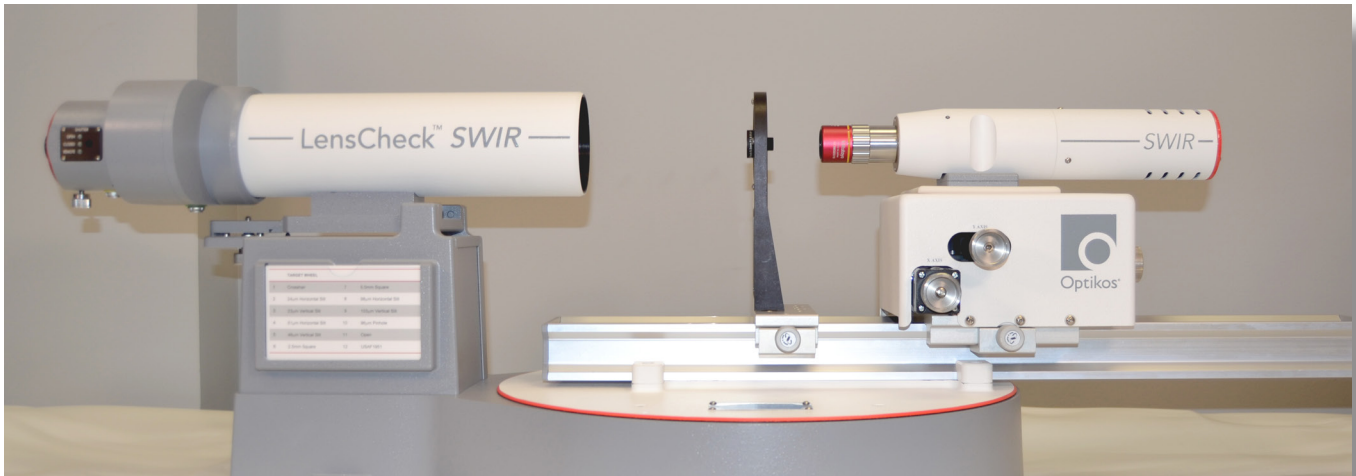




The Optical Engineering Experts®

POWERED BY OPTEST® SOFTWARE

LensCheck™ SWIR System



In addition to the LensCheck VIS and LensCheck LWIR systems, Optikos offers the LensCheck SWIR system for measurements on lenses in the SWIR (0.9 - 1.7 μm) spectral band. As this spectral region becomes increasingly important in security and automotive applications, Optikos has recognized the need for standardized lens metrology instruments that can be used to characterize lenses intended for these applications. The LensCheck SWIR system is powered by the same industry-leading OpTest 7 software that is used on all LensCheck and OpTest systems. The LensCheck SWIR system is typically configured as a stand-alone system for measuring SWIR lenses, but the SWIR components can also be added as an upgrade to existing LensCheck VIS and LWIR systems.

LensCheck™ SWIR Features

- Patented VideoMTF® technology enables real time MTF measurements
- Flexible platform allows a wide range of measurements (e.g. MTF, EFL, distortion)
- Industry leading measurement accuracy and repeatability
- Configurable automated measurement routines
- LensCheck platform installed in production and R&D facilities around the world

Available Measurements

- MTF - on/off axis
- EFL and F/#
- Back focal length
- Astigmatism
- Field Curvature
- Distortion
- Line of Sight (optional)

SWIR Options

- Line of Sight (Requires Rotary Lens Mount Accessory)
- Rotary Lens Mount
- AL-075 - SWIR Audit Lens

Specification	VIS	SWIR	LWIR
Physical Size	15" (355mm) H; 30" (762mm) W; 48" (1219mm) L		
Power Requirements	100~240 VAC 60/50 Hz; Computer 8/5a, Monitors 0.6A each, DC Power Supply 1.6A, Light Source 2/1A		
Environmental	Optimal performance is achieved in a dark room.		
Refractive Collimator	Refractive Collimator 355mm, 50mm clear aperture (Others available based on lens under test focal length)		
Motorized Z-axis	25mm travel 0.1µm resolution		
Motorized X-axis	25mm travel with 0.05µm resolution glass scale encoder.		
Manual Y-axis	12.5mm travel		
Motorized Lens Platform	± 100° off-axis rotation; 0.0001° resolution glass scale encoder; 0.5m optical rail; self-centering lens mount.		
Source Module	Fiber optic light source: 400-1000nm Electronic shutter enables automatic background corrections 8-position manual target and filter wheels Target set: pinholes, USAF 1951 and alignment target Filter set: photopic, 546nm bandpass, infrared cutoff, and RGB set	Fiber optic light source, 400-2000nm Light guide with enhanced transmission in the SWIR spectrum Electronic shutter enables automatic background corrections 12-position motorized target wheel Target set: slits, pinholes, and alignment target Filter: 0.9 - 1.7 µm bandpass	Broadband emitter: 7-15 µm Electronic shutter enables automatic background corrections 12-position high-speed motorized target wheel Target set: slits, pinholes, crosshairs, and alignment target Filter: 8-12µm bandpass
Image Analyzer	GigE Camera with improved sensitivity, dynamic range, and noise characteristics; 6MP (or greater); 4.5µm pixel size (typical); 12-bit digital video. Calibrated 40X 0.65NA achromatic objective.	InGaAs camera 640x512 format Spectral responsivity 0.9 - 1.7µm NIR apochromatic tube lens Calibrated 20X 0.40NA NIR Apochromatic objective	Uncooled microbolometer 640x512 format Spectral sensitivity 7.5-15 µm Calibrated 7.5X 0.70NA relay lens 14-bit video output

Video SWIR is subject to compliance with U.S. export control requirements.



Get Started with Optikos

Optikos offers metrology products and services for measuring lenses and camera systems, as well as engineering design and manufacturing for optically-based product development. Our standard products are suitable for any industry or application, and we will design a custom product for your specific needs. Learn more at optikos.com.

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