Abstracts

Propagation Characteristics of Periodic Arrays of Dielectric Slabs

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Propagation along periodic arrays of dielectric slabs in the direction transverse to that of periodicity is studied as a function of the prescribed phase delay per period for two polarizations. Classification of modes is achieved with the help of "stability diagrams." In contrast with previous work, the rigorous dispersion relation and exact mode functions are considered. Calculated dispersion curves and closed form mode functions serve to illustrate the guiding properties of the structure and are, in turn, explained in terms of stability diagrams and equivalent networks.

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