

## Three-Dimensional Modelling of High-Power Laser Diodes Based on the Finite Integration Beam Propagation Method

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*M. Niederhoff, W. Heinrich and P. Russer. "Three-Dimensional Modelling of High-Power Laser Diodes Based on the Finite Integration Beam Propagation Method." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1429-1432.*

A self-consistent three-dimensional method for modelling high-power laser diodes is presented, that is based on the finite integration beam propagation method (FIBPM). It allows the modelling of longitudinally inhomogeneous lasers, and takes into account the influence of the distributions of the injection current, the carrier density and the temperature profile. The method has been applied to various high-power laser diode structures. Simulation results have been verified by experimental data,

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