



LOOK DEEPER

Explore the hidden depths of whole organisms in panoramic views

Nikon's multiphoton confocal microscopes, which clearly visualize minute structures deep within living organisms, have evolved even further. In a single scan, the AX R MP can capture dynamics that span a wide area with superior spatial and temporal resolution. In addition, the space available for samples has been greatly expanded to provide the flexibility to observe biological samples in their natural postures. The AX R MP offers a large field of view with high-speed, high resolution scanning in a single unit.

For broad research areas



Brains



Organs



Blood vessels



Muscles

Imaging of a large region using a high-speed resonant scanner with 2K resolution

Capture more data than ever before

Featuring a field-of-view with a diagonal of 22 mm for both resonant and galvano scanners, the AX R MP captures more data per single frame.

High-speed scanning that reliably captures dynamic events

The resonant scanner supports ultra-high-speed imaging at 720 fps (512 x 16 pixels). It can capture the rapid dynamics of living organisms with reduced phototoxicity.

High resolution for visualizing minute structures

The galvano scanner enables 8k x 8k high resolution images to be obtained, with a pixel density that allows Nyquist sampling at any magnification. The high-speed resonant scanner supports high resolution imaging with pixel densities up to 2k x 2k. Both can visualize morphological changes in deeper regions in fine detail.

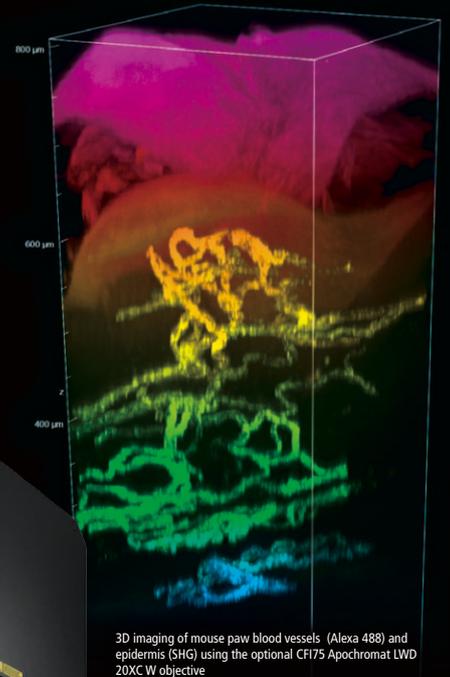
Extreme flexibility in specimen preparation

The space under the objective is 40 cm high, allowing versatile specimen studies. The variable angle of the objective makes specimens highly accessible.

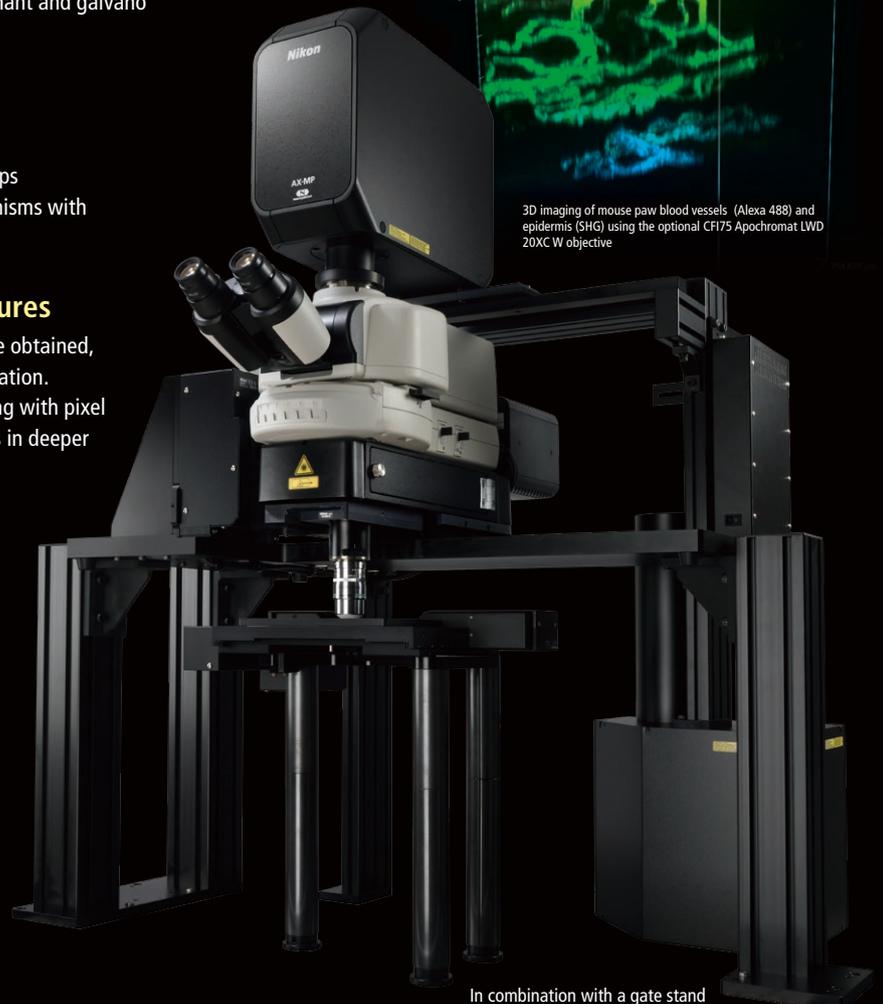
NEW!

