip line based on this method are compared with other published analytical results. Various types of planar striplines are treated by the same formulas. The dominant and higher order modes of shielded microstrip line are discussed and compared with the longitudinal-section electric (LSE) and linear synchronous motor (LSM) modes of a two-medium waveguide.

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