HINALEA VNIR CORE

HYPERSPECTRAL IMAGER
420 – 980 nm



FRONT-STARING, FULL-FRAME IMAGING

No trade-off between spectral and spatial resolution

LIVE SPECTRAL IMAGING

Live stream classified images

INTEGRATED SOFTWARE PLATFORM AND SDK

Includes powerful tools for intuitive data analysis and integration

Hinalea

INTELLIGENT HYPERSPECTRAL IMAGING

HINALEA VNIR CORE

SPECIFICATIONS

The **HINALEA VNIR CORE** imaging system (VCORE™) can operate across a range of acquisition modes, from full static hyperspectral cube acquisition to live stream operation. For applications where only a small number of diagnostic bands are required, near real-time operation can materially increase cube throughput while preserving the front-staring, full-frame acquisition advantages of Hinalea's proprietary Fabry-Pérot technologies.

SPECTRAL PERFORMANCE

Standard lens	FOV: H: 60°, V: 50°, D: 74°; Focus: 100 mm to ∞
Sensor spatial resolution	1280 × 1024 (1.3 Megapixel)
Spectral range	420–980 nm
Number of Bands (Spectral Sampling)	40 (140)
Spectral resolution	14 nm FWHM
Dynamic range	10-bit
Illumination	Optional

SENSOR INFORMATION

Sensor type	CMOS

MECHANICAL

Dimensions (L×W×H)	112 x 56 x 34 mm
Weight (Mass)	0.5 lbs / 235 g

ELECTRICAL

Input voltage	5V (4.5W)
Data interfaces	USB 3.0

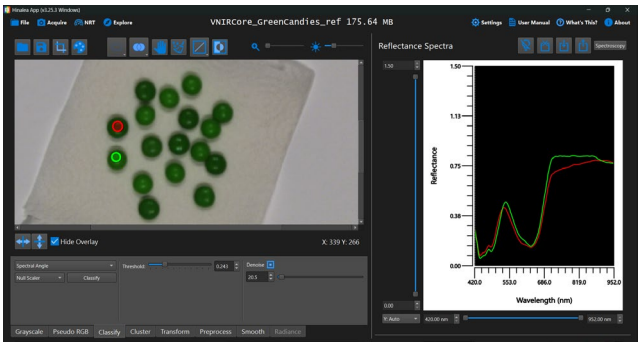
ENVIRONMENTAL

Operating temperature	-10 °C – 50 °C
Humidity	65% non-condensing

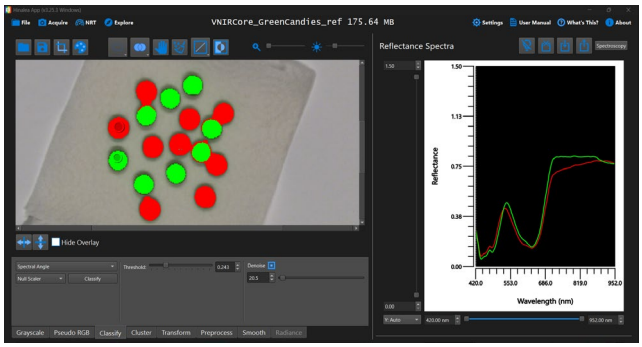
Subject to change

KEY BENEFITS

- **High-Quality Hyperspectral Data:** Full-frame image acquisition delivers highly uniform, spatially registered hyperspectral data cubes for quantitative analysis.
- **Live Stream Capability:** Maintains full-frame front-staring imaging advantages during NRT (Near Real-Time) live stream mode operation.
- **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.



RGB Image



Classified HSI Image