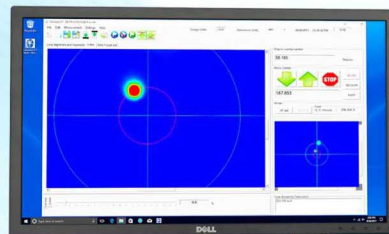




# Opto Alignment

## ***LAS-P/UP/XUP-IR™*** ***Industry First 4-Color Alignment System***

- The Most ACCURATE and POWERFUL Infrared (IR) Alignment System Available
- Alignment and Inspection of Larger IR Lens Assemblies with Sub-Micron Accuracy
- Quantum Cascade Laser with Single Mode Optical Fiber Transport
- Lens Thickness and Air Gap Measurement
- Blue / Green / Red / NIR / SWIR / MWIR / LWIR Lasers
- Multi Lens Capable
- Optional Non-Contact TIR Sensor



Designed and Built in the USA



Alignment and inspection of assembled IR lenses is now possible at sub-micron accuracy with the IR Laser Alignment Station™. The LAS-P/UP/XUP-IR™ is designed as a dual use assembly/inspection station utilizing a combination of 4.05µm MWIR and 9.50µm LWIR software-controlled, variable power quantum cascade lasers (0.1mW to 10mW at the objective) as well as optional SWIR (1550nm), NIR (850/940nm) and Visible (450/520/660nm) diode lasers. Patented LAS design allows assembly/inspection of visible and IR lens systems with radii ± 1mm to infinity without changing objectives.

**CalcuLens™ Inspection Software with LAS-P/UP/XUP-IR™ allows measurement accuracy < 1.0 µm:**

- Top surface centration (µm) or tilt (arcsec): Normal and confocal reflections
- Bottom surface centration (µm) or tilt (arcsec): Normal and confocal reflections
- Overall lens optical axis (µm) and wedge/tilt (arcsec)
- Centration (µm) and tilt (arcsec) of any lens surface in finished assembly (some reflections may not be visible due to AR coatings, lens CT, air gaps, etc)

■ Blue 450nm    ■ Green 520nm    ■ Red 660nm    ■ NIR 850/940nm  
■ SWIR 1550nm    ■ MWIR 4.05µm    ■ LWIR 9.50µm

