

N-STORM

Resolve single biological molecules at the nanometer scale

Designed to maximize your potential to get the highest quality nanoscopy images





N-STORM

Reveal the fine architecture and distribution of sub-cellular components at the nanometer scale

Accurately quantify biomolecules, determine the intermolecular distances and their level of clustering

Study the relationship between spatial arrangement, structural organisation and biological function

Visualise the interaction between molecular species and the effects of drug treatments on pathogens

N-STORM 5 offers the highest stability and ease of use for you to achieve the highest quality single molecule localization image analysis

- Flexibility to choose from 2D STORM, 3D STORM, 3D-Stack, single/multi-colour imaging modes to suit your study
- When illuminating with TIRF, use the built-in Bertrand lens to safely visually confirm the achievement of TIRF angle
- Combine the patented Harvard* reconstruction algorithm and real time analysis to achieve the highest localization accuracy at optimal speed
- Achieve the highest Z resolution at ease with the automatic astigmatic lens for 3D STORM
- Perfect Focus System (PFS) to maintain and change Z focus without the slightest disturbance to the sample
- Use the high power auto correction collar oil immersion objective, or the silicone immersion objective to image better deeper
- Powerful software analysis functions to precisely measure distance between points and determine level of clustering



Get more data, more information and higher context effortlessly

- The largest field of view at the highest magnification enables more data to be captured in one experiment
- Get more context faster by coupling with confocal imaging
- Automate the confocal to STORM imaging workflow with JOBS to increase efficiency and remove human bias



Specifications

XY resolution	Approximately 20 nm
Z-axis resolution	Approximately 50 nm
Imaging method	2D-STORM (normal mode and continuous mode)
	3D-STORM (normal mode and continuous mode), 3D-Stack function
Max. field of view	80 µm x 80 µm
Acquisition speed	Up to 500 Hz
Multi-color imaging	Up to 3 colors
Compatible laser	LU-NV series laser unit Standard: 405 nm, 488 nm, 561 nm, 647 nm Option: 445 nm, 458 nm Laser combination: 405 nm/445 nm/488 nm/561 nm/647 nm, 405 nm/458 nm/488 nm/561 nm/647 nm
Compatible microscope	Motorized inverted microscope ECLIPSE Ti2-E Perfect Focus System Motorized XY stage with encoders Piezo Z stage
Objective	CFI SR HP Plan Apochromat Lambda S 100XC Sil (NA1.35) CFI SR HP Apochromat TIRF 100XC Oil (NA 1.49) CFI SR HP Apochromat TIRF 100XAC Oil (NA 1.49) CFI HP Plan Apochromat VC 100X Oil (NA 1.40)
Camera	ORCA-Flash 4.0 sCMOS camera (Hamamatsu Photonics K.K.) iXON Ultra DU-897U EMCCD camera (Andor Technology Ltd.)
Software	NIS-Elements Ar NIS-Elements C (for Confocal Microscope A1+/A1R+) Both require optional module software NIS-A 6D and N-STORM Analysis
Operating conditions	20 °C to 25 °C (± 0.5 °C)

* NIKON is licensed to use the Harvard algorithm developed by the Zhuang lab – Nat Methods 2006, 3(10): 793-795

Reference publications: Dudok et al (2015) Nat Neurosci. 18(1):75-86 Ricci et al (2015) Cell 160(6): 1145-58