

## Generation and Detection of Picosecond Electric Pulses with Freely Positionable Photoconductive Probes

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*T. Pfeifer, H.-M. Heiliger, H.G. Roskos and H. Kurz. "Generation and Detection of Picosecond Electric Pulses with Freely Positionable Photoconductive Probes." 1995 Transactions on Microwave Theory and Techniques 43.12 (Dec. 1995, Part II [T-MTT] (1995 Symposium Issue)): 2855-2861.*

Two different kinds of external photoconductive probes are investigated in detail. Their dual character in application as generators or detectors of picosecond electric transients is demonstrated. The probes are manufactured on transparent silicon-on-sapphire substrates suitable for on-wafer testing of integrated circuits. A detailed analysis of the freely positionable probes is performed in time domain with respect to linearity, sensitivity, time resolution and invasiveness.

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