

Abstracts

A High-Gain Directly Modulated L-Band Microwave Optical Link

E. Ackerman, D. Kasemset, S. Wanuga, D. Hogue and J. Komiak. "A High-Gain Directly Modulated L-Band Microwave Optical Link." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. 1 [MWSYM]): 153-155.

A directly modulated microwave optical data link, using an efficient lossless impedance matching approach to maximize the transducer gains in the laser and detector matching networks, has yielded high gain. The free-space optical link operates at 900 MHz with a peak gain of 3.7 dB over a 3 dB bandwidth of 90 MHz. The link also exhibits a wide dynamic range of 89 dB·MHz. This optical data link is the first to function without any active amplification.

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