

MULTISTREAM PRO

DATASHEET

Multichannel Streaming

The MultiStream Pro synchronises a solid-state light source with a digital camera to achieve KHz acquisition for up to four wavelengths

The MultiStream Pro is a user-friendly device, which allows the Cairn OptoLED, LaserBank or any other digitally-controlled solid-state light source to be synchronised with a scientific CMOS, CCD or EMCCD camera for multi-wavelength streaming at up to 1KHz. The MultiStream Pro cycles through a protocol of up to four wavelengths using precise hardware timing, whilst still allowing independent software or front panel switching as required. Even if fast streaming is not required, the MultiStream Pro is a valuable addition to an imaging system to reduce photo damage and sensor readout artefacts by precisely synchronising illumination to the camera exposure.



Now offering an internal trigger with display

APPLICATIONS

- Ratiometric calcium and voltage imaging
- Fast, multi-indicator imaging
- Fast, combined fluorescence and phase contrast or DIC imaging
- TIRF and Spinning Disk Confocal

INPUTS

- 4 BNC sockets for individual software control of channel settings
- Trigger input from camera to synchronise multi-wavelength acquisition
- 4 front panel override switches for manual setting of active channels

KEY BENEFITS

- Combines software and hardware timing to flexibly match illumination to camera exposure and reduce photo damage
- Standalone front panel control works with any software
- LED indicators allow the researcher to track and troubleshoot the experiment
- Streaming protocols can be changed on-the-fly in response to experimental needs
- Automatically supports virtual global shutter modes on sCMOS cameras

OUTPUTS

- 4 BNC sockets to connect to up to 4 illumination channels
- Trigger output to camera to act as timing 'master'



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ILLUMINATION SYSTEMS

DATASHEET

INTENSITY, STABILITY AND FLEXIBILITY



MultiLine LaserBank

Modular and versatile laser launch system allows for use of up to six solid-state lasers from multiple manufacturers. Ideal for TIRF, spinning disk confocal, FRAP and optogenetic applications or any combination of these with multiple outlets via single or multi-mode fibres. Provides the convenience of a custom, turnkey system.



TriLine Laser Bank

The TriLine shares much of the modularity and flexibility of the MultiLine, but in a simpler and more compact package (up to 3 lasers). The design offers the flexibility to configure output ports via single or multi-mode fibres (or free space on request) for TIRF, FRAP, photolysis, spinning disk confocal, optogenetics and other research applications.



Aura

Easy to use and affordable LED transmitted light source for phase imaging on a variety of inverted microscopes. Supports PhL, Ph1 and Ph2 phase objectives, or can be used as a standard brightfield transmitted light source. Triggerable, with an extended working distance ideal for use with micromanipulators.



OptoLED

The OptoLED is our flagship system for LED illumination. Dual channel LED controller with ultra-high stability and "instantaneous" (sub-microsecond) vibration-free TTL switching and analogue intensity modulation.



MonoLED

Compact and affordable single LED white light illuminator for brightfield, phase contrast or DIC imaging, available with a wide range of microscope adapters. Convenient for any application requiring a simple LED illuminator.



OptoScan

The only monochromator that provides submillisecond control of both centre wavelength and bandwidth. Provides unmatched versatility for fluorescence measurements, photometry and optical scanning. A lab workhorse!



MultiPort Illumination Couplings

Easily and efficiently couples multiple light sources (light guide, laser or LED) into a single epi-illumination path. Well suited for optogenetics, photolysis and photoactivation. Can include independent field stops or pinholes.



OptoTIRF V2

The OptoTIRF V2 is a compact and powerful, yet inexpensive, motorised TIRF illuminator designed to fit onto any research-grade inverted microscope. It gives the researcher intuitive and dynamic access to the entire back aperture of the objective with joystick or software control and simple storage and recall of preset positions



FuraLED

Compact and optimised LED illuminator for 340nm / 380nm ratiometric Fura-2 fluorescence imaging with integrated filters. Fast switching with photodiode feedback stability when used in conjunction with our OptoLED dual channel LED controller. Couples to a variety of upright / inverted microscopes or macrosopes.