

Abstracts

Modal Theory of Spatially Periodic Media

R.-S. Chu and J.A. Kong. "Modal Theory of Spatially Periodic Media." 1977 Transactions on Microwave Theory and Techniques 25.1 (Jan. 1977 [T-MTT]): 18-24.

The modal theory is developed for a slab periodic medium bounded by different media on both sides. Dispersion analysis is carried out for the various cases. Wave amplitudes are determined from boundary conditions for electromagnetic field components. The results are compared and reduced to the well-known theories under simplified conditions. Analysis and calculations are aimed at applications to grating couplers, electrooptical modulators, and distributed feedback systems in integrated optics.

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