SpectroCam 2™

Multispectral Cameras

Filter wheel cameras to speed up your product development





Powerful, Portable & Fully Configurable Multispectral Imaging

SpectroCam 2™ is a **fully configurable multispectral imaging platform** designed for product development, proof-of-concept testing, research, and OEM integration. Built around a new architecture, users can select the camera sensor, spectral bands, filters and lenses that best fit their application so that the optimum balance between resolution, frame rate, field of view and spectral range may be chosen.

SpectroCam 2™ multispectral wheel cameras offer a sophisticated, flexible imaging platform for fast product development and multispectral/hyperspectral research.

Available across **UV, VIS and NIR** wavelength ranges, SpectroCam 2™ features an eight-position rotating filter wheel with user-swappable hard-coated bandpass filters, allowing spectral bands to be changed as project requirements evolve.

Users can select from a range of camera sensors spanning UV through NIR, enabling optimization of spectral response, resolution, and frame rate for specific applications. The camera accepts a wide range of lenses with a Nikon mount available off-the-shelf.

Highlights



Applications

- Research & Development
- Multispectral Imaging & Analysis
- Machine Vision & Inspection
- Inspection, Measurement & Monitoring
- Scientific & Laboratory Imaging
- Security, Defense & Surveillance
- Medical & Life Science Research
- Agriculture & Environmental Monitoring
- Authentication & Forensics
- OEM Product Development

Key advantages

- Eight-position rotating wheel for rapid multispectral imaging
- User-swappable high-performance hard-coated interference filters
- Custom filter designs available from Torrent Photonics' in-house coating and photolithography teams
- Sensor options spanning UV, VIS and NIR
- Broad camera compatibility for higher resolution and frame rate options
- Higher optical throughput compared with LCTF-based approaches
- Bandwidth specified per spectral band rather than limited by tuneable filter technology
- Portable design suitable for laboratory, field, and OEM integration
- High speed digital video output

OEM Customization Options

- Configurable camera platform, spectral range, filter set, resolution, and frame rate
- Tailored system design to meet specific application requirements
- Field-exchangeable filters allow wavelength configurations to be updated without replacing the entire system
- In-house manufacture of custom hard-coated bandpass filters when standard filter sets do not meet requirements
- Supports highly application-specific spectral imaging solutions
- Customization available from proof-of-concept development through to high-volume OEM production
- Backed by expertise in spectral imaging, filter design, and manufacturing scalability

Summary

	SpectroCam 2™ UV-VIS	SpectroCam 2™ VIS-NIR	SpectroCam 2™ VIS-SWIR
Spectral Response	200 nm to 700 nm (UV-VIS)	400 nm to 1000 nm (VIS-NIR)	0.4 µm to 1.7 µm (400 nm to 1700 nm)
Resolution	2840 x 2840 pixels	Flexible	Up to 2,560 × 2,048 px
Sensor	CMOS, Silicon, 8MP 2.74 µm Pixel Pitch	CMOS, Silicon, many options available	InGaAs 5µm Pixel Pitch
Spectral Bands	8 Filters		
Active Area	7.78 mm (H) x 7.78 mm (W) 11 mm diagonal	Determined by image sensor choice	Up to 8.83 mm × 7.07 mm 11.31 mm (D)
Frame Rate	Up to 87 fps* *Frame Rate depends on Operating Mode selected	Varies by camera choice – up to 100fps* *Frame Rate depends on Operating Mode selected	Varies by camera choice – up to 100fps* *Frame Rate depends on Operating Mode selected
Optical Interface	Nikon F Mount standard (Manual Aperture & Focus) Range of lenses available. Adapters available upon request.		
Digital Output	Gig-E Vision	Gig-E Vision	Gig-E Vision
Dimensions (No Lens or Mount)	136 mm (H) x 24 mm (W) x 105 mm (D)		
Weight	680g (typical)		

Flexible Purchase Options

Whether you're evaluating a new application, developing a proof of concept, or deploying a multispectral imaging solution at scale, SpectroCam 2™ is available in configurable packages to suit your requirements.

For organizations looking to minimize upfront investment, **leasing options** are available.

Please contact our technical sales team to request pricing and leasing information: sales@torrentphotonics.com