

## DS-2TD4167-50/W

### Thermal and Optical Bi-spectrum Network Speed Dome



Hikvision DS-2TD4167-50/W Thermal and Optical Bi-spectrum Network Speed Dome equipped with built-in GPU which supports intelligent perimeter protection algorithm, can realize high-precision VCA detection and real-time alarm. It is applied for perimeter protection and fire-prevention in critical infrastructures such as community, villa, construction site, factory, 4S stores, and so on . The pre-alarm system helps you discover unexpected events immediately and protects your property.

- Perimeter protection function, based on intelligent algorithm: line crossing, intrusion, region entrance and exit
- Temperature exception alarm for fire prevention
- Fire detection algorithm
- 640 × 512 (the resolution of output image is 640 × 512) resolution 17 μm, VOx UFPA, NETD ≤ 40 mK (25 °C, F# = 1.1)
- 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
- Smoke detection for fire prevention

## ▪ Specification

| Thermal Module         |   |
|------------------------|---|
| Image Sensor           | VOx Uncooled Focal Plane Arrays   |
| Resolution             | 640 × 512   |
| Pixel Interval         | 17 μm   |
| Response Waveband      | 8 μm to 14 μm   |
| NETD                   | Less than 40 mK (@ 25 °C, F#=1.0)   |
| Focal Length           | 50 mm   |
| Focus Mode             | Athermalized  |
| I FOV                  | 0.34 mrad   |
| Aperture               | F1.0  |
| Field of View          | 12.4° × 9.9° (H × V)  |
| Min. Focusing Distance | 50m   |
| Digital Zoom           | ×2, ×4, ×8  |
| Optical Module         |   |
| Image Sensor           | 1/1.8" Progressive Scan CMOS  |
| Resolution             | 2688 × 1520, 4 MP   |
| Min. Illumination      | Color: 0.005 Lux @(F1.3, AGC ON), B/W: 0.001 Lux @(F1.3, AGC ON)  |
| Field of View          | 56.6° × 33.7° (H × V) ~ 1.8° × 1.0° (H × V)   |
| Focal Length           | 6-240 mm, 40x   |
| Aperture (Range)       | F1.3-F4.6   |
| Focus Mode             | Auto/Semi-auto/Manual   |
| Digital Zoom           | ×2, ×4, ×8, ×16   |
| Shutter Speed          | 1s to 1/30,000s   |
| WDR                    | 120 dB  |
| 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 -20° to + 90° (auto flip)   |
| Pan Speed              | Configurable, From 0.1°/s to 200°/s, Preset Speed: 240°/s   |
| Tilt Speed             | Configurable, From 0.1°/s to 105°/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 |

| <b>Illuminator</b>      |   |
|-------------------------|---|
| IR Distance             | Up to 150m  |
| IR Intensity and Angle  | Automatically adjusted  |
| <b>Smart Function</b>   |   |
| 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 detection, up to 10 fire points detectable.  |
| <b>Video and Audio</b>  |   |
| Main Stream             | Thermal channel<br>50fps(1920 × 1080, 1280 × 960, 1280 × 720, 704×576, 640×512, 384×288)<br>Optical channel<br>50Hz:25fps(2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720)<br>60Hz:30fps(2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720) |
| Sub-stream              | Thermal channel<br>50fps(704×576, 640×512, 384×288)<br>Optical channel<br>50Hz:25fps(704 × 576, 352 × 288)<br>60Hz:30fps(704 × 576, 352 × 288)  |
| Video Compression       | Main stream: H.265+/H.265/H.264+/ H.264<br>Sub-stream: H.265/H.264/MJPEG  |
| Audio Compression       | G.711u/G.711a/G.722.1/MP2L2/G.726/PCM   |
| <b>Network</b>          |   |
| 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 (256 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)   |
| API                     | ISAPI, HIKVISION SDK, third-party management platform, ONVIF profile S,T,G)   |
| 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 +  |
| <b>Interface</b>        |   |
| Alarm Input             | 7-ch inputs (0-5 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 - 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.<br>1, RS-485 interface  |
| Analog Video Output       | 1.0 V [p-p]/75 Ω, BNC for thermal channel  |
| <b>General</b>            |  |
| Web Client Language       | 32 languages<br>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              | 24V AC ± 20%, 36V DC ± 20%, 48V DC ± 20%   |
| Power Consumption         | 65W Max  |
| 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                 | 220 mm × 410 mm × 198.6 mm (8.66" × 16.15" × 7.82")  |
| Weight                    | Approx. 9kg (19.84 lb)   |

