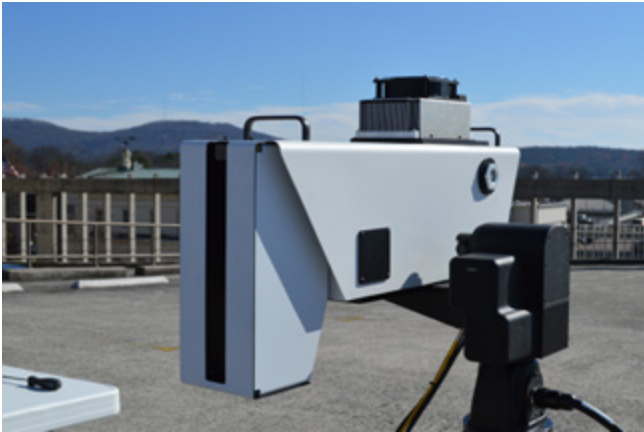


Corvus Hyperspectral



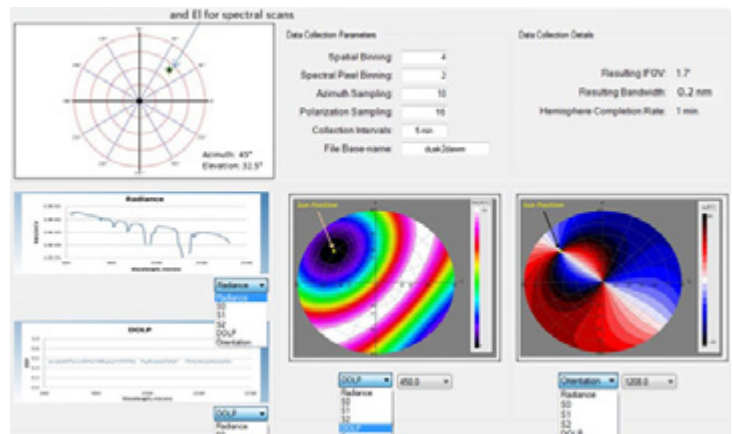
Detector	Scientific CMOS Detector Array
Waveband	380µm-1000µm
Pixel Pitch	6.5µm
Resolution (HxV)	1 x 2200 pixels
Standard Lens	9mm f/2.4 (others available)
Spectral Line Width	0.64nm
Bit Depth	16bits
Exposure Time	10ms-3,000ms
Max Frame Rate	30Hz
Field of View (Standard Lens)	72°
Input Voltage	24W
Size with Standard Lens (LxWxH)	30" x 7.5" x 19"
Weight with Standard Lens	40lbs
Data Interface	Camera Link
Full Frame Operability	>99.99%
Steady Power @ 70°F	300W
Camera Frame Rate	30Hz
Environmental	Light Rain Resistant

Summary

- Measures full sky polarization between wavelengths of 400 to 1000nm in 0.64nm increments.
- Uses a push-broom hyperspectral sensor that is systematically scanned across the sky to measure full hemispherical map of sky down-welling polarization as a function of wavelength.
- The polarization is reported as Stokes images (S0, S1, S2), and degree of linear polarization and orientation of linear polarization
- Fully automated and collects a data cube (wavelength, Azimuth Angle, Elevation Angle, Radiance, S0, S1, DOLP, Orientation) of the sky completely under computer control
- A data viewer allows the user to explore the data cube with a convenient, intuitive set of line plots and false color maps

Applications

- Crucial to the scientific understanding of polarized sky down-welling radiation
- Designed to support the development of sky navigational systems
- Spectral sensing of the sky radiation
- General spectral-polarization phenomenology investigations of sky terrain



User interface for collecting and analyzing hemispherical sky polarization

Polaris
Sensor Technologies, Inc.

200 Westside Square, Suite 320 | Huntsville, Alabama 35801
256.562.0087 | info@PolarisSensor.com | www.PolarisSensor.com
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