

REDEYE

NIR Hyperspectral Imaging Camera

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

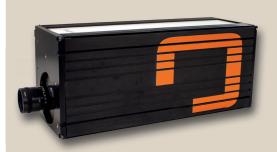
This new capability was developed from our vast experience with industrial applications we have delivered in the past decade.

Combining the superior optical design with its advanced 3-D transmission grating technology, highend electronics, and a fast FPA detector, the **RedEye** camera provide outstanding performance even under harsh environmental conditions.

inno-spec's new approach of material characterization provides reliable measurements combining chemical and spatial information. It therefore enables comprehensive analytical applications for the laboratory or for critical online or in-line monitoring in manufacturing processes.

To meet different user demands, multiple software packages are available: From hardware drivers through laboratory software up to fully automated real-time routines for rapid data acquisition, evaluation, and process control.

NEW



Features:

- Transmission grating configuration for superior sensitivity
- High spatial and spectral resolution
- High frame rate
- Excellent imaging performance
- Robust design without moving parts



Technical Specifications:

RedEye 1.7 - HighRes

Spectrograph

Spectral range typ. 950 to 1700 nm

Dispersion 106 nm/mm

Spectral resolution 10 nm (with 80 µm slit) Spatial resolution rms spot radius < 35 µm

 $\begin{array}{lll} \text{Smile} & < 60 \ \mu\text{m} \\ \text{Keystone} & < 50 \ \mu\text{m} \\ \text{F-number} & 2.6 \end{array}$

Slit width, default 80 µm (others on request)

Electronics

Sensor InGaAs
Pixels in full frame 640 x 512
Pixel size 15 x 15 µm
Bit depth 12 bit

Frame rate 330 fps (full frame)

4200 fps (4 bands)

Data interface Gigabit Ethernet

(GigE Vision standard)

Operating Power 230V AC 50Hz
Cooling 1-Stage TEC

Operating Conditions

Temperature

(operating) -5°C to + 40°C

Temperature

(storage) -10°C to + 45°C

Mechanics

Dimensions I x w x h 368 mm x 130 mm x 145 mm

Weight 4.3 kg

Lens mount Standard C-mount Protection type IP65 and IP67

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

Optionally, by replacing the input optics with a multifiber cable, the **RedEye** can be used as a synchronous multipoint, multichannel spectrometer.

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

Accessories:

- Tungsten halogen light sources in modular sizes
- Various mounting accessories
- Different fore optics:8 mm, 16 mm, 25 mm,35 mm, 50 mm
- Numerous software packages
- Multifiber bundle (up to 66 channels)

SIMTRUM Singapore Telephone: +65 6996 0391 Email: info@simtrum.com 71 Ayer Rajah Crescent, #06-03,S139951 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

