Abstracts

Interfaces for High-Speed Fiberoptic Links

A.S. Daryoush, N. Samant, E. Ackerman, S. Wanuga and D. Kasemset. "Interfaces for High-Speed Fiberoptic Links." 1991 MTT-S International Microwave Symposium Digest 91.1 (1991 Vol. I [MWSYM]): 297-300.

An analysis of directly and externally modulated fiberoptic links is presented here. The theoretical analysis is based on the signal flow graph of the interface circuits to laser diode, Mach-Zehnder electro-optic modulator, and pin photodiode. The system parameters, such as gain, noise figure, two-tone intermodulation distortion, and dynamic range, are expressed as a function of frequency. Furthermore, fiberoptic link analytical models are compared with the experimental results obtained on custom designed directly modulated FO link at 12GHz and externally modulated FO link at 900MHz.

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