DS-2TD2528T-7/Q(C)

Explosion-Proof Optical & Thermal Network Bullet Camera



Hikvision DS-2TD2528T-7/Q(C) Explosion-Proof Thermographic Thermal & Optical Bi-spectrum bullet camera series are 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 304L stainless steel + anti-corrosion coatings to meet the requirements of used in explosion-proof environment. The accurate temperature measurement system sends you alarms to protect your property.

- 256 × 192 resolution, 12 µm, VOx UFPA, NETD ≤ 40 mK (25°C, F1.0)
- Temperature exception alarm for fire prevention, -20 °C to 650 °C (-4 °F to 1202 °F), Max. (± 2 °C, ± 2%)
- Support Fire detection and smoke detection Algorithm
- Support sun-reflection filter and forklift alarm filter algorithm (forklift alarm filter is exclusive with VCA function)
- Powerful perimeter protection functions, based on intelligent algorithm: Line crossing, intrusion, region entrance & exit
- 316L Stainless Steel enclosure, protecting camera in corrosive environments
- 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
- High quality detector with 10 years warranty

▪ Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	256 x 192
Pixel Pitch	12 μm
NETD	≤ 40 mK (@25° C,F# = 1.0)
Focal Length	6.9 mm
IFOV	1.74 mrad
Aperture	F1.0
Field of View	24.9° × 18.7° (H × V)
Min. Focusing Distance	0.5 m
Digital Zoom	×2, ×4
Optical Module	
Image Sensor	1/2.7" Progressive Scan CMOS
Resolution	2688 × 1520
Min. Illumination	Color: 0.05 Lux @ (F1.6, AGC ON), B/W: 0.01 Lux @ (F1.6, AGC ON)
Field of View	84.0° × 44.8°(H × V)
Focal Length	4 mm
Shutter Speed	1 s to 1/100,000 s
Day & Night Mode	IR Cut Filter with Auto Switch
WDR	120 dB
Image Effect	
Bi-spectrum Image Fusion	Display the details of optical channel on thermal channel
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.
Illuminator	
IR Distance	Up to 30 m
IR Intensity and Angle	Automatically adjusted
Smart Function	
VCA	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), up to 8 VCA rules in total.
Temperature Measurement	3 temperature measurement rule types, 21 rules in total (10 points, 10 areas, and 1 line)
Temperature Range	-20 °C to 650 °C (-4 °F to 1202 °F)
Temperature Accuracy	Max (± 2 °C, ±2 %)
Fire Detection	Dynamic fire detection, up to 10 fire points detectable
Smoking Detection	Up to 10 smoking points detected
Smoke Detection	Support smoke detection on optical channel
Video and Audio	
Main Stream	Optical channel 50 HZ: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 HZ: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720) Thermal channel 25 fps (1280×720, 704×576, 640×512, 320×240)

Sub-stream	Optical channel 50 HZ: 25 fps (704 × 576, 352 × 288) 60 HZ: 30 fps (704 × 480, 352 × 240) Thermal channel 25 fps (704 × 576, 352 × 288, 384 × 288)
Video Compression	Main Stream: H.265/H.264 Sub-Stream: H.265/H.264/MJPEG
Audio Compression	G.722.1/G.711ulaw/G.711alaw/MP2L2/G.726/PCM
Video and Image	
Color Palettes	17 types (White hot, Black hot, Fusion 1, Rainbow, Fusion 2, Ironbow 1, Ironbow 2, Sepia, Color 1, Color 2, Ice fire, Rain, Red hot, Green hot, Dark blue, Winter, Summer)
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,TP,Bonjour,SFTP,SRTP,TLS
Network Storage	MicroSD/SDHC/SDXC card (up to 512G) local storage, NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR)
API	ISAPI,ISUP, HIKVISION SDK, and third-party management platform, Open Network Video Interface,ONVIF (Profile S, Profile G, Profile T, Profile M), OTAP
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
Interface	
Alarm Input	2, alarm input (0-5 VDC)
Alarm Output	2-ch, relay outputs (alarm response actions configurable)
Alarm Action	SD recording/Relay output/Smart capture/FTP upload/Email linkage
Audio Input	1, 3.5 mm Mic in/Line in interface Line input: 2 - 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
General	
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, PoE (802.3af)
Power Consumption	100 to 240 VAC, PoE (802.3af), max.8W
Working Temperature/Humidity	Temperature: -40°C to 60°C (-40°F to 140°F) Humidity: 90% or less
Protection Level	IP68 Standard TVS 6000V lightning protection, surge protection, voltage transient protection IK10-rated housing NEMA 4X anti-corrosion housing
Dimensions	286.7 mm × 175.2 mm × 150.1 mm (11.29” × 6.9” × 5.91”)
Weight	Approx. 5.85 kg (12.90 lb)

