

Abstracts

The Predicted Signal to Noise Performance of a Photodiode-Distributed Amplifier Optical Detector

C.S. Aitchison. "The Predicted Signal to Noise Performance of a Photodiode-Distributed Amplifier Optical Detector." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 769-772.

This paper calculates the signal to noise ratios obtained from an optical detector consisting of a p-i-n photodiode-grounded source MESFET amplifier and also from a p-i-n photodiode-distributed amplifier combination. Expressions are given for both and compared numerically showing that the distributed amplifier combination is superior by up to 10dB for bandwidths up to 40GHz.

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