

NightConqueror for UGVs

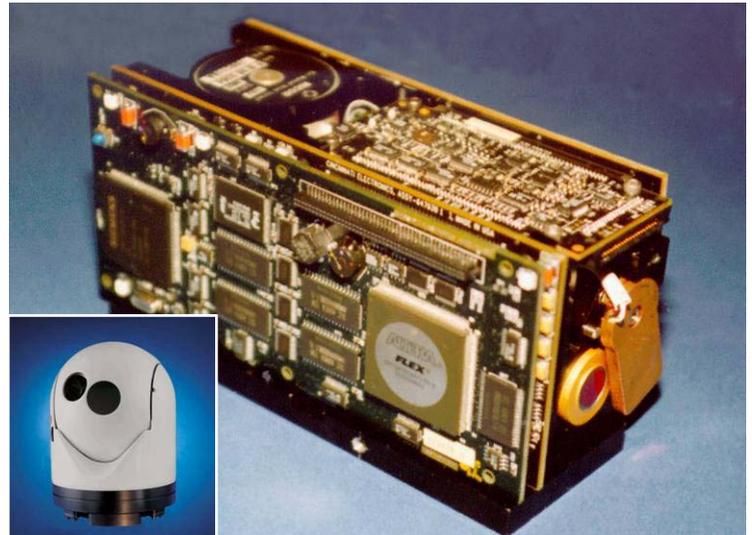
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VENDOR DESCRIPTION

Configured for easy integration into a range of small lightweight gimballed sensor payloads for land and marine applications, the NightConqueror family of advanced thermal imaging modules enhances situational awareness and provides long-range detection and identification.

Separately integrated dual sensors provide full stereoscopic steering unaffected by the rigors of all-terrain navigation. The high thermal sensitivity resulting from the unique array architecture and integral spectral filter gives the 2D MWIR FPA imager the ability to clearly discriminate inanimate objects and other obstacles without a gimbal.

The Thermal Imaging Module, integrated together with state-of-the-art visible and ranging sensors, is compatible with other mission equipment such as auto trackers, moving maps and GPS.



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Business Category: Large Business

PIR

Power Source		Environmental	
Sensors	25 W operation. Accepts 18 to 38 VDC; MIL-STD-1275 compatible 15 VDC input is an optional configuration.	High Temp	+71°C (Storage) +55°C (Operating)
		Low Temp	-40°C (Storage) -32°C (Operating)
		Altitude	10,000 ft (Operating) 50,000 ft (Transit)
		Humidity	95% relative humidity per MIL-STD-810E
Supplemental Battery Box	Determined by UGV system. SINGARS battery typical.	Immersion	N/A; determined by enclosure selected
		Sand/Dust	Determined by enclosure selected
		Salt	48 hours exposure per MIL-STD-810E (typical enclosed units)
Monitor	Determined by system's operation base design; typically not with sensor on a UGV.	Fungus	Determined by enclosure selected
		Shock/Vibe	Random vibration, shock, cargo & drop test/MIL-STD-810E
		EMI/EMC	MIL-STD-461, Level CE101, CE102, RE101, RE102

Sensor	Description	Detection	Size/Weight	Features
Passive Infrared	Long-distance imaging to see before being seen by enemy. Thermal imaging using temperature difference between targets and background. 24-hour performance.	Detection (Wide FOV) NATO Target 4.7 km Man 1.7 km	Size: 71 mm x 71 mm x 167mm Weight: 1.3 kg (Sensor size & weight are without lens)	<ul style="list-style-type: none"> ■ 640 x 512 FPA ■ White & black hot video ■ AGLC (Auto Gain & Level Control) ■ Dual FOV lens ■ Electronic zoom ■ RS-422/232 serial control ■ Winter to tropic scenes ■ 14-bit serial image data ■ MRTD <10 mK ■ Short exposure for non-stabilized autonomous land steering ■ F/4 for minimum size, weight & system cost ■ 10,000 hour MTBF and low lifetime system costs
	InSb 640x512 FPA for full video display resolution (RS-170, NTSC or PAL)	Recognition (Narrow FOV) NATO Target 4.4 km Man 1.5 km		
	MWIR (3 to 5 um) thermal bands with CO2 notch filter for ultimate long-distance and high humidity performances.	Identification (Narrow FOV) NATO Target 2.2 km Man 0.8 km		
		Target Size & Delta Temp: NATO Target (2.3 x 2.3m) = 1.25°C 50% Probability Man (0.75 x 0.75m) = 2°C		