DEFENCE VISION SYSTEMS

SWIR System with Laser Range Finder

A compact imaging system, combining a high definition, short wave infrared (SWIR) camera with a SWIR zoom lens plus a 1550nm laser range finder all integrated into a single sealed housing.

The system is designed around the latest SWIR technology using a high definition sensor providing 640 x 512 active pixels. The camera provides excellent images over the hours of daylight from early dawn to early dusk. The system incorporates a fully motorised 20-200mm f1 SWIR zoom lens. The camera and lens are coupled to a powerful 1550nm laser range finder able to provide range data out to 8km, subject to atmospheric conditions. The unique feature is the system's ability to provide the user with an image of the laser spot on the selected target. The system is designed to mount on a pan and tilt head. Both manual and powered versions may be specified in the scope of supply.
The whole system is controlled and operated via a GigE interface which also carries the images from the system. The system may be controlled remotely using the available system control firmware. This would be supplied on a memory stick enabling the user to upload this onto a laptop. Alternatively an option of a fully conformed laptop may be specified in the scope of supply. Due to the interface being GigE the laptop can be up to 100m from the position of the system.

System Parameters

External Dimensions	Approximately 135mm high x 175mm wide x 333mm long		
Weight	≤6 kg (20-200mm f1 lens)		
Supply Voltage	12Vdc		
Power	External battery (may be specified in scope of supply)		
SWIR Camera	Resolution 680 x 512, Peltier cooled. GEV compliant		
Powered Zoom Lens	Focal length: 25mm–300mm, f1 Field Angle: Horizontal 27° degrees and 2.7°		
Laser Range Finder	Type: Eye safe laser Wavelength: 1550 nm Range: Maximum range 8km Minimum range 250m		
Housing	Sealed to IP67 Connectors: Power, GigE and USB3		
System control	Via an on-screen menu providing full control of the camera. Zoom and focus functions and laser range finder.		
System Digital Interface	GigE		
Operating Temperature	-40°C to +60°C		
Storage Temperature	-50°C to +70°C		
Range ability — dawn to dusk			
Lens 200mm focal length	Detection (km)	Recognition (km)	Identification (km)
NATO Man Target	3.3	0.8	0.2
NATO Vehicle Target	10.0	2.6	0.6

Defence Vision Systems — Established 1999
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SWIR System with Laser Range Finder

System Operation

Power on
System running

Wide field of view surveillance
Select target

Zoom to narrow field of view
Confirm target

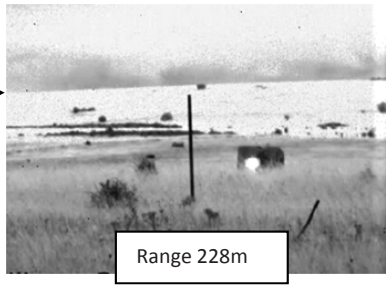
200mm lens
Magnification x10

LASER spot visible
Out to 8Km
Subject to atmospheric conditions

Fire LASER range finder

Live Field of View with laser spot shown on the target

Range to target displayed



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