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8.46 Solid State Streak Camera Prototype Electronic Performance Testing and Improvements to Dynamic Range

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Streak Cameras are an essential diagnostic tool used in shock physics and high energy density physics experiments. Such experiments require well calibrated temporally resolving diagnostics for studying events that occur on the nanosecond to microsecond time scales. The Nevada National Security Site (NNSS) and Sandia National Laboratories (SNL) have built a 42-channel solid state streak camera (SSSC) prototype as a proof of concept for use as a streak camera replacement. This work is part of an ongoing project to develop the technology to a level competitive with analog streak cameras. The device concept, results from electronic testing and recent improvements to increase the device's dynamic range will be discussed in this poster. DOE/NV/03624-0023

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