

Vela LWIR



Detector	HgCdTe
Waveband	7.5 μ m-11.1 μ m
Pixel Pitch	15 μ m
Resolution (HxV)	640 x 480 pixels
Dual Focal Length Lens EFL	45mm/135mm
Field of View (Standard Lens)	12° x 9° / 4° x 3°
Camera Frame Rate	120Hz
Full Frame Operability	>99.9%
Multispectral	6 pos. chilled filter wheel
Size with Standard Lens (LxWxH)	10" x 12" x 8"
Weight with Standard Lens	31lbs
Data Interface	GigE
Environmental	Field Test Compatible
Steady Power @ 70°F	8W

Summary

- High-speed half wave rotating retarder imaging polarimeter that operates in the LWIR spectrum.
- Collects imagery at different polarization states sequentially in time at up to 120 frames per second
- Highest sensitivity among all of Polaris' LWIR imaging polarimeter offerings
- Includes a 6-position filter wheel that can be chilled to 77K with a LN2 pour fill Dewar
- The integrated lens is a dual focal length 45mm/135mm for wide and narrow FOV viewing
- Controlled by Grave', a mature and complete software package especially designed for imaging polarimeters. Includes real-time processing of radiometric data products, polarimetric data products, region of interest statistics, and processing.
- Operates with a laptop computer and a single connection GigE cable

Applications

- Detection of man-made objects even during thermal cross-over periods (when thermal imagery is low contrast)
- Detection of man-made objects in natural clutter
- Facial recognition
- Detection of oil on water
- Phenomenology



Polarimetric information is fused with standard radiometric data.

Polaris

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