

INTERFIRE II 1.55 INTERFEROMETER

The INTERFIRE II 1.55 has been designed to meet the increasing needs for testing optical systems operating in the near infrared at 1.55 micron wavelength. Optical systems for use at 1.55 microns are highly popular because the radiation at this wavelength is partially eye-safe.

The instrument features an optimised fringe detection system which offers excellent signal-to-noise resulting in high sensitivity and more accurate measurements. A CCD camera with NIR conversion optics and glass lenses and mirrors is used instead of the III-V material lenses and mirrors that are normally used in IR interferometers. The high resolution near infrared converter between a large format lens and the camera converts the 1.495 - 1.595 micron wavelength band to wavelengths detectable using standard CCD cameras without fading or lag during use. A large format anti-reflection coated input window ensures maximum image resolution is transferred to the attached CCD camera. A comprehensive range of accessories is available and the INTERFIRE II 1.55 can be used for static or phase shift fringe analysis for the highest degree of precision.



the INTERFIRE II 1.55 interferometer

Applications

- Ranging systems
- Designation systems
- Scene illumination systems for surveillance
- Communications industry

Benefits

- 1.55 μm wavelength
- High sensitivity for high quality fringes
- Accurate measurements
- Static and phase measurement fringe analysis software
- Remote control operation
- Full range of accessories

SPECIFICATIONS

INTERFIRE II 1.55	
Type:	Twyman-Green Unequal Path Interferometer
Wavelength:	1.55 microns
Dimensions:	675 mm (l) x 260 mm (w) x 280 mm (h)
Weight:	30kg approx.
Laser Source	High performance diode laser
Clear aperture:	Nominally 35 mm (greater than 31.5 mm guaranteed). Expandable with accessories
Fringe detection:	Focal plane array with fringe contrast adjustments
Display:	CCIR compatible or as specific user requirements
Alignment:	Integral co-linear visible HeNe laser
Optical zoom:	Continuously variable x 1 - x 3
Remote control:	Full control of reference mirror tilt/tip Diode & HeNe lasers on/off, standby, aperture focusing, optical zoom, phase shifting fringe analysis
Accuracy (PV):	STATIC: $\lambda/20$ PHASE: $\lambda/50$
Repeatability (PV):	STATIC: $\lambda/50$ PHASE: $\lambda/1000$
Data acquisition time:	STATIC: 0.04 sec PHASE: 0.167 - 1.33 sec
Min. hardware:	Pentium® computer with maths processor, vacant expansion slot for framegrabber board

Accessories

- Aperture converters to increase the 35 mm output beam diameter
- Reference flats ($\lambda/20$)
- Transmission spheres ($\lambda/10$)
- Reference spheres ($\lambda/20$)
- Collimating lenses
- Off-axis parabolas
- Attenuators
- Precision mounts
- Vertical configurations
- Upwards/downwards looking options
- Static and phase measuring fringe analysis systems

For further information about infra-red interferometers and their applications please contact our sales department



PRECISION-OPTICAL ENGINEERING

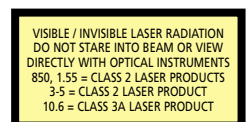
Precision Solutions

PB75A, MBDA, Six Hills Way, Stevenage, SG1 2DA, UK.

Tel: +44 (0) 1438 754477 Fax: +44 (0) 1438 755198

A Business Centre of MBDA

www.p-oe.co.uk/



MBDA
PRECISION SOLUTIONS