

DS-2TD8167-150ZC4F/W

Thermal & Optical Bi-spectrum Network Stable PTZ



Hikvision DS-2TD8167-150ZC4F/W Thermal & Optical Bi-spectrum Network Stable PTZ equipped with built-in GPU which supports intelligent perimeter protection algorithm, can realize high-precision VCA detection and real-time alarm. It is applied to perimeter protection scenes, such as airport, railway, farm, large parking lot. The pre-alarm system helps you discover unexpected events immediately and protects your property.

Key Feature

- Perimeter protection function, based on intelligent algorithm: line crossing, intrusion, region entrance and exit
- Temperature exception alarm for fire prevention
- Fire detection algorithm, Smoke detection algorithm
- 640 × 512 (the resolution of output image is 1920 × 1080) resolution 17 μm, VOx UFPA, NETD ≤ 35 mK (25°C, F# = 1.0)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR
- High quality detector with 10 years guarantee
- Smart tracking: Panorama tracking, Event tracking and Multi-scene patrol tracking
- Smart tracking linkage: thermal view and optical view
- Thermal channel supports EIS, conflicted with intelligent function



▪ Specification

| Thermal Module | |
|------------------------|---|
| Image Sensor | Vanadium Oxide Uncooled Focal Plane Arrays |
| Resolution | 640 × 512 (the resolution of output image is 1920 × 1080) |
| Pixel Interval | 17 μm |
| Response Waveband | 8 μm to 14 μm |
| NETD | Less than 35 mK (@25°C, F# = 1.0) |
| Focal Length | 30 to 150 mm |
| Focus Mode | Semi-auto & Manual |
| IFOV | 0.57 to 0.11 mrad |
| Aperture | F0.8 to F1.2 |
| Field of View | 20.56° × 16.51° (H × V) to 4.15° × 3.32° (H × V) |
| Min. Focusing Distance | 3 m |
| Digital Zoom | × 2, × 4, × 8 |
| Optical Module | |
| Image Sensor | 1/1.8" Progressive Scan CMOS |
| Resolution | 2688 × 1520, 4 MP |
| Min. Illumination | Color: 0.0005 Lux @ (F1.5, AGC ON), B/W: 0.0001 Lux @ (F1.5, AGC ON) |
| Field of View | 60° × 35.8° (H × V) to 1.2° × 0.7° (H × V) |
| Focal Length | 6.7 to 330 mm, 49x |
| Aperture (Range) | F1.5 to F5.3 |
| Focus Mode | Semi-auto/Manual |
| Shutter Speed | 1s to 1/30,000s |
| WDR | 120 dB |
| Digital Zoom | × 2, × 4, × 8, × 16 |
| Optical Defog | Yes |
| Image Effect | |
| Picture in Picture | Display partial image of thermal channel on the full screen of optical channel |
| Target Coloration | Supported in white hot and black hot mode |
| PTZ | |
| Movement Range | Pan: 360° Continuous Rotate; Tilt: From -45° to +45° (auto flip) |
| Pan Speed | Configurable, From 0.01°/s to 40°/s, Preset Speed: 240°/s |
| Tilt Speed | Configurable, From 0.01°/s to 20°/s, Preset Speed: 200°/s |
| Proportional Zoom | Yes |
| Presets | 300 in total, 273 are configurable. |
| Patrol Scan | 8; Up to 32 Presets Per Patrol |
| Pattern Scan | 4; More Than 10 Minutes Per Pattern |
| Power Off Memory | Yes |
| Park | Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan |
| PT Status | Turn On/Turn Off |
| Scheduled Task | Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Doom Reboot/Doom Adjust/Aux Output |

