

## DS-2TD1217-x/V1\* Series

### Thermal-Optical DeepinView Outdoor Network Turret Camera

DeepinView<sup>series</sup>



- 160 x 120 Resolution (Upscaled to 320 x 240)
- Vanadium Oxide Uncooled Focal Plane Arrays
- NETD <40 mK
- 1.8 mm, 3.1 mm, or 6.2 mm Thermal Lens
- Adaptive AGC, 3D DNR
- Digital Detail Enhancement
- Smart Features:
  - Line Crossing, Intrusion, Region Entrance/Exit with Human and Vehicle Filtering
  - Temperature Exception
  - Early Warning Fire Prevention
  - Advanced Fire Detection
  - Cigarette Smoking Detection
- Temperature Range: -4° to 302° F (-20° to 150° C)
- Temperature Accuracy: ±14° F (±8° C)
- 15 Pseudo Color Palettes Available
- IP67 Protection
- PoE (802.3af), 12 VDC, Maximum 8 W

The Hikvision DS-2TD1217-x/V1 Thermal-Optical DeepinView Outdoor Network 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.

Hikvision's HikMicro factory manufactures the vanadium oxide uncooled focal plane array thermal sensor with best in class image quality and price. 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 Digital Detail Enhancement for outstanding image enhancement. The 2 MP optical sensor provides outstanding color video in very dim environments down to 0.002 lux, and built-in IR illumination allows black and white optical surveillance in zero-light conditions up to 50 ft (15 m).

This camera series is an excellent solution for short-range outdoor and indoor perimeter detection, fire prevention, predictive maintenance, human smoking detection, and other applications. The total cost of ownership for this innovative camera system comes at an unprecedented low level, due to affordable installation cost and ultra-low thermal-optical camera cost, which is competitive with purely optical cameras.

#### Available Models:

DS-2TD1217-2/V1 (1.8 mm lens)

DS-2TD1217-3/V1 (3.1 mm lens)

DS-2TD1217-6/V1 (6.2 mm lens)

