

DS-2TD2528T-7/Q

Explosion-Proof Optical & Thermal Network Bullet Camera



Hikvision DS-2TD2528T-7/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 15 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 | 1.71 mrad |
| Field of View | 24.9° × 18.7° (H × V) |
| Min. Focusing Distance | 0.5 m |
| Aperture | F 1.0 |
| Lens (Focal Length) | 7 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 | 84.0° × 44.8°(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 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 550°C (-4°F to 1,022°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 |
| Integration | |
| 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+ |
| General | |
| 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, max.8W PoE (802.3af) |
| 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) |
|-----------------------------------|---------------------------------|---|---|
| 168 m | 56 m | 22 m | 55 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.

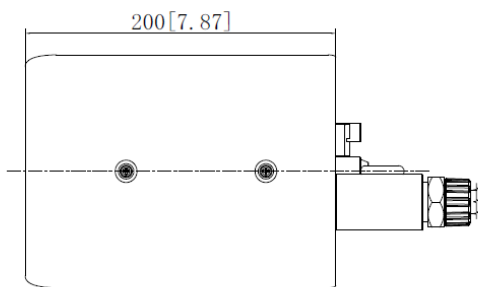
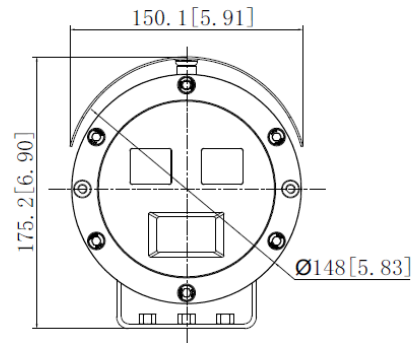
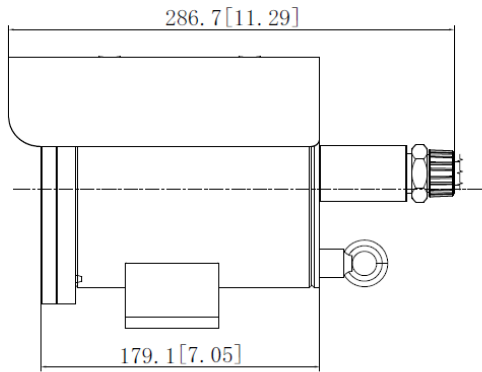
Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

| 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) |
|---|---------------------------------------|---|---|--|--|
| 894 m | 292 m | 224 m | 73 m | 112 m | 36 m |

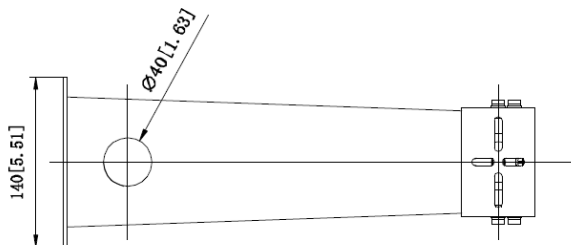
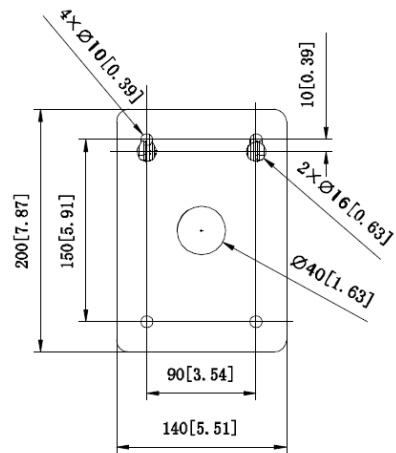
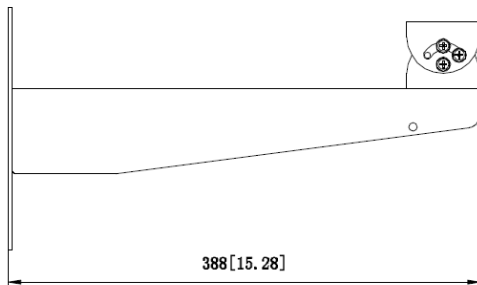
▪ Available Model

DS-2TD2528T-7/Q

▪ 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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