Model 4300

500 - 1700nm VSWIR

Intelligent Imaging

Hinalea's Model 4300 is the next generation system in its series of award-winning intelligent hyperspectral imaging solutions. The Model 4300 covers both the visible and shortwave-infrared (SWIR) spectral range from 500 to 1700 nm. The 4300 model is a front staring band sequential/framing hyperspectral imager that does not require mechanical scanning. It combines high spectral and spatial performance, with affordability and portability.

HIGHLIGHTS

- High spatial and spectral resolution
- Real-time imaging and classification
- VSWIR (500 - 1700 nm)
- 300 spectral bands
- 15 nm FWHM
- Spatial resolution 1.34 MP

五鈴光學 ISUZU OPTICS 台灣區授權代理商 **Taiwan Authorized Dealer:** 五鈴光學 **ISUZU OPTICS**
6F-11, No.26, Tai-Yuan Street, Chupei, Hsinchu, 30288, Taiwan | TEL: +886-3-5526689 | FAX: +886-3-5526796 | E-Mail: sales@isuzuoptics.com.tw
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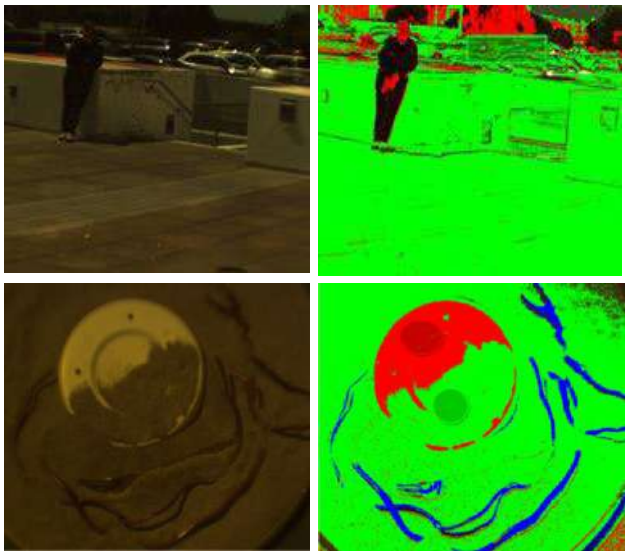
The major features and benefits of the 4300 system over push-broom systems include:

- Image uniformity: Line-scanning systems rely on constant conditions for optimum performance and are susceptible to subtle environmental changes that can adversely impact image uniformity. Because the 4300 images the entire area of interest at once, it can capture highly uniform images even in dynamic conditions.
- Application flexibility: Front-staring systems offer other advantages over line-scanning technologies for environmental monitoring applications, most notably more versatile viewing geometry options. Such systems can not only be mounted statically, but they can also be used externally in mounted on airborne platforms.
- Real-time classification: One of the unique attributes of the 4300 system is its wavelength selectivity, which can be dynam ically controlled based on the application and object to be imaged. The system allows a range of operational modes from high spectral resolution static image capture with hundreds of bands to near real-time image capture and classification.
- Complete solution: The 4300 systems include application software for not only acquisition but also image exploration and classification. Our software includes easy to use tools allow the easy and intuitive application of sophisticated segmentation algorithms that are presented immediately to the user.
- Cost: Hinalea's systems are designed with mass manufacture in mind. As such, our systems typically cost a fraction of competitive solutions with similar levels of performance

CLASSIFICATION EXAMPLE



4300 TECHNICAL SPECIFICATIONS

MECHANICAL	
Dimensions (LxWxH)	76 x 77.8 x 223 mm
Weight (Mass)	3 Kg (6.0 lb.)
ELECTRICAL	
Input voltage	100-240V, 50-60 Hz
Data interfaces	USB2.0, connector USB micro Gigabit Ethernet/IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
ENVIRONMENTAL	
Operating Temperature	15C° to 30C°
Humidity	65%, non-condensing

SCAN PERFORMANCE	
Standard lens	Focus from 250 mm to ∞; 18° FOV
Sensor spatial resolution	1280 (H) × 1024 (V) - 1.34 MP
Spectral range	500-1700 nm
Spectral bands	300
Spectral resolution	15 nm (FWHM)
Dynamic range	User selectable: 8- or 16-bit
Illumination	Optional

The material in this document is accurate at time of publication. Hinalea Imaging reserves the right to modify this information as it incrementally improves the product

Contact us!
Sales@hinalea.ai or at
www.hinalea.ai

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