Abstracts

Normal Mode Nomenclature of Quadrupole Gyromagnetic Waveguides

J. Helszajn, W.A. Leeson, D.J. Lynch and B.C. O'Donnell. "Normal Mode Nomenclature of Quadrupole Gyromagnetic Waveguides." 1991 Transactions on Microwave Theory and Techniques 39.3 (Mar. 1991 [T-MTT]): 461-470.

An important nonreciprocal rhombic or circular gyromagnetic waveguide used in the design of nonreciprocal quarter and half-wave plates is one with a quadrupole direct magnetic field. This paper reviews the normal mode nomenclature of this type of waveguide and gives a perturbation and anisotropic formulation of the normal modes of this type of waveguide which is in keeping with the existing literature. It also describes a closed-form formulation of the problem. The field distributions in this type of waveguide display a classic edge mode effect.

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