

VENDOR DESCRIPTION

NightConqueror SeeSpot Thermal Imager

One of a family of advanced thermal imaging sensors, the NightConqueror SeeSpot provides the baseline sensor for a series of payloads designed for 24-hour precision target location and designation. Integrated together with state-of-the-art targeting and ranging sensors, the NightConqueror, in addition to providing precision target location for conventional artillery and laser designation for semi-active laser precision-guided munitions, also supports reconnaissance, surveillance and target acquisition for next-generation munitions such as SADARM, JDAM and JSOW. 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 between the image of the laser spot and the target.



Product Manager Robotic & Unmanned Sensors

Telephone: (732) 427-5827 / DSN 987

Fax: (732) 427-5072 / DSN 987

e-mail: SFAE-IEWS-NV-RUS@jews.monmouth.army.mil



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)
Supplemental Battery Box	Determined by LLDR or other system implemented within. SINGARS battery typical.	Humidity	95% relative humidity per MIL-STD-810E
		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 the remote sensor.	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	Images both target and laser designator in thermal scene. Long distance thermal imaging using temperature differential to see before being seen by enemy. 24-hour day/night performance.	Detection (Wide FOV) NATO Target 2.8 km Man 0.9 km	Size: 99 mm x 142 mm x 411 mm Weight: 4.2 kg (Includes typical 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 ■ 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 8.8 km Man 2.9 km		
	MWIR thermal band plus Laser Designator at 1.06 um or eye safe available.	Identification (Narrow FOV) NATO Target 4.4 km Man 1.4 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		