Abstracts

Impulse response measurements with 50-GHz bandwidth

P.A. Schulz and K.L. Hall. "Impulse response measurements with 50-GHz bandwidth." 1999 Microwave and Guided Wave Letters 9.3 (Mar. 1999 [MGWL]): 120-122.

We report on a general technique to characterize the impulse response of a microwave device or network. Very short microwave pulses that approximate an impulse are generated from a mode-locked laser impinging on a fast photodetector. Impulse response measurements have been made with a dynamic range of 40 dB for frequencies up to 50 GHz. A frequency resolution of 50 MHz has been obtained. The accuracy of the measurement is 1 dB in amplitude and 0.1 rad in phase.

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