Abstracts

Time-Domain Method of Lines Applied to Planar Guided Wave Structures

S. Nam, H. Ling and T. Itoh. "Time-Domain Method of Lines Applied to Planar Guided Wave Structures." 1989 Transactions on Microwave Theory and Techniques 37.5 (May 1989 [T-MTT]): 897-901.

A new time-domain method for the analysis of wave propagation and scattering in a planar transmission structure is developed in which the concept of the method of lines is used. The analytical process incorporated along one of the three dimensions has been executed for each line independently (one-dimensional process) or for one set of lines (two-dimensional process) depending on whether or not the structure contains metallic strips at the dielectric interface boundary. A simple numerical example is presented as a demonstration of the above two processes of the method, and its validity is shown by comparison with other data.

❑ Return to main document.