

## DS-2TD4137-25/WY

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



Hikvision DS-2TD4137-25/WY Anti-corrosion 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.

#### 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
- 384 × 288 (the resolution of output image is 384 × 288) 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
- NEMA-4X Standard
- 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             | 384 × 288  |
| Pixel Interval         | 17 μm  |
| Response Waveband      | 8 μm to 14 μm  |
| NETD                   | Less than 40 mK (@ 25°C, F# = 1.0)   |
| Focal Length           | 25 mm  |
| Focus Mode             | Athermalized   |
| I FOV                  | 0.68 mrad  |
| Aperture               | F1.0   |
| Field of View          | 14.9° × 11.2° (H × V)  |
| Min. Focusing Distance | 13 m   |
| Aperture               | F1.0   |
| 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) to 1.8° × 1.0° (H × V)   |
| Focal Length           | 6 mm to 240 mm, 40x  |
| Aperture (Range)       | F1.3 to F4.6   |
| Focus Mode             | Semi-auto&Manual   |
| Digital Zoom           | × 2, × 4, × 8, × 16  |
| Shutter Speed          | 1 s to 1/30,000 s  |
| 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 150 m   |
| IR Intensity and Angle       | Automatically adjusted  |
| <b>Smart Function</b>        |   |
| VCA (Video Content Analysis) | 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.  |
| Smoking Detection            | Support   |
| <b>Video and Audio</b>       |   |
| Main Stream                  | Thermal channel<br>50 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 512, 384 × 288)<br>Optical channel<br>50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720)<br>60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 960, 1280 × 720) |
| Sub-stream                   | Thermal channel<br>50 fps (704 × 576, 640 × 512, 384 × 288)<br>Optical channel<br>50 Hz: 25 fps (704 × 576, 352 × 288)<br>60 Hz: 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 GB) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)  |
| API                          | ISAPI, HIKVISION SDK, third-party management platform, Open Network Video Interface (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 (EAP-MD5, EAP-TLS), 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 VDC 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 K $\Omega$ $\pm$ 10%   |
| Audio Output              | Linear Level; Impedance: 600 $\Omega$  |
| 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 $\Omega$ , BNC for thermal channel  |
| General                   |  |
| 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                     | 24 VAC $\pm$ 25%, 24 VDC, 48 VDC   |
| Power Consumption         | 24 VAC $\pm$ 25%: 5 A, Max. 60 W<br>24 VDC: 2.5 A, Max. 60 W<br>48 VDC: 1.25 V, Max. 60 W<br>Hi-PoE (Max. 60 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                 | 220 mm $\times$ 410 mm $\times$ 198.6 mm (8.66" $\times$ 16.15" $\times$ 7.82")  |
| Weight                    | Approx. 9kg (19.84 lb)   |

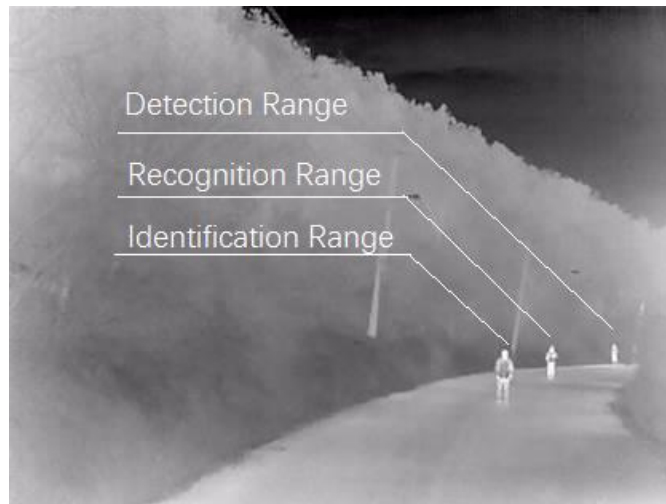
## DRI Range Table

\* 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<br>(Vehicles: 1.4 × 4.0 m) | Detection Range<br>(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) |
|--|--|---|---|--|--|
| 2255 m                                     | 735 m                                    | 564 m                                     | 184 m                                   | 282 m  | 92 m                                       |

## Smart Function Table

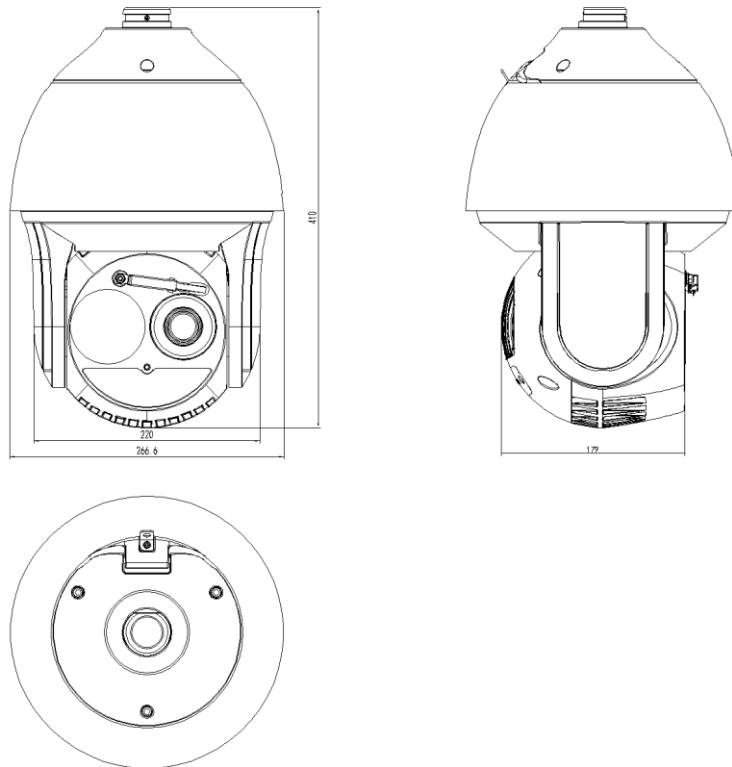
\* The table is only for reference and the performance may vary according to different environment.

| VCA Range<br>(Vehicles: 1.4 × 4.0 m) | VCA Range<br>(Humans: 1.8 × 0.5 m) | Temperature Measurement<br>(Object: 2 × 2 m) | Temperature Measurement<br>(Object: 1 × 1 m) | Fire Detection<br>(Object: 2 × 2 m) | Fire Detection<br>(Object: 1 × 1 m) |
|--------------------------------------|------------------------------------|--|--|-------------------------------------|-------------------------------------|
| 525 m                                | 175 m                              | 585 m  | 295 m  | 1470 m                              | 735 m                               |

## Available Model

DS-2TD4137-25/WY, DS-2TD4137-25/WY (B)

**Dimension**



Unit:mm

**Accessory  
Optional**



DS-1602ZJ-Pole  
Vertical Pole Mount



DS-1603ZJ



DS-1604ZJ-box

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