Abstracts

Dynamic Characterization of Optical-Microwave Transducers

T. Berceli, B. Cabon, A. Hilt, A.H. Quoc, E. Pic and S. Tedjini. "Dynamic Characterization of Optical-Microwave Transducers." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1295-1298.

Optical-microwave transducers applying FET devices are investigated to determine their dynamic characteristics. It is observed that the result of the well known frequency response method is differing from the result of a combined test method applying simultaneously a microwave signal and a modulated lightwave for driving the transducer. Based on these investigations a more precise circuit model is established for illuminated FET devices. The new circuit model is well applicable to describe the operation of optical-microwave transducers like mixers, phase detectors, amplifiers, injection locked oscillators, modulators.

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