Detection Range Table	
VCA Range for Humans	56 m
VCA Range for Vehicles	168 m
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 IK10: IEC 62262-2002
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018), C5

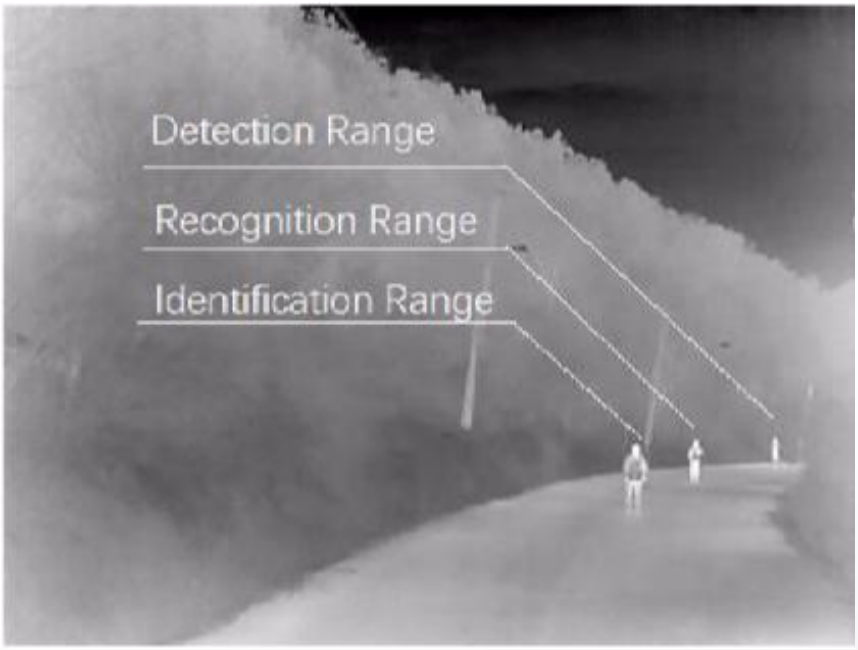
▪ Range Table

VCA Range (Vehicles: 1.4 x 4.0 m)	VCA Range (Vehicles: 1.4 x 4.0 m)	Temperature Measurement (Object: 0.2 x 0.2 m)	Temperature Measurement (Object: 0.5 x 0.5 m)	Fire Detection (Object: 0.2 x 0.2m)	Smoke Detection (Object: 0.5m x 0.5m)	Smoking Detection
168m	56m	23m	58m	70m	12m	10.5m

▪ DORI

* 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.



Detection Range (Vehicles: 1.4 x 4.0 m)	Detection Range (Humans: 1.8 x 0.6 m)	Recognition Range (Vehicles: 1.4 x 4.0 m)	Recognition Range (Humans: 1.8 x 0.6 m)	Identification Range (Vehicles: 1.4 x 4.0 m)	Identification Range (Humans: 1.8 x 0.6 m)
894m	292m	224m	73m	112m	36m

