

Abstract Submitted
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High Current Arc Modulation with Solid-State Switching Power Supply KENNETH E. MILLER, SETH ANDERSON, JIM PRAGER, TIMOTHY ZIEMBA, Eagle Harbor Technologies, Inc. — Modulation of high current arcs is important for both research and industrial applications. Eagle Harbor Technologies, Inc. (EHT) has constructed a test system using an EHT Nanosecond Pulser to initiate the discharge and four EHT Integrated Power Modules (IPM) to drive and modulate the current in the arc. The EHT Nanosecond Pulser can produce high voltage pulses up to 20 kV with adjustable pulse width (30 – 250 ns), and high pulse repetition frequency (10 kHz). The EHT IPM is a solid-state high current switch that can be operated at several megahertz. We will present the circuit diagram, test setup, and waveforms demonstrating current modulation at high frequency (2 MHz).

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