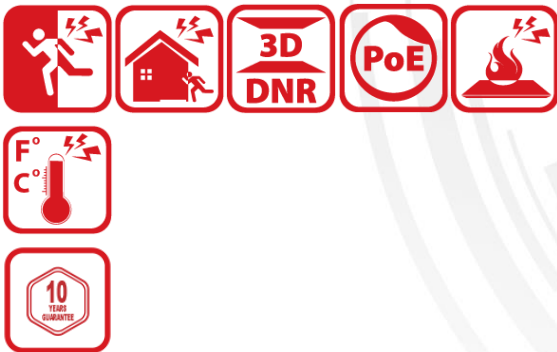# HM-TD2638T-10/G0/T1Y
Thermographic Thermal & Optical Bi-spectrum Network Bullet Camera

HM-2TD2638T-10/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	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 channel supports EIS, exclusive with all smart functions

Illuminator	
IR Distance	Up to 50 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 50 HZ: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 HZ: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720) Thermal channel 25 fps (1280×720P， 704×576， 352×288， 384×288)
Sub-stream	Optical channel 50 HZ: 25 fps (704 × 576, 352 × 288) 60 HZ: 30 fps (704 × 480, 352 × 240) Thermal channel 25 fps (704 × 576, 352 × 288, 384 × 288)
Video Compression	Main Stream: H.265/H.264 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 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. 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 PoE (802.3af, class 3)
Power Consumption	24 VAC ± 25%: 0.33 A to 0.55 A, max. 14 W 12 VDC ± 25%: 0.8 A to 1.33 A, max. 12 W 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) Humidity: 95% or less
Protection Level	IP67 Standard TVS 4000V lightning protection, surge protection, voltage transient protection IK10-rated housing 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)
291m	97m	29.1m	116.4m	14.6m	19.2m

▪ 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.
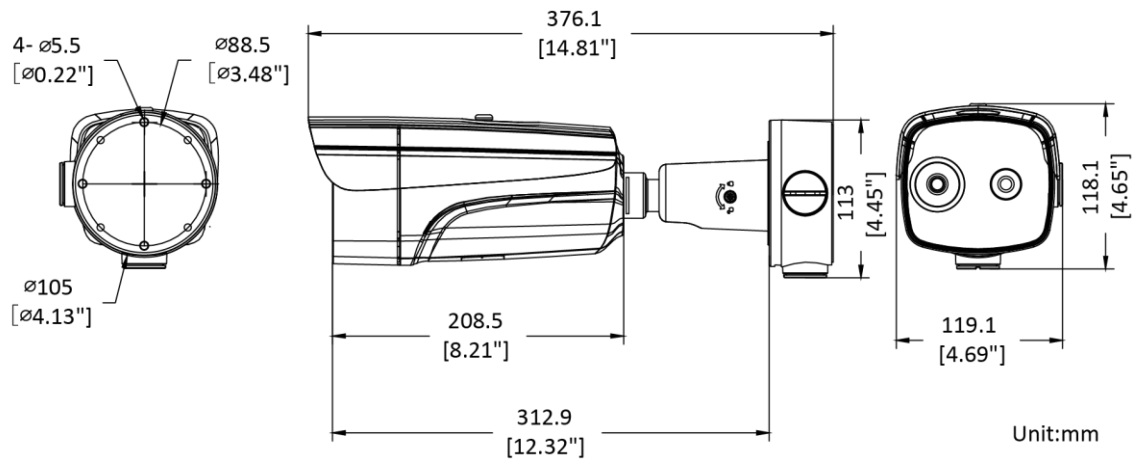
Detection Range (Vehicles: 1.4 × 4.0 m)	Detection Range (Humans: 1.8 × 0.5 m)	Recognition Range (Vehicles: 1.4 × 4.0 m)	Recognition Range (Humans: 1.8 × 0.5 m)	Identification Range (Vehicles: 1.4 × 4.0 m)	Identification Range (Humans: 1.8 × 0.5 m)

1239 m	404 m	310 m	101 m	155 m	51 m

▪ Available Model

HM-TD2638T-10/G0/T1Y

▪ Dimension

▪ Accessory

▪ Included

DS-1260ZJ-AC#SA
Junction box
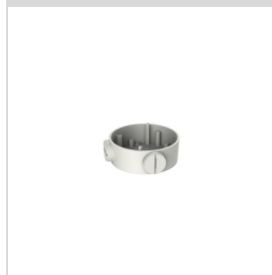
▪ Optional

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