Abstracts

Guided Surface Waves in Photoconductive Excitation

S.A. Shah, A. Zeng, M.K. Jackson, L. Pouliot, A. Lecours and J.F. Currie. "Guided Surface Waves in Photoconductive Excitation." 1996 Microwave and Guided Wave Letters 6.9 (Sep. 1996 [MGWL]): 309-311.

We have used electrooptic sampling to measure photoconductively generated signals on coplanar striplines. We observe a new feature in the measured signal that we attribute to photoconductively-excited surface waves. Measurements at positions laterally displaced from the center of the transmission line show that when the substrate is thin, this signal is confined to the region of the electrodes. We also show that this feature, which can interfere with accurate device characterization, can be eliminated by delaying it out of the time window of interest.

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