

Product Brief: Development Kit

Bringing Spectral Information to Computer Vision



Spectral imaging at video speeds

Image with more information and speed than previously possible.



All-in-one package

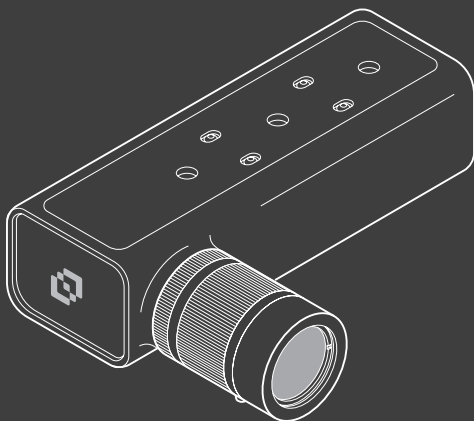
Portable spectral camera with the compute power and tools to capture and analyse spatial-spectral information.



Developer ready

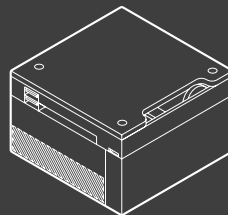
Familiar software tools for computer vision engineers to exploit spectral information in their applications.

Camera



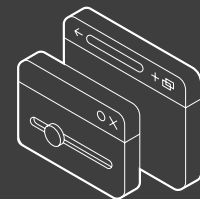
RGB Imaging and VIS-NIR spectral sampling at video speeds.

Edge Compute



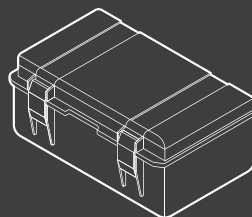
The GPU processing power for realtime spatial-spectral data processing.

Software Development Kit



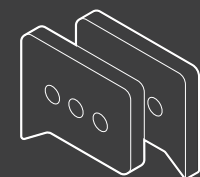
Python API, examples and tutorials.

Field kit accessories



Waterproof carry case, battery, external data storage and tripod mounting.

Support



Technical email support and knowledgebase access.

Specifications

Feature	Value	Notes
Camera		
Spatial samples	5M pixels	RGB Imaging sensor
Field of view (FOV)	4° to 21°	12-60mm manual zoom lens
Spectral samples	4384	Sparse sampling points across 5M pixels
Wavelength range	440-900nm	VIS-NIR bandwidth
Wavelength bands	96	For each spectral sampling point
Wavelength FWHM	8-20nm	Wavelength dependent
Bit depth	12 bit	Raw sensor pixel data
Frame rate	30 fps	Max data capture rate
Size	207mm × 84mm × 57mm	Camera excluding lens
Weight	< 1kg	Camera excluding lens
Interface	Dual FAKRA coaxial RF and 5m cables	Combined data and power
Edge Compute		
Type	NVIDIA® Jetson AGX Orin™	
OS	Jetson Linux based on Ubuntu 20.04	Provided by NVIDIA®
Storage	2TB NVMe SSD + 64GB eMMC	
Camera interface card	Dual FAKRA coaxial RF	Card installed on the Orin MIPI CSI-2 connector
Networking	RJ45 10GbE 802.11 Wi-Fi	
Size	110mm × 110mm × 84mm	
Weight	0.9kg	
Power	15-60W	Jetson AGX Orin
Camera Tool		
Camera Tool GUI	Camera control, data acquisition and processing	Control the Camera from a mobile device
Software Development Kit (SDK)		
Python API	Python - Application programmers interface	
Examples and Tutorials	Code examples and tutorials to get going quickly	
Field kit accessories (optional)		
Waterproof carry case	Pelicase IM2400	
Battery	88Whr providing > 2 hours typical operation	
External storage	2TB SSD	
Mounting	Tripod and arca-swiss quick release plate	

Follow the QR code for more information:



About Living Optics

Living Optics is on a mission to make hyperspectral imaging widely accessible. Our pioneering technology captures information inaccessible to both the human eye and traditional cameras, and delivers this in an affordable and portable package for a diverse range of industrial and consumer applications.