

AR-049-01

Thermal Imaging Binoculars

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- Vanadium oxide uncooled microbolometer detector
- 5-megapixel progressive CMOS detector
- Object recognition and tracking
- IP67 protection

The device is a lightweight optoelectronic observation system intended for daytime and nighttime observation, target detection, and identification. The system includes high-resolution daylight and thermal-imaging cameras and a laser rangefinder.

Technical Data			Visible imaging		
Thermal imaging					
Microbolometer detector type	Vanadium oxide, uncooled (VOx)		Detector type	SONY Pregius S progressive CMOS	
Array resolution	640(H) x 512 (V)		Maximum resolution	2472 (H) x 2064 (V)	
Pixel size	12 μm		Pixel count	5.1 megapixels	
Spectral range	8 μm - 14 μm		Minimum illumination	Color: 0.005 lm/F1.5 Black and white: 0.0005 lm/ F1.5	
Sensitivity	≤ 35 mK				
Focal length	50 mm		Detection range	Human	1460 m
Field of view	H: 9.7 ° V: 7 °			Vehicle (tank)	3200 m
Digital zoom	2x, 4x, 8x		Recognition range	Human	600 m
Detection range	Human	2300 m		Vehicle (tank)	1300 m
	Vehicle (tank)	4600 m	Identification range	Human	300 m
Recognition range	Human	700 m		Vehicle (tank)	660 m
	Vehicle (tank)	1400 m	Focal length	100 mm	
Identification range	Human	350 m	Field of view	H: 3.88° V: 3.24° D: 5.05°	
	Vehicle (tank)	700 m			

Rangefinder	
Laser safety class	Class 1 (eye-safe)
Maximum measurement range	4000 m
Accuracy	< 3 m
Vehicle (2.3 m x 2.3 m) ranging capability	2000 m
Medium-size structures ranging capability	3000 m
Power and operating conditions	
Power source	Li-ion batteries
Operating temperature	-30°C to +60°C
Operating humidity	≤95%
Continuous operation	24/7
Storage temperature	-40°C to +70°C
Ingress protection rating	IP67