# HM-TD2638-10/G0/T1Y
## Thermal & Optical Bi-spectrum Network Bullet Camera






HM-TD2638-10/G0/T1Y Anti-corrosion Bi-spectrum Network Bullet Camera is applied to perimeter protection and fire-prevention purposes in critical infrastructures such as: airport, railway, prison, power station, 4S stores, and so on. With the vanadium oxide uncooled focal plane sensor, it enhances the thermal image quality. It adopts anti-corrosion coating to meet the requirements of used in anti-corrosion environment.

- 384 × 288 resolution, 12 μm, VOx UFPA, NETD ≤ 20 mK (25°C, F1.0)
- Video content analysis 3.0 (VCA3.0): high accuracy vehicle/human detection and classification
- Temperature exception alarm for fire prevention, -20°C to 150°C (-4°F to 302°F), ± 8°C (± 14.4°F)
- Fire detection and smoking detection Algorithm
- Support sun-reflection filter 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 | 384 x 288 |
| Pixel Pitch | 12 μm |
| NETD | ≤ 20 mK (@25° C,F# = 1.0) |
| Focal Length | 9.7 mm |
| IFOV | 1.24 mrad |
| Aperture | F1.0 |
| Field of View | 26.5° × 19.8° (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 | 51.9° × 28° (H × V) |
| Focal Length | 6.4 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 channle supports EIS, exclusive with all smart functions |
| **Illuminator** | |
| IR Distance | Up to 50m |
| 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 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， 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 |
| **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 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 ± 25%: 0.33 A to 0.55 A, max. 12.1W<br>12 VDC ± 25%: 0.8 A to 1.33 A, max. 11.3W<br>PoE (802.3af, class 3): 36 V to 57 V, 0.33 A to 0.21 A, max. 11.8W |
| 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) |
| **Detection Range Table** | |
| VCA Range for Humans | 130 m |
| VCA Range for Vehicles | 300 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);<br>RCM (AS/NZS CISPR 32: 2015);<br>IC (ICES-003: Issue 7)<br>KC (KSC9832: 2019; KSC9835: 2019) |
| 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 (Vehicles: 1.4 × 4.0 | VCA Range (Humans: 1.8 × 0.5 | Temperature Measurement | Temperature Measurement | Fire Detection (Object: 0.2 × 0.2 m) |
|---|---|---|---|---|

| m) | m) | (Object: 0.2 × 0.2 m) | (Object: 0.5 × 0.5 m) | |
|---|---|---|---|---|
| 300 m | 130 m | 29.1m | 72m | 116.4m |

## ▪ 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) |
|---|---|---|---|---|---|
| 1239 m | 404 m | 310 m | 101 m | 155 m | 51 m |

## ▪ Typical Application

HIKMICRO 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 | HIKMICRO 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 | HIKMICRO 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 | HIKMICRO products at this level are equipped for use in areas where no specific anti-corrosion protection is needed. |

## ▪ Available Model

HM-TD2638-10/G0/T1Y

## ▪ Accessory

### ▪ Included

| DS-1260ZJ-AC#SA<br>Junction box |
|---|
|  |

### ▪ Optional

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

COMPLIANCE NOTICE: The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.

Building A1, No. 299, Qiushi Road, Tonglu Economic Development Zone, Tonglu County, Hangzhou, Zhejiang
©Hangzhou HikMicro Sensing Technology Co., Ltd. | Data subject to change without notice.