Abstracts

Evanescent microwave probes using coplanar waveguide and stripline for super-resolution imaging of materials

E. Ponchak, D. Akinwande, R. Ciocan, S.R. LeClair and M. Tabib-Azar. "Evanescent microwave probes using coplanar waveguide and stripline for super-resolution imaging of materials." 1999 MTT-S International Microwave Symposium Digest 99.4 (1999 Vol. IV [MWSYM]): 1859-1862 vol.4.

An evanescent field microwave imaging probe based on half-wavelength, microwave transmission line resonators is described. Optimization of the probe tip design, the coupling gap, and the data analysis has resulted in images of metal lines on semiconductor substrates with 2.6 /spl mu/m spatial resolution and a minimum detectable line width of 0.4 /spl mu/m at 1 GHz.

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