Abstracts

Feedforward Linearization of Analog Modulated Laser Diodes--Theoretical Analysis and Experimental Verification

D. Hassin and R. Vahldieck. "Feedforward Linearization of Analog Modulated Laser Diodes--Theoretical Analysis and Experimental Verification." 1993 Transactions on Microwave Theory and Techniques 41.11 (Dec. 1993 [T-MTT] (1993 Symposium Issue)): 2376-2382.

This paper discusses feedforward linearization of directly modulated laser diodes for AM CATV lightwave transmission systems. Theoretical simulation and experimental results are presented showing a distortion cancellation of better than 20 dB over 850 MHz bandwidth. An investigation regarding tolerance and possible dispersion penalty in the system is performed. A noise analysis is presented including the theoretical examination of laser relative intensity noise (RIN) reduction by feedforward compensation.

❑ Return to main document.