Abstracts

Electromagnetic Analysis of Optoelectronic Devices Applied to the Study of a Sampler and an Autocorrelator

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In this paper, an optoelectronic sampler and an autocorrelator are described. The devices are made with microstrip propagation lines, and ultra-rapid photoconductive switches are integrated in the same substrate. These devices are studied along two interacting directions: sampler description and operation, and electromagnetic study. In particular, the electromagnetic study is discussed here. The purpose of the first is to understand the electromagnetic behavior of the optoelectronic sampler. The second study enables us to simulate the autocorrelator operation in order to characterize the ultra rapid photoconductive switch.

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