

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



Specifications

Parameter		Model	DS-2TD4166-25	DS-2TD4166-50
		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) 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) Optical: 60Hz:30fps(1920×1080), 30fps(1280×960), 30fps(1280×720) Thermal: 50fps(640 × 512)		

	Sub stream	50Hz:25fps (704 × 576), 25fps (352 × 288), 25fps (176 × 144) 60Hz:30fps (704 × 480), 30fps (352 × 240), 30fps (176 × 120) 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,I GMP,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
Integrati on	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

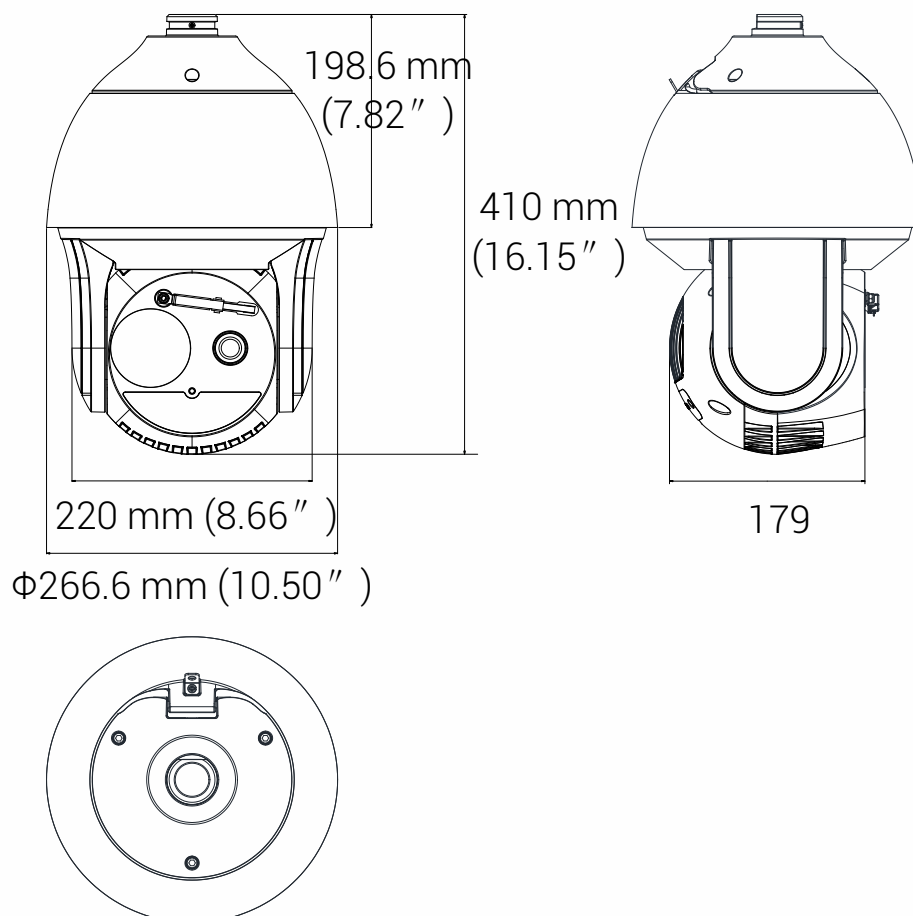
Note: The table below is only for reference, the performance varies from model to model, and the specific data is based on 17 μm detector-pitch.

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

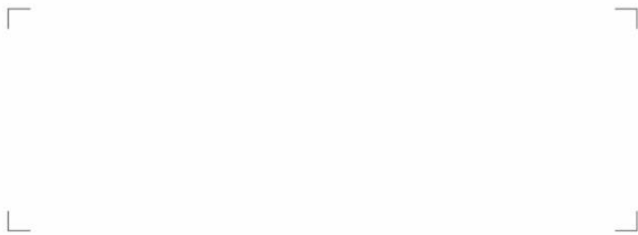
Order Models

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

Dimensions



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