

Abstract Submitted
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A new high-current (200 kA, 200 ns) pulser for x-pinch applications: low-inductance load testing and results ROMAN SHAPOVALOV, Idaho State University — The *x*-pinch *x*-ray radiation has many proved applications in plasma physics, biology and more. However, to produce a “good” reliable *x*-pinch radiation source, the driver has to supply about 1 kA/ns (and more) current into the low-inductance load. We present a short-circuit, low-inductance load test data of a new *x*-pinch driver recently constructed at the Idaho Accelerator Center, which is an evolution of our earlier concepts. Test data reveals that the driver, when charged to 80 kV, can supply about 210-kA peak-current into a short-circuit load with about 210-ns current-rise time. Our driver contains no oil insulation, based on 2-LTD-bricks design combined into one, solid unit, and is very compact and portable.

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