Abstracts

Nonreciprocal Millimeter Wave Propagation in Slot Guiding Structures Using Magnetoplasmons

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A full wave spectral domain approach for general anisotropy is used to determine the nonreciprocal phase and attenuation properties of slot 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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