

## DS-2TD6537T-50H4LX/W

Explosion-Proof Thermographic Thermal & Optical Bi-spectrum Network Positioning System



Hikvision DS-2TD6537T-50H4LX/W Explosion-Proof Thermographic Thermal & Optical Bi-spectrum Network Positioning System is applied to perimeter protection and fire-prevention in critical infrastructures such as: oil industry, mine fields, chemical industry, port, grain processing industry, and so on. It adopts 316L stainless steel material to meet the requirements of used in explosion-proof environment. The accurate temperature measurement system sends you alarms to protect your property.

### Key Feature

- Perimeter protection function, based on intelligent algorithm: line crossing, intrusion, region entrance & exit
- Temperature exception alarm for fire prevention
- Fire detection algorithm
- 384 × 288 resolution 17 μm, VOx UFPA, NETD ≤ 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 guarantee



## ▪ Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	384 × 288
Pixel Pitch	17 μm
Spectral Range	8 μm to 14 μm
NETD	≤ 35 mK (@25°C, F# = 1.0)
Focal Length	50 mm
Focus Mode	Semi-auto & Manual
IFOV	0.68 mrad
Aperture	F1.0
Field of View	7.5° × 5.6° (H × V)
Min. Focusing Distance	5 m
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 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 1/100,000 s
Day & Night Mode	IR Cut Filter
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	Yes. Supported in white hot and black hot mode.
PTZ	
Movement Range	Pan: 360° Continuous Rotate; Tilt: From -90° to + 90° (auto flip)
Pan Speed	Configurable, From 0.01°/s to 40°/s
Tilt Speed	Configurable, From 0.01°/s to 40°/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/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan
PT Status	Turn On/Turn Off
Scheduled Task	Preset/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
<b>Smart Function</b>	
VCA	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), 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 °C to 550 °C (-4 °F to 1022 °F)
Temperature Accuracy	Max. ( $\pm 2^{\circ}\text{C}$ , $\pm 2\%$ )
Fire Detection	Dynamic fire and smoke detection, up to 10 fire points and 10 smoke points detectable.
<b>Video and Audio</b>	
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 50 fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 512, 384 × 288)
Sub-stream	Optical channel 50 Hz: 25fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 576, 352 × 288) Thermal channel 50 fps (704 × 576, 640 × 512, 384 × 288)
Video Compression	Main stream: H.265+/H.265/H.264+/ H.264 Sub-stream: H.265/H.264/MJPEG
Audio Compression	G.711alaw/G.711ulaw/G.722.1/G.726/MP2L2/AAC/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, SSH
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)
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 +
<b>Interface</b>	
Alarm Input	7-ch inputs (0 to 5 VDC)
Alarm Output	2-ch relay outputs, alarm response actions configurable
Alarm Action	Preset/patrol scan/SD card record/relay output/smart capture/FTP upload/email linkage
Audio Input	LINE_IN Input/MIC Input; Peak: From 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 10M/100M self-adaptive Ethernet interface. 1, RS-485 interface
Analog Output	1.0 V [p-p]/75 Ω, BNC
<b>General</b>	
Menu 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 Supply	100 to 240 VAC
Power Consumption	100 to 240 VAC: max. 0.6 A, 75 W
Working Temperature/Humidity	From -40°C to 60°C (-40°F to 140°F); Humidity: 90% or Less
Wiper	Yes
Protection Level	IP68 Standard ,IK10-Rated Housing TVS 6000V lightning protection, surge protection, voltage transient protection
Dimensions	541.3 mm × 441 mm × 330 mm (21.31" × 17.36" × 12.99")
Weight	Approx. 40 kg (88.18 lb)
<b>Certificate</b>	
EMC	CE-EMC: EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN 50130-4: 2011 +A1: 2014; RCM: AS/NZS CISPR 32: 2015; IC: ICES-003: Issue 7; KC: KN32: 2015, KN35: 2015
Safety	CB: IEC 62368-1: 2014+A11; CE-LVD: EN 62368-1: 2014/A11: 2017;
<b>Approval</b>	
Explosion-Proof Protection	ATEX: II 2 G D Ex db IIC T6 Gb/Ex tb IIIC T80°C Db IP68 IECEX: Ex db IIC T6 Gb/Ex tb IIIC T80°C Db IP68

