HIKVISION®

DS-2TD1217-2/PA
Thermal & Optical Bi-Spectrum Network Turret Camera

DeepinView series

Hikvision DS-2TD1217-2/PA Thermal & Optical Network Turret Camera equipped with built-in GPU which supports intelligent behavior analysis algorithm, can realize high-precision VCA detection and real-time alarm. It is applied to perimeter protection and fire prevention purposes in commercial facilities such as residential, retail, villa, parking lot, museum, data centers and so on. The pre-alarm system helps you discover unexpected events immediately and protects your property.

Key Feature

- Behavior analysis function, based on deep learning algorithm: Line crossing, Intrusion, Region Entrance & Exit
- Temperature exception alarm function
- Fire detection algorithm
- 160 × 120 (the resolution of output image is 320 × 240) resolution 17 μm, VOx UFPA, NETD ≤ 40 mK (25 °C, F# = 1.1)
- Image processing technology: Liner, histogram, and self-adaptive thermal AGC mode, DDE, 3D DNR

Specification

Thermal Module

Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	160 × 120 (the resolution of output image is 320 × 240)
Pixel Interval	17 µm
Response Waveband	8 µm to 14 µm
NETD (Noise Equivalent Temperature Difference)	≤ 40 mK (25°C, F# = 1.1)
Focal Length	1.8 mm
IFOV	9.44 mrad
Field of View	90° × 66.4° (H × V)
Min. Focusing Distance	0.1 m
Aperture	F1.1
Digital Zoom	×2, ×4, ×8

Optical Module

Image Sensor	1/2.7" Progressive Scan CMOS
Resolution	2688 × 1520
Min. Illumination	Color: 0.0176 Lux @ (F2.25, AGC ON), B/W: 0.0035 Lux @ (F2.25, AGC ON)
Shutter Speed	1 s to 1/100,000 s
Focal Length	2.1 mm
Field of View	119.34° × 93.3°(H × V)
Aperture	F2.3
WDR	120 dB

Image Effect

Picture in Picture	Display partial image of thermal channel on the full screen of optical channel
Bi-spectrum Image Fusion	Display the details of optical channel on thermal channel
Target Coloration	Yes. Supported in white hot and black hot mode.

Smart Function

VCA (Video Content Analysis)	4 VCA rule types (Line Crossing, Intrusion, Region Entrance, and Region Exiting), up to 8 VCA rules totally.
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.

Illuminator

IR Distance	Up to 15 m
IR Intensity and Angle	Automatically adjusted

Audible and Visual Alarm	
White Light Range	Up to 30 m
Visual Alarm	Yes. White light used as the visual alarm, flashing frequency adjustable
Audio alarm	Yes. 6 audio alarms are supported to cover all kinds of alarm.

Video & Audio	
Main Stream	Optical channel 50 Hz: 25 fps (2688 × 1520), 25 fps (1920 × 1080), 25 fps (1280 × 720) 60 Hz: 30 fps (2688 × 1520), 30 fps (1920 × 1080), 30 fps (1280 × 720) Thermal channel 25 fps (1280 × 720, 704 × 576, 640 × 480, 352 × 288, 320 × 240)
Sub-stream	Optical channel 50 Hz: 25 fps (704 × 576), 25 fps (352 × 288), 25 fps (176 × 144) 60 Hz: 30 fps (704 × 480), 30 fps (352 × 240), 30 fps (176 × 120) Thermal channel 25 fps (704 × 576, 640 × 480, 352 × 288, 320 × 240)
Video Compression	Main Stream: H.265/H.264 Sub-Stream: H.265/H.264/MJPEG
Audio Compression	G .711u/G.711a/G.722.1/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
Network Storage	MicroSD/SDHC/SDXC card (up to 256 G) local storage, and NAS (NFS, SMB/CIFS), auto network replenishment (ANR)
API	ISAPI, HIKVISION SDK, third-party management platform, ONVIF (Profile S, Profile G, Profile T)
Simultaneous Live View	Up to 20 channels
User/Host Level	Up to 32 users, 3 levels: Administrator, Operator, User
Security	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x(EAP-MD5, EAP-TLS), access control, IP address filtering
Client	iVMS-4200, Hik-Connect
Web Browser	Live view (plug-in allowed) : Internet Explorer 11 Live view (plug-in free) : Chrome 57.0 +, Firefox 52.0 + Local service : Chrome 57.0+, Firefox 52.0 +

Interface	
Alarm Input	1-ch input (0-5 VDC)
Alarm Output	1-ch relay output, alarm response actions configurable
Alarm Action	SD recording/relay output/smart capture/FTP upload/email linkage/audio alarm/white light alarm
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

