Abstracts

Near Electric Field Mapping Above X-Band MMICs Using Modulated Scattering

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This paper presents near electric field measurements above a directional coupler at 10 GHz and a Texas Instruments 220 GHz TGA8310-SCC distributed low noise amplifier at 14.5 GHz. The measurements are performed with a low cost modulated scattering system using 100 µm long monopole probes with monolithically integrated Schottky diodes on a 40 µm thick high resistivity silicon substrate. Normal electric field intensity and phase maps are presented and demonstrates the possibility of using this mapping technique for low cost MMIC diagnostics.

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