## ▪ Range Table

| VCA Range<br>(Vehicles: 1.4 ×<br>4.0 m) | VCA Range<br>(Humans: 1.8 ×<br>0.5 m) | Temperature<br>Measurement<br>(Object: 2 × 2<br>m) | Temperature<br>Measurement<br>(Object: 1 × 1<br>m) | Fire Detection<br>(Object: 2 × 2<br>m) | Fire Detection<br>(Object: 1 × 1<br>m) |
|---|---------------------------------------|--|--|--|--|
| 1050 m                                  | 350 m                                 | 1170 m   | 590 m  | 2940 m                                 | 1470 m                                 |

## ▪ DORI

\* The table is only for reference and the performance may vary from camera to camera.

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

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the image must have at least 6 pixels across its critical dimension.

Identification Range: In order to identify the object and describe it in details, the critical dimension must have be least 12 pixels across

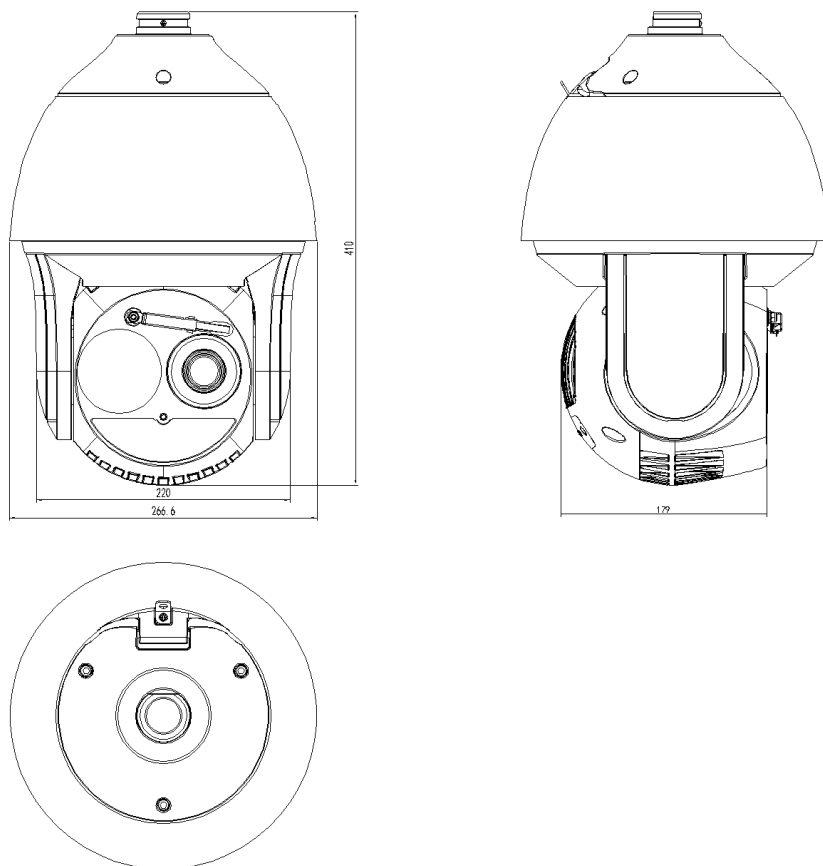
| Detection<br>Range<br>(Vehicles: 1.4 ×<br>4.0 m) | Detection<br>Range<br>(Humans: 1.8 ×<br>0.5 m) | Recognition<br>Range<br>(Vehicles: 1.4 ×<br>4.0 m) | Recognition<br>Range<br>(Humans: 1.8 ×<br>0.5 m) | Identification<br>Range<br>(Vehicles: 1.4 ×<br>4.0 m) | Identification<br>Range<br>(Humans: 1.8 ×<br>0.5 m) |
|--|--|--|--|---|---|
| 4510 m   | 1470 m   | 1127 m   | 368 m  | 564 m   | 184 m   |

## ▪ Available Model

DS-2TD4167-50/W

DS-2TD4167-50/W(B)

▪ **Dimension**



Unit:mm

▪ **Accessory**

▪ **Optional**

| DS-1603ZJ<br>Wall Mount   | DS-1604ZJ-box<br>Wall Mount   | DS-1602ZJ-Pole<br>Vertical pole mount   |
|---|---|---|
|  |  |  |

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