HINALEA VSWIR PRO

HYPERSPECTRAL IMAGER
500 – 1700 nm



FRONT-STARING, FULL-FRAME IMAGING

No trade-off between spectral and spatial resolution

CUSTOMIZED SPECTRAL ACQUISITION OPTIONS

Application specific spectral calibrations available.

INTEGRATED SOFTWARE PLATFORM AND SDK

Includes powerful tools for data analysis and integration

Hinalea

INTELLIGENT HYPERSPECTRAL IMAGING

www.hinalea.ai

HINALEA VSWIR PRO

SPECIFICATIONS

The HINALEA VSWIR PRO intelligent imaging system combines two spectral ranges in a compact, front-staring hyperspectral imager. Its tunable Fabry-Perot Interferometer captures complete two-dimensional images at each wavelength, producing high-quality hyperspectral data cubes without mechanical scanning.

Designed for laboratory research, industrial machine vision, and remote sensing, the VSWIR Pro delivers high spectral fidelity, excellent spatial resolution, and flexible system integration in a portable and cost-effective platform.

SPECTRAL PERFORMANCE

Standard lens	12° FOV (optional 23°) Focus from 250 mm to ∞
Sensor spatial resolution	1280 x 1024 (1.34 MP)
Spectral range	500 –1700 nm
Spectral bands	300
Spectral resolution	15 nm FWHM
Dynamic range	8 or 16-bit
Illumination	Optional

SENSOR INFORMATION

Sensor type	Extended InGaAs
Objective mount	SM1

MECHANICAL

Dimensions (L×W×H)	222.8 mm x 76 mm x 77.8 mm
Weight (Mass)	6.0 lbs. / 2.7 kg

ELECTRICAL

Input voltages	Controller: 12VDC, 30W Sensor: 10.8-30VDC
Data interfaces	Controller: USB 2.0 Micro Sensor: Gigabit Ethernet/IEEE 802.3 1000BASE-T

ENVIRONMENTAL

Operating temperature	15 °C to 30 °C
Humidity	65%, non-condensing

Subject to change

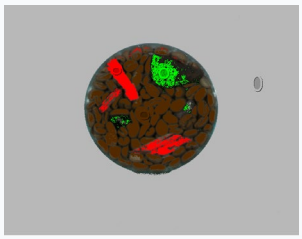
KEY BENEFITS

- **High-Quality Hyperspectral Data:** Full-frame image acquisition delivers highly uniform, spatially registered hyperspectral data cubes for quantitative analysis.
- **Customized Spectral Acquisition Options:** Application specific selected spectral band calibrations available for higher speed acquisition.
- **Compact and Portable:** Lightweight design simplifies laboratory and field deployments.
- **Open Data Workflow:** Export hyperspectral data cubes in industry-standard formats for seamless analysis in ENVI, MATLAB, Python, Hinalea software, and other 3rd party platforms.

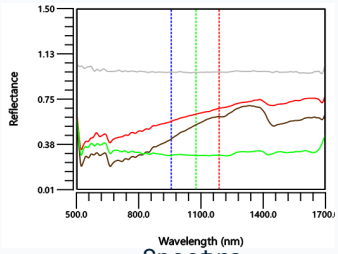
(formerly Model 4300)



RGB Image



HSI Image



Spectra