EOTECH
more for science

MiniSURF

Ex-vivo 3D imaging system
for micro-surfaces analysis

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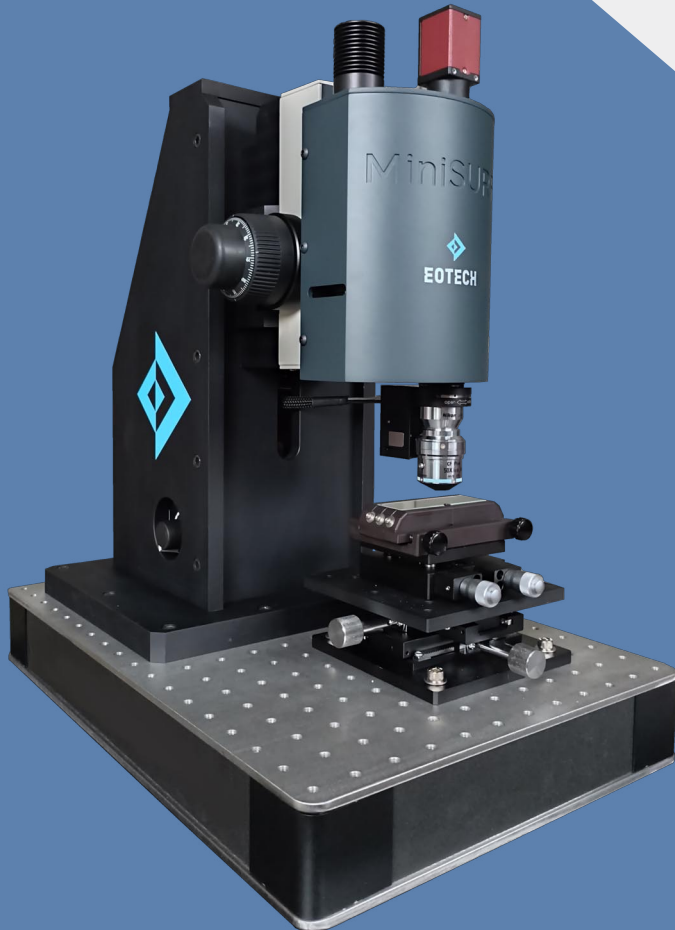
Product description

Technology — MiniSURF is a full field optical profilometer, based on phase shifting interferometry. This microscope combines a black and white camera, a 50x high end interferometric lens, a LED light source and a high accuracy piezo electric motor. The optical head is mounted on a robust column fixed on a passive antivibration table.

Main features — No sample preparation is required. Being based on non contact techniques, it is a non destructive measurement. Its unique algorithm provides both contrast images and calibrated sufrace measurements and especially roughness parameters according to linear profiles, making it a perfect tool for hair surfaces state measurement.

Software — The MiniSURF software will guide the user to acquire the surface structure, and will calculate parameters like profiles and surface roughness, structure porosity and other parameters. The software allows to visualize contrast image and surface topography with stuning rendering, in order to illustrate clinical studies and to support the associated cosmetic claims for hair care products.

Applications

Single hair measurement:
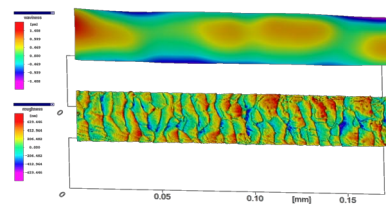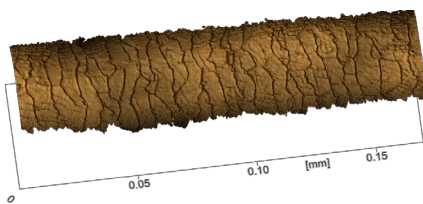
- Illustrations
- Scale and damages

Cosmetic claims:

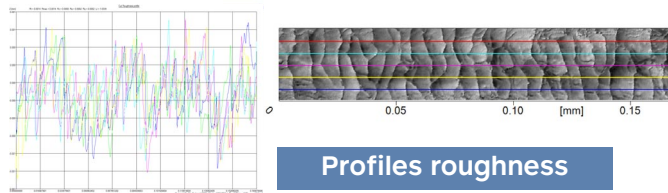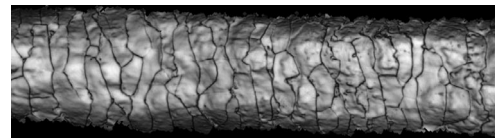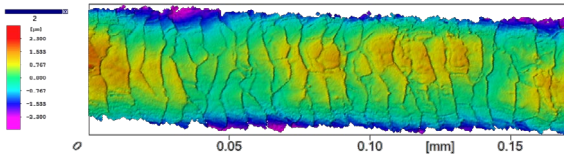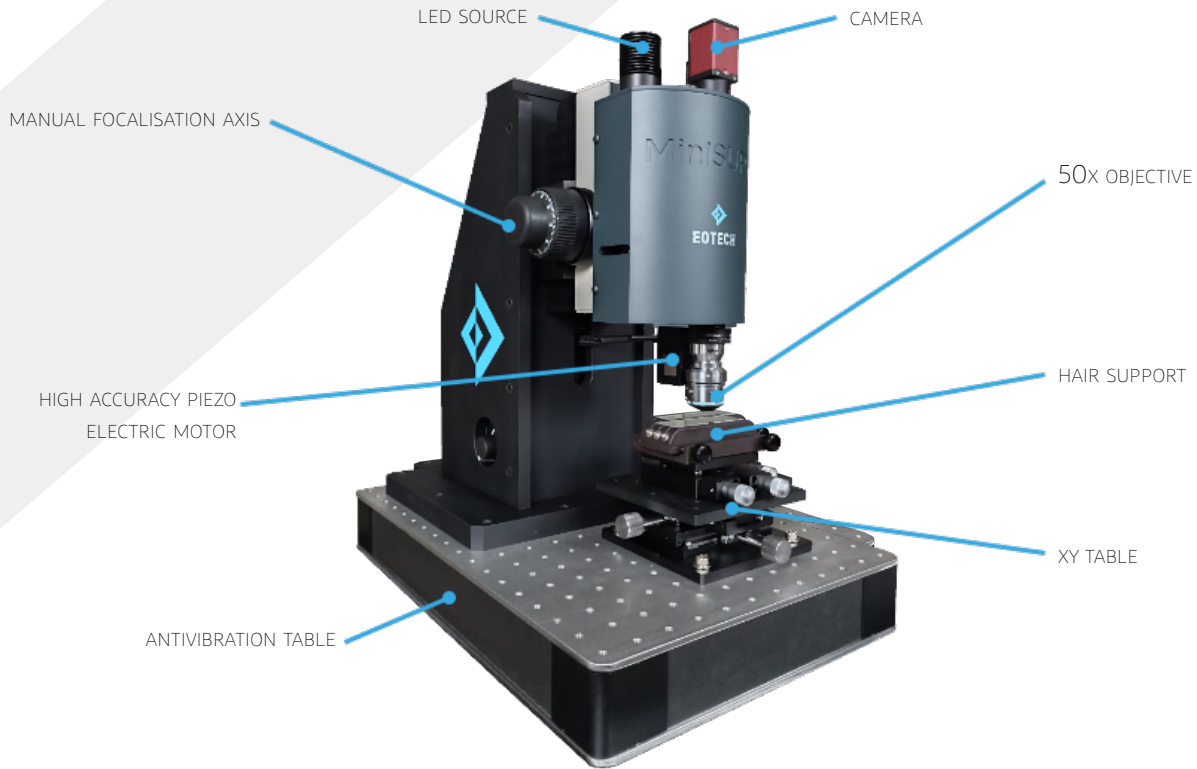- Gloss
- Repair
- Smoothing
- Sheathing

Advantages :

- Compact device
- Cost effective solution
- Non destructive
- Quantitative and qualitative results
- All-in-one software

Technical data

LED SOURCE

CAMERA

MANUAL FOCALISATION AXIS

50x OBJECTIVE

HIGH ACCURACY PIEZO ELECTRIC MOTOR

HAIR SUPPORT

XY TABLE

ANTIVIBRATION TABLE

Surface

Contrast

Profiles roughness

Rendering

Cut Off

Characteristics	Value
Illumination	LED (Wavelength : 565 nm ; FWHM : 104 nm)
Camera	1456 x 1088 pixels (1.6 Mp)
XY range	50 x 50 mm²
Z range	30 mm
Focus range	100 μm
Weight	30 kg
Size (LxHxP)	450 x 450 x 300 mm

Imaging specifications

Characteristics	Value
Magnification	50X
Measurement surface (μm²)	160 x 120
Working distance (mm)	3.4
Optical resolution (μm)	0.5
Lateral sampling (μm)	0.11
Standard Z resolution (μm)	0.05