▪ Typical Application

Hikvision products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

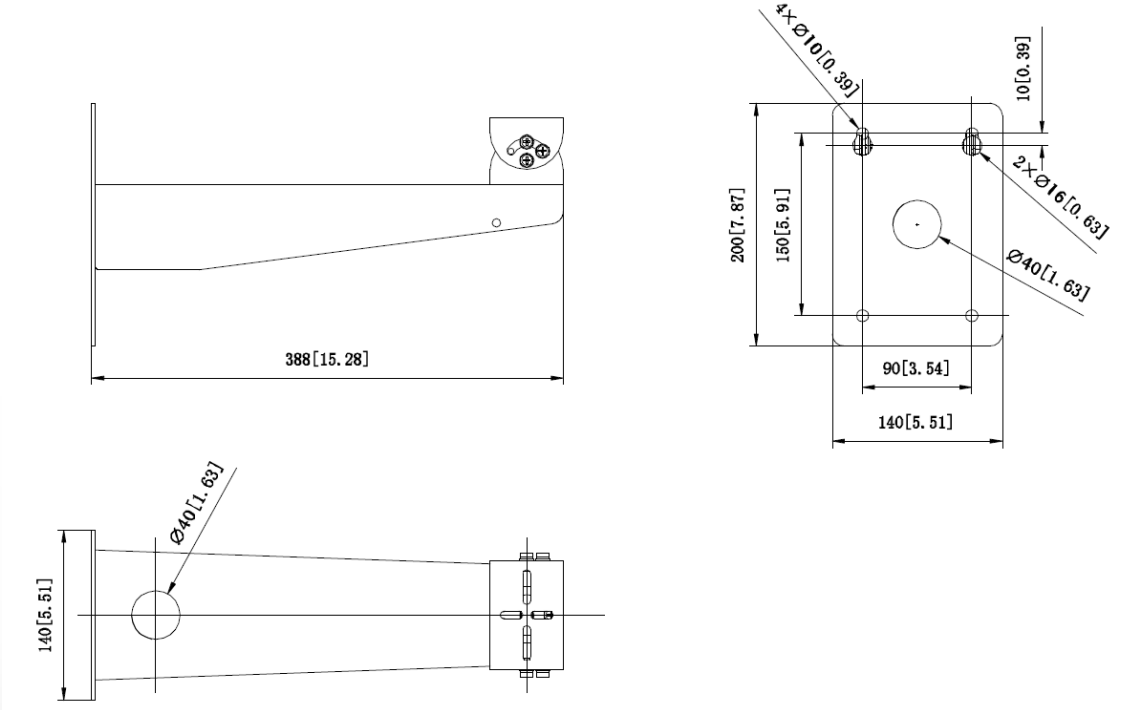
No products could be used under HYDROGEN FLUORIDE environment. This model has Top-level PROTECTION.

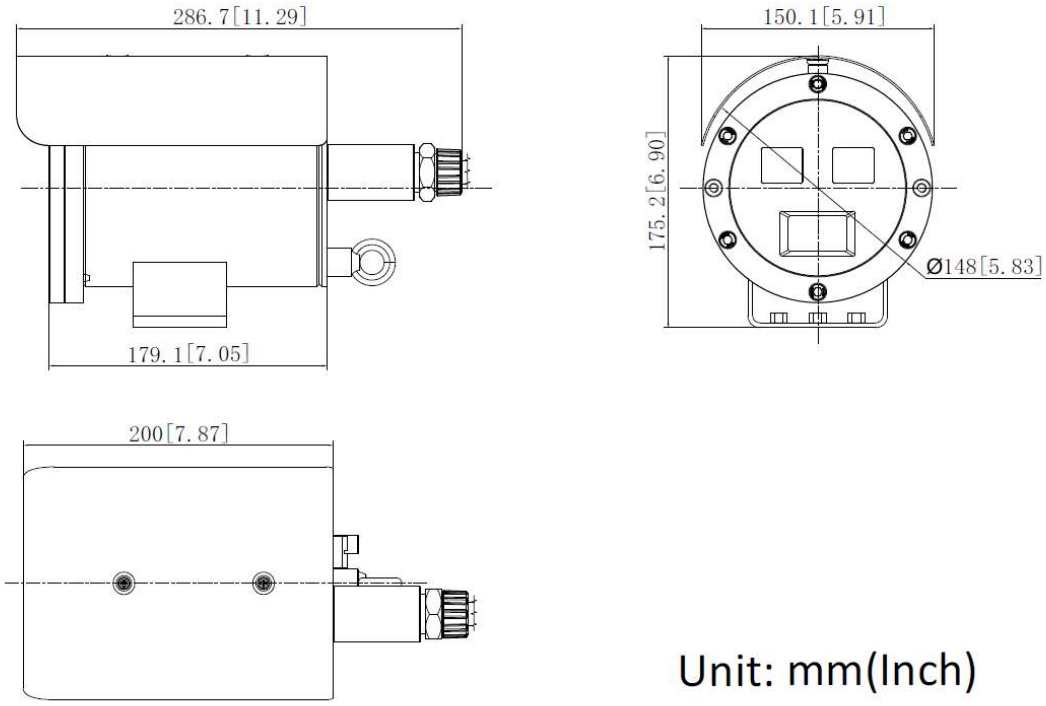
Level	Description
Top-level Protection	Hikvision products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Usually it is used in salt-spray and sulfur dioxide (with a concentration volume ratio of less than 0.67%) environment, such as chemical plants and coastal lines.
Moderate Protection	Hikvision products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No Specific Protection	Hikvision products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.

▪ Available Model

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▪ Dimension





Unit: mm(Inch)

- **Accessory**
- **Optional**

DS-2780ZJ-X(OS)(O-STD)/316L	DS-2XE2601-1(CS)
	

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