

Press Release

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[www.till-photonics.com/
Products/andromeda.php](http://www.till-photonics.com/Products/andromeda.php)

TILL Photonics Introduces iMIC – Andromeda

TILL's iMIC-Andromeda is an imaging workstation capable of combining a broad range of imaging applications. The modular approach of the iMIC allows the integration of methods such as TIRF, FRAP, Photoactivation, FRET, FCS, Multiphoton, Structured Illumination and last but not least our proprietary Laser Spinning Disk Confocal Andromeda.



The heart of the Andromeda is a single spinning disk which derives its outstanding performance and versatility from its fundamentally new optical concept. Instead of using microlenses and two synchronized rotating disks Andromeda needs only a single disk and places (long-pass) dichroics where they belong, into the infinity space. This greatly improves the point spread function (PSF) and provides higher resolution and better optical sectioning than achieved by previous approaches.

Details

How can a single disk perform a function that other approaches need two disks for? The core component of Andromeda features a novel patented optical design, quasi-hexagonal pattern of concave micro-mirrors, carrying pinholes in their center. While the micro-mirrors form a rotating point pattern, a retro-reflector projects the focus pattern back onto the pinholes where it can pass and reach the sample.

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This elegant approach ensures maximal optical throughput and enables a much better matching to the numerical aperture (NA) of a variety of objectives, including water immersion- and low magnification objectives.

Key features of iMIC - Andromeda

- Modular concept for more configurations
- Automation to control complex experiments
- Flexible software for changing demands
- Integration of all major fluorescence techniques possible
 - Epifluorescence and TIRF
 - FRAP and Photoactivation
 - FRET, FCS, Multiphoton
 - Structured Illumination
- Laser Spinning Disk Confocal (Andromeda)
 - Improved smoothness of rotation (all units run at 10.000 rpm)
 - Field optimized for 9x9mm CCD chips, bigger fields (sCMOS) in preparation.
 - Full automation of all filters (10 excitation-filters, 10 emission-filters and 5 dichroics)

TILL was founded in 1993 as systems provider for fluorescence microscopy. From its very beginning TILL had placed its focus on the development of innovative, enabling technologies for the study of live cells. Setting out with a novel light source for ratio imaging and the first real-time imaging system on the market, TILL developed a novel, award-winning microscope platform concept, which allows integrating an unprecedented number of functionalities into a single instrument. Based on this technology TILL has subsequently become a provider for complete microscope systems, and the new TILL intends to step into these footsteps and plans to extend the platform concept in order to grow into a wide range of markets, both in basic research, screening and medical diagnostics.

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