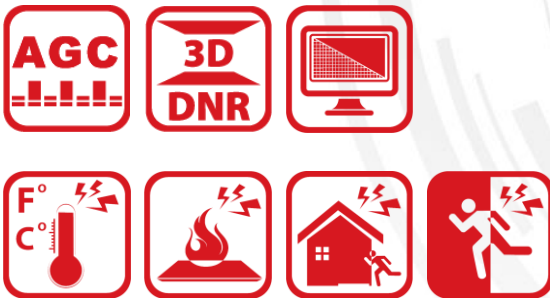


## DS 2TD4166 25/50

### Thermal & Optical Bi spectrum Network Speed Dome



Hikvision DS-2TD4166-25/50 Thermal & Optical Bi-spectrum Network Speed Dome is applied to perimeter defense and fire-prevention purposes in critical infrastructures such as: airport, railway, prison, power station, 4S stores, and so on. The pre-alarm system helps you discover unexpected events immediately and protects you from property loss.

#### Smart Function (Thermal Imaging)

- Leading image processing technology: Adaptive AGC, DDE, 3D DNR, NETD < 40mk (@25°C, F#=1.0)
- Smart tracking: Panorama tracking, Event tracking and Multi-scene patrol tracking
- Smart tracking linkage: thermal view and optical view
- Powerful behavior analysis algorithm: Line crossing, Intrusion, Region Entrance & Exit
- Reliable temperature exception alarm function
- Advanced fire detection algorithm

#### Thermal Imaging Module Function

- 640\*512 resolution, high sensitivity sensor, support contrast adjustment
- Support shutter adjustment in various modes
- 3D DNR, 15 palettes of color adjustable, image detail enhancement



[www.hikvision.com](http://www.hikvision.com)

## Specifications

| Model          |                         | DS-2TD4166-25                                                                                                                                                     | DS-2TD4166-50  |
|----------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Parameter      |                         | Thermal & Optical Bi-spectrum Network Speed Dome                                                                                                                  |                |
| Thermal module | Image sensor            | Vanadium Oxide Uncooled Focal Plane Arrays                                                                                                                        |                |
|                | Max. Resolution         | 640 × 512                                                                                                                                                         |                |
|                | Detector Pitch          | 17μm                                                                                                                                                              |                |
|                | Response waveband       | 8μm to 14μm                                                                                                                                                       |                |
|                | NETD                    | < 40mk (@25°C,F#=1.0)                                                                                                                                             |                |
|                | Lens (focal length)     | 25mm                                                                                                                                                              | 50mm           |
|                | MRAD                    | 0.68                                                                                                                                                              | 0.34           |
|                | Field of View           | 24.55° × 19.75°                                                                                                                                                   | 12.42° × 9.95° |
|                | Min. Focusing Distance  | 2 m                                                                                                                                                               | 7.5 m          |
|                | F number                | 1.0                                                                                                                                                               |                |
| Optical camera | Image Sensor            | 1/1.9" Progressive Scan CMOS                                                                                                                                      |                |
|                | Min. Illumination       | Color: 0.002 lux @ (F1.5 , AGC On )<br>B/W : 0.0002 lux @ (F1.5 , AGC On )                                                                                        |                |
|                | Focal Length            | 5.7-205.2mm, 36x                                                                                                                                                  |                |
|                | Digital Zoom            | 16 X                                                                                                                                                              |                |
|                | Field of View           | 58.7° - 2.0° (Wide-Tele)                                                                                                                                          |                |
|                | Min. Working Distance   | 10-1500mm (Wide-Tele)                                                                                                                                             |                |
|                | Aperture Range          | F1.5-F4.5                                                                                                                                                         |                |
|                | Focus Mode              | Auto / Semiautomatic / Manual                                                                                                                                     |                |
|                | WDR                     | 120dB                                                                                                                                                             |                |
|                | Shutter Time            | PAL: 1-1/30,000s / NTSC: 1-1/30,000s                                                                                                                              |                |
|                | White Balance           | Auto/Manual /ATW/Indoor/Outdoor/Daylight lamp/Sodium lamp                                                                                                         |                |
|                | Day & Night             | IR Cut Filter                                                                                                                                                     |                |
|                | Privacy Mask            | 24 privacy masks programmable; optional multiple colors and mosaics                                                                                               |                |
|                | Optical Defog           | Yes                                                                                                                                                               |                |
|                | Enhancement             | 3D DNR                                                                                                                                                            |                |
| Smart function | VCA                     | Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), 10 scenes and 8 VCA rules for each scene.                               |                |
|                | Temperature Measurement | Support 3 temperature measurement rule types, over 256 presets as scene, 21 rules of each scene (10 points, 10 regions, and 1 line)                               |                |
|                | Temperature range       | -20 °C to 150 °C (-4 °C to 302 °F)                                                                                                                                |                |
|                | Temperature accuracy    | ±8 °C (14.4°F)                                                                                                                                                    |                |
|                | Fire detection          | Support 10 fire points                                                                                                                                            |                |
| PTZ            | Movement Range          | Pan: 360° Continuous Rotate; Tilt: From -15° to + 90° (auto flip)                                                                                                 |                |
|                | Pan Speed               | Configurable, From 0.1°/s to 160°/s, Preset Speed: 240°/s                                                                                                         |                |
|                | Tilt Speed              | Configurable, From 0.1°/s to 120°/s, Preset Speed: 200°/s                                                                                                         |                |
|                | Proportional Zoom       | Yes                                                                                                                                                               |                |
|                | Presets                 | 300                                                                                                                                                               |                |
|                | 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                                       |                |
| Infrared       | IR Distance             | Up to 200m                                                                                                                                                        |                |
|                | IR Intensity and Angle  | Auto Adjust                                                                                                                                                       |                |
| Network        | Main Stream             | Optical: 50Hz:25fps(1920×1080), 25fps(1280×960), 25fps(1280×720)<br>Optical: 60Hz:30fps(1920×1080), 30fps(1280×960), 30fps(1280×720)<br>Thermal: 50fps(640 × 512) |                |

