

To all members of the press:

May 31, 2024

Otsuka Electronics Co., Ltd.

**Otsuka Electronics to launch 3D Optical Wave Field Microscope,
"MINUK", for measuring invisible and transparent shapes or structures**

Otsuka Electronics Co., Ltd. (hereinafter Otsuka Electronics; Hirakata City, Osaka, representative director and president: Kuniaki Natsume) will start selling the 3D optical wave field microscope, MINUK, in Japan and overseas on April 11, 2024.

MINUK is a microscopic observation instrument capable of observing optical wavefields—the amplitude and phase of light as a three-dimensional field.

MINUK Features

- 1) Capable of observing clearly transparent scratches and foreign substances inside the transparent body
- 2) Achieves both a wide 700 μm (vertical and horizontal) field of view and high 0.5 μm xy resolution
- 3) Measures one shot (minimum recording time less than 1 msec) over a wide area of 1400 μm in the z-direction
- 4) Capable of digital refocusing, allowing stepless changes in focus after measurement.

By using Optical Path Difference (OPD) to measure transparent samples, the shape of the light wave changes due to differences in the refractive index of the object under observation, and capturing this change allows for clear observation with high resolution in the order of nm.

The measurement is non-invasive and does not require any pre-treatment of the measurement object. MINUK is useful for daily research and development by providing clear and easy observation of transparent objects that were previously difficult to observe.

Otsuka Electronics will continue to contribute to the health and lifestyle of people worldwide with analytical technology using light.

Manufacturer's suggested retail price: 20-40 million yen

Product: MINUK

URL: <https://www.otsukael.com/product/detail/productid/42>

Specifications:

x,y resolution	691 nm (one shot), 488 nm (synthetic)
x,y field of view	700 x 700 μm (one shot), 20 x 20 mm (scan)
z resolution	10 nm (phase difference)
z field of view	±700 μm
Measurement sample size	Fine-movement XY stage (auto) X:±10 mm Y:±10 mm Coarse XY stage (manual) X:129 mm Y:85 mm
Laser wavelength	638 nm
Laser output	0.39 mW or less Class1
Size (W x H x D) mm	Main body: 505(W) x 630(D) x 439(H) ± 5 mm * The PC and its accessories are not included.
Weight	Main body: approx. 41kg * The PC and its accessories are not included.

Company Overview:

Established	May 1970
Capital	245million yen
Representative	Representative Director and President, Kuniaki Natsume
Number of Employees	237 (as of year-end 2022)
Headquarters	3-26-3, Shodai-Tajika, Hirakata-shi, Osaka, 573-1132, Japan
Business Activities	Development, manufacturing, sales, repair, import/export, subcontracting for measurement, data provision, support for obtaining medical equipment industry permits, and assistance with applications for manufacturing and sales approval of scientific equipment, optical equipment, medical equipment, and industrial measurement equipment.
Website	https://www.otsukael.jp/

For any inquiries about this matter, please contact the Corporate Planning Department at Otsuka Electronics Co. Ltd., as shown below.

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