Abstracts

Terahertz-Bandwidth Characterization of Coplanar Waveguide on Dielectric Membrane via Time-Domain Electro-Optic Sampling

H. Cheng, J.F. Whitaker, T.M. Weller and L.P.B. Katehi. "Terahertz-Bandwidth Characterization of Coplanar Waveguide on Dielectric Membrane via Time-Domain Electro-Optic Sampling." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 477-480.

The propagation of terahertz-bandwidth electrical pulses with low distortion has been demonstrated using an ultra-broadband coplanar waveguide fabricated on durable 1.4-µm-thick membrane substrates. This CPW was characterized using an in situ test-signal pulse generator and an electro-optic sampling technique, which also individually resolved the propagation of even and odd mode waveforms in the time domain. The attenuation and mode-propagation characteristics for this CPW and a CPW on a GaAs substrate are compared.

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