# Abstracts

## Time-domain optical sampling of nonlinear microwave amplifiers

*M. Weiss, M. Crites, E. Bryerton, J. Whitaker and Z. Popovic. "Time-domain optical sampling of nonlinear microwave amplifiers." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 889-892 vol.3.*

Time domain measurements of the output waveforms of two 8-GHz high-efficiency power amplifiers are presented. A new photoconductive probe has enabled nonintrusive absolute voltage measurements which confirm switched-mode class-E and F operation. In order to analyze nonlinear amplifiers designed to deliver a sinusoidal wave to the load, voltages at characteristic points inside the circuit need to be known. The high-impedance probe used here is an optoelectronic sampler which can sense the charge on an exposed interconnect or the field associated with a buried interconnect. This field data is then converted into voltage.

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