Abstract Submitted for the 4CF09 Meeting of The American Physical Society

Precise Characterization of a Laser Current Driver DAYLIN TROXEL, Brigham Young University — I will be presenting a characterization of our unique low-noise laser current driver. Our current driver improves on the typical model used in laboratories, giving extra current stability and lower noise. I will discuss our techniques for measuring the noise and drift and the results we obtained. The current driver has a lower noise and drift than any other current driver with a published value, so it has value in making precision measurements. Many other labs have expressed interest in our design as there is a need for this type of current driver in many applications. The current driver demonstrates some interesting applications of electronics principles and uses of electric components, as well as practical considerations in designing circuitry.

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