

## DS-2TD2668-10/G1/T3Y Thermal & Optical Bi-spectrum Network Bullet Camera



DS-2TD2668-10/G1/T3Y Anti-corrosion Bi-spectrum Network Bullet Camera supports video analysis based on GUANLAN Large Scale AI Model for perimeter protection, and temperature exception alarm. It can be widely used in critical infrastructures such as: solar farm, car dealership, factory, railway, and so on. It adopts anti-corrosion coating to meet the requirements of used in anti-corrosion environment.

- 640 × 512 resolution, 12 μm, VOx UFPA, NETD ≤ 20 mK (25°C, F1.0)
- Extended human/vehicle detection distance and ultra low false alarm with GUANLAN Large-Scale AI Model
- Temperature exception alarm, -20°C to 150°C (-4°F to 302°F), ± 8°C (± 14.4°F)
- Fire detection and smoking detection Algorithm
- Built-in TPM2.0 encryption module for cybersecurity
- Image processing technology: linear, histogram, 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               | 640 x 512                                                                                                     |
| Pixel Pitch              | 12 μm                                                                                                         |
| NETD                     | ≤ 20 mK (@25° C, F# = 1.0)                                                                                    |
| Focal Length             | 10 mm                                                                                                         |
| IFOV                     | 1.2 mrad                                                                                                      |
| Aperture                 | F1.0                                                                                                          |
| Field of View            | 45.1° × 35.7° (H × V)                                                                                         |
| Min. Focusing Distance   | 1.5 m                                                                                                         |
| Digital Zoom             | ×2, ×4 , ×8                                                                                                   |
| Optical Module           |                                                                                                               |
| Image Sensor             | 1/2.7" Progressive Scan CMOS                                                                                  |
| Resolution               | 2688 × 1520                                                                                                   |
| Min. Illumination        | 0.0089Lux @(F1.6, AGC ON) , 0 Lux with IR                                                                     |
| Field of View            | 83.7° × 43° (H × V)                                                                                           |
| Focal Length             | 4.3 mm                                                                                                        |
| Shutter Speed            | 1 s to 1/100,000 s                                                                                            |
| White Balance            | MWB/AWB1/Locked WB/Fluorescent Lamp/Incandescent Lamp/Warm Light Lamp/Natural Light                           |
| 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.                                                               |
| EIS                      | Thermal channel supports EIS, mutually exclusive with all smart functions except VCA function                 |
| 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 (point, area, line), 21 rules in total                                   |
| Temperature Range        | -20 °C to 150 °C (-4 °F to 302 °F)                                                                            |
| Temperature Accuracy     | ± 8 °C (±14.4 °F)                                                                                             |
| Fire Detection           | Dynamic fire detection, up to 10 fire points detectable                                                       |
| Smoking Detection        | Up to 10 smoking points detected                                                                              |

| Video and Audio         |                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Stream             | Optical channel<br>50 HZ: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>60 HZ: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)<br>Thermal channel<br>25 fps (1280×720P , 704×576 , 640×512 , 352×288)                                                                                                                                    |
| Sub-stream              | Optical channel<br>50 HZ: 25 fps (704 × 576, 352 × 288)<br>60 HZ: 30 fps (704 × 480, 352 × 240)<br>Thermal channel<br>25 fps (704 × 576, 640 × 512, 384 × 288)                                                                                                                                                                            |
| Video Compression       | Main Stream: H.265/H.264<br>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, Icefire, 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 512 G) 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<br>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.<br>1, RS-485 interface (half duplex)                                                                                                                                                                                                                                                 |
| Analog Output           | 1.0V [p-p]/75Ω, PAL/NTSC/BNC                                                                                                                                                                                                                                                                                                              |
| 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            | 24 VAC ± 25%, 12 VDC ± 25%, 24VDC two-core terminal block<br>PoE (802.3af, class 3)                                                                                                                                                                                                                                                       |

