

### DS-2TD1217-2/PA **Thermal & Optical Network Turret Camera**

# **DeepinView**















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 fire-prevention purposes in indoor space such as engine room, ATM, conference room, warehouse, museum, train station, gem, power station, and so on. The pre-alarm system helps you discover unexpected events immediately and protects your property.

#### **Smart Function (Thermal Imaging)**

- Image processing technology: adaptive AGC, DDE, 3D DNR, NETD less than 40 mK (25°C), F# = 1.1
- Behavior analysis function, based on deep learning algorithm: Line crossing, Intrusion, Region Entrance & Exit
- Temperature exception alarm function
- Fire detection algorithm
- Bi-spectrum image fusion, picture in picture preview
- Strobe light and audio alarm

#### **Thermal Imaging Module Function**

- 160 × 120 (the resolution of output image is 320 × 240) resolution sensor, high sensitivity sensor
- 3D DNR, 15 palettes of color adjustable, image detail enhancement and contrast adjustment
- Mirror image, digital zoom ×2, ×4, ×8





## Specification

Thermal Module					
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays				
Max. Resolution	$160 \times 120$ (the resolution of output image is $320 \times 240$ )				
Pixel Interval	17 μm				
Response Waveband	8 μm to 14 μm				
NETD	Less than 40 mK (25°C), F# = 1.1				
Lens (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				
Optical Module					
Max. Image Resolution	2688 × 1520				
Image Sensor	1/2.7" Progressive Scan CMOS				
Min. Illumination	Color: 0.0176 Lux @ (F2.25, AGC ON), B/W: 0.0035 Lux @ (F2.25, AGC ON)				
Shutter Speed	1s to 1/100,000s				
Lens (Focal Length)	2.1 mm				
Field of View	119.34° × 93.3°(H × V)				
WDR	120 dB				
Day & Night	IR cut filter with auto switch				
Image Function					
Bi-spectrum Image Fusion	Fusion view of thermal view and overlaid details of the optical channel				
Picture in Picture	Combines details of thermal and optical image PIP, overlay thermal image on optical image				
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 (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 point detection, up to 10 fire points detectable.				
Infrared					
IR Distance	Up to 15 m				
IR Intensity and Angle	Automatically adjusted				
Network					
Main Stream	Visible Light: 50Hz: 25fps (2688 $\times$ 1520), 25fps (1920 $\times$ 1080), 25fps (1280 $\times$ 720) Visible Light: 60Hz: 30fps (2688 $\times$ 1520), 30fps (1920 $\times$ 1080), 30fps (1280 $\times$ 720) Thermal: 1280 $\times$ 720, 704 $\times$ 576, 640 $\times$ 480, 352 $\times$ 288, 320 $\times$ 240				



Sub-Stream	Visible Light: 50Hz: 25fps (704 × 576), 25fps (352 × 288), 25fps (176 × 144)  Visible Light: 60Hz: 30fps (704 × 480), 30fps (352 × 240), 30fps (176 × 120)  Thermal: 704 × 576, 640 × 480, 352 × 288, 320 × 240			
Video Compression	H.265/H.264/MJPEG			
Audio Compression	G .711u/G.711a/G.722.1/MP2L2/G.726/PCM			
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour			
Simultaneous Live View	Up to 20			
User/Host Level	Up to 32 users, 3 levels: Administrator, Operator, User			
Security Measures	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering			
Integration				
Alarm Input	1-ch inputs (0-5 VDC)			
Alarm Output	1-ch relay outputs, 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 K $\Omega$ ± 10%			
Audio Output	Linear level; impedance: $600~\Omega$			
Reset	1 Reset Button			
Ethernet	1, RJ45 10M/100M Self-adaptive Ethernet interface. 1, RS-485 interface			
SD Memory Card	Built-in MicroSD card slot, supporting MicroSD/SDHC/SDXC card (up to 256 G), supports manual/alarm recording			
Analog Video Output	1.0 V [p-p]/75 Ω, PAL/NTSC			
Application Programming	Open-ended API, supporting ISAPI, HIKVISION SDK, and third-party management platform			
Client	iVMS-4200, Hik-Connect			
Web Browser	IE9+, chrome31-44, Firefox 30-51, Safari 5.02+ (mac)			
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 6000V 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)			



### **Detection Range Table**

\* The table is only for reference, and the performance may vary from camera to camera.

### **Smart Functions Range**

Different targets trigger the VCA events within different range limits.

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)
42 m	14 m	44 m	22 m	108 m	54 m

### **Wide Range Coverage**

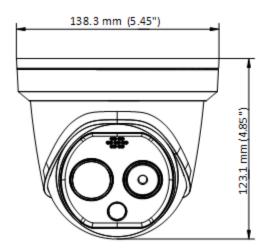
There is range limit for detecting, recognizing, and identifying human/vehicle targets.

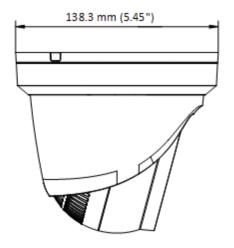
Detection Range	Detection Range	Recognition	Recognition Range (Humans: 1.8 × 0.5 m)	Identification	Identification
(Vehicles: 1.4 ×	(Humans: 1.8 ×	Range (Vehicles:		Range (Vehicles:	Range (Humans:
4.0 m)	0.5 m)	1.4 × 4.0 m)		1.4 × 4.0 m)	1.8 × 0.5 m)
162 m	53 m	41 m	13 m	20 m	7 m

### **Available Model**

DS-2TD1217-2/PA

### **Dimension**









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