

FEATURES

- InGaAs or Silicon Photodiode High-Speed Misalignment Sensing:
 - Integrated IR LED Self-Test
 - Digital Control of Gain and Threshold via Nonvolatile Digital Potentiometers
- Package designed to sit below laser beam in an up looking configuration
- Thermal Camera for Monitoring Optic and Mount Heating
- Two K-Type Thermocouple Inputs for Point Temperature Monitoring
- Two Megapixel Visible Camera with Integrated RGB LED Illumination for Optic Inspection
- Analog 5V Output for HWAS Integration Controlled by thresholded Photodiode or temperature exceeded on Thermocouple or Thermal Camera.
- Simplified TCP Server Ethernet Interface with Power Over Ethernet (PoE)
- Simple GUI Software Example Ready for System Integration

APPLICATIONS

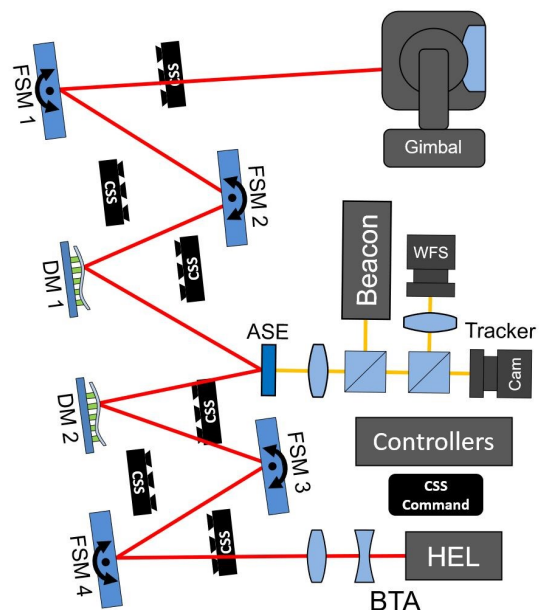
- High Energy Laser Systems
- High Power Laser Weapons

DESCRIPTION

AOS has expanded upon traditional hardwired abort systems and created an affordable and comprehensive product that is a safety checkout system, observation system and emergency abort system in one unit: The Consolidated Safety Suite (CSS). Our complete system employs a compliment of sensors that remotely observe an optical system for safe operation and minimize the complexity of implementing a safety system. The CSS system is comprised of a command unit and multiple individual sensor units. It is designed to be an affordably scaled system that is customized to each laser weapon system's needs.

The individual CSS sensor units are small (5.25 L x 2.13 H x 2.25 W) and can be placed throughout a laser weapon system and under a beam path to ensure the safety of all key optics and components. The individual units are designed to quickly detect issues inside the laser system and shut down operation if any systems thresholds are triggered. Each individual sensor unit contains a visible camera, thermal camera, high-speed photodiode (PD), IR Source, RGB LEDs for Scene Illumination, and two thermocouples.

CSS Sensor Unit



CSS System Integration Example

SPECIFICATIONS

Parameter	Value
Dimensions (inches)	5.25 L x 2.13 H x 2.25 W
Power	PoE
Mounting	3x 1/4-20 holes
Angle of View	Adjustable (+15-+30 Degrees)
Material	Aluminum
Thermal Camera	FLIR Lepton (80x60)
Thermocouple	2x K-Type
Visible Camera	2x Megapixel
LED	Red/Green/Blue (RGB) LED
Photodiode	InGaAs & Silicon
HWAS Signal	Analog 5V Output
Multiple Unit Interface	Daisy Chained M8 HWAS Ports