|                              |                                                                                                                                                                          |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Consumption            | 24 VAC $\pm$ 25%: 0.33 A to 0.55 A, max. 12.6 W<br>12 VDC $\pm$ 25%: 0.8 A to 1.33 A, max. 11.8 W<br>PoE (802.3af, class 3): 36 V to 57 V, 0.33 A to 0.21 A, max. 12.3 W |
| Working Temperature/Humidity | Temperature: -40°C to 70°C (-40°F to 158°F)<br>Humidity: 95% or less                                                                                                     |
| Protection Level             | IP67 Standard<br>TVS 4000V lightning protection, surge protection, voltage transient protection<br>IK10-rated housing<br>NEMA 4X anti-corrosion housing                  |
| Dimensions                   | 376.1 mm $\times$ 119.1 mm $\times$ 118.1 mm (14.81" $\times$ 4.68" $\times$ 4.65")                                                                                      |
| Weight                       | 1.82 kg (4.01 lb)                                                                                                                                                        |
| <b>Detection Range Table</b> |                                                                                                                                                                          |
| VCA Range for Humans         | 130 m                                                                                                                                                                    |
| VCA Range for Vehicles       | 300 m                                                                                                                                                                    |
| <b>Approval</b>              |                                                                                                                                                                          |
| EMC                          | CE-EMC (EN 55032:2015, EN 61000-3-2:2019, EN 61000-3-3: 2013+A1:2019, EN50130-4: 2011+A1: 2014);<br>RCM (AS/NZS CISPR 32: 2015);<br>IC (ICES-003: Issue 7)               |
| Safety                       | CB: IEC 62368-1: 2014+A11;<br>CE-LVD: EN 62368-1: 2014/A11: 2017;<br>BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005<br>LOA: SANS/IEC 60950-1                             |
| Environment                  | CE-RoHS : 2011/65/EU,<br>WEEE: 2012/19/EU,<br>Reach : Regulation(EC) No 1907/2006                                                                                        |
| Protection                   | IP67: IEC 60529-2013<br>IK10: IEC 62262-2002                                                                                                                             |
| Anti-Corrosion Protection    | NEMA 4X (NEMA 250-2018)                                                                                                                                                  |

## ▪ Range Table

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

| VCA Range<br>(Vehicles: 1.4 $\times$<br>4.0 m) | VCA Range<br>(Humans: 1.8 $\times$<br>0.5 m) | Temperature<br>Measurement<br>(Object: 0.2 $\times$<br>0.2 m) | Temperature<br>Measurement<br>(Object: 0.5 $\times$<br>0.5 m) | Fire Detection<br>(Object: 0.5 $\times$<br>0.5 m) | Smoking<br>Detection |
|------------------------------------------------|----------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------|----------------------|
| 300 m                                          | 130 m                                        | 29.1m                                                         | 72m                                                           | 25.8 m                                            | 14.6m                |

## ▪ DORI

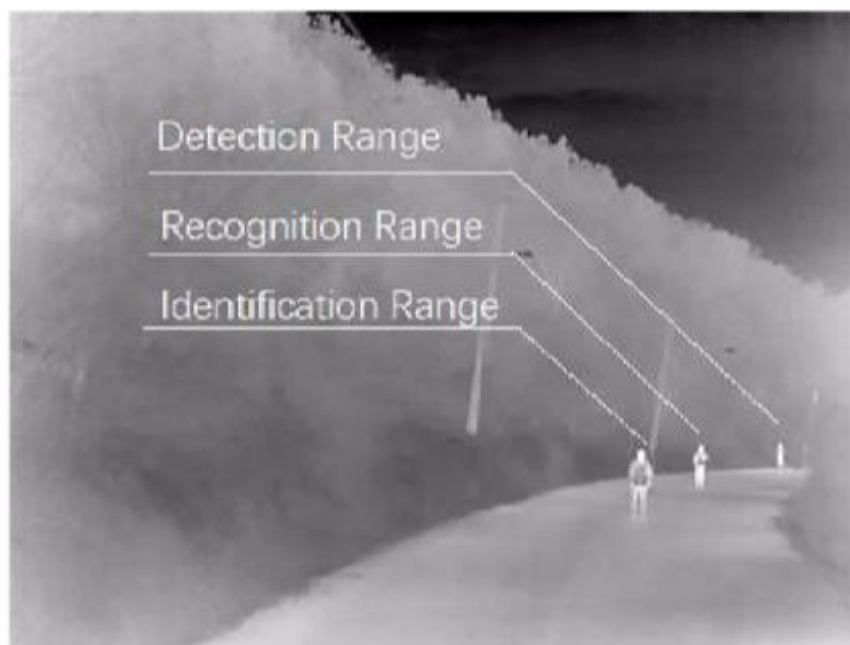
*\*The table is only for reference and the performance may vary according to different environment.*

