SpectroCam™

Multispectral Conversion Kit



micro-patterned filters | sensors | cameras



The SpectroCam Multispectral Conversion Kit is a modular attachment that converts your monochrome scientific-grade camera into an 8-band multispectral camera - enabling user integration with a wide variety of cameras, lenses, and software. The module includes a motorized filter wheel that interfaces to C-mount and M42 mount cameras with sensors up to 2/3" format (8.80mm x 6.60mm). A wide selection of interchangeable standard and custom dichroic filters are available across UV, visible, and NIR-SWIR spectral bands.

The spectral filter wheel is controlled with ASCII commands via USB interface at rates up to 20 frames per second depending upon camera speed and data rates. It provides a flexible and economical platform for users who prefer to assemble a multispectral camera around their specific hardware and software choices. Customized OEM modules are available to deliver easy integration in to multispectral imaging devices and instrumentation.



Module

Spectral filters:	Interchangeable dichroic filters 8 standard filters included Additional standard & custom filters available
Communication:	ASCII comands over USB
Power:	External 12V power supply (universal input), 1A maximum
Dimensions:	138mm H x 124mm W x 98mm D (5.5" H x 4.9" W x 3.9" D)

Camera Requirements

Camera: (user provided)	Vertical dimension 27.5mm (1.08") from sensor centerline to top of camera
Sensor type:	DIY integration with CCD, CMOS; Si, InGaAs
Sensor format:	2/3" format (8.8 x 6.60mm) or smaller
Camera interface:	C-mount or M42 thread mount
External trigger:	TTL level
External time stamp rest: (optional)	TTL level

Lens Requirements

Lens interface: (lens is user provided)	Standard F-mount (variety of lens, focal length, FOV choices) • Manual aperture ring • manual focus

Operating Modes

Fast (continious) mode:	Up to 20 frames/second (varies with camera speed and data rates)
Index mode:	User defined positions and timing

Benefits

- 8-band multispectral camera conversion
- Up to 20 frames/second acquisition
- Interchangeable standard & custom filters
- Supports UV, visible, and NIR-SWIR spectral bands
- Integrates with a variety of sensors, cameras, and lenses

Applications

- Aerial mapping
- Biomedical imaging
- Food & water quality measurement
- Machine vision
- Product screening
- Remote sensing
- Surveillance & authentication
- OEM prototype / proof of concept