|             |                           |                                                                                                                                                            |
|-------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | Sub stream                | 50Hz:25fps (704 × 576), 25fps (352 × 288), 25fps (176 × 144)<br>60Hz:30fps (704 × 480), 30fps (352 × 240), 30fps (176 × 120)<br>Thermal: 50fps (640 × 512) |
|             | Video compression         | H.264 (Baseline/Main/High Profile) / MJPEG/MPEG4                                                                                                           |
|             | Audio compression         | G.711u/G.711a/G.722.1/MP2L2/G.726/PCM                                                                                                                      |
|             | Protocols                 | IPv4/IPv6,HTTP,HTTPS,802.1x,Qos,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP,UDP,IGMP,ICMP,DHCP,PPPoE, Bonjourl                                       |
|             | Simultaneous live view    | Up to 20-ch                                                                                                                                                |
|             | User/Host level           | Up to 32 users, 3 levels: Administrator, Operator, User                                                                                                    |
|             | Security measures         | User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering                                   |
| Integration | Alarm Input               | Up to 7-ch Input (0-5V DC)                                                                                                                                 |
|             | Alarm Output              | Up to 2-ch relay output; Support Alarm Linkage                                                                                                             |
|             | Alarm Action              | Preset/Patrol Scan/Pattern Scan/SD Card Record/Relay Output/Smart capture/FTP upload/Email linkage                                                         |
|             | Audio Input               | LINE_IN Input/MIC Input; Peak: From 2 to 2.4V[p-p]; Output Impedance: 1KΩ±10%                                                                              |
|             | Audio Output              | Linear Level; Impedance: 600Ω                                                                                                                              |
|             | Communication Interface   | Built-in RJ45; 10M/100M Ethernet Interface                                                                                                                 |
|             | Onboard Storage           | Built-in Micro SD/SDHC/SDXC Card Slot, Up to 64GB; Support Manual/Alarm Recording                                                                          |
|             | Analog Video Output       | 1.0V [p-p]/75Ω, PAL/NTSC/BNC                                                                                                                               |
|             | RS485                     | Half-Duplex; HIKVISION, PELCO-P and PELCO-D Self-adaptive                                                                                                  |
|             | API                       | Open-ended API, support ISAPI; Support HIKVISION SDK and Third-party Management Platform                                                                   |
|             | Client                    | iVMS-4200                                                                                                                                                  |
|             | Web Browser               | IE 7+, Chrome 18+, Firefox 5.0+, Safari 5.02+; Multiple Languages                                                                                          |
| General     | Menu                      | English                                                                                                                                                    |
|             | Wiper                     | Yes                                                                                                                                                        |
|             | Power                     | 24V AC, 60W                                                                                                                                                |
|             | Work Temperature/Humidity | From -40°C to 60°C (-40°F to 140°F); Humidity: 90% or Less                                                                                                 |
|             | Protection Level          | IP66 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage Transient Protection                                                           |
|             | Weight                    | Approx. 8kg (17.64 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 detector-pitch.