*\*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<br>(Vehicles: 1.4 × 4.0 m) | Detection Range<br>(Humans: 1.8 × 0.5 m) | Recognition<br>Range (Vehicles:<br>1.4 × 4.0 m) | Recognition<br>Range (Humans:<br>1.8 × 0.5 m) | Identification<br>Range (Vehicles:<br>1.4 × 4.0 m) | Identification<br>Range (Humans:<br>1.8 × 0.5 m) |
|--------------------------------------------|------------------------------------------|-------------------------------------------------|-----------------------------------------------|----------------------------------------------------|--------------------------------------------------|
| 1278m                                      | 417m                                     | 319m                                            | 104m                                          | 160m                                               | 52m                                              |

## ▪ 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.

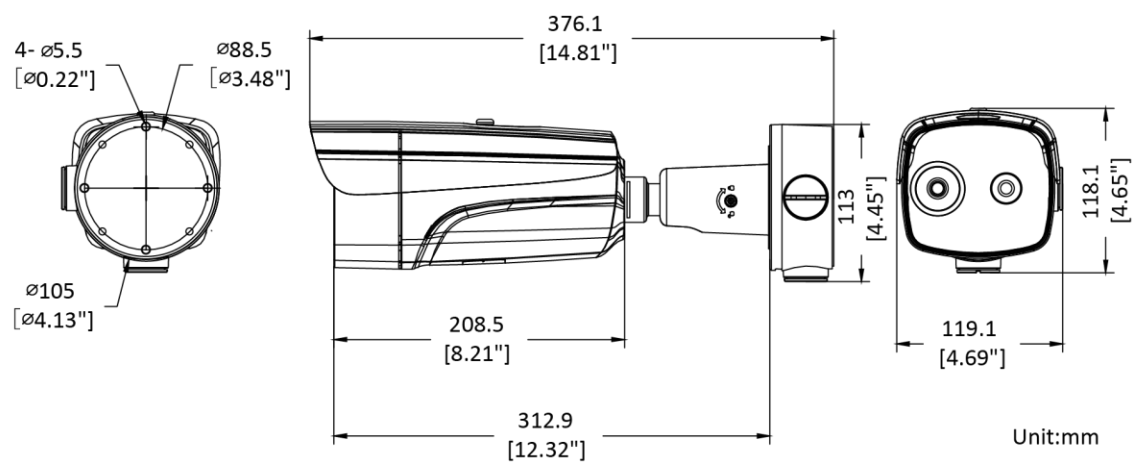
No products could be used under HYDROGEN FLUORIDE environment. This model has MODERATE PROTECTION.

| 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

DS-2TD2668-10/G1/T3Y

## ▪ Dimension



▪ **Accessory**

▪ **Included**

**DS-1260ZJ-AC#S**

**A**



▪ **Optional**

**DS-1275ZJ-S-SUS**

**DS-1276ZJ-SUS**



# See Far, Go Further



[www.hikvision.com](http://www.hikvision.com)  
[support@hikvision.com](mailto:support@hikvision.com)

