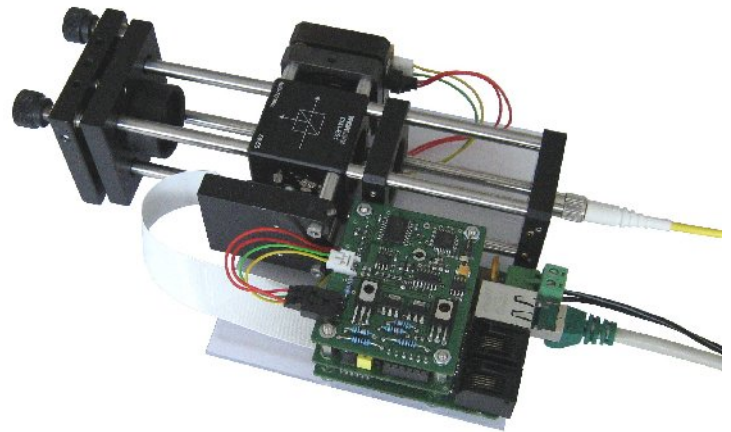




compact digital phase-shifting Interferometer

This digital phase-shifting interferometer is developed for cost-effective OEM solutions. It has a compact size and operates with a single supply voltage. Ideal for space and power limited applications, can measure flat spherical and some aspheric surfaces. The image sensor is synchronized with phase shifting element to minimize acquisition time. Interferometer works with external coherent laser source, connected via fiber coupler. It makes possibility to use laser with desired wavelength and stability. For control and image capture Fast Ethernet interface is used. Integrated HTTP server provides simple tuning and testing, works with all popular Web browsers. Additional expansion serial interface allows to connect auxiliary devices (X-Y or rotation tables, attenuators, zoom objectives, etc.) to create full automatic system.



Features

- Dimension without connectors 140x125x55
- Single power supply 10...12V
- Typical power consumption 2.5W
- FC/PC fiber coupler for external coherent laser source
- Can be adjusted for 400...700nm wavelength
- Compatible with popular 30mm optical cage systems.

Image sensor

- Type: Gray-Scale CMOS image sensor
- Pixel size: 5.2µm x 5.2µm (5mm image area)
- Resolution: 1.3Mp, 1280x1024, 10bit
- Programmable gain and exposition time
- Pixel binning and skip modes

Interfaces

- 1x 10/100Mb Fast Ethernet
- 1x RS232 (used as console)
- 1x RS485 (expansion serial interface , optional RS232)

Library

Open-source, platform independent, socket based image capture and control library. Can be used with most popular programming languages (C, C#, Python, Matlab, etc.).

Free Analysis Software

The interferogram analysis software uses Python script language. It extends Python with C control and mathematical modules, provides fast image capture and short OPD calculation time. Scripts are very flexible and designed for easy integration into a labour or workshop automatic optical measuring systems.

Free GUI

In additional Free Qt4 based Graphical User Interface for Windows and Linux is provided. It can be used together with Python interferogram analysis software to control interferometer, start measurements and represent results in a graphical form.

