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The Design and Testing of an Inductive Voltage Adder for ALS-U Kicker Magnets

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A 6kV inductive voltage adder has been designed to drive 50 ohm stripline kicker magnets for an upgrade to the Advanced Light Source at Lawrence Berkeley National Laboratory to a diffraction limited light source. Several features were included in the design to allow damping of potential oscillations and optimizing the rise and fall times. A prototype of this inductive voltage adder has been fabricated and tested into a 50 ohm resistive load to characterize system performance. The design and test results will be presented.

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