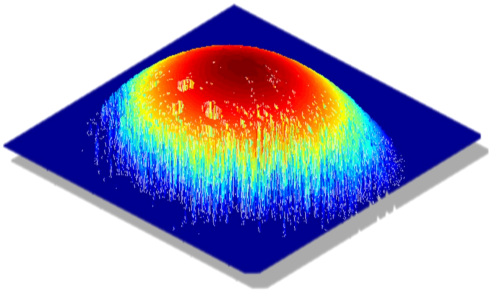
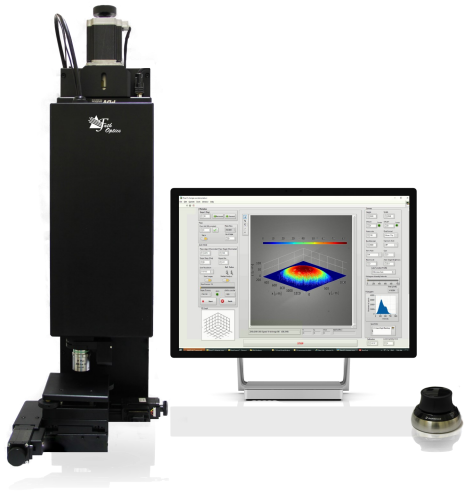
3D Optical Profilometer and nan-thickness measurement





This device is known as a strategic device in various fields such as metallurgy, mechanics, science and pharmacy. This device operates in two modes of White Light Microscopy Interferometry and Phase Shift Interferometry and characterized surfaces in sub-micron and nanometer dimensions. Since the device is based on optics, it is a non-destructive and non-invasive method. The features of this product include precision imaging of complex specimens imaging better than 5 nm in depth and thin film thickness of 30 nm to 1 mm. Here are some of the uses of this device.

- This device is a critical application in mechanics to study surfaces and determine the quality of curved surfaces. Using the two modes of the device simultaneously, the form and the spherical diameter of the surfaces can be determined with the determination of the surface texture in nm scales.
- In biomedical imaging samples, such images provide more complete and accurate information from the sample. This device has a wide range of applications in terms of micron and nano dimensions, and is widely used in this field.

3D Optical Profilometer Specifications

Model	SSP-001
3D surface measurement method	white light Scanning interferometry Phase transmission interferometry
objective lens	Mirao and Linik - 10x, 20x, 40x and 50x (depending on the design)
Field of view (objective x10)	$1 \times 1\ mm^2$
Camera	5 Mpixels, monochrome
Axial Accuracy	< 5 nm
Lateral Accuracy	< 630 nm
Repeatability	< 100 nm
Sample reflectivity	4٪ - 100 ٪
Axial displacement type	Piezoelectric
Central wavelength of light source	620 - 650 nm

In summary, the competitive advantages of the 3D Optical Nano Profilometer device made by the **Fathoptics** knowledge-based company compared to other devices such as AFM and various types of contact scanning microscopes can be briefly as follows:

- Non-contact and non-destructive.

- Determining the 3D surface of the sample, entirely.

- 3D determination of features such as fractures, stairs, and rapid changes in height in the sample.

- High data collective rate compared to other similar products.