

# Deep-cooled scientific SWIR camera

## ➤ SIRIS

InGaAs sensor FPA 640x512, 0.9- 1.7  $\mu\text{m}$

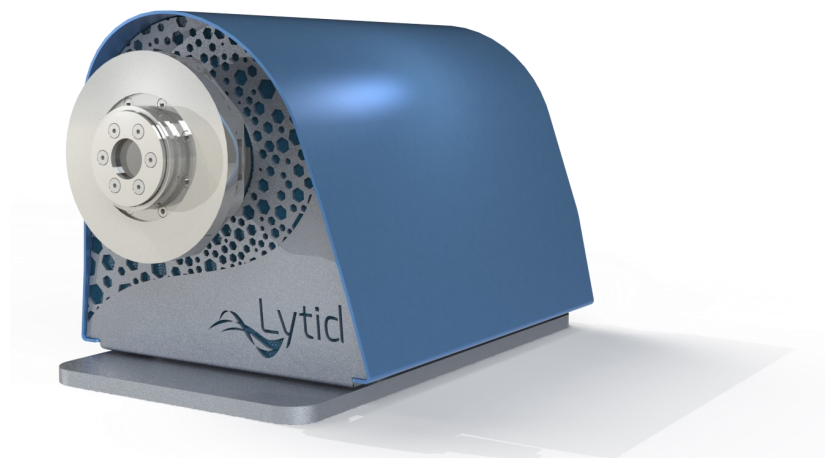
Ultra-high dynamic in lin/log mode, up to 120 dB

Vibration-free cryogenic-free cryocooler down to 50 K

Ultra-low Read-Out Noise < 10e-

Ultra-low dark current

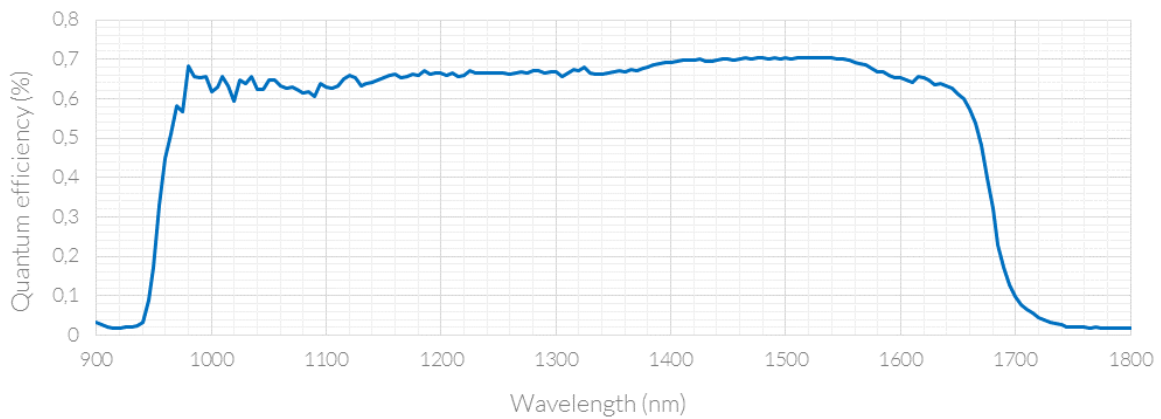
200 fps full frame



The **SIRIS** (Short-wave InfraRed Imaging System) is the most versatile SWIR camera on the market, providing high speed with ultra low noise performances. **SIRIS** provides two read-out modes, full linear and linear/logarithmic, that combines with non-destructive read-out (NDRO) allows for class-leading dynamic range. Three adjustable gain levels ensure flexibility to suit broad variety of illumination conditions. Long exposure time up to one hour is achievable, and selectable region-of-interest on the detector

allows exceptional frame rate values. **SIRIS** camera is ready to be used in a few minutes thanks to a closed cycle vibration-free maintenance-free space-qualified cryogenic-free cooler. Standard connectivity is available through a full speed Camera-link data interface and C-mount optics. Thanks to its high-edge performances, **SIRIS** is the perfect tool for ambitious scientific applications, such as astrophysical observations, hyperspectral and biological imaging, spectroscopy and semiconductor failure detection.

## Quantum efficiency



### Features :

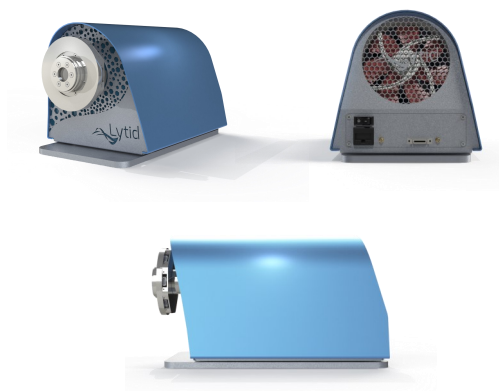
- Vibration-free cryogenic- free cooler
- > 10 000 FPS in ROI mode
- Three pixel-gain levels

### Applications :

- Astrophysical observations
- Semiconductor Failure Analysis
- Medical imaging, including microscopy (cellular, fluorescence)
- Spectroscopy
- Hyper spectral imaging

### Options :

- HDR mode
- Bandpass filters



Specifications	SIRIS
<b>Detector</b>	
Type	InGaAs
Resolution	640 x 512
Spectral Response	0.9 – 1.7 $\mu\text{m}$
Pixel size	15 $\mu\text{m}$
Dual-mode sensor	CTIA-linear Lin/Log
<b>Performance</b>	
Dark signal	<10e-/s @ 150 K
Gain	3 pixel-gain levels
Read-out modes	Standard & NDRO
Read-out-Noise	<50e- lin mode, high gain <10e- NDRO
Well depth	300ke-, lin mod, low gain
Dynamics	>120dB, lin/log
Digitization	16-bit
Shutter	Global & NDRO
Region-of-interest	ROI on detector, configurable
Frame-rate	200 fps full frame > 10 000 fps with ROI
Exposure time	From 1 $\mu\text{s}$ to 1h
Trigger	Trig. In and Out (to 10ns)
Software	Camera link
Cooling	300 K- 75 K, cryocooler
Accessory	C-mount

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 Empower your application