

Specifications

Model	DS-2TS16-50VI/W
Parameter	Handheld Observational Thermal & Optical Bi-spectrum Binocular
Thermal Module	
Image sensor	Uncooled Focal Plane Arrays
Max. Resolution	640 × 512@25fps
Pixel Pitch	17μm
Response waveband	8μm to 14μm
NETD	< 40mk (@25°C,F#=1.0)
Lens (focal length)	50mm, Manual focus
MRAD (IFOV)	0.34
Field of View	12.42° × 9.95°
Aperture	F 1.0
Digital Zoom	4×
Optical Module	
Image Sensor	1/3” Progressive Scan CMOS
Min. Illumination	B/W : 0.001 lux @ (F1.0 , AGC On)
Max. Resolution	1280 × 960@25fps
Lens (focal length)	12mm
Image Enhancement	3D DNR, Adaptive AGC
Image Display	
Monitor	0.39-inch, OLED, 1024 × 768
Thermal/Optical Mode	Thermal view, B/W optical view, image fusion view are selectable
Image Fusion	Color fusion, B/W fusion
Palettes	Black hot, white hot
Smart	
Hot Track	Yes
Object Highlight	Yes
Cursor Display	A cursor shows in the view for roughly measuring distance from the target.
Automatic Backlight	The OLED backlight automatically turns off if no human eyes are detected.
System	
Storage	Built-in memory module (32GB)
Record Video	On-board video recording
Snapshot	On-board image capturing
Video Replay	Yes
Picture Search	Yes
Wi-Fi	Yes
GPS	Yes
Power Supply	
Battery Type	Four 18650 batteries, requires 5 hours to be fully charged
Battery Operating Time	≥7h
Battery Capacity Display	Yes
General	
Power	5V DC/2A

Working Temperature	-30 °C to 55 °C (-22 °F to 131 °F)
Protection level	IP67
Mounting	UNC 1/4"-20
Cable Output	Aviation plug: connecting to BNC, DB9, and USB
Accessories (Supplied)	Battery charger, battery charger power cable, wiping cloth, two wrist straps, User manual, aviation plug cable, eight batteries
Dimension (L x W x H)	164mm × 182.3mm × 73.3mm (6.46" × 7.18" × 2.89")
Weight	<1.0kg (2.20 lb)

Wide Range Coverage for Different Specifications

Note: The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 μm pixel pitch.

Lens (focal length)	50mm
Detection range (Vehicles)	4510m
Detection range (Humans)	1471m
Recognition range (Vehicles)	1127m
Recognition range (Humans)	368m
Identification range (Vehicles)	564m
Identification range (Humans)	184m

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