Abstracts

Computer Analysis of Dielectric Waveguides: A Finite-Difference Method

A method for computing the modes of dielectric guiding structures based on finite differences is described. The numerical computation program is efficient and can be applied to a wide range of problems. We report here solutions for circular and rectangular dielectric waveguides and compare our solutions with those obtained by other methods. Limitations in the commonly used approximate formulas developed by Marcatili are discussed.

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