

DH-TPC-SD8421

Thermal Network Hybrid Speed Dome Camera



- · 400x300 VOx uncooled thermal sensor technology
- · Athermalized Lens(thermal), Focus-free
- · 1/2.8" 2Megapixel progressive scan CMOS
- · Powerful 45X optical zoom
- · 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 $\pm 15\%$ 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.



Manual Control Speed



Technical Specification				Preset Speed	Pan: 0.1° ~240° /s ;Tilt: 0.1° ~200° /s
Thermal Camera				Preset	300
Image Sensor	Uncooled VOx Microbolometer		PTZ Mode	5 Auto Scan, 8 Tour, 5 Pattern, Auto Pan	
Effective Pixels	400(H)x300(V)			Speed Setup	Human-oriented focal length/ speed adaptation
Pixel Size	17um			Power Up Action	Auto restore to previous PTZ and lens status
Thermal Sensitivity(NETD)	<40mK				Activate Present / Seen / Tour / Pottern if there is no
Spectral Range	8~14um			Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR			Protocol	DH-SD, Pelco-P/D (Auto recognition)
Color Palettes		ackhot/Ironrow/Ic /Globow/Iconbow		Video	H.265 / H.264 / MJPEG
Thermal Lens					Main Stream:
Lens Type	Fixed/F1.0				Thermal: 1280x1024 / 720P / 400x300 @25/30fps Visible: 1080P / 720P / D1 @25/30fps
Focus Control	Athermalized, Fo	ocus-free		Frame Rate	Sub Stream:
Focal Length	25mm	35mm	50mm		Thermal: 640x512 / 400x300 @25/30fps Visible: D1 / CIF @25/30fps
Angle of View	H:15.5°, V:11.6°	H:11.1°, V:8.3°	H:7.8°, V:5.8°	Bit Rate Control	CBR / VBR
Effective Distance ①	D(2):735m R(3):189m	D:1030m R:265m	D:1471m R: 378m	Bit Rate	H.264: 640 ~8192Kbps
Man(1.8m*0.5m)	I 4 :95m	I : 132m	I: 189m	Day/Night	Auto(ICR) / Color / B/W
Effective Distance	D:1634m R:420m	D:2288m R: 588m	D:3268m R: 840m	BLC Mode	BLC / HLC / DWDR
Vehicle(4m*1.4m)	I :210m	I : 294m	I : 420m	White Balance	Auto / ATW / Indoor / Outdoor / Manual
Visible Camera	ble Camera			Noise Reduction	2D/3D DNR
Image Sensor	1/2.8" CMOS			Motion Detetion	Off / On (4 zone, Rectangle)
Effective Pixels	1920(H)x1080(V	1920(H)x1080(V)		Region of Interest	Off / On (4 zone)
Electronic Shutter Speed	1/1~1/30,000s		Electronic Image Stabilization (EIS)	Off / On	
Min. Illumination	0.005Lux@F1.6(0.005Lux@F1.6(Color), 0.0005Lux@F1.6(B/W)		Defog	Off / On
S/N Ratio	More than 55dB			Digital Zoom	4x(19 levels)
IR Distance	100m (328ft)			Flip	180°
IR On/Off Control	Auto / Manual			Mirror	Off / On
IR LEDs	4			Privacy Masking	Off / On (4 area, Rectangle)
Visible Lens			Audio		
Focal Length	3.95mm~177.7n	3.95mm~177.7mm		Compression	G.711A / G.711Mu / AAC / PCM
Max Aperture	F1.6 ~ F4.95		Intelligence		
Angle of View	H: 70.3° ~ 1.8°		IVS	Tripwire, Intrusion	
Optical Zoom	45X			Advanced Intelligent Functions	Fire detection & alarm, Cold/Hot spot trace, Human/Vehicle classification, Auto Tracking
Focus Control	Auto / Manual		Tracking Trigger Mode	Manual / Auto (alarm triggered)	
Close Focus Distance	100mm~ 1000mm (0.33ft~3.28ft)		Tracking Trigger Event	Targeting, Tracking, Recording, Snapshot, Alarm, etc.	
PTZ					
Pan/Tilt Range	Pan: 0° ~ 360° endless;Tilt:-10° ~ 90°				
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Pan: 0.1° ~200° /s; Tilt: 0.1° ~120° /s



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)
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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 $^{\sim}$ +60°C (-40°F $^{\sim}$ +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)

- 1 Effective distance values shown are nominal values and should be used as estimates(2) D:Detection Distance

 (3) R: Recognition Distance

 (4) I: Identification Distance

Ordering Information			
Туре	Part Number	Description	
DH-TPC- SD8421	DH-TPC-SD8421P-B25Z45 DH-TPC-SD8421N-B25Z45	Thermal: 400x300 25mm lens Visible: 2MP 45X	
	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:



Mount Adapter



AC24V/3A Power Supply



PFB303W Wall Mount

Optional:



PFA140 Power box



PFB300C Ceiling Mount



PFA120 Junction Box

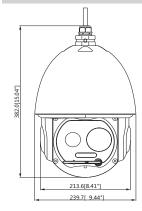


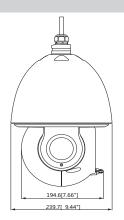
PFA150 Pole Mount



PFA151 Corner Mount

Dimensions (mm)







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