Abstracts

Coupling Between Two Collinear Parallel-Plate Waveguides of Unequal Widths (Short Papers)

Y.E. Elmoazzen and L. Shafai. "Coupling Between Two Collinear Parallel-Plate Waveguides of Unequal Widths (Short Papers)." 1981 Transactions on Microwave Theory and Techniques 29.3 (Mar. 1981 [T-MTT]): 270-273.

The problem of coupling between two collinear parallel-plate waveguides of unequal widths is investigated using the moment methods. The exciting mode of the waveguide is assumed as the incident field and an integral equation for the induced currents is expressed in terms of the reflected, the transmitted, and the evanescent currents on the walls of the waveguides. This integral equation is solved numerically and the results for the reflections and the transmission coefficients and the radiated field are obtained. The effect of varying the coupled waveguide width and the separation distance of the waveguides is investigated.

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