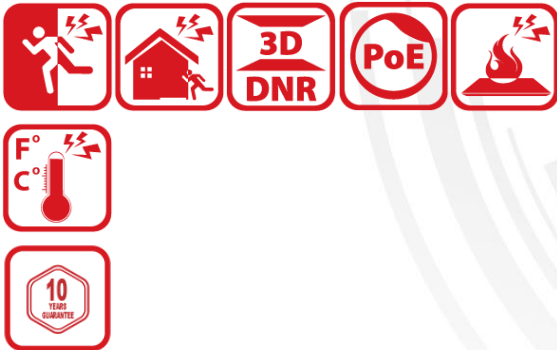# HM-TD2638T-4/G0/T1Y
## Thermographic Thermal & Optical Bi-spectrum Network Bullet Camera

HM-TD2638T-4/G0/T1Y Thermographic Thermal & Optical Bi-Spectrum Network Bullet Camera can be applied to substations, hydropower stations, waste incineration plants, manufacturing workshops, etc. The accurate temperature measurement device sends temperature exception alarms for loss prevention.

- 384 × 288 resolution, 12 μm, VOx UFPA, NETD ＜ 25 mK (25°C, F1.0)

- Video content analysis: vehicle/human classification

- Temperature exception alarm for fire prevention, -20 °C to 650 °C (-4 °F to 1202 °F), Max. (± 2 °C, ± 2%)

- Support  smoking detection Algorithm

- Support Fire detection and smoke detection Algorithm

- Support sun-reflection filter and forklift alarm filter algorithm (forklift alarm filter is exclusive with VCA function)

- 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 | 384 x 288 |
| Pixel Pitch | 12 µm |
| NETD | ≤ 25 mK    (@25° C,F# = 1.0) |
| Focal Length | 4.4 mm |
| IFOV | 2.73 mrad |
| Aperture | F1.0 |
| Field of View | 60.2° × 45° (H × V) |
| Min. Focusing Distance | 0.6 m |
| Digital Zoom | ×2, ×4，×8 |

| Optical Module | |
|---|---|
| Image Sensor | 1/2.7" Progressive Scan CMOS |
| Resolution | 2688 × 1520 |
| Min. Illumination | 0.0176Lux @(F2.25,AGC ON) ,0 Lux with IR |
| Field of View | 128.3° × 75.4° (H × V) |
| Focal Length | 2.2 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, exclusive with all smart functions |

| 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<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， 352×288， 384×288) |
| 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, 352 × 288, 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 |
| **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 256 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) |
| 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 ± 25%: 0.33 A to 0.55 A, max. 14 W<br>12 VDC ± 25%: 0.8 A to 1.33 A, max. 12 W<br>PoE (802.3af, class 3): 36 V to 57 V, 0.33 A to 0.21 A, max. 12 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 × 119.1 mm × 118.1 mm (14.81" × 4.68" × 4.65") |
| Weight | 1.82 kg (4.01 lb) |

## ▪ Range Table

| VCA Range (Vehicles: 1.4 × 4.0 m) | VCA Range (Humans: 1.8 × 0.5 m) | Temperature Measurement (Object: 0.2 × 0.2 m) | Fire Detection (Object: 0.2 × 0.2 m) | Smoking Detection | Smoke detection （Object： 0.5 × 0.5m） |
|---|---|---|---|---|---|
| 132m | 44m | 13.2m | 52.8m | 6m | 6.6m |

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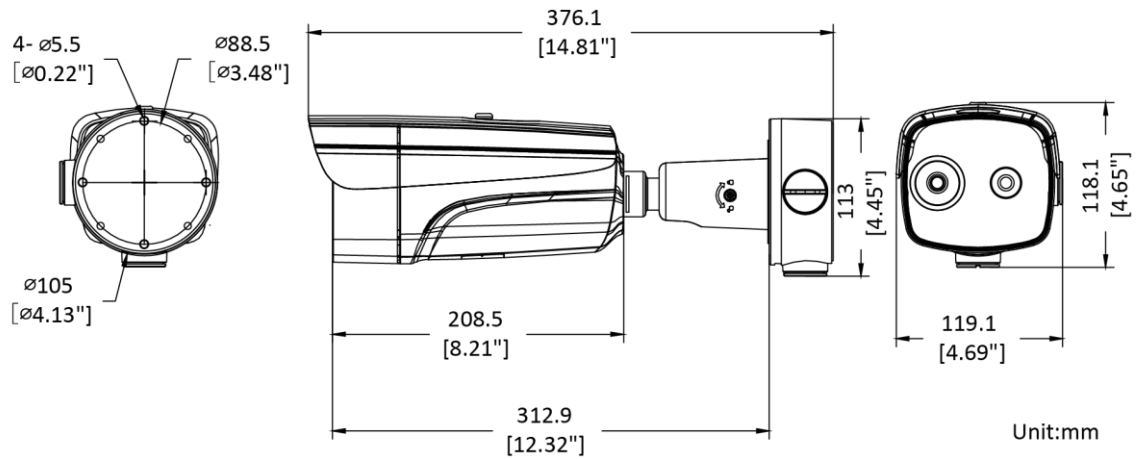Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

| Detection Range (Vehicles: 1.4 × 4.0 m) | Detection Range (Humans: 1.8 × 0.5 m) | Recognition Range (Vehicles: 1.4 × 4.0 m) | Recognition Range (Humans: 1.8 × 0.5 m) | Identification Range (Vehicles: 1.4 × 4.0 m) | Identification Range (Humans: 1.8 × 0.5 m) |
|---|---|---|---|---|---|
| 562 m | 183 m | 141 m | 46 m | 70 m | 23 m |

## ▪ Available Model

HM-TD2638T-4/G0/T1Y

## ▪ Dimension



## ▪ Accessory

### ▪ Included

| DS-1260ZJ-AC#SA |
|---|
| Junction box |



### ▪ Optional

| DS-1276ZJ-SUS | DS-1275ZJ-S-SUS |
|---|---|
| Corner mount | Vertical pole mount |