

## Scattering Characteristics of a Beam Mode in Dielectric-Slab Optical Waveguide

---

*M. Imai, S. Miyanaga and T. Asakura. "Scattering Characteristics of a Beam Mode in Dielectric-Slab Optical Waveguide." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 119-120.*

The amount and directivity of scattering light in dielectric-slab optical waveguides, produced in a propagating beam mode due to refractive-index inhomogeneities of the thin film and due to boundary irregularities film-substrate and film-air interfaces are calculated by means of a perturbation method together with the use of a stationary phase method and obtained as a function of their correlation length and variance, thin film thickness, and refractive index difference.

 [Return to main document.](#)