Abstracts

An Enhanced GaAs Monolithic Transimpedance Amplifier for Low Noise and High Speed Optical Communications (1992 [MCS])

J.A. Casao, P. Dorta, J.L. Caceres, M. Salazar-Palma and J. Perez. "An Enhanced GaAs Monolithic Transimpedance Amplifier for Low Noise and High Speed Optical Communications (1992 [MCS])." 1992 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 92.1 (1992 [MCS]): 123-126.

The design, implementation and test results of a simple GaAs Monolithic Transimpedance Amplifier with enhanced performance for high speed optical communications is described. A cascade configuration, improved in terms of bandwidth and noise is used. On-wafer and on-carrier measurements show dose agreement with simulated behavior. Excellent performance with high transimpedance gain, a bandwidth from DC to 1.6 GHz, low noise and low power consumption is obtained. The temperature and bias point sensitivity are negligible. This last fact turns out to be a major commercial achievement.

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