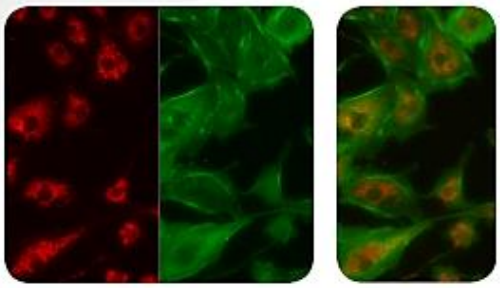
OPTOSPLIT II

DATASHEET

Two-way image splitter

The industry leading Optosplit II image splitter from Cairn Research 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.

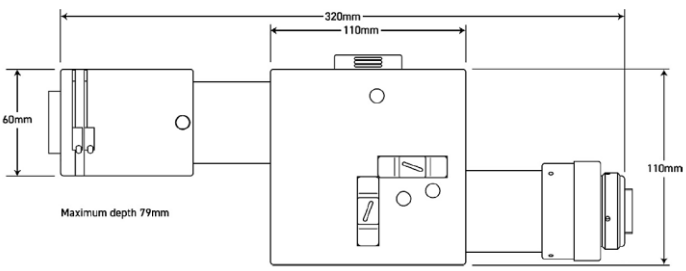


KEY BENEFITS

- Optimised for sensor sizes up to 18.8mm diagonal (13.3x13.3mm)
- User configurable filter cubes with industry standard filters/dichroics
- Magnification options - please ask for details
- Bypass mode to allow single wavelength imaging using either pathway
- Intuitive and independent x/y controls for simple alignment
- Accommodates ND filters or chromatic correction lenses
- Standard spectral range from 425nm to 875nm
- Supports cropped sensor modes
- Adjustable rectangular aperture for user defined field of view
- C-mount coupling to microscope or camera lens

APPLICATIONS

- Ratiometric calcium, voltage & pH imaging
- Förster Resonance Energy Transfer (FRET)
- Simultaneous dual probe widefield microscopy
- TIRF/Spinning disk confocal
- Simultaneous phase contrast/DIC and fluorescence
- Polarisation studies (anisotropy)



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 and optimised for sensors up to 18.8mm diagonal, 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 and focal 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 2×2 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 (up to 22mm diagonal). Perform simultaneous recording, polarisation states or z depths without having to reduce their size. Variable rectangular aperture allows for the use of cropped sensor modes for the fastest speeds. Now with new more rigid camera mounting clamps and magnetically aligned filter cube facility.

CAIRN RESEARCH

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