



■ Harris and 4D Technology developed the Large Aperture Beam Expander

Large Aperture Beam Expander

BENEFITS

- Eliminates chromatic errors with reflective optics design for visible and IR band measurements
- 4D Technology's simultaneous phase shifting technology eliminates the need for piezo shifting large optics
- Measurement of gratings with linearly polarized interferometer beam
- Minimized environmental impacts to beam expander with enclosed optical path
- Low thermal expansion of reference and transmission flats minimizes impact of temperature fluctuations
- Assured performance at an affordable price
- Long system life with strain-free optical mounts
- High-precision optic capabilities ensure your mission's success

The Harris Large Aperture Beam Expander provides high quality, collimated visible to infrared wavelength light sources for optical metrology applications. This solution is ideal for optical component fabricators that demand assured quality and performance while looking for affordability and flexibility.

The Large Aperture Beam Expander operates at multiple wavelengths to provide high-resolution measurements that are insensitive to vibrations and turbulence. Together with 4D Technology, Harris has developed a beam expander line that fully integrates with multiple 4D interferometer configurations, including 4D's instantaneous phase shifting interferometers.

METROLOGY SYSTEMS APPLICATIONS

- Measurement of large optical flats, windows and diffraction gratings
- Systems requiring minimal environmental impacts on measurements
- Users requiring no polarization effects
- Visible and IR wavelengths

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Large Aperture Beam Expander

KEY FEATURES

Optical Assemblies Included	Enclosed Beam Expander, Fused Silica Transmission Flat (TF), and Low CTE Reference Flat (RF)
Performance	TF and RF measurement surfaces <12.6nm rms /<0.02 λ rms at 632.8nm
Standard Wavelengths (nm)	633, 660, 1053, 1064
Standard Clear Apertures	800mm / 32 in., 600mm/24 in., 450mm/18 in.
Adjustability	Motorized tip/tilt RF and TF controller
Alignment	Included with interferometer realignment reference
Delivery, Setup and Calibration	Included
Options	Rotating Flat, Air Ride Reference Flat, 3rd Flat Assembly, Custom Wavelengths and Apertures, Vibration Isolated Test Optic Bench, Calibration Services, Specialized Coatings, Clean Room Compatibility

Harris is dedicated to developing best-in-class *assured communications*[®] products, systems and services.

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