

# LEOI-200 Fourier Transform Spectrometer

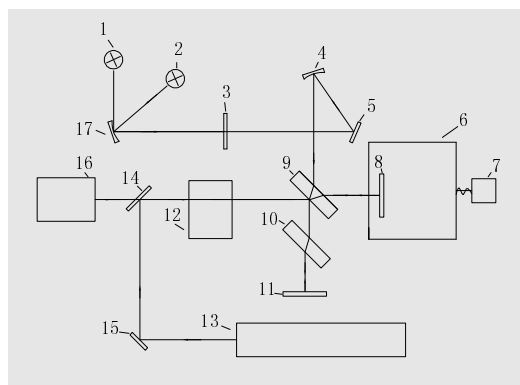


- *Wavelength range:  
400 to 800 nm*
- *Open structure*
- *Ideal for demonstration*
- *Two built-in light sources*
- *Accept external light source*
- *Spectrum resolution: 1nm*

Fourier Transform Optics has become an important branch of modern optics. The understanding of the application of Fourier transform optics is an advanced part of optics teaching in universities and colleges.

LEOI-200 Fourier Transform Spectrometer is designed to demonstrate the measurement of the spectrum of the light sources by means of Fourier Transform. It adopts an open structure of the optical path and measurement in visible spectrum (400 to 800 nm), which makes it ideal for demonstration of a Fourier Transform.

## Schematic



1: External light source	10: Compensating plate
2: Built-in Bromine Tungsten Lamp	11: Fixed mirror
3: Variable aperture	12: Receiver 1
4: Collimating mirror	13: He-Ne laser (reference)
5: Flat mirror	14: Beam splitter
6: Precision translation stage	15: Flat mirror
7: Servo motor	16: Receiver 2
8: Movable mirror	17: Switching mirror
9: Beam splitter	

## Specifications

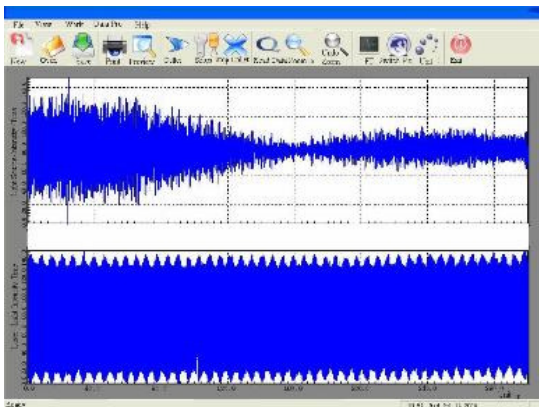
Wavelength Range	400 to 800nm
Wavelength Resolution	1nm
Wavelength Accuracy	1nm

## Features

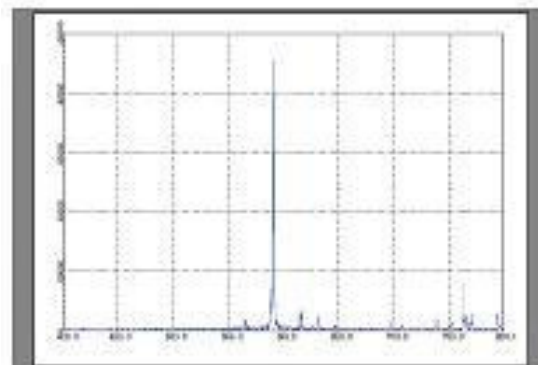
A Fourier transform spectrometer is Michelson interferometer with a movable mirror. By scanning the movable mirror over some distance, an interference pattern which encodes the spectrum of the light source, is produced. The spectrum of light source can be derived by performing a Fourier transform of the acquired signal.

- Two built-in light sources: reference source of He-Ne laser and Bromine Tungsten lamp.
- The measurement of external light sources is available
- Powerful Window application software with a lot of different functions
- USB interfaced

## Example



The interference pattern of a sodium lamp



The derived spectrum of a sodium lamp

## Parts Included

Description	Qty
Fourier Transform Spectrometer	1
6-Axis Kinematic Optic Mount	1
Beam Expander (f = 4.5 mm)	1
Power cord	1
USB Cable	1
Software CD	1
User Manual	1