\* Rev B



# Specifications

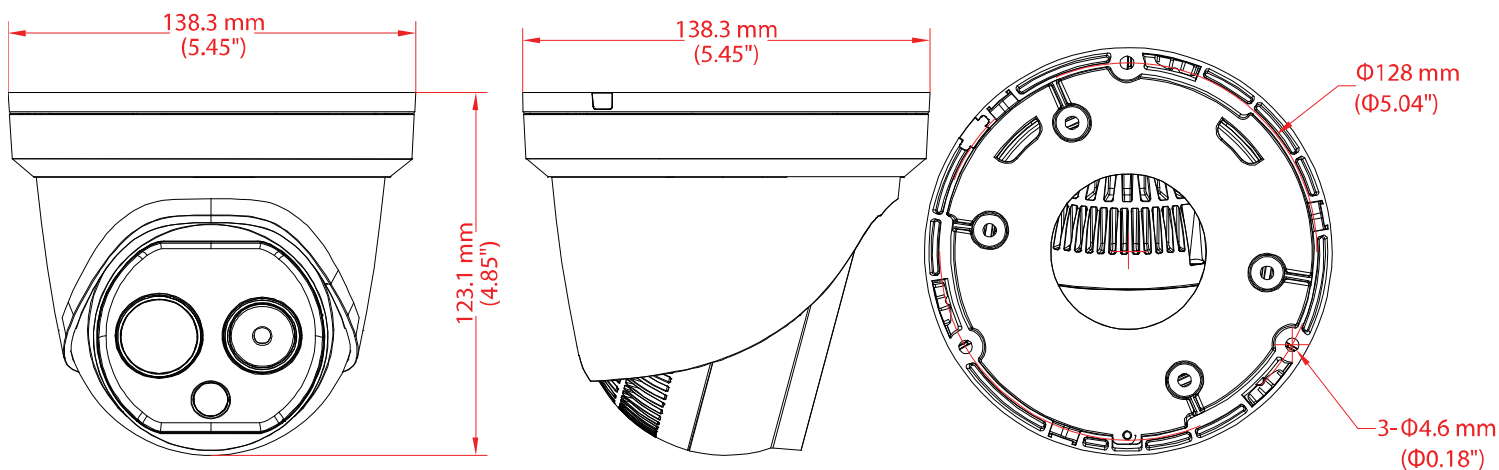
DS-2TD1217-2/V1		DS-2TD1217-3/V1	DS-2TD1217-6/V1
<b>Thermal Module</b>			
Image Sensor	Vanadium oxide uncooled focal plane arrays		
Maximum Resolution	160 x 120 (output image resolution is 320 x 240)		
Detector Pitch	17 $\mu$ m		
Response Waveband	8 $\mu$ m to 14 $\mu$ m		
NETD	<40 mK (@ 25° C, F#=1.1)		
Lens (Focal Length)	1.8 mm	3.1 mm	6.2 mm
IFOV	9.44 mRad	5.48 mRad	2.83 mRad
Field of View	90° x 66.4°	50° x 37.2°	25° x 18.7°
Minimum Focusing Distance	0.1 m	0.2 m	0.6 m
Aperture	f/1.1		
<b>Optical Module</b>			
Maximum Image Resolution	1600 x 1200	1920 x 1080	
Image Sensor	1/2.7" Progressive Scan CMOS		
Minimum Illumination	Color: 0.002 lux @ (f/1.2, AGC on), B/W: 0.0002 lux @ (f/1.2, AGC on)		
Shutter Speed	1s to 1/100,000s		
Lens (Focal Length)	2.1 mm	4 mm	6 mm
Field of View	101.2° x 77°	87° x 46.2°	53° x 30°
WDR	120 dB		
Day/Night	IR cut filter with auto switch		
<b>Image Function</b>			
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, and thermal image on optical image		
<b>Smart Function</b>			
VCA	Supports 4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), 8 VCA rules		
Temperature Measurement	Supports 3 temperature measurement rule types, 21 rules (10 points, 10 regions, and 1 line)		
Temperature Range	-4° to 302° F (-20° to 150° C)		
Temperature Accuracy	±8° C (±14.4° F)		
Fire Detection	Dynamic fire point detection, up to 10 fire points detectable		
<b>Infrared</b>			
IR Distance	50 ft (15 m)		
IR Intensity and Angle	Automatically adjusted		
<b>Network</b>			
Main Stream	Visible Light	30 fps (1600 x 1200), 30 fps (1280 x 960), 30 fps (1280 x 720)	30 fps (1920 x 1080), 30 fps (1280 x 960), 30 fps (1280 x 720)
	Thermal	25 fps (160 x 120 (output image resolution is 320 x 240))	
Sub-Stream	Visible Light	30 fps (704 x 480), 30 fps (640 x 480)	
	Thermal	25 fps (160 x 120 (output image resolution is 320 x 240))	
Video Compression	H.265/H.264/MJPEG, H.265+/H.264+ encoding with baseline/main/high profile		
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-ch		
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		
<b>Integration</b>			
Alarm Input	1-ch input (0 to 5 VDC)		
Alarm Output	1-ch relay output, alarm response actions configurable		
Alarm Action	SD recording/relay output/smart capture/FTP upload/e-mail linkage		
Audio Input	1-ch 3.5 mm microphone/line in interface. Line input: 2 to 2.4 V(p-p), output impedance:1k $\Omega$ ±10%		
Audio Output	Linear level; impedance: 600 $\Omega$		
Reset	One reset button		
Communication Interface	1-port RJ-45 10M/100M self-adaptive Ethernet interface, 1 RS-485 interface		
Onboard Storage	Built-in microSD/SDHC/SDXC card slot, up to 256 GB; supports manual/alarm recording		
Analog Video Output	1.0 V [p-p]/75 $\Omega$ , PAL/NTSC/BNC		
API	Open-ended API, supports ISAPI, ONVIF; supports HIKVISION SDK and third-party management platforms		
Client	iVMS-4200		
Web Browser	IE 9+, Chrome 31 to 44, Firefox 30 to 51, Safari 5.02+		
<b>General</b>			
Menu	English		
Power	12 VDC ±20%, two-core terminal block, PoE (802.3af, class 3)		
Power Consumption	12 VDC ±20%: 0.7 A, maximum 8 W, PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, maximum 8.5 W		
Work Temperature/Humidity	-22° to 140° F (-30° to 60° C), Humidity: ≤95% non-condensing		
Protection Level	IP67 standard; TVS 6000V lightning protection, surge protection, and voltage transient protection		
Dimensions	5.45" x 5.45" x 4.85" (138.3 mm x 138.3 mm x 123.1 mm)		
Weight	1.98 lb (900 g)		

# Range Performance<sup>1</sup>

Standard Range Table	Model					
	DS-2TD1217-2/V1		DS-2TD1217-3/V1		DS-2TD1217-6/V1	
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	Line Cross/Intrusion/Region Entrance-Exit	Object	Model		
			DS-2TD1217-2/V1	DS-2TD1217-3/V1	DS-2TD1217-6/V1
Optimized to Johnson Criteria (Recognition)		Human	46 ft (14 m)	69 ft (21 m)	138 ft (42 m)
		Vehicle	138 ft (42 m)	207 ft (63 m)	413 ft (126 m)
Temperature Exception	Size of Point			Max Range	Max Range
		2 m x 2 m	144 ft (44 m)	217 ft (66 m)	434 ft (132 m)
Accuracy at 5 x 5 pixels		1 m x 1 m	72 ft (22 m)	108 ft (33 m)	217 ft (66 m)
		Size of Point		Max Range	Max Range
Advanced Fire Detection		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)

<b>PC140</b> 140 mm Pendant Cap	<b>WML</b> Long Wall Mount w/Back Box	<b>PM</b> Pole Mount	<b>CM</b> Corner Mount	<b>CB140PT</b> Conduit Base	<b>CPM</b> Ceiling Pendant Mount

<sup>1</sup> Range performance values are calculated under ideal conditions and are not a guarantee of performance.