



SWIR is a high-speed hyperspectral camera operating in the short-wave infrared range (1000-2500 nm). Its temperature-stabilized optics provide stability and sensitivity required in the most challenging chemical imaging applications, from pharmaceutical quality assurance to food and agriculture analysis.

BEST SUITED FOR

- Chemical and material sorting
- Pharmaceutical manufacturing
- Recycling and waste management
- Mineral mapping
- Food and agriculture
- Moisture content distribution
- Art research and archiving

SWIR camera is compatible with LUMO software, and datacubes are ENVI-compatible, allowing further hyperspectral data processing.

ACCESSORIES

- Fore objective lenses:

OLES 15 FOV 34 °

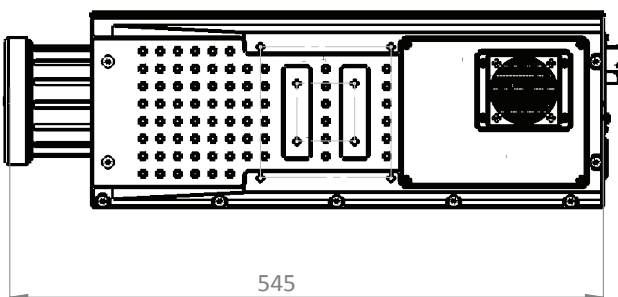
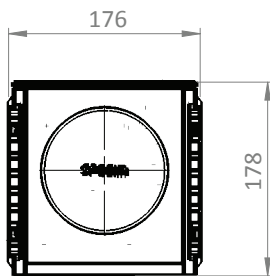
OLES 22,5 FOV 23 °

OLES 30 FOV 17 °

OLES 56 FOV 9 °

- Collection of fiber optics to convert the camera into a multiple-point spectrometer. All the points are measured simultaneously without a moving multiplexer.
- A rotating stage is available for scanning static targets and outdoor scenes, and an X-stage sample mover for desktop and microscope applications.

DIMENSIONS



OPTICAL CHARACTERISTICS	
Spectral range	1000 - 2500 nm
Spectral resolution (FWHM)	12 nm (30 µm slit)
Spectral sampling / pixel	5.6 nm
F/#	F/2.0
Slit width	30 µm (50 or 80 µm optional)
Effective slit length	9.2 mm
ELECTRICAL CHARACTERISTICS	
Sensor	Cryogenically cooled MCT detector
Spatial pixels	384
Spectral bands	270-288 (number of spectral bands may vary due to the camera characteristics)
Pixel size	24 x 24 µm
Detector cooling	Stirling, 25 000 h MTTF
Signal-to-noise ratio	1050:1 (at max. signal level)
Camera output	16 bit CameraLink
Data cable Length	5m
Camera control	USB/RS232
Frame grabber	NI-1433 Epix grabber E4*
Frame rate	450 fps (maximum full frame)
Exposure time range	0.1 - 20 ms
Power consumption	Nominal < 50 W
Input voltage	18 - 36 V
MECHANICAL CHARACTERISTICS	
Size (L x W x H)	Sensor 545 x 176 x 178 mm, PSU & control unit 300 x 190 x 130 mm
Weight	14 kg & approx. 5 kg
Body	Anodized aluminium with mounting screwholes
Lens mount	Standard C-mount
Shutter	Electro-mechanical
ENVIRONMENTAL CHARACTERISTICS	
Storage	-20... +50 °C
Operating	+5... +40 °C non-condensing

*Requires Lumo 2022 update 1

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