

DS-2TS16-50VI/W

Handheld Thermal & Optical Bi-spectrum Binocular



Hikvision DS-2TS16-50VI/W Handheld Thermal & Optical Bi-spectrum Binocular is equipped with ultra-low light optical detector, 640 × 512 thermal detector, 1024×768 OLED display and eyepiece with large field of view. The device can quickly discover and locate hiding objects even under extreme environment, such as smoke, fog, rain and snow. It can be widely applied to scenarios like patrol, law enforcement, search and rescue, drug enforcement, anti-smuggling and suspect capture.

Key Features

- 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

| 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

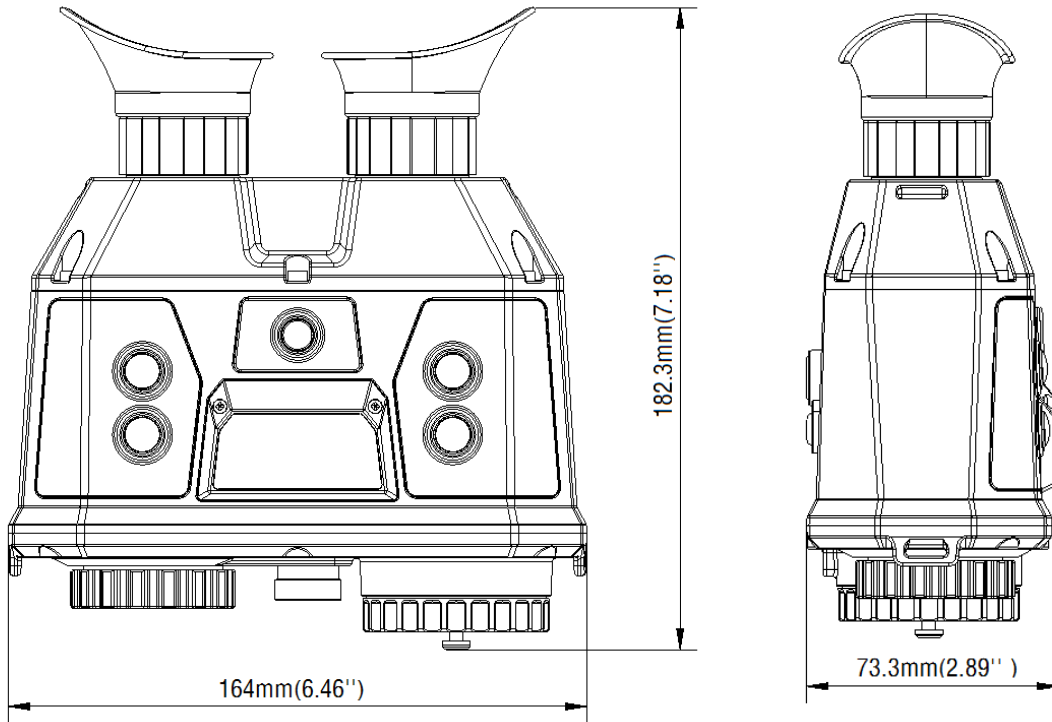
Note: The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 μm pixel pitch.

| | |
|---------------------------------|-------|
| 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 |

Order Models

DS-2TS16-50VI/W

Dimensions



Distributed by



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