Abstracts

Distributed Microwave Effects in High Speed Semiconductor Lasers

D. Tauber, R. Spickermann, R. Nagarajan, T.E. Reynolds, A.L. Holmes, Jr. and J.E. Bowers. "Distributed Microwave Effects in High Speed Semiconductor Lasers." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 49-51.

In this paper we analyze and experimentally show that high speed semiconductor lasers approximately 300 µm long and operating at frequencies above 25 GHz should be treated as distributed electrical elements. The analysis and experiments indicate that the microwave propagation is lossy, slow wave and dispersive, and that these distributed effects have important implications for the use of directly modulated lasers in high speed optical links.

❑ Return to main document.