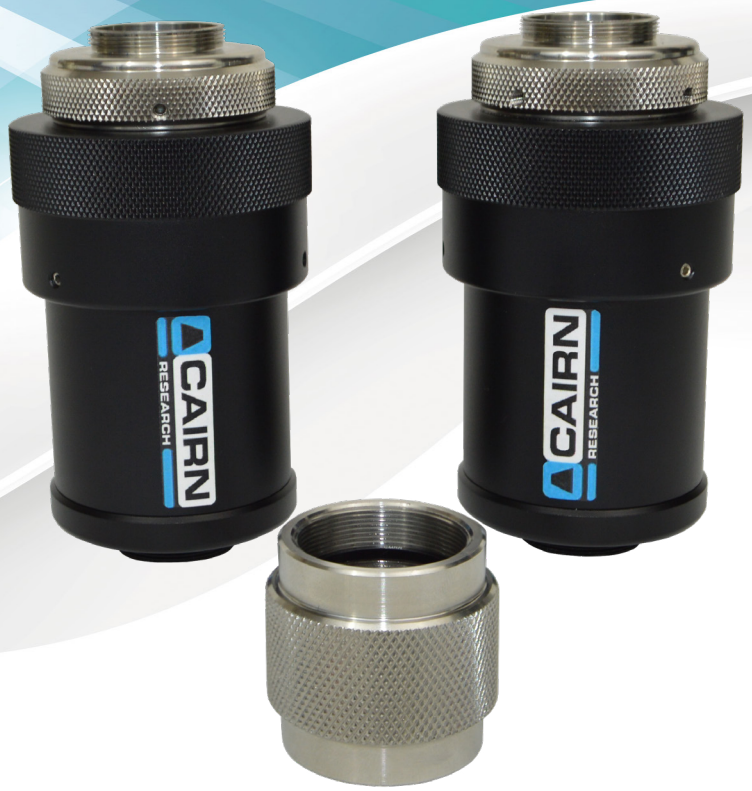
EMISSION INFINITYPORT

DATASHEET

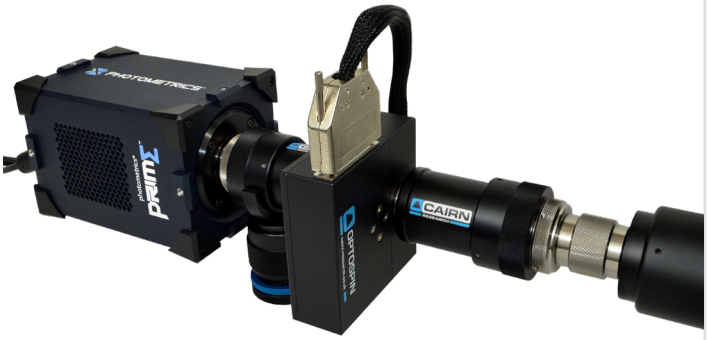
Engineered for super resolution quality



The Cairn Emission Infinity port is a simple 1x relay device providing up to 200mm of infinity space to insert filter wheels or other devices for which the angle of incoming light is important.

In many microscope systems, filter wheels are built into the c-mount output, where the light is converging down to its focal point (i.e the camera chip). While this tends not to be a problem in standard widefield imaging, this can cause problems for advanced techniques where having converging light travelling through optical elements can cause refraction. Consequently, this can shift the focal point and alter the spectral properties of emission filters.

In addition to using this device to mount a filter wheel, it is also useful to extend the detection port away from the microscope to ensure a better fit with existing environmental chambers, where internal space is limited.



KEY BENEFITS

- Broad wavelength range (425-875nm)
- Supports 18.8mm diagonal sensors
- Magnification options on request
- High throughput
- Maintains parfocality with the microscope eyepieces
- Maintains specified wavelength bands of optical filters
- Infinity space flexible for a range of filter wheels
- Suitable for integrating phase plates or emission sliders into infinity space
- C-mount to C-mount device (F-mount on request)
- Can be used with a blank to move the detector away from the microscope
- Access to pupil plane

CAIRN RESEARCH

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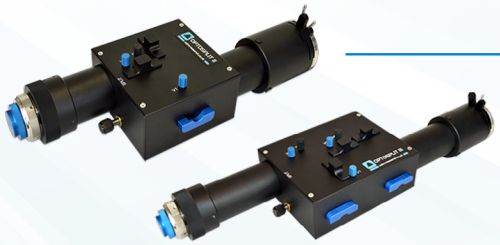
MULTICHANNEL EMISSION SPLITTING RANGE

NO.1 IN OPTICAL PERFORMANCE, STABILITY AND USABILITY

DATASHEET



OptoSplit II & III

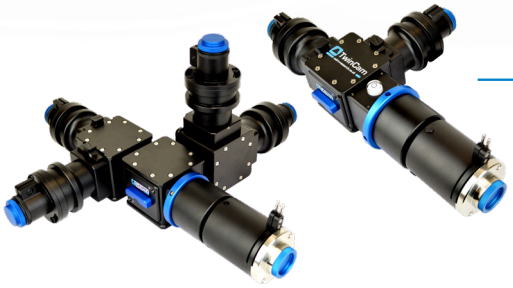
With an elegant configuration for simple side by side image splitting and optimised for sensors up to 18.8mm diagonal, the OptoSplit delivers high throughput imaging at a realistic price. Ideal for FRET, ratiometric imaging, polarisation studies and most simultaneous imaging applications requiring two 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.

OptoMask

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

OptoSpin

An intelligently designed, fast-spinning and stepping filter wheel.
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. Mount two units together in the same 35mm optical path length for versatile combinations. (6 position for one filter wheel, 10 position for two).

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