

# LEOI-20 Michelson Interferometer



- *Stable steel base*
- *Smooth mirror movement*
- *Precise measurement*
- *Large optics*
- *Easy operation*
- *Comprehensive documentation*
- *Cost effective*

The Michelson interferometer is still an important instrument in today's physics laboratories and is often the first to be introduced to students for understanding the beam interference, an important wave property of light.

The Michelson interferometer produces interference fringes by splitting a beam of monochromatic light so that one beam strikes a fixed mirror and the other a movable mirror. When the reflected beams are brought back together, an interference pattern results.

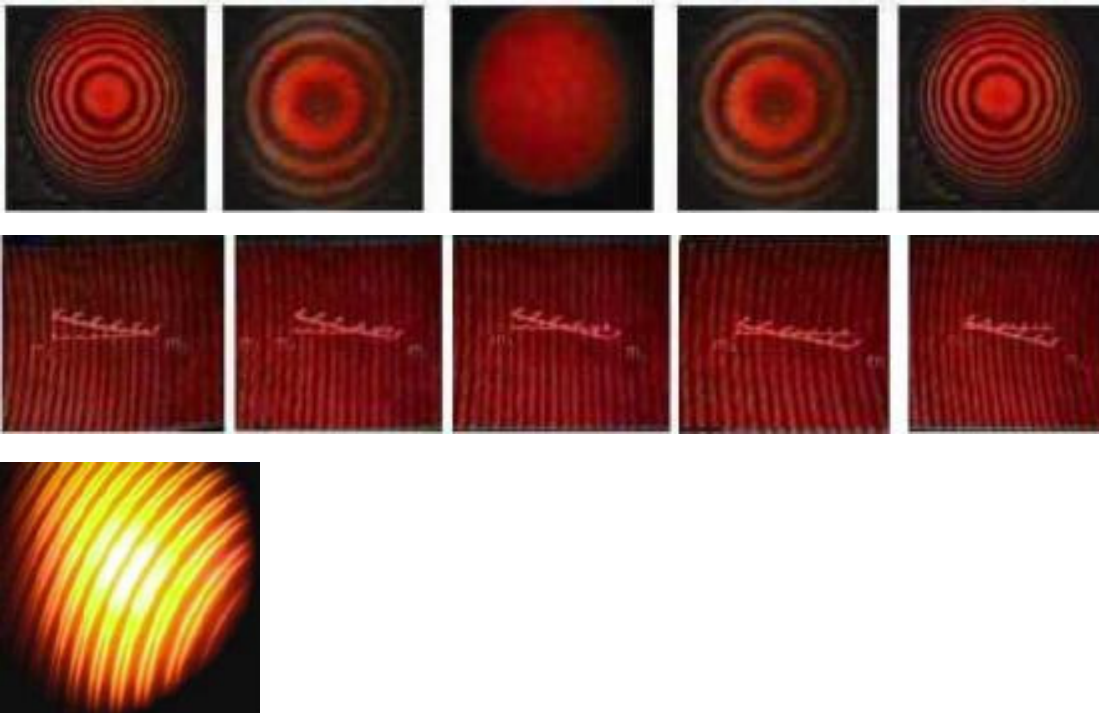
It can be used for observing interfere fringes and precisely measuring wavelength, distance and index of refraction.

## Specifications

Flatness of Beam Splitter and Compensator	0.05 $\lambda$
Travel of Movable Mirror	0.625mm
Minimum Travel Reading	0.00025mm
Sodium-Tungsten Lamp	Sodium/10W and Tungsten/15W
He-Ne Laser	0.7-1mW@632.8nm
Wavelength Measurement Accuracy	Relative error of 2% for 100 fringes
Air Chamber with Gauge	Chamber length of 80mm, gauge: 0 ~ 40Kpa

## Experiment Examples

- Interference fringes of He-Ne laser
- Equal inclination interference and equal thickness interference
- Wavelength measurement
- White light fringes (with optional item 6)
- Measurement of wavelength separation of Sodium doublet (with optional item 6)
- Measurement of the refractive index of air versus pressure (with optional item 7)



## Parts Included

Description	Specs	Qty	Note
Interferometer main frame		1	
He-Ne laser	0.7-1mW@632.8nm	1	
Laser holder		1	
Frosted glass screen	φ60mm	1	
Instruction Manual		1	
Sodium-Tungsten lamp	Sodium: 10W, Tungsten: 15W	1	Optional
Air Chamber with Gauge	Chamber length of 80mm, gauge: 3 ~ 40Kpa	1	Optional