DS-2TD4167-50/W
Thermal and Optical Bi-Spectrum Network Speed Dome

Hikvision's DS-2TD4167-50/W Thermal and Optical Bi-Spectrum Network Speed Dome is equipped with a built-in GPU that supports an intelligent behavior analysis algorithm. It can realize high-precision VCA detection and real-time alarms. It is used for perimeter defense and fire-prevention in critical infrastructures such as railways, airports, parking lots, factories, etc. The pre-alarm system helps you discover unexpected events immediately and protects your property.

Available Model
DS-2TD4167-50/W

- Behavior Analysis Based on Deep Learning Algorithm: Line Crossing, Intrusion, Region Entrance and Exit

- Temperature Exception Alarm for Fire Prevention

- Fire Detection Algorithm

- 640 x 512 Resolution 17 µm, VOx UFPA, NETD ≤35 mK (25 °C, F# = 1.0)

- Image Processing: Liner, Histogram, and Self-Adaptive Thermal AGC Mode, DDE, 3D DNR

Specifications

DS-2TD4167-50/W	
Thermal Module	
Image Sensor	Vanadium oxide uncooled focal plane arrays
Resolution	640 × 512
Pixel Interval	17 µm
Response Waveband	8 µm to 14 µm
NETD	Less than 35 mK (25° C, F# = 1.0)
Focal Length	50 mm
Focus Mode	Athermalized
IFOV	0.34 mrad
Aperture	$f/1.0$
Field of View	12.4° × 9.9° (H × V)
Minimum Focusing Distance	164 ft (50 m)
Digital Zoom	2x, 4x, 8x, 16x
Optical Module	
Image Sensor	1/1.8" progressive scan CMOS
Resolution	2688 × 1520, 4 MP
Min. Illumination	Color: 0.005 lux @ ($f/1.3$, AGC on), B/W: 0.001 lux @ ($f/1.3$, AGC on)
Field of View	56.6° × 33.7° (H × V) to 1.8° ×1.0° (H × V)
Focal Length	6 mm–240 mm, 40x
Aperture (Range)	$f/1.3$–$f/4.6$
Focus Mode	Auto, semi-auto, manual
Shutter Speed	1s 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/dome reboot/dome adjust/aux output
Illuminator	
IR Distance	Up to 200 m
IR Intensity and Angle	Automatically adjusted
Smart Function	
VCA	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	3 temperature measurement rule types, 273 presets as scene, 21 rules of each scene (10 points, 10 areas, and 1 line)
Temperature Range	-20° to 150° C (-4° to 302° F)
Temperature Accuracy	±8° C (±14.4° F)
Fire Detection	Dynamic fire 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	25 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	25 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	Open-ended API, supporting ISAPI, HIKVISION SDK, and third-party management platform, open network video interface

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Specifications (continued)

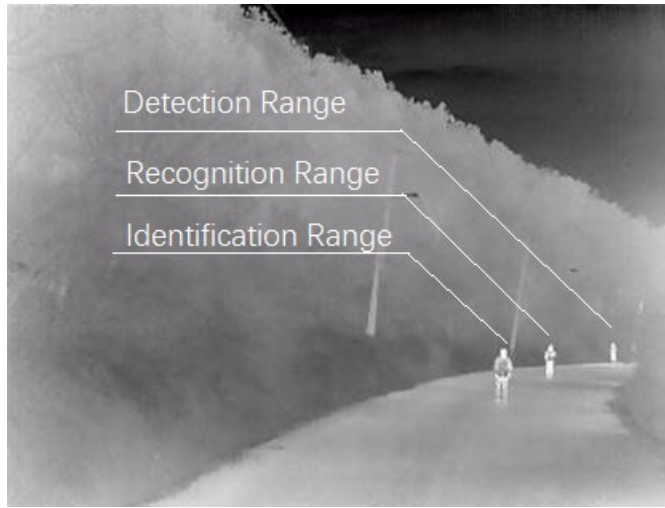| DS-2TD4167-50/W	
Network (continued)	
Simultaneous Live View	Up to 20 channels
User/Host level	Up to 32 users, 3 levels: administrator, operator, user
Security	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x (EAP-MD5, EAP-TLS), access control, IP address filtering
Client	iVMS-4200, Hik-Connect
Web Browser	IE 11, Chrome 41–44, Firefox 30–51
Interface	
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/e-mail linkage
Audio Input	1, 3.5 mm mic in/line in interface Line input: 2–2.4 V (p-p), output impedance: 1K Ω ±10%
Audio Output	Linear level; impedance: 600 Ω
Communication Interface	1, RJ-45 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	24 VAC ±25% Hi-PoE
Power Consumption	24V AC ±25%: 5 A, maximum 60 W Hi-PoE: maximum 60 W
Work Temperature/Humidity	From -40° to 65° C (-40° to 149° F); humidity: 95% or less (non-condensing)
Wiper	Yes
Protection Level	IP66 standard TVS 6000 V lightning protection, surge protection, and voltage transient protection
Dimensions	266.6 mm × 410 mm × 198.6 mm (10.5" × 16.15" × 7.82")
Weight	Approximately 9 kg (19.84 lb)