## DRI Range Table

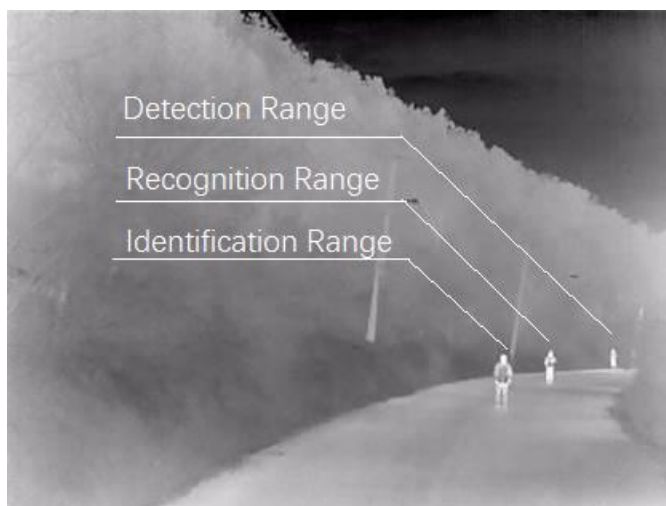
\* The table is only for reference and the performance may vary according to different environment.

\* The optimal 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 (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	1471 m	1127 m	368 m	564 m	184 m

## Smart Function Table

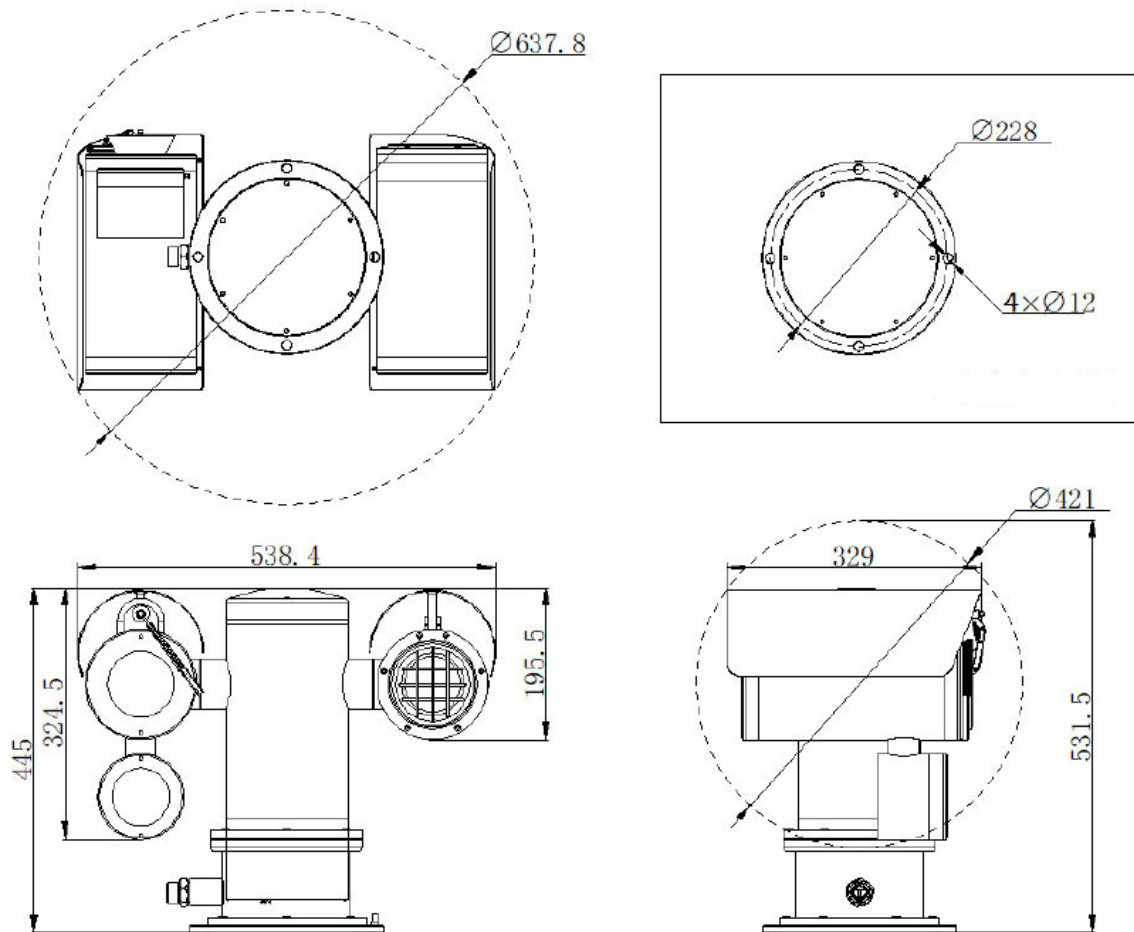
\* The table is only for reference and the performance may vary according to different environment.

VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	Temperature Measurement (Object:0.2 × 0.2 m)	Temperature measurement (Object:0.5 × 0.5 m)	Fire Detection (Object:2 × 2 m)	Fire Detection (Object:1 × 1 m)
1050 m	350 m	117 m	295 m	2940 m	1470 m

### ▪ Available Model

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▪ Dimension



Unit: mm

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