

Ursa Minor LWIR



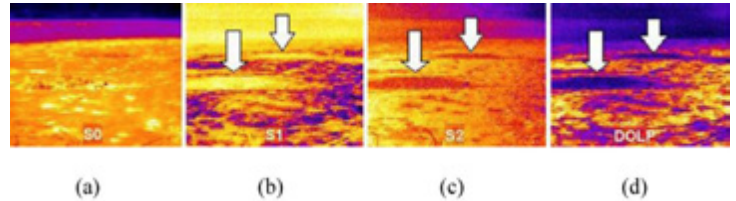
Detector	Microbolometer
Waveband	7.5 μ m-13.5 μ m
Pixel Pitch	17 μ m
Resolution (HxV)	336 x 256 pixels
Field of View (Standard Lens)	30° x 23°
Camera Frame Rate	30Hz
Size with Standard Lens (LxWxH)	1.75" x 1.75" x 1.18"
Weight with Standard Lens	2.5lbs
Data Interface	NTSC
Power Supply	12V DC or 8AA Batteries
Input Power	6W

Summary

Created to minimize sensor head weight and provide a simple user interface, the Ursa Minor LWIR provides real-time analog display capability via a polarizing beam splitter. This architecture provides the lowest sensor head SWaP possible without introducing the need for pixel interpolation. By removing the sensor head from the real-time processing electronics, the user is free to determine the optimal mounting locations for a wide range of applications including aerial surveillance, body worn sensors, robotics, etc. The images resulting from the real-time electronics include the first two elements of the Stokes vector (S0 and S1) and can be viewed in real time on any analog display.

Applications

- Route clearance
- Footprint detection
- Autonomous vehicle navigation
- UAV surveillance
- Facial recognition



No disturbed earth detection is made in the thermal imagery, while the polarimetric images clearly identify the disturbed earth regions, which are called out by the arrows in the above imagery. (a) Conventional LWIR thermal image S0; (b) Stokes image S1; (c) Stokes image S2; and (d) DoLP image.

