

# DS-2TD4238-25/S2 Thermal & Optical Bi-spectrum Network Speed Dome





Hikvision DS-2TD4238-25/S2 Thermal & Optical Bi-spectrum Network Speed Dome is applied to manufacture process supervision of pyrophoric materials in factories, electric substation, and hydropower station. The accurate temperature measurement system sends you alarms to protect you from property loss.

- Perimeter Protection function: line crossing, intrusion, region entrance and exit
- Temperature exception alarm for fire prevention, -20°C to 150°C (-4°F to 302°F), ± 8°C (± 14.4°F)
- Fire detection algorithm
- 384 × 288 (the resolution of output image is 1280 × 720) resolution 12  $\mu$ m, VOx UFPA, NETD  $\leq$  35 mK (25 °C, F# = 1.0)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR
- High quality detector with 10 years warranty
- Smart tracking: Panorama tracking, Event tracking and Multi-scene patrol tracking
- Smart tracking linkage: thermal view and optical view
- Smoke detection for fire prevention



## - Specification

Thermal Module					
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays				
Resolution	384 × 288 (the resolution of output image is 1280 × 720)				
Pixel Interval	12 μm				
Response Waveband	8 μm to 14 μm				
NETD	Less than 35 mK (@25 °C,F#=1.0)				
Focal Length	25 mm				
Focus Mode	Athermalized				
IFOV	0.48 mrad				
Aperture	F1.0				
Field of View	10.5°×7.9°(H × V)				
Min. Focusing Distance	23m				
Digital Zoom	×2, ×4, ×8				
Optical Module					
Image Sensor	1/2.8" Progressive Scan CMOS				
Resolution	2688 × 1520, 4 MP				
Min. Illumination	Color: 0.05 Lux @(F1.2, AGC ON), B/W: 0.01 Lux @(F1.2, AGC ON)				
Field of View	58.8° × 34.4° (H × V) to 2.18° × 1.2° (H × V)				
Focal Length	4.8-153 mm, 32x				
Aperture (Range)	F1.2-F4.4				
Focus Mode	Auto/Semi-auto/Manual				
Shutter Speed	1s to 1/100,000s				
WDR	120 dB				
Optical Defog No, support algorithmic defog					
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 -5° 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				
DT O	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					
Illuminator						
IR Distance	Up to 100m					
IR Intensity and Angle	Automatically adjusted					
Smart Function						
Support 4 VCA rule types (Line Crossing, Intrusion, Region Entrance 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.					
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 (1280×720, 704 × 576, 640 ×512, 256× 192)					
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 × 512, 256 × 192)					
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 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)					
API	ISAPI, HIKVISION SDK, third-party management platform, ONVIF (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 access control, IP address filtering					
Client	iVMS-4200, Hik-Connect					
	Live view (plug-in allowed) : Internet Explorer 11					



Interface					
Alarm Input	7-ch inputs (0-3.3 VDC)				
Alarm Output	2-ch relay outputs, alarm response actions configurable				
Alarm Action	Preset/Patrol Scan/Pattern Scan/SD Card Record/Relay Output/Smart				
Aldilli Action	capture/FTP upload/Email linkage				
Audio Input	LINE_IN Input/MIC Input; Peak: From 2 to 2.4V[p-p]; Output Impedance:				
Addio input	1KΩ±10%				
Audio Output	Linear Level; Impedance: $600 \Omega$				
Communication Interface	1, RJ45 10 M/100 M Self-adaptive Ethernet interface.				
Communication interface	1, RS-485 interface				
Analog Video Output	1.0 V [p-p]/75 Ω				
General					
	32 languages				
	English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech,				
Web Client Language	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)				
	24VAC ± 20%, two-core terminal block				
Power Supply	36VDC ± 20%, two-core terminal block				
rower Supply	48VDC ± 20%, two-core terminal block				
	Hi-PoE				
Power Consumption	Max 30 W				
Working	-40°C to 70°C (-40°E to 158°E) 90% or less				
Temperature/Humidity	-40°C to 70°C (-40°F to 158°F), 90% or less				
Protection Level	IP66 Standard; TVS 6000V Lightning Protection, Surge Protection and Voltage				
Frotection Level	Transient Protection				
Dimension	305 mm × 185 mm × 163 mm (12.01 " × 7.28 " × 6.42 ")				
Weight	Approx. 3.9Kg (8.6lb)				
Detection Range Table					
VCA Range for Humans	250 m				
VCA Range for Vehicles	750 m				

### - Range Table

VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	Temperature Measurement (Object: 0.5 × 0.5 m)	Temperature Measurement (Object: 0.2 × 0.2 m)	Fire Detection (Object: 2 × 2 m)	Fire Detection (Object: 1 × 1 m)
750 m	250 m	208 m	83 m	2083 m	1042 m

### - DORI

<sup>\*</sup> 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.

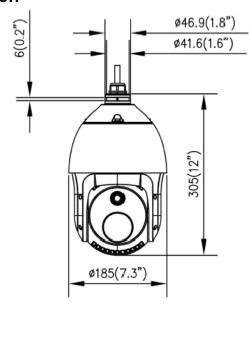
Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

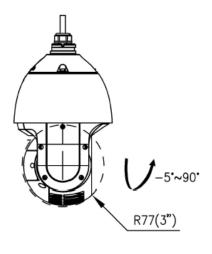
<b>Detection Range</b>	Detection Range	Recognition	Recognition	Identification	Identification
(Vehicles: 1.4 ×	(Humans: 1.8 ×	Range (Vehicles:	Range (Humans:	Range (Vehicles:	Range (Humans:
4.0 m)	0.5 m)	1.4 × 4.0 m)	1.8 × 0.5 m)	1.4 × 4.0 m)	1.8 × 0.5 m)
3194 m	1042 m	799 m	260 m	399 m	130 m

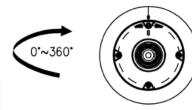
#### Available Model

DS-2TD4238-25/S2 DS-2TD4238-25/S2(B)

#### Dimension









#### Accessory

#### Optional

DS-1604ZJ-BOX- CORNER Wall mount	DS-1604ZJ-box Wall mount	DS-1660ZJ Wall mount	DS-1661ZJ Pendant Mount	DS-1662ZJ Pendant Mount
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DS-1667ZJ Pendant Mount	DS-1673ZJ Vertical pole mount	DS-1604ZJ-BOX-POLE Vertical pole mount	DS-1604ZJ-pole Vertical pole mount	DS-1663ZJ In-ceiling mount
DS-1604ZJ-corner Corner mount	DS-1619ZJ Others	DS-1602ZJ Wall mount		

COMPLIANCE NOTICE: The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.

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