Abstracts

Electric field mapping system using an optical-fiber-based electrooptic probe

K. Yang, P.B. Katehi and J.F. Whitaker. "Electric field mapping system using an optical-fiber-based electrooptic probe." 2001 Microwave and Wireless Components Letters 11.4 (Apr. 2001 [MWCL]): 164-166.

A microwave electric-field mapping system based on electrooptic sampling has been developed using micromachined GaAs crystals mounted on gradient index lenses and single-mode optical fibers. The probes are able to detect three orthogonal polarizations of electric fields and, due to the flexibility and size of the optical fiber, can be positioned not only from the extreme near-field to the far-field regions of microwave and millimeter-wave structures, but also inside of enclosures such as waveguides and packages.

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