

## DS-2TD2528T-3/Q(C)

### Explosion-Proof Optical & Thermal Network Bullet Camera



Hikvision DS-2TD2528T-3/Q 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 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.

- High sensitivity sensor with 256 x 192 resolution
- NETD is less than 40 mk (@25° C, F#=1.0)
- Supports contrast adjustment
- Leading thermal image processing technology: Adaptive AGC, DDE, 3D DNR
- Up to 17 palettes of adjustable color
- Powerful perimeter protection functions, based on intelligent algorithm: Line crossing, intrusion, region entrance & exit
- High quality detector with 10 years warranty
- 316L 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	256 × 192
Thermal Module	
Image sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Pixel Interval	12 μm
NETD	less than 40 mk (@25°C), F#=1.0
MRAD	3.33 mrad
Field of View	50.0° × 37.3° (H × V)
Min. Focusing Distance	0.5 m
Aperture	F1.0
Lens (Focal Length)	3.6 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	83.7° × 43°(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	4.27 mm
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 650°C (-4°F to 1,202°F)
Temperature Accuracy	Max (± 2°C, ± 2%)
Infrared	
IR Distance	up to 30m
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, 640 × 512, 320 × 240) 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
<b>Integration</b>	
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	1 3.5mm Mic in/Line in interface. Line input: 2 to 2.4V[p-p], output impedance:1 KΩ ± 10%
Audio Output	Linear Level; Impedance: 600 Ω
Ethernet	1 RJ45 10M/100M Self-adaptive Ethernet interface
SD Memory Card	Built-in Micro SD card slot, support Micro SD/SDHC/SDXC card (up to 256G), 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+
<b>General</b>	
Menu Language	33 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), Ukrainian
Power	100 to 240 VAC, PoE (802.3af)
Power Consumption	100 to 240 VAC, PoE (802.3af), max.8W
Work Temperature/Humidity	-40°C to 60°C (-40°F to 140°F), 90% or less
Protection Level	IP68 Standard,TVS 6000V Lightning protection, surge protection, voltage transient protection
Dimensions	286.7 mm × 175.2 mm × 150.1 mm (11.29" × 6.9" × 5.91")
Weight	Approx. 5.85 kg (12.90 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; BIS: IS 13252 (Part 1): 2010/ IEC 60950-1: 2005
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

## ▪ Range Table

VCA Range (Vehicles: 1.4 x 4.0 m)	VCA Range (Humans: 1.8 x 0.6 m)	Temperature Measurement (Object: 0.2 x 0.2 m)	Temperature Measurement (Object: 0.5 x 0.5 m)	Smoke Detection (Object: 0.5m x 0.5m)
84 m	28 m	12 m	30 m	12 m

## ▪ 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.

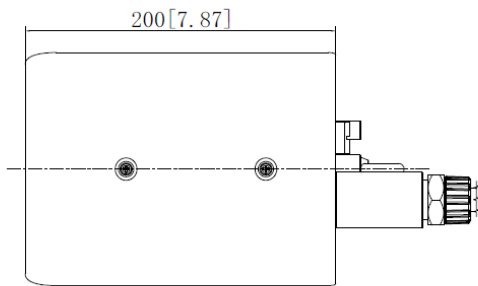
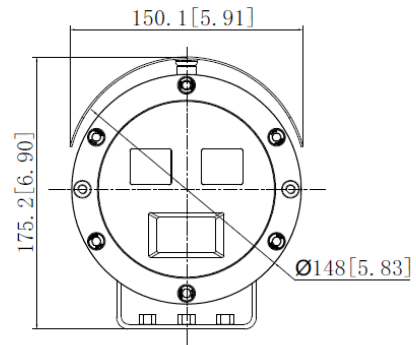
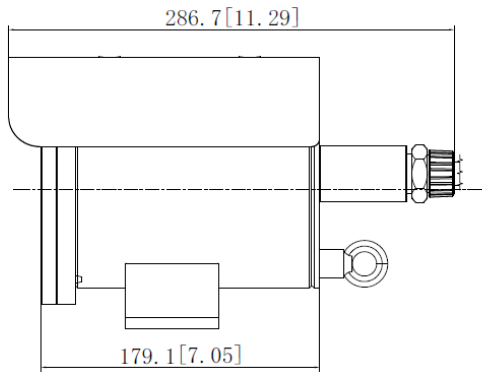
Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

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)
447 m	146 m	112 m	36 m	56 m	18 m

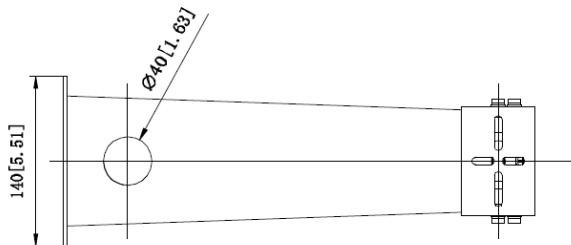
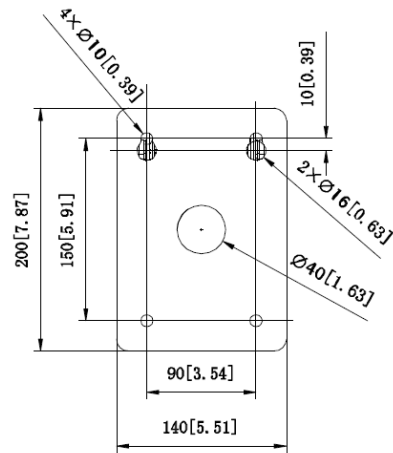
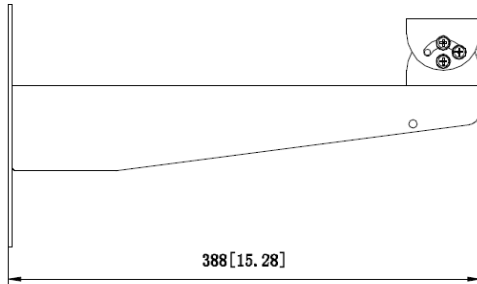
## ▪ Available Model

DS-2TD2528T-3/Q(C)

▪ Dimension





Unit: mm(Inch)



- **Accessory**

- **Optional**

DS-1677ZJ-XS-1.0 (C2) Flexible Conduit	DS-2780ZJ-X(OS)(O-STD)/316L Junction box
	

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