General

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	12 VDC ± 20%, two-core terminal block PoE (802.3af, class 3)
Power Consumption	12 VDC ± 20%: 0.5 A, max. 6 W PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 6.5 W
Working Temperature/Humidity	-40 °C to 65 °C (-40 °F to 149 °F) 95% or less
Protection Level	IP66 Standard TVS 6000 V Lightning protection, surge protection, voltage transient protection
Dimension	138.3 mm × 138.3 mm × 123.1 mm (5.45 " × 5.45" × 4.85 ")
Weight	940 g (2.07 lb)

DRI Range Table
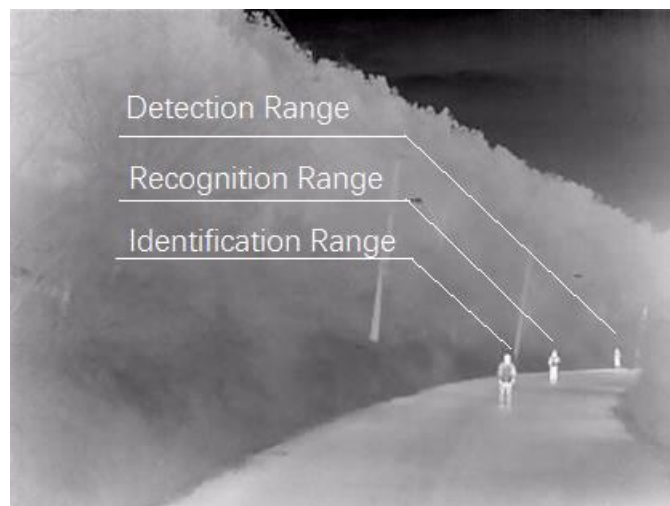
The table is only for reference and the performance may vary according to different environment.

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.

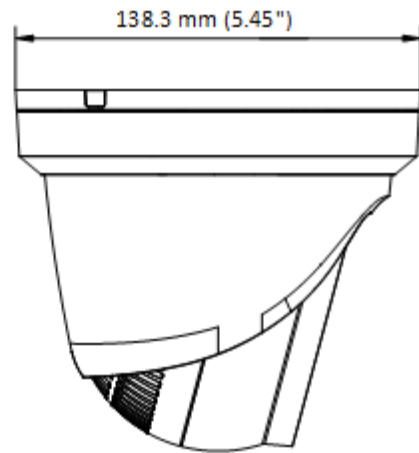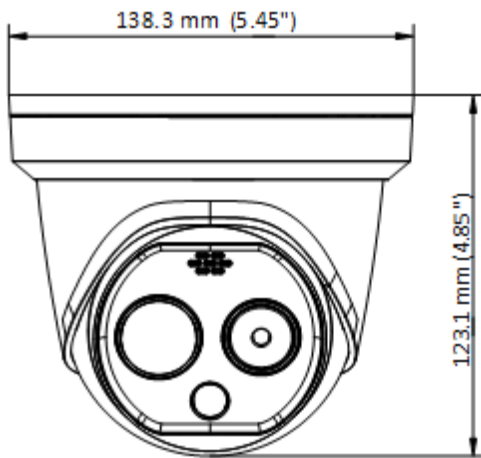| Detection Range (Vehicles: 1.4 × 4.0 m)	Detection Range (Humans: 1.8 × 0.5 m)	Recognition Range (Vehicles: 1.4 × 4.0 m)	Recognition Range (Humans: 1.8 × 0.5 m)	Identification Range (Vehicles: 1.4 × 4.0 m)	Identification Range (Humans: 1.8 × 0.5 m)
162 m	53 m	41 m	13 m	20 m	7 m

Smart Function Table

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

VCA Range (Vehicles: 1.4 × 4.0 m)	VCA Range (Humans: 1.8 × 0.5 m)	Temperature Measurement (Object: 2 × 2 m)	Temperature Measurement (Object: 1 × 1 m)	Fire Detection (Object: 2 × 2 m)	Fire Detection (Object: 1 × 1 m)
25 m	9 m	44 m	22 m	108 m	54 m

Available Model

DS-2TD1217-2/PA

Dimension

138.3 mm (5.45")

123.1 mm (4.85")

138.3 mm (5.45")

Accessory

DS-1273ZJ-140
Wall Mount

DS-1275ZJ-SUS
Vertical Pole Mount

DS-1276ZJ-SUS
Corner Mount

Distributed by

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