| Smart Function | |
|-------------------------|---|
| VCA | Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 10 scenes and 8 VCA rules for each scene |
| Temperature Measurement | Support 3 temperature measurement rule types, 273 presets as scene, 21 rules of each scene (10 points, 10 areas, and 1 line) |
| Temperature Range | -20°C to 150°C (-4°F to 302°F) |
| Temperature Accuracy | ± 8°C (± 14.4°F) |
| Fire Detection | Dynamic fire point detection, up to 10 fire points detectable. |
| Video and Audio | |
| Main Stream | Optical channel 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720) Thermal channel 50 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 384 × 288) |
| Sub-stream | Optical channel 50 Hz: 25 fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 576, 352 × 288) Thermal channel 50 fps (704 × 576, 640 × 480, 384 × 288) |
| Video Compression | Main stream: H.265+/H.265/H.264+/ H.264 Sub-stream: H.265/H.264/MJPEG |
| Audio Compression | G.711u/G.711a/G.722.1/MP2L2/G.726/PCM |
| Network | |
| Protocols | IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE |
| Network Storage | MicroSD/SDHC/SDXC card (up to 256 GB) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR) |
| API | ISAPI, HIKVISION SDK, third-party management platform, ONVIF (Profile S, Profile G, Profile T) |
| Simultaneous Live View | Up to 20 channels |
| User/Host level | Up to 32 users, 3 levels: Administrator, Operator, User |
| Security | User authentication (ID and password), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering |
| Client | iVMS-4200, Hik-Connect |
| Web Browser | Live view (plug-in allowed): Internet Explorer 11 Live view (plug-in free): Chrome 57.0+, Firefox 52.0+ Local service: Chrome 57.0+, Firefox 52.0+ |
| Interface | |
| Alarm Input | 7-ch inputs (0 to 5 VDC) |
| Alarm Output | 2-ch relay outputs, alarm response actions configurable |
| Alarm Action | Preset/Patrol Scan/Pattern Scan/SD Card Record/Relay Output/Smart capture/FTP upload/Email linkage |
| Audio Input | 1, 3.5 mm Mic in/Line in interface. Line input: 2 to 2.4 V [p-p], output impedance: 1 KΩ ± 10% |
| Audio Output | Linear Level; Impedance: 600 Ω |

| | |
|---------------------------|--|
| Communication Interface | 1, RJ45 10 M/100 M Self-adaptive Ethernet interface. 1, RS-485 interface |
| Analog Video Output | 1.0 V [p-p]/75 Ω, BNC for thermal channel |
| General | |
| Web Client Language | 32 languages English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil) |
| Power Supply | 48 VDC ± 20%, two-core terminal block |
| Power Consumption | 48 VDC, 5 A, Max. 220 W |
| Work Temperature/Humidity | From -40°C to 65°C (-40°F to 149°F); Humidity: 95% or Less |
| Wiper | Yes |
| Protection Level | IP66 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection |
| Dimension | 649.2 mm × 438 mm × 668.3 mm (25.6" × 17.2" × 26.3") |
| Weight | Approx. 60kg (132.3 lb) |

DRI Range Table

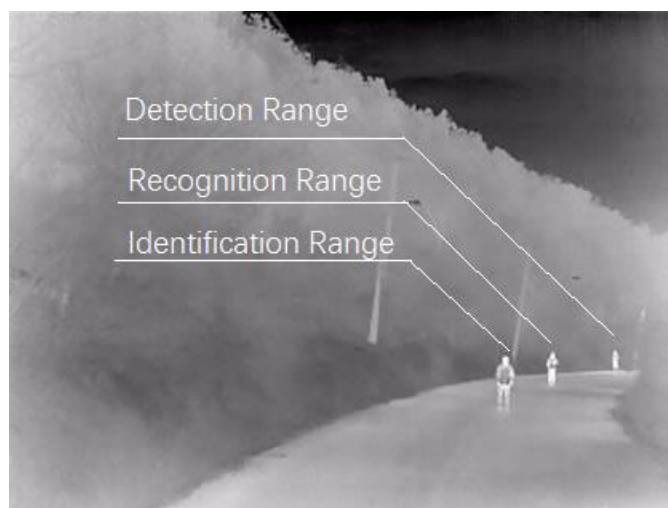
* The table is only for reference and the performance may vary according to different environment.

