

DH-TPC-SD8421

Thermal Network Hybrid Speed Dome Camera



- \cdot 400x300 VOx uncooled thermal sensor technology
- · Athermalized Lens(thermal), Focus-free
- 1/2.8" 2Megapixel progressive scan CMOS
- Powerful 45X optical zoom
- $\cdot\,$ Support fire detection & alarm
- Max 240°/s pan speed, 360° endless pan rotation
- · Up to 300 presets, 5 auto scan, 8 tour, 5 pattern
- 7/2 alarm in/out
- Micro SD memory, IP66



System Overview

Featuring a dual lens speed dome camera, this series provides an all-in-one solution that is especially beneficial for long distance video surveillance in outdoor applications. Together with Dahua Thermal and Starlight technology, the camera's long range capabilities are able to be utilized even at night. The series combines one thermal camera for monitoring in total darkness and one camera with Starlight functionality and a motorized lens for confirming details up close.

Functions

Uncooled Vox Technology

Dahua thermal cameras use uncooled Vox sensor technology. Their small size and better performance make them a cost-effective solution for thermal security.

High Sensitivity

High thermal sensitivity (<40mK) allows cameras to capture more image details and temperature difference information.

Fire Detection & Alarm

With built-in fire detection functionality, the camera has the ability to detect fires from long range. Because thermal cameras are sensitive to temperature, they provide higher fire detection accuracy than standard cameras, making them particularly fit for applications such as forest fire prevention.

Intelligent Video System (IVS)

IVS is a built-in video analytics algorithm that delivers intelligent functions to monitor a scene for tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area.

Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP66 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

Protection

The camera allows for ±15% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6 kV lightning rating provides effective protection for both the camera and its structure against lightning.



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Technical Specification

Thermal Camera

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Image Sensor	Uncooled VOx Microbolometer
Effective Pixels	400(H)x300(V)
Pixel Size	17um
Thermal Sensitivity(NETD)	<40mK
Spectral Range	8~14um
Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR
Color Palettes	18(Whitehot/Blackhot/Ironrow/Icefire/ Fusion/Rainbow/Globow/Iconbow1/ Iconbow2 .etc)

Thermal Lens

Lens Type	Fixed/F1.0		
Focus Control	Athermalized, Focus-free		
Focal Length	25mm	35mm	50mm
Angle of View	H:15.5°, V:11.6°	H:11.1°, V:8.3°	H:7.8°, V:5.8°
Effective Distance① Man(1.8m*0.5m)	D②:735m R③:189m I④:95m	D:1030m R:265m I : 132m	D:1471m R: 378m I : 189m
Effective Distance Vehicle(4m*1.4m)	D:1634m R:420m I :210m	D:2288m R: 588m I : 294m	D:3268m R: 840m I : 420m

Visible Camera

Image Sensor	1/2.8" CMOS	
Effective Pixels	1920(H)x1080(V)	
Electronic Shutter Speed	1/1~1/30,000s	
Min. Illumination	0.005Lux@F1.6(Color), 0.0005Lux@F1.6(B/W)	
S/N Ratio	More than 55dB	
IR Distance	100m (328ft)	
IR On/Off Control	Auto / Manual	
IR LEDs	4	
Visible Lens		
Focal Length	3.95mm~177.7mm	
Max Aperture	F1.6 ~ F4.95	
Angle of View	H: 70.3° ~ 1.8°	
Optical Zoom	45X	
Focus Control	Auto / Manual	
Close Focus Distance	100mm~ 1000mm (0.33ft~3.28ft)	
PTZ		
Pan/Tilt Range	Pan: 0° ~ 360° endless;Tilt:-10° ~ 90°	
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s	

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Advanced Intelligent Functions Fire detection & alarm, Cold/Hot spot trace, Human/Vehicle classification, Auto Tracking	Advanced Intelligent Functions	
Tracking Trigger Mode Manual / Auto (alarm triggered)	Tracking Trigger Mode	Manual / Auto (alarm triggered)
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Network

Network		
Ethernet	RJ-45 (10/100Base-T)	
Protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, ONVIF	
Interoperability	ONVIF Profile S&G, API	
Streaming Method	Unicast / Multicast	
Max. User Access	10 Users / 20 Users	
Edge Storage	Micro SD (256GB) Memory status display (Normal / Error / Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for instant recording	
Web Viewer	>IE8, <chrome42, <firefox42<="" td=""></chrome42,>	
Management Software	Smart PSS, DSS	
Smart Phone	Android, iOS	
Certifications		
Certification	CE (EN 60950:2000) FCC (FCC Part 15 SubpartB)	
Interface		
Video Interface	1 Port (CVBS/BNC)	
Audio Interface	1/1 In/Out	
RS485	Support	
Alarm	7/2 In/Out	
Electrical		
Power Supply	AC 24V/3A±15%	
Power Consumption	17W, Max. 38W (Heater, LEDs on)	
Environmental		
Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH * Start up should be done at above-40°C (-40°F)	
Storage Conditions	-40°C ~+70°C (-40°F ~ +158°F)) / Less than 95% RH	
Ingress Protection	IP66	
Construction		
Casing	Metal	
Dimensions	Ф240mm x 382mm (Ф9.45" x 15.04")	
Net Weight	6.8Kg (14.99 lb)	
Gross Weight	9.5Kg (20.94 lb)	

Note:

1Effective distance values shown are nominal values and should be used as estimates

only. Exact value calculations depend on a wide variety of conditions. (2) D:Detection Distance

(3) R: Recognition Distance (4) I : Identification Distance

Ordering Information

Туре	Part Number	Description
	DH-TPC-SD8421P-B25Z45 DH-TPC-SD8421N-B25Z45	Thermal: 400x300 25mm lens Visible: 2MP 45X
DH-TPC- SD8421	DH-TPC-SD8421P-B35Z45 DH-TPC-SD8421N-B35Z45	Thermal: 400x300 35mm lens Visible: 2MP 45X
	DH-TPC-SD8421P-B50Z45 DH-TPC-SD8421N-B50Z45	Thermal: 400x300 50mm lens Visible: 2MP 45X

Accessories

Included:

Optional:



PFA111

Mount Adapter

PFA140

Power box





AC24V/3A Power Supply

PFB303W Wall Mount







PFA120 Junction Box



Ceiling Mount

Corner Mount

Dimensions (mm)

PFA150

Pole Mount







Mounting Type

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFA111 + PFB303W + PFA120
Power Box Mount	Pole Mount
PFA111 + PFB303W + PFA140	PFA111 + PFB303W + PFA150
Corner Mount	Parapet Mount
PFA111 + PFB303W + PFA151	PFA111+ PFB303S