

Abstracts

A Novel Microwave Limiter-Discriminator: Design and Analysis

T. Chattopadhyay and M. Bhattacharya. "A Novel Microwave Limiter-Discriminator: Design and Analysis." 1992 Microwave and Guided Wave Letters 2.3 (Mar. 1992 [MGWL]): 108-110.

A new microwave discriminator that incorporates an efficient amplitude limiter is described. The amplitude limiting action is obtained from a pair of low-noise Gunn oscillators synchronized with the input microwave signal. The proposed limiter-discriminator works on the principle of phase-splitting action of the waveguide line as in the case of a passive microwave discriminator. The figure of merit of the proposed discriminator is the highest among the passive and the active discriminators reported in literature. The implementation of the proposed limiter-discriminator can be easily extended to mm wave and sub-mm wave region of the electromagnetic spectrum.

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