

Abstracts

Propagation in the Off Center E-Plane Dielectrically Loaded Waveguide

N. Eberhardt. "Propagation in the Off Center E-Plane Dielectrically Loaded Waveguide." 1967 Transactions on Microwave Theory and Techniques 15.5 (May 1967 [T-MTT]): 282-289.

Rectangular waveguides containing a full height lossless dielectric slab in arbitrary positions are theoretically treated. Numerical data about the cutoff frequencies of the three lowest TE-modes in the case of loading with alumina are presented. A graphical method is developed to determine cutoff frequencies for other dielectric constants as well. Graphs are given to determine the propagation constant and its frequency dependence. Figures of some characteristic mode patterns are added. A possible application to dissipative filters and frequency separators is discussed.

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