

DS-2TD1217-x/PA

Thermal and Optical Network Turret Camera



- 160 x 120 Thermal Resolution (Upscaled to 320 x 240)
- Vanadium Oxide Uncooled Focal Plane Arrays
- NETD <40 mK
- 3D DNR, Image Detail Enhancement
- Bi-Spectrum Image Fusion
- Strobe Light and Voice Alarm
- Temperature Range: -4° to 302° F (-20° to 150° C)
- Temperature Accuracy: ±14° F (±8° C)
- 15 Pseudo Color Palettes Available
- IP66 Protection
- PoE (802.3af), 12 VDC, Maximum 6 W

Smart Features

- Line Crossing, Intrusion, Region Entrance/Exit with Human and Vehicle Filtering
- Temperature Exception
- Early Warning Fire Prevention
- Advanced Fire Detection

Hikvision DS-2TD1217-x/PA Thermal and Optical Turret Cameras are equipped with highly sensitive thermal and optical sensors and a graphical processing unit to run the video content analysis (VCA) algorithms developed by Hikvision's deep learning technology.

The sensor's 160 x 120 resolution is upscaled to 320 x 240 and features adaptive AGC (Automatic Gain Control), 3D DNR (Digital Noise Reduction), and Image Detail Enhancement. The 4 MP optical sensor provides outstanding color video in very dim environments down to 0.0089 lux, and built-in IR illumination allows black and white optical surveillance in zero-light conditions up to 49 ft (15 m).

This camera series features a strobe light and audio alarm, as well as a fire detection algorithm that can be used for the protection of sensitive areas.

Available Models:

DS-2TD1217-2/PA: 1.8 mm thermal/2.1 mm optical lens

DS-2TD1217-3/PA: 3.1 mm thermal/4 mm optical lens

DS-2TD1217-6/PA: 6.2 mm thermal/8 mm optical lens



Specifications

		DS-2TD1217-2/PA	DS-2TD1217-3/PA	DS-2TD1217-6/PA
Thermal Module				
Image Sensor	Vanadium oxide uncooled focal plane arrays			
Maximum Resolution	160 × 120 (output image resolution is 320 × 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	3.1 mm	6.2 mm	
IFOV	9.44 mrad	5.48 mrad	2.74 mrad	
Field of View	90° × 66.4° (H × V)	50° × 37.2° (H × V)	25.0° × 18.7° (H × V)	
Minimum Focusing Distance	0.1 m	0.2 m	0.6 m	
Aperture	f/1.1			
Optical Module				
Maximum Image Resolution	2688 × 1520			
Image Sensor	1/2.7" progressive scan CMOS			
Minimum Illumination	Color: 0.0176 lux @ (f/2.25, AGC on), B/W: 0.0035 lux @ (f/2.25, AGC on)	Color: 0.0089 lux @ (f/1.6, AGC on), B/W: 0.0018 lux @ (f/1.6, AGC on)		
Shutter Speed	1s to 1/100,000s			
Lens (Focal Length)	2.1 mm	4 mm	8 mm	
Field of View	119.34° × 93.3° (H × V)	84° × 44.8° (H × V)	39.42° × 22.14° (H × V)	
Aperture	f/2.3			
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 Features				
VCA (Video Content Analysis)	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting with human and vehicle filtering), up to 8 VCA rules in total			
Temperature Measurement	3 temperature measurement rule types, 21 rules (10 points, 10 areas, and 1 line) with temperature exception			
Temperature Range	-4° to 302° F (-20° to 150° C)			
Temperature Accuracy	±14.4° F (±8° C)			
Fire Detection	Dynamic fire point detection, up to 10 fire points detectable, early warning fire prevention, advanced fire detection			
Infrared				
IR Distance	Up to 49 ft (15 m)			
IR Intensity and Angle	Automatically adjusted			
Network				
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			
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/e-mail linkage/audio alarm/strobe light alarm			
Audio Input	1 x 3.5 mm mic in/line in interface. Line input: 2–2.4 V (p-p), output impedance: 1k Ω ±10%			
Audio Output	Linear level; impedance: 600 Ω			
Reset	1 x reset button			
Communication Interface	1 x RJ-45 10M/100M self-adaptive Ethernet interface, 1 x RS-485 interface			
SD Memory Card	Built-in microSD card slot, supporting microSD/SDHC/SDXC card (up to 256 GB), supports manual/alarm recording			
Application Programming	Open-ended API, supporting ISAPI, HIKVISION SDK, and third-party management platform			
Client	iVMS-4200, Hik-Connect			
Web Browser	IE 9+, Chrome 31–44, 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%, Ø5.5 mm coaxial power plug PoE (802.3af, class 3)			
Power Consumption	12 VDC ±20%: 0.5 A, maximum 6 W PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, maximum 6.5 W			
Working Temperature/Humidity	-40° to 149° F (-40° to 65° C)/humidity 95% or less (non-condensing)			
Protection Level	IP66 standard, TVS 6000V lightning protection, surge protection, voltage transient protection			
Dimension	5.45" × 5.45" × 4.85" (138.3 mm × 138.3 mm × 123.1 mm)			
Weight	2.07 lb (940 g)			

