

BLUEEYE GEN. 2

UV Hyperspectral Imaging Camera (220 – 380 nm)

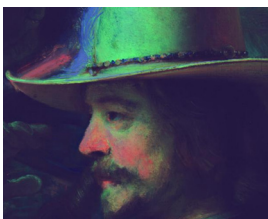
The inno-spec BlueEye Gen 2 hyperspectral camera operates over a UV wavelength range suitable for a variety of applications, offering unique advantages due to its utilization of shorter wavelength and higher energy radiation compared to visible and infrared light.

While standard HSI technology at longer wavelengths mainly visualizes molecular vibrations, the UV range is particularly sensitive to electron transitions, making it highly valuable in studies of non-molecular substances such as minerals or semiconductors. In addition, materials containing certain molecular structures such as conjugated systems will show a unique spectral response in the UV range.

Compatible with industry-leading perClass Mira, the BlueEye Gen 2 can be deployed on the benchtop as well as in the factory. Packages are available with UV lighting, an enclosure, and an ozone mitigation system.

APPLICATION AREAS:

- Biomedical research and commercial biotechnology
- Pharmaceutical tablet characterization
- Forensics and cultural heritage analysis
- Adhesive and film analysis
- Quality control
- Contamination detection
- Chemical analysis



BlueEye Gen 2 with thermo-electric cooling (TEC)

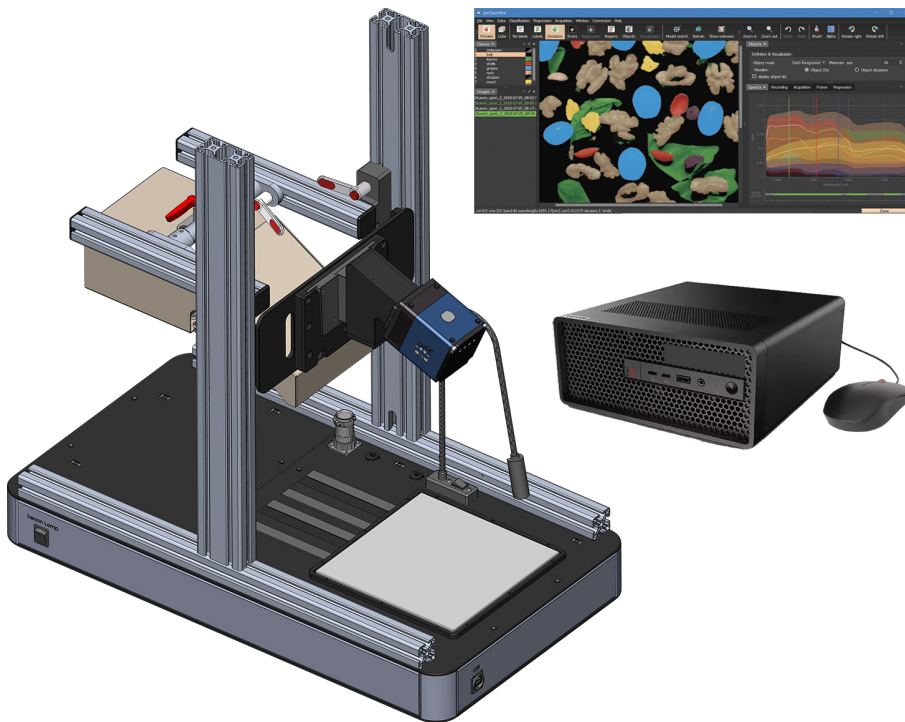
FEATURES:

- 1750 spectral pixels
- Robust design
- USB 3.1, Type-C interface
- Adjustable spatial and spectral ROI

TECHNICAL SPECIFICATIONS

Spectrograph	BlueEye PC	BlueEye TEC
Wavelength Range	220 - 380 nm	
Pixels ¹ (spatial x spectral)	2048 x 1750	
Spectral Resolution (FWHM)	< 2 nm (with 80 µm slit)	
Sensor	CMOS, Back-Illuminated	
Pixel Pitch	6.5 µm x 6.5 µm	
Numerical Aperture	f/2.4	
Maximum Frame Rate	40 fps (full-frame)	
ADC Bit-Depth	16-bit (2 x 12-bit ADC at low- and high-gain)	
Digital Interface	USB 3.1 type C	
Dimensions (LxWxH)	138 mm x 65 mm x 162 mm	138 mm x 87 mm x 204 mm
Weight (without lens)	1.4 kg	1.9 kg
Cooling Technology ²	Passive	TEC + Forced Air
Input Voltage	USB 3.1 Type C	USB 3.1 Type C + external 24 VDC
Maximum Power	6 W	30 W
Operational Temp Range, Humidity	+10 °C to +40 °C, 10 – 80% non-condensing	

¹ The 105 mm focal length lens enables the use of all 2048 spatial pixels and provides color correction for a 250 - 650 nm spectral range. The 25, 35, 50, and 75 mm lenses reduce the useable spatial pixels to ~1750 and provide color-correction across the full spectral range.



BlueEye TEC Gen. 2 on the UV Hyperspectral Imaging System. This package comes with a protective enclosure and ozone mitigation system, not shown here for clarity.

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BlueEye Gen 2 with thermo-electric cooling (TEC)

ACCESSORIES:

Lens focal length options:
25 mm, 35 mm, 50 mm,
75 mm, and 105 mm

perClass Mira acquisition
and analysis software
with run-time option

AVAILABLE AS PART OF THE UV HYPERSPECTRAL IMAGING SYSTEM:

A plug-and-play benchtop
scanning solution for UV
hyperspectral imaging

UV line light

Safety enclosure with
ozone mitigation
system

As a well-established
manufacturer of spectroscopic
measurement equipment,
INNO-SPEC provides optimized
solutions for your individual
applications; for example,
customized OEM cameras
for machine builders and
system suppliers.

REV1224

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