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A Simple Line Wave Generator Using Commercial Explosives
JOHN MORRIS, SCOTT JACKSON, LARRY HILL, Los Alamos National Laboratory — A simple and inexpensive explosive line wave generator has been designed using commercial sheet explosive and plane wave lens concepts. The line wave generator is constructed using P1000 and P2000 sheet explosive for the slow and fast components. The design permits the creation of any line width desired. A series of experiments were performed on a 100mm design, measuring the detonation arrival time at the output of the generator using a streak camera. An iterative technique was used to adjust the line wave generator's slow and fast components, and minimize the arrival time deviation. Designs, test results, and concepts for improvements will be discussed.

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