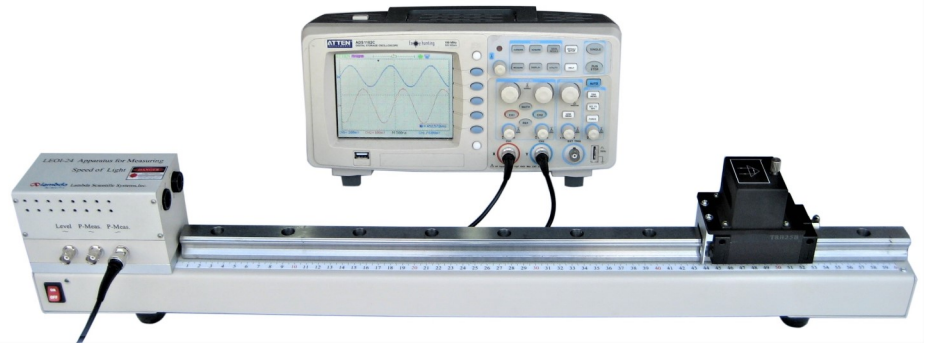


LEOI-24 Measurement of Speed of Light

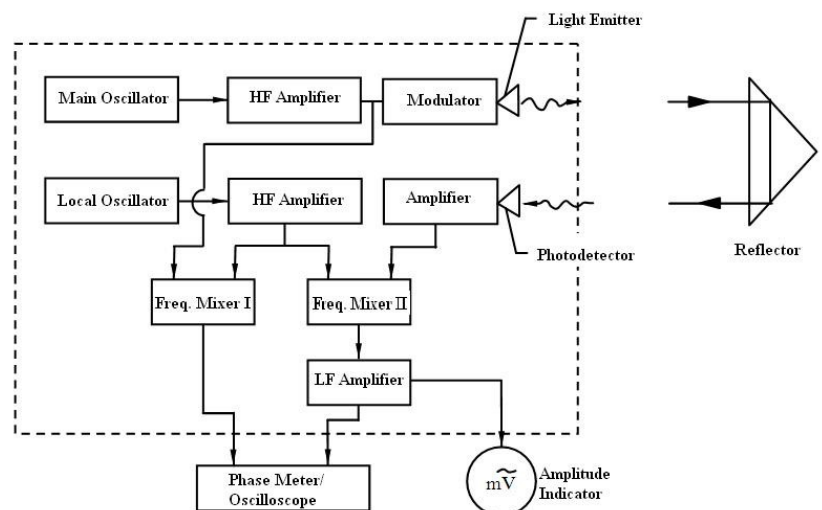


Note: oscilloscope not included

- Phase method with high accuracy
- Refractive index measurement
- Optional media tube

This experimental system is designed to measure the speed of light in air/media using the well-known phase method. It employs a 100 MHz intensity-modulated optical beam. By measuring the corresponding phase difference between two modulated optical signals of short and long traveling distances, the speed of light can be determined.

In addition, it can be expanded to measure the refractive index of various media such as organic glass, synthetic quartz, and various liquids by using an optional media tube.



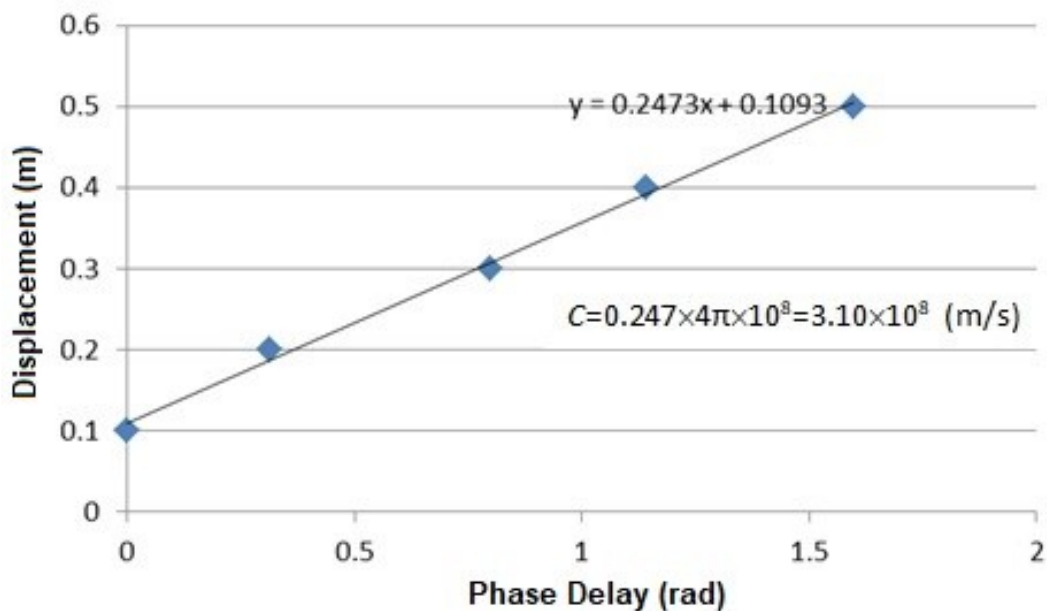
Schematic of frequency conversion and measurement

Specifications

Light Source	Diode Laser @ 650 nm
Apparatus Length	0.8 m
Signal Modulation Frequency	100 MHz
Phase Measurement Frequency	455 kHz
Length of Variable Optical Path	0~ 1.0 m (retroreflector travel 0~0.5 m)
Measurement Error	≤ 2%

Part List

Main Unit	1
BNC Cable	4
Manual	1
Optional Transparent Liquid Tube with Support Carriers	1



Displacement versus phase delay

Note: above product information is subject to change without notice.