DS-2TD2537T-4/Q
Explosion-Proof Thermal Camera

Hikvision DS-2TD2537T-4/Q Explosion-Proof Thermographic Thermal & Optical Bi-spectrum bullet camera series are applied to perimeter defense and fire-prevention in critical infrastructures such as: oil industry, mine fields, chemical industry, port, grain processing industry, and so on. It adopts 304 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

- High sensitivity sensor with 384 × 288 resolution
- NETD is less than 35 mk (@25°C, F# = 1.0)
- Supports contrast adjustment
- Leading thermal image processing technology: Adaptive AGC, DDE, 3D DNR
- Up to 15 palettes of adjustable color
- Powerful behavior analysis functions, based on deep learning algorithm: Line crossing, intrusion, region entrance & exit
- High quality detector with 10 years warranty
- 304 Stainless Steel enclosure, protecting camera in corrosive environments and extending reliability and longevity far beyond standard cameras
- ATEX, IECEx, NEMA 4X Certificated

▪ Specification

Thermal	
Max. Resolution	384 × 288
Thermal Module	
Image sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Pixel Interval	17 μm
NETD	less than 35 mk (@25°C), F# = 1.0
MRAD	3.86 mrad
Field of View	90.0° × 65.4° (H × V)
Min. Focusing Distance	0.5 m
Aperture	F1.0
Lens (Focal Length)	4.4 mm
Response waveband	8 μm to 14 μm
Optical Module	
Max. Resolution	2688 × 1520
Image Sensor	1/2.7" Progressive Scan CMOS
Min. Illumination	Color: 0.05 Lux @ (F1.6, AGC ON), B/W: 0.01 Lux @ (F1.6, AGC ON)
Field of View	128.5° × 75.5°(H × V)
Aperture Range	F1.6
WDR	120 dB
Shutter Speed	1s to 1/100,000s
Day ＆ Night	IR cut filter with auto switch
Focal Length	2 mm
Selection Parameter	
Case Type	Bullet
Smart Function	
VCA(Video Content Analysis)	4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules.
Temperature Measurement	3 temperature measurement rule types, 21 rules (10 points, 10 regions, and 1 line).
Temperature Range	-20°C to 550°C (-4°F to 1,022°F)
Temperature Accuracy	Max (± 2°C, ± 2%)
Interface	
Alarm Input	2-ch inputs (0 to 5 VDC)
Alarm Output	2-ch relay outputs, alarm response actions configurable
Alarm Action	SD Card Record/Relay Output/Smart capture/FTP upload/Email linkage
Audio Input	Mic in/Line in interface. Line input: 2 to 2.4 V [p-p], output impedance:1 KΩ ± 10%
Audio Output	Linear Level; Impedance: 600 Ω
Communication Interface	1, RJ45 10 M/100 M Self-adaptive Ethernet interface. 1, RS-485 interface (half duplex)
Infrared	
IR Distance	up to 30 m
IR Intensity and Angle	Automatically adjusted

Network	
Main Stream	Thermal: 25 fps (1280 × 720, 704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)
Sub stream	Thermal: 25 fps (704 × 576, 384 × 288, 352 × 288) Optical: 50 Hz: 25 fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 480, 352 × 240)
Video compression	H.265/H.264/MJPEG, H.265+/H.264+ encoding with Baseline/Main/High Profile
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, IGMP, ICMP, DHCP, PPPoE
Simultaneous live view	Up to 20
User/Host level	Up to 32 users, 3 levels: Administrator, Operator, User
Security measures	User authentication (ID and Password), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering
Integration	
SD Memory Card	Built-in Micro SD card slot, support Micro SD/SDHC/SDXC card (up to 256 GB), support manual/alarm recording
Application Programming	Support ISAPI, HIKVISION SDK and third-party management platform
Client	iVMS-4200
Web Browser	Google Chrome 57+, Mozilla Firefox 52+, Internet Explorer 10+, Mac Safari 12+
General	
Menu Language	English
Power	100 to 240 VAC, PoE (802.3af)
Power Consumption	100 to 240 VAC, PoE (802.3af), Max. 8 W
Work Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), 95% or less
Protection Level	IP68 Standard,TVS 6000V Lightning protection, surge protection, voltage transient protection
Dimensions	301.7 mm × 179.2 mm × 152.0 mm (11.88" × 7.06" × 5.98")
Weight	Approx. 6.3 kg (13.89 lb)
Approval	
EMC	CE-EMC (EN 55032: 2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN50130-4: 2011+A1: 2014); RCM (AS/NZS CISPR 32: 2015); IC (ICES-003: Issue 7)
Safety	CB: IEC 62368-1: 2014+A11; CE-LVD: EN 62368-1: 2014/A11: 2017
Protection	IP68: IEC 60529-2013
Explosion-Proof Protection	ATEX: II 2 G Ex db IIC T6 Gb/II 2 D Ex tb IIIC T80°C Db IECEx: Ex db IIC T6 Gb/ Ex tb IIIC T80°C Db
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018), C5

