LASER HEATER CONTROLS OVERVIEW AT THE LINAC COHERENT LIGHT SOURCE

M. Boyes, SLAC, Menlo Park, California

Abstract

The Linac Coherent Light Source has commissioned the worlds first electron beam Laser Heater system. The LCLS Laser heater has become a vital FEL component to suppress microbunch instabilities and coherent synchrotron radiation effects. The Laser Heater control system consists of electron beam chicane, undulator magnet, IR-Laser system, laser optics stages and multiple diagnostics. Crucial lessons were learned during the design, testing and commissioning.

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