



Press Release

November 5, 2010

Two Photon iMIC Digital Microscope

Superb Resolution and Highest Flexibility

TILL Photonics proudly introduces the Two-Photon iMIC digital microscope. When it comes to fluorescence imaging of thick tissue, two-photon excitation microscopy is the new gold standard for in-vivo imaging.

The Two-Photon iMIC combines two major advantages for researchers in a fast and accurate, but still flexible way.

Increased penetration depth will enable researchers to see more deeply into samples. Up until now this capability was out of reach.

Reducing tissue damage while probing deeper enhances further research. The iMIC give the researcher the capability to do enhanced live-cell imaging.

The combination of increased depth and damage reduction opens new areas of research.

The iMIC-based two-photon laser scanning platform in combination with the novel voice coil-based focus drive enables 3-D scans of unprecedented volume and accuracy.

Colibri LaserScan Software

The Colibri LaserScan open source software offers full control over the basic setup, including the motorized microscope and the scan head and also provides the flexibility of including further components, such as cameras, into the system.

Key Features of Two-Photon iMIC:

- Digital galvo control

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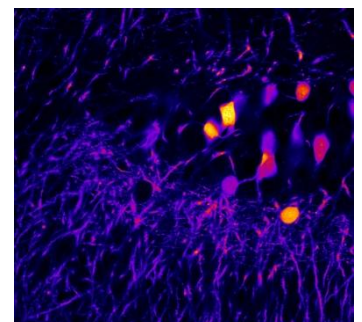
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*Two-Photon iMIC Digital
Microscope*



*GFP-stained mouse brain
neurons (false colors)*

- Pixel time $<1\mu\text{s}$; flexible line speeds from $40\mu\text{s}$ to several s.
- Speed based scan description
- Up to 4 channels: 2 for epi-fluorescence and 2 for transmission fluorescence observation
- Bidirectional scanning with all speeds
- Arbitrary scan tracks
- Spot scan
- Fixed 4 MHz sampling speed with variable oversampling
- Line scan

The Two-Photon iMIC will be displayed at the Neuroscience Exhibition in San Diego, November 14th – 17th at booth #3117.

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.