

Abstracts

Optoelectronic techniques for improved high speed electrical risetime

A.J.A. Smith, A.G. Roddie and P.D. Woolliams. "Optoelectronic techniques for improved high speed electrical risetime." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1501-1504 vol.3.

The NPL optoelectronic system for calibrating high-bandwidth sampling oscilloscopes is described, with emphasis on the importance of accurately defining the impulse response to enable the calibration of fast electrical pulse generators (risetime <15 ps). The problems encountered in determining the waveforms of such pulse generators, particularly aberrations close to the transition and long-term settling, are discussed and a proposal for the application of electro-optic sampling to the measurement of electrical pulse generators is presented.

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