



High voltage pulse generator.



Waveform acquired with high voltage attenuator.

Rise time from 10% to 90% level: 100 ps
Pulse width at 50% level: 300 ps
Fall time from 90% to 10% level: 250 ps

GENERAL DESCRIPTION:

An all-solid-state, high voltage, low impedance pulse generator is integrated with an electro-optical modulator resulting in an electro-optical system capable of switch times faster than 100 picoseconds.

The generator and the modulator are connected with a coaxial cable, so that generator can be separated from the optical assembly. If necessary, several modulators can be driven by the same pulse generator. These units are custom built and can operate at repetition rates from single shots to 10 kHz.

Pulse duration, voltage and repetition rate are limited by average power delivered to the load. Optical switch times depend on modulator design. Discuss your requirements with NISP Research Projects, LLC. We can configure an integrated electro-optical system optimized specifically for your application.

ADVANTAGES:

- Pulse durations from 150 picoseconds.
- Rise times as fast as 80 picoseconds.
- Half-wave voltage operation is possible.
- Several modulators can be driven by the same generator to reduce costs and ensure jitter-free performance.
- Short duration of high voltage pulses reduces safety hazards and chances of electrical arcing.
- Very long lifetime, low jitter and excellent pulse-to-pulse repeatability due to solid-state design.

APPLICATIONS:

- Picking or slicing of laser pulses with 150 ps time resolution.
- Optical contrast improvement at sub-nanosecond time scale.
- Pulse ejection from optical regenerative amplifiers.
- Formation of optical pulses with 100 ps fronts.
- Time-gated optical detection.

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