AX R MP

Multiphoton Confocal Microscope



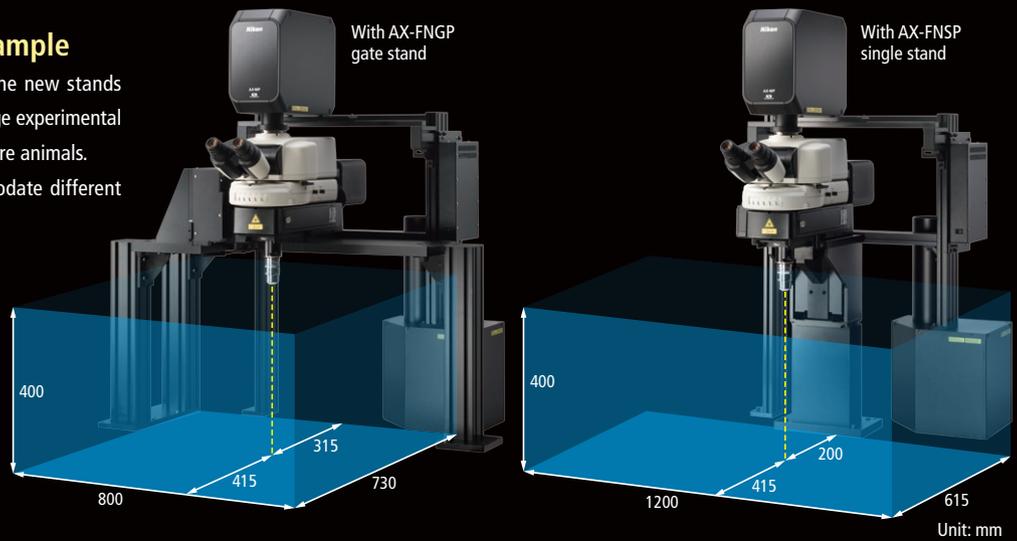
3D imaging of mouse paw blood vessels (Alexa 488) and epidermis (SHG) using the optional CF175 Apochromat LWD 20XC W objective



In combination with a gate stand

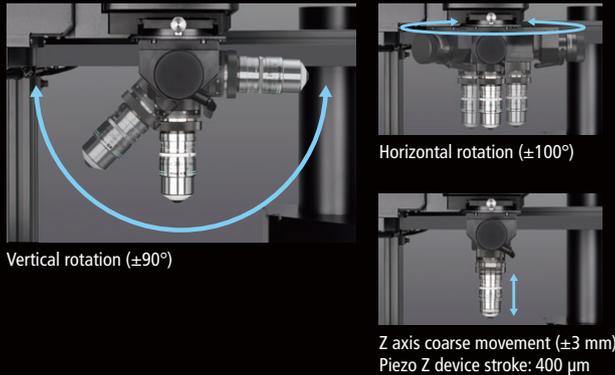
Large free space around the sample

With even more space under the objectives, the new stands accompanying the AX R MP support the very large experimental apparatus needed for *in vivo* live imaging of entire animals. Two different stands are available to accommodate different specimen observations.



Observe samples in their natural postures

Nikon has developed a new AX-FNTN-H CF175 single tilting nosepiece that can adjust the objective to different angles. It enables observation of a sample in the lateral and oblique directions without changing its orientation, reducing the load on the sample. The Piezo Z device (optional) allows for highly accurate, high-speed Z imaging.



Objective optimized for deep imaging providing bright images over the entire field of view



Nikon offers a full lineup of high NA objectives for multiphoton imaging that provide chromatic aberration correction up to the near-infrared range. The newly developed CF175 Achromat LWD 20XC W supports large FOV imaging of 22 mm. It provides bright images even at the edge of its large field of view at low magnifications. It achieves both a high NA (1.00) and a long working distance (2.8 mm), enabling crisp imaging deep within the sample.

Other water dipping/immersion objectives



Glycerin immersion objectives



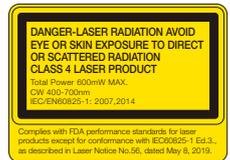
Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. November 2021 ©2021 NIKON CORPORATION



WARNING

TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

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