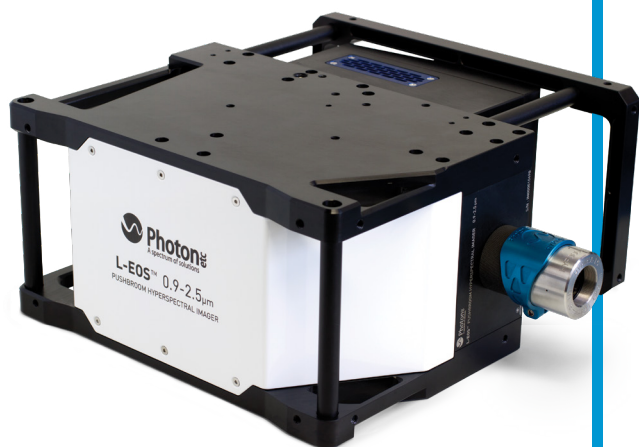


# L-EOS™

## HYPERSPPECTRAL CAMERA



### KEY FEATURES

#### 1. Scientific-Grade Precision:

low background noise, high dynamic range, and exceptional signal-to-noise ratios.

#### 2. Advanced Thermoelectric Cooling:

4 stages of thermoelectric cooling. Achieve temperatures as low as -60°C or -80°C, optimizing signal-to-noise ratios for precision applications.

#### 3. Industrial-Ready Robustness:

Our infrared cameras, objective telecentric lenses and precise spectrometers are engineered to provide reliability in even the harshest industrial environments.

#### 4. Versatile Applications:

tailored to meet the unique demands of your industry with precision and reliability.

Discover the pinnacle of hyperspectral infrared imaging technology at Photon etc. The L-EOS is your premier source for cutting-edge solutions tailored to industrial applications with its unique combination of scientific grade camera, thermoelectric cooling and industrial design.

TECHNICAL SPECIFICATIONS		
	L-EOS 1.7	L-EOS 2.5e
Spectral range	900-1700 nm	1000 - 2500 nm
Sensor	InGaAs (Alize™ 1.7)	T2SL (ZephIR™ 2.5e)
Cooling Temperature @ 20 °C ambient	-60 °C	-80 °C
Spectral channels	640	640
Spectral resolution (FWHM slit image)	7.8 nm	15.3 nm
Spectral sampling (Typical dispersion)	1.3 nm/px	2.6 nm/px
Spatial channels	512	512
Spatial resolution (RMS spot radius on sensor)	6 pixels	6 pixels
Standard slit width	30 µm	
Aperture	f/2.1	
Pixel size	15 µm	15 µm
Typical readout noise (High gain)	35 e-	45 e-
Max frame rate	250 fps	240 fps
Dimensions	33 x 33 x 23 cm	
Weight	10 kg	
Operating temperature	10 °C to 35 °C	
Camera Interface	USB 3.0 and CameraLink™	
Mechanical shutter	yes	
Harmonic suppression	N/A	yes
Power consumption	35 W	35 W
Smile / Keystone	subpixel	subpixel
Peak SNR at full resolution	4444	1140
Lens options with FOV	HypIRia 11 mm: 37.8° x 0.15° HypIRia 15 mm: 27.8° x 0.11° HypIRia 25 mm: 17.5° x 0.07°	



# L-EOS™

## HYPERSPSCTRAL CAMERA



### MATERIAL SORTING (PLASTICS AND TEXTILES)

In the material sorting subsector, we optimize waste management with advanced optical sensors that detect and separate different types of materials based on their unique optical properties. This results in more efficient and accurate sorting of recyclable materials, reducing the amount of waste sent to landfill.



### HYDROCARBON DETECTION

In hydrocarbon detection, the use of infrared sensors and hyperspectral imager improves the detection and identification of hydrocarbons, allowing for monitoring of oil and gas leaks in pipelines and tanks, thereby enhancing safety and environmental protection.



### MINING

In the mining subsector, we use photonic technology to improve mineral detection, enabling more precise exploration of mineral deposits and more efficient extraction of minerals. The combination of hyperspectral with other types of optical sensors (LIBS, XRF, LIF) can be used for precise geological analysis, reducing costs and waste in the extraction process.



### AGRICULTURAL AND AGRI-FOOD MARKETS

In the agricultural and agri-food markets, our optical sensors monitor crop quality and growth in real time. Infrared sensors can be used to monitor chlorophyll levels in plants with fluorescence allowing for monitoring of their health and growth.

Photon etc. is committed to advancing the industrial sector with our cuttingedge photonic solutions. Let us help you improve productivity, reduce costs, and enhance safety in your industry.