

Flexible, Fast and Accurate TIRF Solutions

- Motorized TIRF illuminators fully integrated in cellSens™ imaging platform
- Dedicated TIRF objectives with world leading numerical aperture for highest optical sectioning
- Simultaneous multi-color TIRF imaging at same penetration depth
- Adaptable for single-molecule localization microscopy
- Integrated laser safety system



Pioneers in TIRF imaging

With cutting-edge advancements, Olympus cellTIRF family represents the very latest in TIRF technology, complemented by the largest portfolio of specially designed optics. Rapid imaging and aberration-free optics ensure that users can observe fast subcellular processes and perform accurate localization studies with true, simultaneous multi-color TIRF. Excellent quality optics and objectives with the highest NA on the market also enable nanoscopy and super-resolution microscopy by single-molecule localization. A cost-effective one-laser-line solution is also available which is compatible with laser combiners - providing an excellent starting point for those new to TIRF microscopy.



cellTIRF-1L



cellTIRF MITICO-4L

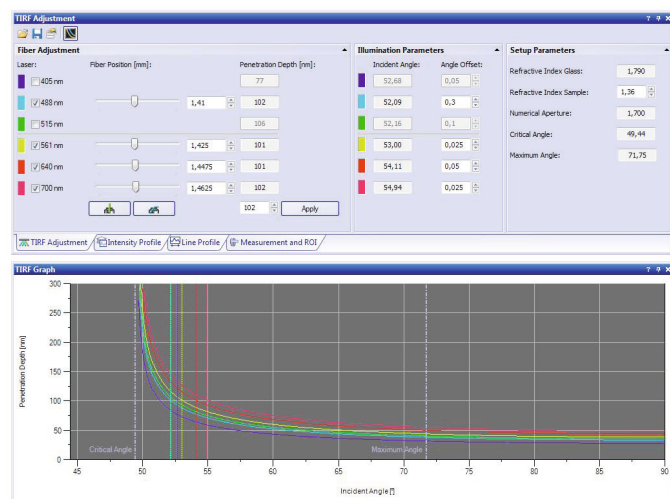
cellTIRF MITICO (2L/4L)

The high-end solution of the cellTIRF family offers two or four completely independent beam paths. This ensures not only perfect individual alignment for every laser line but also allows for truly simultaneous acquisition at the same penetration depth for each wavelength. These features are ideally suited for fast multi-color live cell imaging. In contrast to the one-line laser option cellTIRF-1L, the MITICO device is also able to perform widefield fluorescence imaging simultaneous and in parallel to TIRF acquisition. In addition, one of the laser ports is equipped with an integrated point-FRAP option.

cellTIRF-1L

The one-line laser option of the cellTIRF family is a cost-efficient solution for routine users and TIRF starters. It can be equipped with a laser combiner enabling sequential acquisition of different wavelengths at the same penetration depth.

Like the cellTIRF MITICO it is also equipped with an integrated laser safety shutter and due to its motorization TIRF angles can be easily controlled via cellSens imaging software.



Graphical interface for TIRF angle control in cellSens.

Advanced Laser Systems

Olympus offers high quality laser systems and dedicated TIRF filter cubes with high grade dichroics. The DPSS and diode laser lines range from 405 nm to 640 nm:

- Up to 300 mW laser output with highest stability
- Manual or full software control
- Integrated laser safety
- High speed imaging shutters via ODB or TTL
- Complete control of 3rd party laser combiners via RTCE

Dedicated TIRF Objectives

These objectives are especially designed for TIRF microscopy and ensure excellent TIRF angles due to highest numerical apertures. All objectives are equipped with correction collars and are also compatible with DIC imaging.

Compatible with standard coverslips and immersion oil:

- APON 60xO TIRF (NA 1.49): A popular lens for TIRF imaging
- UAPON 100xO TIRF (NA 1.49): Market-leading performance
- UAPON 150xO TIRF (NA 1.45): perfect match for single-molecule localization fulfilling Nyquist criterium.

World leading objective with highest numerical aperture

- APON 100xHO TIRF (NA 1.7): lowest possible penetration depth for best optical sectioning



Olympus UIS2 objectives dedicated to TIRF imaging.

cellSens Software Control

All motorized cellTIRF devices can be operated via the cellSens software. For perfect access to TIRF imaging and control, cellSens offers following features:

- Mouse wheel and keyboard control of TIRF angles
- One-button click to set all wavelengths to the desired penetration depth
- One-button click for seamless motorized switching from widefield to TIRF imaging
- Graphical display of incident angles and penetration depths for each laser line



Olympus Real-Time Controllers RTC and RTCE

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- **OLYMPUS CORPORATION is ISO9001 certified.**

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- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

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