



Video & Audio Surveillance



DS-2TS16

Handheld Thermal & Optical Bi-spectrum Binocular

Key Feature

- Thermal: 640 × 512@25fps, optical: 1280 × 960@25fps
- NETD < 40mk (@25°C,F#=1.0)
- DDE (Digital Detail Enhancement)
- 3D DNR, adaptive AGC (Automatic Gain Control)
- Ultra-low illumination (optical channel), B/W: 0.001 lux @ (F1.0, AGC On)
- 0.39-inch OLED display
- Automatic OLED backlight
- Manual focus for thermal lens
- Bi-spectrum image fusion and object highlight (detail enhancement and target recognition)
- Video recording, replay, picture snapshot and search (capable to review the event on device)
- Wi-Fi hot spot, GPS, cursor display
- Up to 7 hours continuous running
- IP67

Specifications	
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)	35mm
MRAD (IFOV)	0.486
Field of View	17.7° × 14.2°
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, Manual focus
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)	35mm
Detection range (Vehicles)	3157m
Detection range (Humans)	1029m
Recognition range (Vehicles)	789m
Recognition range (Humans)	257m
Identification range (Vehicles)	158m
Identification range (Humans)	51m