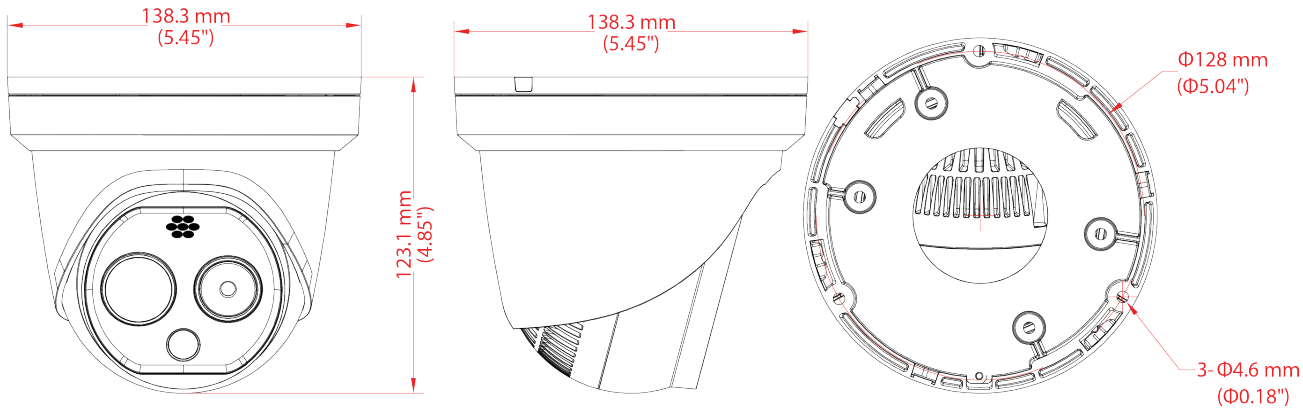
Range Performance¹

¹ Range performance values are calculated under ideal conditions and are not a guarantee of performance.

Standard Range Table	Model					
	DS-2TD1217-2/PA		DS-2TD1217-3/PA		DS-2TD1217-6/PA	
Johnson Criteria	Human	Vehicle	Human	Vehicle	Human	Vehicle
Detection	174 ft (53 m)	531 ft (162 m)	298 ft (91 m)	919 ft (280 m)	597 ft (182 m)	1834 ft (559 m)
Recognition	43 ft (13 m)	135 ft (41 m)	75 ft (23 m)	230 ft (70 m)	151 ft (46 m)	459 ft (140 m)
Identification	23 ft (7 m)	66 ft (20 m)	36 ft (11 m)	114 ft (35 m)	75 ft (23 m)	230 ft (70 m)

Smart Functions Range Table	Object	Model		
		DS-2TD1217-2/PA	DS-2TD1217-3/PA	DS-2TD1217-6/PA
Recommended VCA Range	Human (1.8 x 0.5 m)	29 ft (9 m)	49 ft (15 m)	98 ft (30 m)
	Vehicle (4 x 1.4 m)	82 ft (25 m)	141 ft (43 m)	278 ft (85 m)
Temperature Exception	Size of Point	Max Range	Max Range	Max Range
Accuracy at 5 x 5 pixels	2 m x 2 m	144 ft (44 m)	217 ft (66 m)	434 ft (132 m)
	1 m x 1 m	72 ft (22 m)	108 ft (33 m)	217 ft (66 m)
Advanced Fire Detection	Size of Point	Max Range	Max Range	Max Range
Accuracy at 2 x 2 pixels	2 m x 2 m	354 ft (108 m)	591 ft (180 m)	1181 ft (360 m)
	1 m x 1 m	177 ft (54 m)	295 ft (90 m)	591 ft (180 m)

Dimensions



Accessories

NOT INCLUDED					
PC140 140 mm Pendant Cap Requires WML	WML Long Wall Mount w/Back Box Requires PC140	PM Pole Mount Requires WML	CM Corner Mount Requires WML	CB135 Conduit Base Requires WML	CPM Ceiling Pendant Mount Requires PC140

NOT INCLUDED	
PM1 Pole Mount	CM1 Corner Mount
Requires CB135	