

Abstract Submitted  
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**Compact Laser System for Field Deployable Ultracold Atom  
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As ultracold atom sensors begin to see their way to the field, there is a growing need for small, accurate, and robust laser systems to cool and manipulate atoms for sensing applications such as magnetometers, gravimeters, atomic clocks and inertial sensing. In this poster we present a laser system for Rb, roughly the size of a paperback novel, capable of generating and controlling light sufficient for the most complicated of cold atom sensors. The system includes >100dB of non-mechanical, optical shuttering, the ability to create short, microsecond pulses, a Demux stage to port light onto different optical paths, and an atomically referenced, frequency agile laser source. We will present data to support the system, its Size Weight and Power (SWaP) requirements, as well as laser stability and performance.

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