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## A 30kV, 200kHz Solid-state Pulsed Power Generator Based on the Drift Step Recovery Diodes

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A all-solid-state high voltage fast risetime high repetition rate pulse generator was developed for the EMP(Electromagnetic Pulse) effects. The pulse generator is based on an opening switch topology that uses Drift Step Recovery Diodes (DSRDs) as the opening switches in an inductive-capacitive storage circuit. The pulse generator is capable of delivering voltage pulses with an amplitude of 30 kV and a risetime of 4ns at a repetition rate of 200kHz to a 50-resistive load. The pulse generator can be used for EMP effects and also in an apparatus for purifying air pollution.

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