Abstracts

Analysis of Millimeter Waveguides on Anisotropic Substrates Using the Three-Dimensional Transmission-Line Matrix Method

C. Bulutay and S. Prasad. "Analysis of Millimeter Waveguides on Anisotropic Substrates Using the Three-Dimensional Transmission-Line Matrix Method." 1993 Transactions on Microwave Theory and Techniques 41.6 (Jun./Jul. 1993 [T-MTT]): 1119-1125.

Three-dimensional condensed asymmetrical node, variable grid, transmission-line matrix (TLM) method has been used in analyzing several millimeter waveguides on anisotropic substrates. The dispersion characteristics of image guides together with field and energy confinement properties at millimeter-wave frequencies have been investigated. Edge coupled microstrip line on a uniaxial substrate is analyzed for the even and odd mode dispersion characteristics. Finally the same analysis is repeated for bilateral fin lines on uniaxial/biaxial substrates. The results obtained using other computational techniques are included in all of these cases to assess the competence of the method.

❑ Return to main document.