* The optimal human detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.



| Detection Range (Vehicles: 1.4 × 4.0 m) | Detection Range (Humans: 1.8 × 0.5 m) | Recognition Range (Vehicles: 1.4 × 4.0 m) | Recognition Range (Humans: 1.8 × 0.5 m) | Identification Range (Vehicles: 1.4 × 4.0 m) | Identification Range (Humans: 1.8 × 0.5 m) |
|--|--|---|---|--|--|
| 13529 m | 4412 m | 3382 m | 1103 m | 1691 m | 551 m |

Smart Function Table

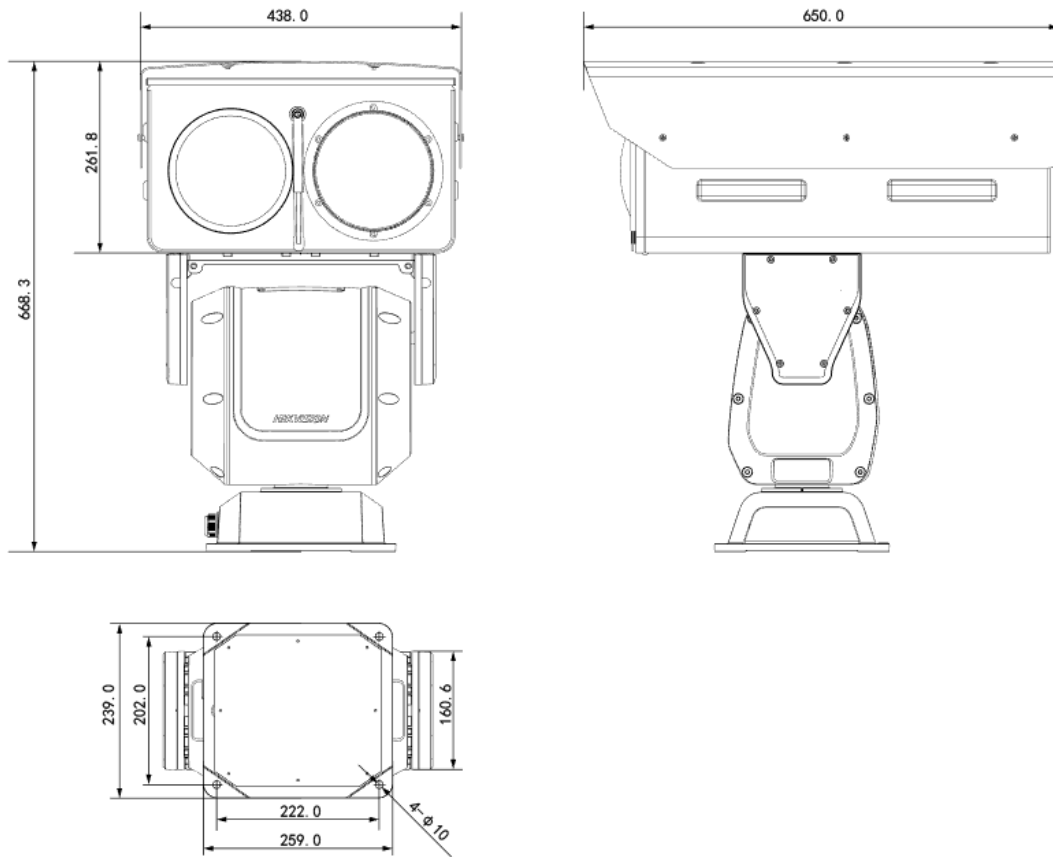
* The table is only for reference and the performance may vary according to different environment.

| VCA Range (Vehicles: 1.4 × 4.0 m) | VCA Range (Humans: 1.8 × 0.5 m) | Temperature Measurement (Object: 2 × 2 m) | Temperature Measurement (Object: 1 × 1 m) | Fire Detection (Object: 2 × 2 m) | Fire Detection (Object: 1 × 1 m) |
|--------------------------------------|------------------------------------|--|--|-------------------------------------|-------------------------------------|
| 3150 m | 1050 m | 3529 m | 1765 m | 8824 m | 4412 m |

Available Model

DS-2TD8167-150ZC4F/W

Dimension



Unit: mm

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