

Specification

Configuration	INTERFIRE II 10.6
Description	LWIR Twyman-Green unequal path interferometer
Acquisition Mode	Temporal phase shifting
Alignment Mode	Visible alignment laser
Wavelengths	LWIR 10.6 μ m or 10.3 μ m-10.8 μ m tuneable or 9.1 μ m-10.9 μ m tuneable
Maximum Output	Test lasers: <400mW Alignment laser: < 45mW at 633nm
Maximum Cavity Length	> 30 m
Beam Diameter	30.0mm collimated
Polarization	Linear
Pupil Focus Range	800mm
Pupil Magnification	1x to 4x
Camera	High resolution 320 x 240 uncooled microbolometer focal plane array
Motorized Controls	Zoom, Focus, Tip-Tilt Reference Mirror
Additional Option	Beam Attenuation (manual) for low reflectivity test surfaces
Computer System	Minimum Dual Core 2 GHz processor, 1 GB RAM, 160 GB hard drive CDRW, DVDRW, 19 in LCD monitor, keyboard, mouse, frame grabber
Operating System	Windows XP®
System Software	μ Shape™ and FastFringe™ from FISBA OPTIK μ Shape™ Phase Shifting data acquisition FastFringe™ instantaneous data acquisition Fringe contrast controlled via camera and frame grabber settings Reference generation, subtraction, data averaging, masking 2D and 3D surface maps Zernike / Seidel / Slope / Geometric / Fourier Analysis Absolute sphere, aspheric analysis, prism & corner cube analysis, multiple aperture analysis
Physical Envelope	Base Unit with internal LWIR laser L67.5 x W26.0 x H28.0cm
Weight	35kg
Power consumption	720Watts
Temperature Range	Operational: 10–30°C, stability +/-2°C, non-condensing Storage: 5–45°C, non-condensing
Warranty	One Year, limited, on-site system installation and operator training
Options	
Beam Expanders	Range of beam expanders available on request from x3 to x 10 magnifications
Transmission Spheres	Range of transmission spheres available on request from f#0.65 and f#8.0
Sample Reflectivity	Low reflectivity 1 to 10%
System Software	Add-on Modules to μ Shape™ including homogeneity of optical materials, cylinders, torics, & fiber connector analysis
System Performance	
Acquisition Rate	μ Shape™ 0.16secs to 1.33secs FastFringe™ 20millisecs
Sample Reflectivity	10 to 100%
PV Accuracy	μ Shape™ with active calibration: wave aberration < λ /50 (typically λ /100); surface deviation < λ /100 (typically λ /200) FastFringe™ wave aberration < λ /20 (typical λ /TBA); surface deviation < λ /40 (typical λ /TBA)
RMS Repeatability	μ Shape™ with active calibration: wave aberration < λ /100 (typically λ /500) FastFringe™ wave aberration < λ /50 (typical λ /TBA)

All specifications subject to change without notice