DRI Range Table

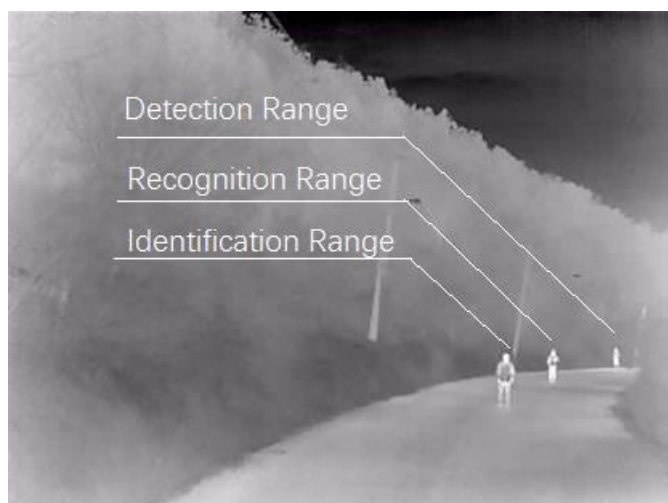*The table is only for reference and the performance may vary according to different environment.*

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.

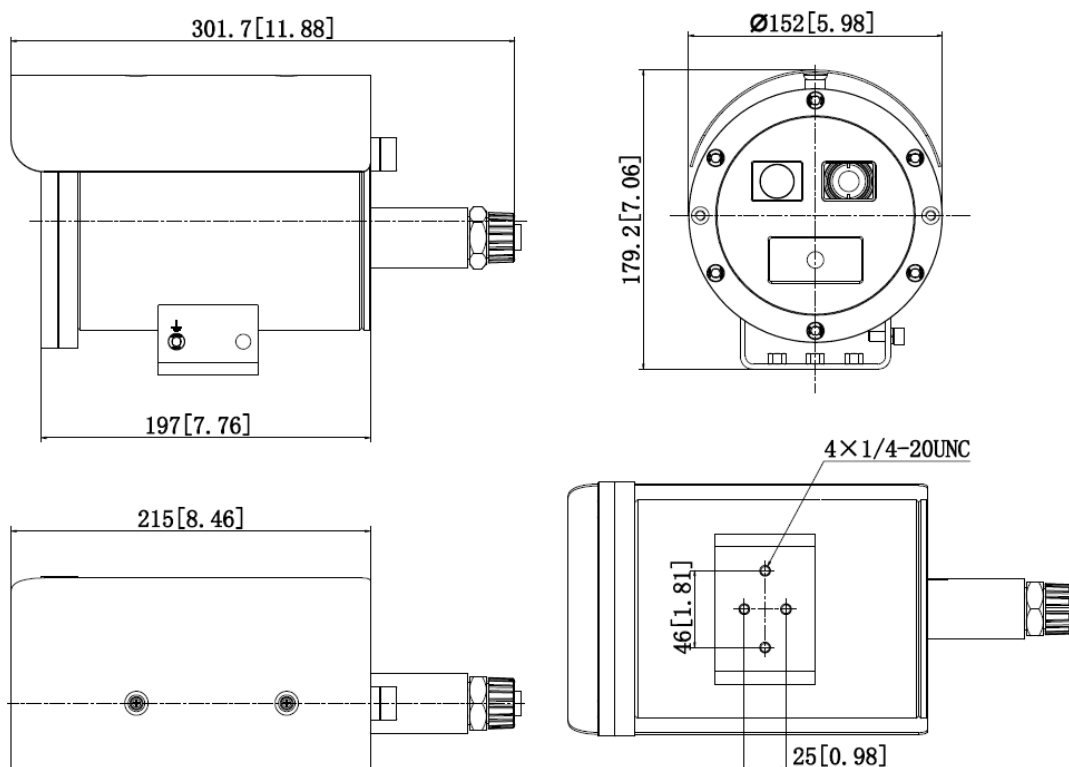| Detection Range (Vehicles: 1.4 × 4.0 m)	Detection Range (Humans: 1.8 × 0.6 m)	Recognition Range (Vehicles: 1.4 × 4.0 m)	Recognition Range (Humans: 1.8 × 0.6 m)	Identification Range (Vehicles: 1.4 × 4.0 m)	Identification Range (Humans: 1.8 × 0.6 m)
397 m	129 m	99 m	32 m	50 m	16 m

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 × 0.6 m)	Temperature Measurement (Object: 0.2 × 0.2 m)	Temperature Measurement (Object: 0.5 × 0.5 m)
92 m	31 m	10 m	26 m

▪ Available Model

DS-2TD2537T-4/Q

▪**Dimension**

301.7[11.88]

197[7.76]

Ø152[5.98]

179.2[7.06]

215[8.46]

4×1/4−20UNC

46[1.81]

25[0.98]

Unit: mm(Inch)

▪**Accessory**

▪**Optional**

DS-1677ZJ-XS-1.0(D)

Others

DS-2780ZJ-X(OS)(O-STD)/316L

Junction Box

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