Abstracts

Pulse Generation and Measurement of Radiated Waveforms from an Optically Activated Impulse Generator

A. Kim, R. Zeto, R. Youmans, M. Weiner, J. Fishback and B. Lalevic. "Pulse Generation and Measurement of Radiated Waveforms from an Optically Activated Impulse Generator." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 1311-1314.

The generation of extremely narrow, high peak power pulses using an optically activated impulse generator has been demonstrated. Radiative measurements at 1 Hz PRF have been conducted by pulse biasing this device up to 15 kV and subsequently triggering the device with an optical pulse from a Nd:YAG laser. The measured pulse from a wide-band antenna had a pulsewidth of 1.5 ns with a risetime of 900 ps. The frequency spectrum of this radiated waveform ranged from 50 MHz to 1 GHz.

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