DRI Range Table

* The table is for reference only 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.
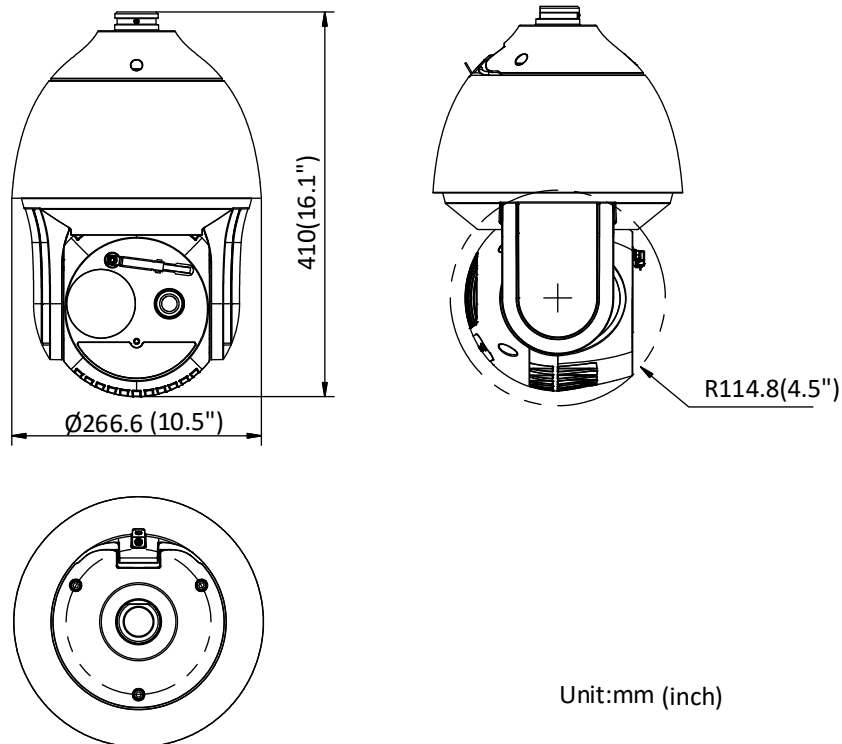
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Detection Range (Vehicles: 1.4 × 4.0 m)	Detection Range (Humans: 1.8 × 0.5 m)	Recognition Range (Vehicles: 1.4 × 4.0 m)	Recognition Range (Humans: 1.8 × 0.5 m)	Identification Range (Vehicles: 1.4 × 4.0 m)	Identification Range (Humans: 1.8 × 0.5 m)
4510 m	1470 m	1127 m	368 m	564 m	184 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)
1029 m	368 m	1170 m	590 m	2940 m	1470 m

Dimensions

410(16.1")

Ø266.6 (10.5")

R114.8(4.5")

Unit:mm (inch)

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Accessories

NOT INCLUDED		
PMP+WMP-L Vertical Pole Mount	**WMP-L** Wall Mount	**JBPW-L** Box

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