Abstracts

Slot and Microstrip Guiding Structures Using Magnetoplasmons for Nonreciprocal Millimeter-Wave Propagation

C.M. Krowne, A.A. Mostafa and K.A. Zaki. "Slot and Microstrip Guiding Structures Using Magnetoplasmons for Nonreciprocal Millimeter-Wave Propagation." 1988 Transactions on Microwave Theory and Techniques 36.12 (Dec. 1988 [T-MTT] (1988 Symposium Issue)): 1850-1860.

A full-wave spectral-domain approach for general anisotropy is used to determine the nonreciprocal phase and attenuation properties of slot and microstrip line structures. Dominant mode dispersive behavior is controlled by the semiconductor substrate characteristics, geometric dimensions, and magnetic field bias magnitude and angle in the Voigt configuration. Numerical results are presented to establish the nonreciprocal properties up to 85 GHz.

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