

Abstracts

Notable Features of Hybrid Modes in a Chiral-Filled Rectangular Waveguide

A.R. Samant and K.W. Whites. "Notable Features of Hybrid Modes in a Chiral-Filled Rectangular Waveguide." 1995 Microwave and Guided Wave Letters 5.5 (May 1995 [MGWL]): 144-146.

An analysis of hybrid modes in a rectangular waveguide filled with chiral material is presented in this paper. The modal wavenumbers are computed using the finite difference method together with Mullers root-finding algorithm. A novel scheme is presented whereby the validity of the numerical solution is established with analytical results. Using this numerical methodology, the existence of complex modes for a rectangular chiral waveguide is confirmed. Other notable features such as mode bifurcation and low frequency effects of chirality are also discussed.

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