Datasheet

Optosplit II

Two-way image splitter

The industry leading Optosplit II image splitter divides an image into two separate, spatially identical components. Displayed side by side on a single chip, this elegant device effectively doubles your research capacity with one camera. The industry leading Optosplit II image splitter divides an image into two separate, spatially identical components. Displayed side by side on a single chip, this elegant device effectively doubles your research capacity with one camera. Splitting is usually performed on the basis of wavelength, allowing applications such as ratiometric calcium imaging or FRET, however, polarising beamsplitters are also supported. The two images can be captured simultaneously offering a major benefit over manual or electronic filter changers. A rectangular aperture is used to define the region to be imaged, with a set of simple controls allowing the user to align the two channels on a variety of camera chip sizes. The Cairn Optosplit II can significantly widen the scope of any fluorescence imaging system

Applications

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

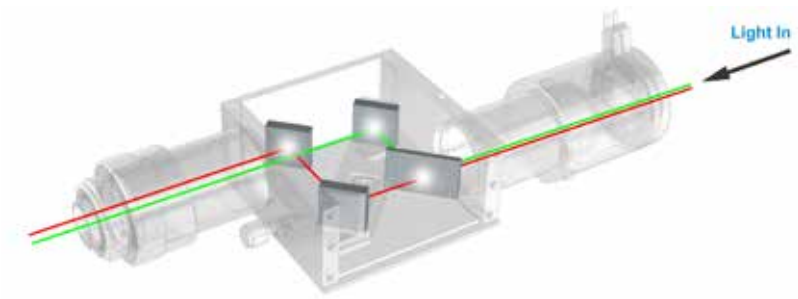
Top Advantages

- Budget friendly alternative to two cameras
- Interchangeable filter/dichroic holders
- Magnetic cube mount for enhanced registration
- Simple & precise controls for image registration

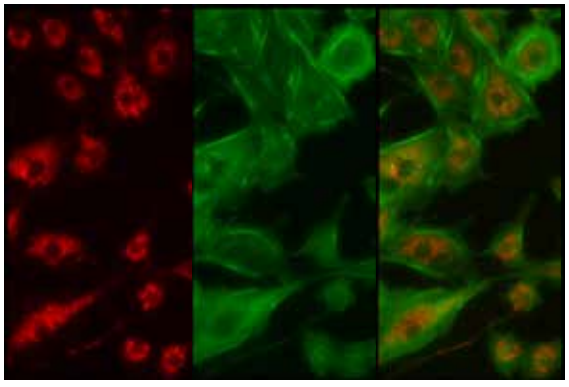
Key Features

- Compact design with C-mount input and output ports as standard (F and T mount on request)
- Support for sensors up to 29.4mm diagonal
- 425nm to 875nm AR coatings on all optical surfaces
- 40mm diameter proprietary optics
- Emission filter dimensions – 25mm diameter
- Recommended dichroic dimensions – 26x38x2mm (lambda/2 flatness)
- 1x, 1.3x and 1.7x magnification available
- Fixed or variable centre fully adjustable rectangular mask to delimit region of interest

The Optosplit II light path



RFP GFP Overlay



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