| Lens (focal length)             | 7mm  | 10mm | 15mm  | 25mm  | 35mm  | 50mm  | 75mm  |
|---------------------------------|------|------|-------|-------|-------|-------|-------|
| Detection range (Vehicles)      | 631m | 902m | 1353m | 2255m | 3157m | 4510m | 6765m |
| Detection range (Humans)        | 206m | 294m | 441m  | 735m  | 1029m | 1471m | 2206m |
| Recognition range (Vehicles)    | 158m | 225m | 338m  | 564m  | 789m  | 1127m | 1691m |
| Recognition range (Humans)      | 51m  | 74m  | 110m  | 184m  | 257m  | 368m  | 551m  |
| Identification range (Vehicles) | 79m  | 113m | 169m  | 282m  | 395m  | 564m  | 846m  |
| Identification range (Humans)   | 26m  | 37m  | 55m   | 92m   | 129m  | 184m  | 276m  |

## Smart functions Range Table

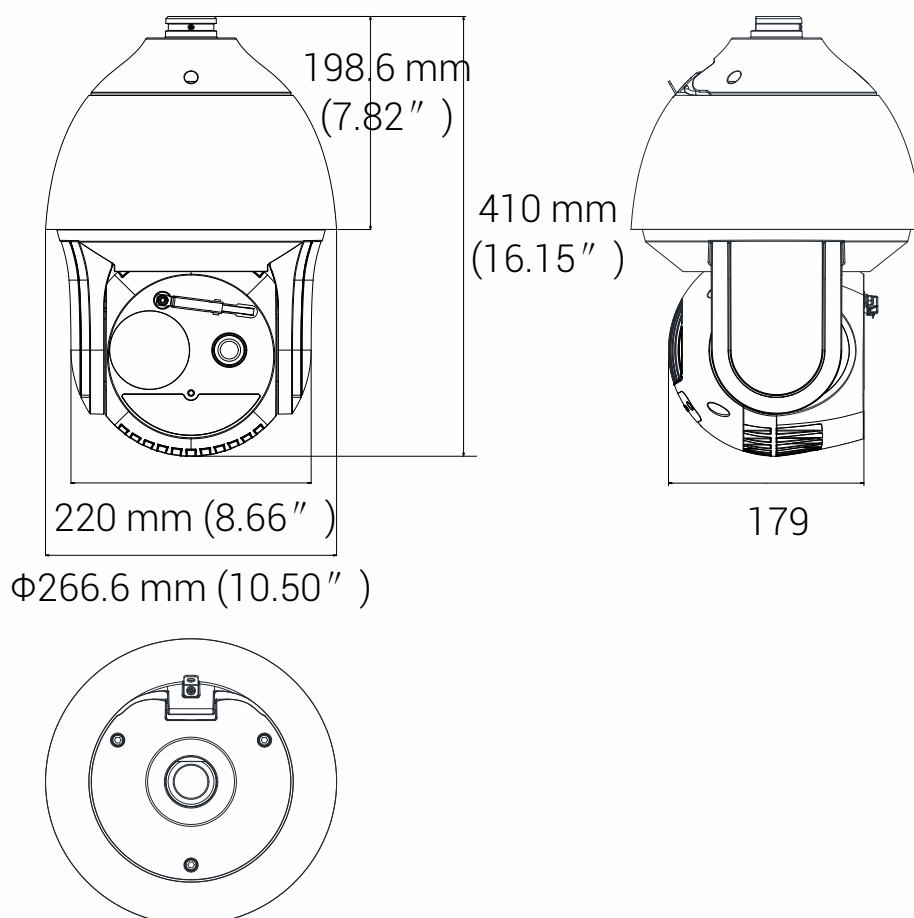
**Note:** The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 µm detector-pitch.

|                                        |      |      |      |       |       |       |       |
|----------------------------------------|------|------|------|-------|-------|-------|-------|
| Lens (focal length)                    | 7mm  | 10mm | 15mm | 25mm  | 35mm  | 50mm  | 75mm  |
| VCA range (humans)                     | 50m  | 72m  | 110m | 183m  | 255m  | 360m  | 540m  |
| VCA range (Vehicles)                   | 144m | 205m | 308m | 514m  | 720m  | 1029m | 1544m |
| Temperature measurement (Object:2×2 m) | 164m | 234m | 351m | 585m  | 819m  | 1170m | 1775m |
| Temperature measurement (Object:1×1 m) | 83m  | 118m | 177m | 295m  | 413m  | 590m  | 885m  |
| Fire Detection (Object:2×2 m)          | 412m | 588m | 882m | 1470m | 2058m | 2940m | 4410m |
| Fire Detection (Object:1×1 m)          | 206m | 294m | 441m | 735m  | 1029m | 1470m | 2205m |

## Order Models

DS-2TD4166-25; DS-2TD4166-50

## Dimensions



Distributed by



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