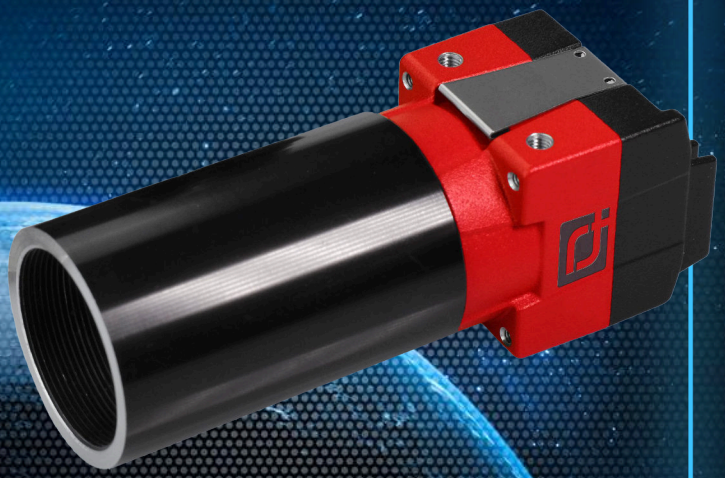
SWIR Snapshot Pioneer

ULTRIS SWIR 1



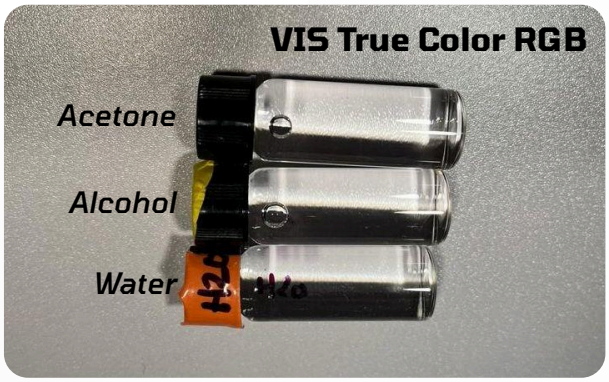
Hyperspectral Snapshot SWIR Camera at Video Rates

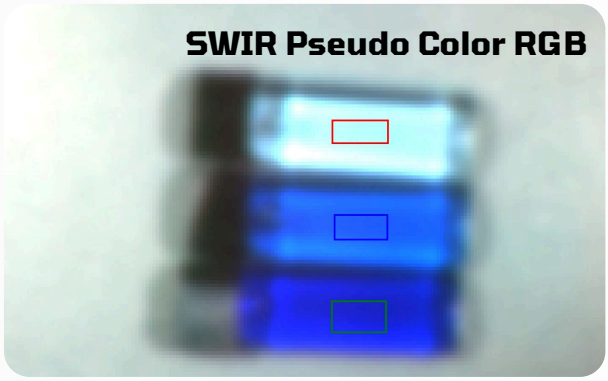
Based on our hyperspectral light field camera technology, the ULTRIS SWIR 1 offers a versatile imaging solution with its broad wavelength range (980-1650 nm) within the **Short-Wave Infrared** region. The C-Mount compatibility, supported by the integrated Relay Lens Adapter, enables seamless integration of various optics setups.

Notably, the Relay Lens allows users to **change lenses** at any time. The camera's high-speed imaging of up to **80 Hz** further ensures efficient capture of dynamic scenes. With its compact dimensions (30x30x85 mm), the ULTRIS SWIR 1 is ideal for space-limited applications in laboratories or field.

Technical Specifications ULTRIS SWIR 1

Technology	Light Field	Attachable Optics	C-Mount (for 2/3" sensors)
Readout	Global Shutter	FOV (Field of View)	any (lens-dependent)
Spatial Resolution	200 x 200 pixel	Data Depth	12 bit
Wavelength Range	980 - 1650 nm	Max Frame Rate	80 Hz
Spectral Bands	38	Data Link	USB 3.0
Spectral Sampling	18 nm	Sensor	Sony IMX990
FWHM	70 nm @ 950 nm	File size processed	3 MB
Spectral Data Points	38 x 40 000 (1.5 M)	Weight	140 g (w/o lens)
Bandpass Filter	LVF	Dimensions	30 x 30 x 85 mm (w/o lens)
Integration Time	0.1 – 1000 ms	Options	Relay Lens Adapter





Various SWIR Applications

1000-1100 nm: Enables precise **soil moisture** mapping for agriculture.

1100-1300 nm: Enhances **plastics quality** assessment and aids in moisture content analysis for food products.

1300-1500 nm: Detects **carbon-hydrogen bonds**, offering insights for chemical analysis.

1500-1700 nm: Excels in **water content** assessment, beneficial for rapid evaluation in agriculture and detailed analysis in various substances.

Notably, the SWIR region is valuable for **art restoration**, making details, or even old and hidden paintings.

The Snapshot Advantage

Thanks to its snapshot nature, the ULTRIS SWIR 1 offers distinct advantages over push-broom systems. Instantaneous capture accelerates data acquisition for **dynamic environments**, reducing motion artifacts, and simplifying setup. With **no moving parts**, the camera exhibits high robustness, simplifying setup, enhancing durability, and providing adaptability for improved overall performance across various applications.

cubert VIDEO SPECTROSCOPY

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Need more information?

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