
Advanced Solid State Laser Systems for Space Tracking

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Abstract

A new generation of advanced solid state laser systems has been developed at EOS for space tracking applications.

A completely diode pumped laser system consisting mode-locked laser oscillator, regenerative amplifier, power amplifier and non-linear device with 10 pico-second pulse width has been developed for satellite laser ranging.

A multi-stage and multi-channel completely diode pumped laser system consisting single frequency oscillator, pre-amplifiers, power amplifiers, SBS cells and imaging relays with 2 nano-second pulse width and 230 W output power has been developed for tracking space debris.

Both systems have been in service for more than 2 years with excellent performance and reliability.