

REDEYE 1.7 OEM

NIR Hyperspectral Imaging OEM Module

Introducing the **RedEye 1.7 OEM**, the functional core of our standard **RedEye** system. It comprises the optics, an area scan NIR sensor and readout electronics.

This system offers a solution at a reduced price for integrators that can provide their own temperature management, protective case and data correction functions.

Developed through a decade of experience in delivering industrial applications, the **RedEye** camera family incorporates sophisticated optical design, advanced transmission grating technology, and a fast NIR detector, making it suitable for use in even the most demanding industrial applications.

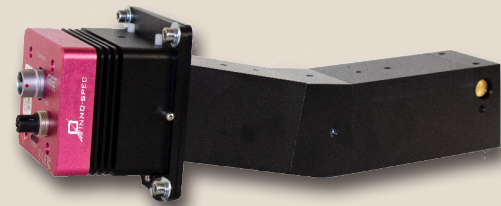
Our innovative approach to material characterization provides comprehensive analytical data for laboratory or manufacturing processes, combining chemical and spatial information at the same time.

Application areas:

- **Recycling industry**
- **Moisture content determination**
- **Food and harvest products**
- **Mining**
- **Pharmaceutical industry**



RedEye 1.7 OEM



Features:

- **Large pixel size for low-signal detection**
- **ROI (selectable region of interest) & Multi-ROI**
- **High frame rate > 340 fps**
- **GigE Vision standard interface**
- **Robust design**



Website



LinkedIn



Technical Specifications:

RedEye 1.7 OEM

Spectrograph

Spectral range	typ. 950 to 1700 nm
Dispersion	3.1 nm/px
Spectral resolution	9 nm (with 80 µm slit)
Spatial resolution	rms spot radius < 35 µm
Smile	< 60 µm
Keystone	< 50 µm
F-number	2.6
Standard slit width	80 µm (30, 50 and 100 µm available)

Electronics

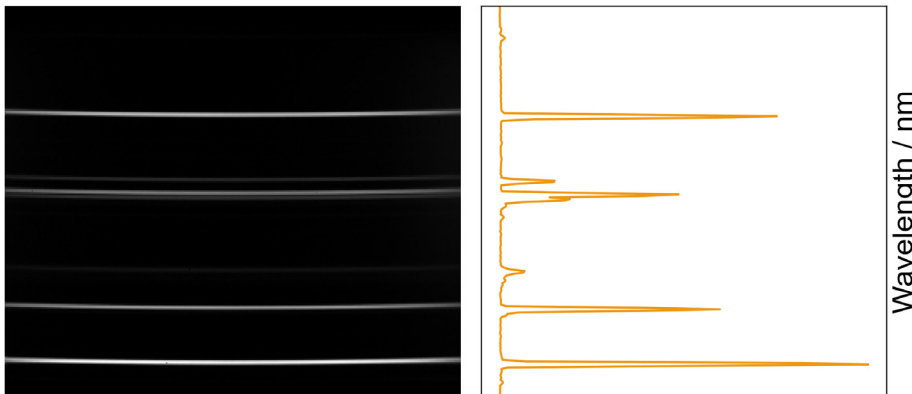
Sensor	InGaAs
Pixels in full frame	320 x 256 (spatial x spectral) pixels
Pixel size	30 µm x 30 µm
Bit depth	13 bit
Frame rate	330 fps (full frame) 4200 fps (4 bands)
Data interface	Gigabit Ethernet (GigE Vision standard)
Power supply	12 V DC
Cooling	1-Stage TEC

Operating Conditions

Temperature (operating)	-5°C to +40°C
Temperature (storage)	-10°C to +45°C

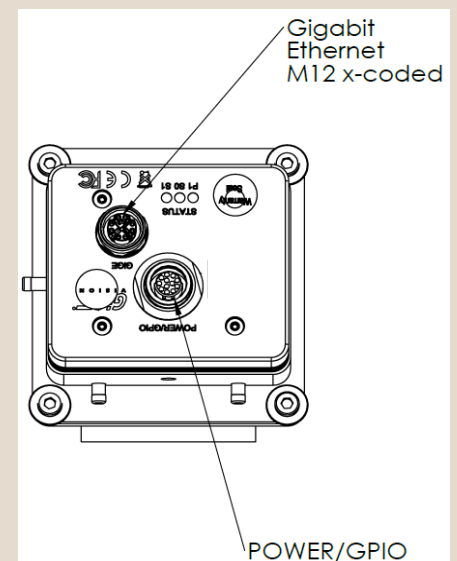
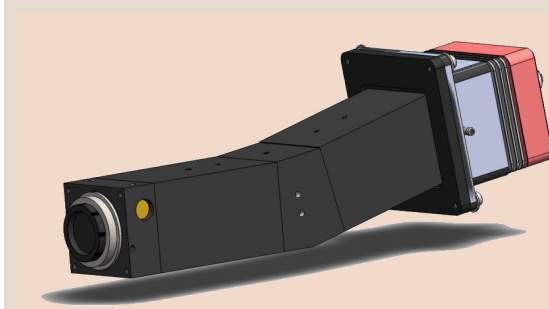
Mechanics

Dimensions l x w x h	275 x 81 x 87 mm ³
Weight	1.7 kg
Lens mount	standard C-mount



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

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



Accessories:

- **SDK (software development kit) for seamless integration into your process control software**
- **Tungsten halogen light sources in modular sizes**
- **Different objective lenses: ranging between 8 mm & 50 mm focal length**