SPECIM SWIR



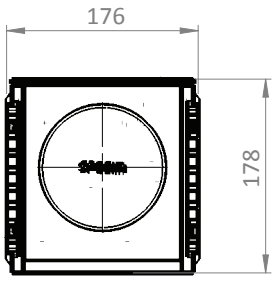
Specim SWIR is a high-speed hyperspectral camera operating in the short-wave infrared range (1000-2500 nm). Its temperature-stabilized optics provide stability and sensitivity required in the most challenging chemical imaging applications, from pharmaceutical quality assurance to food and agriculture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

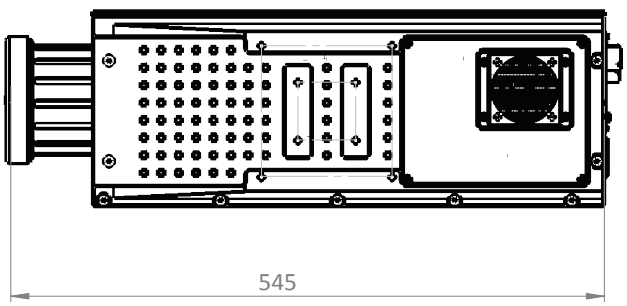
Specim SWIR camera is compatible with LUMO software, and datacubes are ENVI-compatible, allowing further hyperspectral data processing.

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

DIMENSIONS





ACCESSORIES

- Fore objective lenses:

  OLES15 – FOV 34 °

  OLES30 – FOV 17 °

  OLES56 – FOV 9 °

  OLES9 – FOV 54 °

  OLES22 – FOV 23 °

  OLESMACRO

- 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.

OPTICAL CHARACTERISTICS	
Spectral range	1000 - 2500 nm
Spectral resolution FWHM (typical mean)	7.5 nm +/- 0.9 nm (2 sigma)
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
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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