

Precision Equipment Business

Contributing to the realization of a super-smart society by providing FPD lithography systems and semiconductor lithography systems.

Supporting the manufacture of digital and smart devices that enrich people's lives.

The super-smart society is expected to transform our quality of life and work by utilizing IoT, AI, robotics, and information and communications technology. Flat-panel displays (FPDs), including LCDs (liquid-crystal displays) and OLEDs (organic LEDs), as well as semiconductors are indispensable for realizing such a society. Nikon makes the lithography systems that expose circuit patterns for such components, covering development, design, production, sales and service. FPD lithography systems featuring a unique multi-lens system for handling large panels used in TVs, as well as a system for producing small- and medium-sized panels used in smart devices. Semiconductor lithography systems are often called "the most precise machines in history," requiring extreme precision down to around 1 nm*. And their high productivity is able to satisfy a variety of demands, such as for miniaturization and higher integration. With these and other systems, Nikon's Precision Equipment Business contributes to the realization of a super-smart society.



FPD Lithography System "FX-88S"

Gen 8 Plate FPD Lithography System. Supporting panels for high value-added premium displays, such as smart devices, high-end monitors, and large TVs.



Reduces the size of circuit patterns and projects them onto silicon wafers (semiconductor substrate) using ultra-high-resolution lenses.



Alignment Station "Litho Booster"

Measures grid distortion values quickly for all wafers prior to exposure. Achieves highly accurate overlay correction by feeding forward.

Healthcare Business

Contributing to the evolution of bioscience by providing advanced microscopes and cutting-edge equipment, and supporting regenerative medicine.

The Healthcare Business comprises three solutions based on Nikon's core technologies in advanced optics and image processing and analysis. "Life Science Solutions" contribute to progress in the fields of bioscience research and drug discovery by making it possible to visualize and analyze various biological events using our microscope technology, which has about 100 years of history. "Eye Care Solutions" provide ophthalmology instruments and systems based on proprietary technology that contribute to early detection of eye diseases and improvement of quality of life. "Contract Cell Development and Manufacturing" provides a broad range of contract development and manufacturing services for cell and gene therapy in Japan. In an era of increasing human longevity, Nikon aims to support the health and well-being of as many people as possible in a society where people lead longer, healthier lives.

*1 nm: one-billionth of a meter

Improving the health and well-being of people around the world.



Ultra-Widefield Retinal Imaging Device with Integrated UWF-Guided Swept Source OCT "Silverstone"

Capable of capturing an ultra-wide-field retinal image covering approximately 80% of the retina and a cross-sectional retinal image at any position in the ultra-wide-field image in one device.



Confocal Microscope System "AX/AX R"

High-resolution 8K x 8K scanning and 25-mm field of view to expand the potential for all kinds of research. *Attaches to the ECLIPSE Ti2-E inverted research microscope.



Cell & Gene Therapy Contact Development and Manufacturing

Providing world-class contract service to pharmaceutical and bio venture companies.