Abstracts

A Full Wave Simulation of Disturbances in Picosecond Signals by Electro-Optic Probing

D. Conn, X. Wu, J. Song and K. Nickerson. "A Full Wave Simulation of Disturbances in Picosecond Signals by Electro-Optic Probing." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 665-668.

Disturbances induced in electric fields near coplanar waveguides by electro-optic dielectric sampling probes are studied using a three dimensional FD-TD technique. Probing effects on the waveguide S-parameters are characterized and the signal field distortion in the optical tip is calculated. It is found that probes can have a significant effect on measurement accuracy in the subpicosecond domain, and that optical samples taken near the edge of the probe can result in measurements with less distortion than those taken at the center.

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