# SIMTRUM

# BLACKEYE<sup>©-</sup>

## MIR Hyperspectral Imaging Camera (2900 – 4200 nm)

The **BlackEye** is a linescan (pushbroom) hyperspectral imaging camera in the mid-infrared spectral range that allows the acquisition of real-time data with high spectral and spatial resolution.

This high-sensitivity and ultra-fast camera is an excellent solution even for the most challenging chemical imaging applications in laboratories and industrial manufacturing, for example, black plastic or mineral identification and sorting.

Combining superior optical design with advanced reflection grating technology, a fast cryo-cooled InSb detector and high-end electronics, the **BlackEye** camera provides an exceptional performance even under harsh environmental conditions.

By choosing various camera lenses (fore optics), the **BlackEye** can be easily adapted to a wide range of applications, ensuring optimal image quality and size.



#### **Features:**

- Superior sensitivity and stability
- High frame rate
- Outstanding imaging performance
- Robust design without moving parts

## SIMTRUM

### **Technical Specifications:**

#### BlackEye

#### Spectrograph

Spectral range Dispersion Spectral resolution Spatial resolution Smile Keystone F-number Slit width, default

#### **Electronics**

Sensor Pixels in full frame Pixel size Bit depth Frame rate Data interface Power consumption Power supply Cooling

#### **Operating Conditions**

Temperature (operating) Temperature (storage)

#### Mechanics

Dimensions I x w x h Weight Lens mount 436 x 184 x 258 mm 7 kg Bayonet

typ. 2900 to 4200 nm

< 18 nm (with 80  $\mu$ m slit)

rms spot radius < 40 µm

80 µm (others on request)

Gigabit Ethernet /CamLink

Stirling cooling, MTBF 8000 h

383 Hz @ integration time < 2.6 ms

171 nm/mm

< 180 µm

< 35 µm

4

InSb

14 bit

< 50W

320 x 256

30 x 30 µm

12 V / 5 A DC

- 5 °C to + 40 °C

-10 °C to + 50 °C

Please note that any specs on the data sheet are subject to change without notice.

As a well-established manufacturer of spectroscopic measurement equipment, **inno-spec** provides optimized solutions for any individual applications: from customized OEM components for system suppliers up to fully integrated turnkey solutions for the end-user.

#### Accessories:

- Dedicated lighting solutions
- Various mounting accessories
- Different fore optics: 7 mm, 13 mm, 25 mm, 50 mm, 100 mm
- Conveyor belt or stepper table available
- Several software packages can be provided

SIMTRUM China Telephone: +86 150 0085 3620 Email: <u>sales@simtrum.cn</u> 中国上海市杨浦区国康路46号2楼

