

OPTOSPLIT II BYPASS

DATASHEET

Engineered for super resolution quality

Two-way image splitter with enhanced performance and simple bypass mode

The Optosplit II Bypass image splitter is a simple and elegant device for dividing an image into two separate, spatially equivalent, components that can be displayed side by side on a single camera sensor.

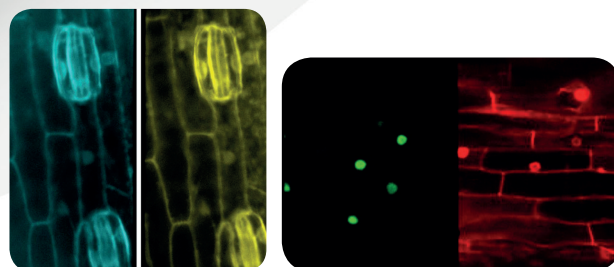


The Cairn OptoSplit II BP is our best ever dual channel simultaneous imaging device for use with a single camera. It builds on the success of the OptoSplit II, but adds a convenient single lever bypass mode making it more suitable for multi-user microscopes where simultaneous dual channels are only required for specific experiments alongside single wavelength recordings.

Whilst maintaining compatibility with the OptoSplit II, the BP version now supports our new flat-face filter cubes and has enhanced long-term stability, pixel registration and reproducibility. Featurewise, the rapid Bypass control is complimented by additional space for more auxiliary components. It has a slightly larger footprint than the OptoSplit II and consequently can use longer focal ratio lenses with even better off-axis performance.

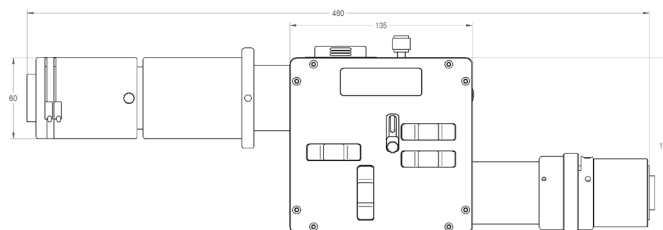
KEY BENEFITS

- Single lever switching from split to bypass
- Compact design with C-mount input and output ports as standard (F and T mount on request)
- Support for sensors up to 31.9mm diagonal (29.4mm in bypass mode)
- Budget friendly alternative to two cameras
- 425nm to 875nm AR coatings on all optical surfaces
- 40mm diameter proprietary optics



APPLICATIONS

- Förster Resonance Energy Transfer (FRET)
- Ratiometric calcium, voltage & pH imaging
- Simultaneous multi fluorescent probe imaging
- Polarisation studies (anisotropy)
- Simultaneous phase contrast / DIC and fluorescence
- Simultaneous dual Z depth imaging
- Total Internal Reflection Fluorescence (TIRF)
- Spinning disk confocal
- Single Plane Illumination Microscopy (SPIM)
- 3D super resolution PALM/STORM (using cylindrical lenses)



MULTICHANNEL EMISSION SPLITTING RANGE

NO.1 IN OPTICAL PERFORMANCE, STABILITY AND USABILITY

DATASHEET



OptoSplit II & III

With an elegant configuration for simple side by side image splitting, the OptoSplit delivers high throughput imaging at a realistic price. Ideal for FRET, ratiometric imaging, polarisation studies and most simultaneous imaging applications requiring two or three images. User-configurable cubes and intuitive x, y adjustments offer convenience and simplicity.



Optosplit II Bypass

This builds on the success of the OptoSplit II, but adds a convenient single lever bypass mode making it more suitable for multi-user microscopes where simultaneous dual channel imaging is required for specific experiments alongside single wavelength recordings.



MultiSplit

Up to four channels simultaneously on one camera chip! The MultiSplit uses the four quadrants of a single camera in a 2x2 square format. The MultiSplit has the further possibility of simultaneous multi-depth imaging which is particularly attractive, as we can now do this at four depths rather than just two or three.



Multi Camera Adapters

Splitters for up to four channel imaging using multiple cameras (each). Perform simultaneous recording of multiple wavelengths, polarisation states or z depths using the full camera FOV without having to reduce their size. Variable rectangular aperture allows for the use of cropped sensor modes for the fastest speeds. Includes interchangeable camera mounts for C, F and T-mount cameras.



OptoMask

Enables precise FOV control for the high-speed, cropped sensor mode offered by several camera manufacturers including Andor and Teledyne..



OptoSpin 25 & 32

An intelligently designed, fast-spinning and stepping filter wheel, now with 25mm and 32mm wheels available and a range of microscope adapters. This slim unit has low inertia, enabling smooth operation and the ability to step between emission filters in 30ms, and spin continuously at 7500rpm when synchronised with a suitable light source. Change filters without moving the camera and mount two units together in the same 35mm optical path length for versatile combinations. (6 position for one filter wheel, 10 position for two).

