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New Generation AI Confocal Microscope: Nikon AX

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Abstract

Confocal Laser Scanning Microscopy is one key technology in research labs as well as a state-of-the-art technique in imaging facilities. Today the requirements of large amount of images for statistical relevancy and the combination of multi-modal microscopy techniques require a versatile, modular Point Scanning Confocal that allows the acquisition of large datasets in a short amount of time.

In this session we are presenting our brand new Nikon 10th generation Point Scanning Confocal. AX combines the Largest Field of View in the market with a modular and upgradable system suited for every requirement. The combination of a very fast resonant scanner and high resolution up to 2048 x 2048 pixels over a full field of view of 25 mm allows for gentle, fast images without sacrificing resolution and FOV. To cover this large 25mm FOV with high resolution, galvano scanner's pixel density has been extended allowing the best resolution in confocal microscopy even for low magnification objective lenses.

The new design of the user interface, grants a simple and easy guided setup of complex experiments, minimizing mistakes in hardware- as well as in experimental setups. To complete the ease of operation, Artificial intelligence supports the best selection of appropriate instruments setting to guarantee an optimal imaging experience: less time for setting up, more time for imaging!

Cleared brain (Resonant scanner, 60x WI, 25mm FOV, 2048x1024)