

# DH-TPC-PT8320C

Thermal Network Tribrid PTZ



- 336\*256 VOx uncooled thermal sensor technology
- Athermalized Lens(thermal),Focus-free
- 1/1.9" 2Megapixel progressive scan Exmor CMOS
- Powerful optical zoom lens(Thermal&Visible)
- Laser range finder or laser illuminator optional
- Support Fire detect&alarm
- Max 12°/s pan speed, 360° endless pan rotation
- Up to 300 presets, 5 auto scan, 8 tour, 5 pattern
- 2/2 alarm in/out
- Micro SD memory, IP66



## System Overview

Featuring a triple lens, Pan/Tilt/Zoom(PTZ) camera, this series provides an all-in-one solution especially for capturing long distance video surveillance for outdoor applications. Together with Thermal and Starlight Technology, the camera is the perfect solution for dark, long rang monitoring applications. The series combines one thermal camera for monitoring in total darkness and one visible camera with starlight feature and motorized lens for confirming details.the third one is laser range finder or laser illuminator,Laser range finder is able to measuere the distance between camera and target.Laser illuminator is used for illuminating object to make visible camera work better in a low-light environment.

## Functions

### Uncooled Vox Technology

Dahua thermal cameras use uncooled Vox sensor technology . Because of small size and better performance, it's cost-effective solution for thermal security.

### High Sensitivity

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

### Fire Detect&Alarm

With built-in Fire detect function, the camera has the ability to detect fire in a long distance. because thermal camera is sensitive to temperature, so the accuracy of Fire detect will be higher than visible camera. especially useful for forest fire prevention.

### Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed.

## Environmental

With a temperature range of-35 °C to +65 °C (-37.2 °F to +149°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 enviornments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

## Protection

Supporting  $\pm 25\%$  input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

## Technical Specification

### Thermal Camera

Image Sensor	Uncooled VOx Microbolometer
Effective Pixels	336(H)x256(V)
Pixel Size	17um
Thermal Sensitivity(NETD)	<40mK@f/1.0
Spectral Range	7~14um
Image Setting	Brightness/Sharpness/ROI/DDE/AGC/FFC/3D DNR
Color Palettes	14(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2 .etc)

### Thermal Lens

Lens Type	Motorized		
Focus Control	Auto/Manual		
Focal Length	100mm	20~100mm	30~150mm
Angle of View	3.1°*2.5°	15.2°*11.6°~ 3.1°*2.4°	10.35°*7.8°~ 2.1°*1.6°
Effective Distance <sup>①</sup> Man(1.8m*0.5m)	D <sup>②</sup> :2500m R <sup>③</sup> :650m I <sup>④</sup> :350m	D:2500m R:650m I:350m	D:3500m R:900m I:500m
Effective Distance Vehicle(2.3m*2.3m)	D:6000m R:1800m I:900m	D:6000m R:1800m I:900m	D:9000m R:2500m I:1300m

### Visible Camera

Image Sensor	1/1.9" Exmor CMOS
Effective Pixels	1944(H) x 1092(V), 2 Megapixels
Electronic Shutter Speed	1/1 ~ 1/30,000s
Min. Illumination	Color: 0.001Lux@F1.5; B/W: 0.0001Lux@F1.5;
S/N Ratio	More than 56dB
IR Distance	NA
IR On/Off Control	NA
IR LEDs	NA

### Visible Lens

Focal Length	6~180mm	15~360mm	21~500mm	12.5~775mm
Max Aperture	F1.6	F2.7	F3.8	F3.8
Angle of View	H: 51.2° ~ 1.8°	H: 32.3° ~ 1.4°	H: 23.5° ~ 1.0°	H: 28.8° ~ 0.5°
Optical Zoom	30X	24X	25X	62X
Focus Control	Auto / Manual			
Close Focus Distance	100mm~ 1000mm (328ft~3280ft)			

### Laser Range Finder(Optional)

Wavelength	1.57um(Eye safe)
Effective distance	50m~5000m

Accuracy	±2m
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### Laser Illuminator(Optional)

Wavelength	808±5nm
Effective distance	1000m
Angle of Laser Beam	1°~ 30°
Zoom speed	< 4s(Wide~Tele)
PTZ	
Pan/Tilt Range	Pan: 0° ~ 360° endless;Tilt: -60° ~ 30°(-60° ~ 60° optional)
Manual Control Speed	Pan: 0.01° ~12° /s; Tilt: 0.01° ~8° /s
Preset Speed	Pan: 0.01° ~12° /s ;Tilt: 0.01° ~8° /s
Preset	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan
Speed Setup	Human-oriented focal length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (Auto recognition)

### Video

Compression	H.264(Base profile/Main profile/High profile)/ MJPEG
Frame Rate	Main Stream: Thermal: 1280*1024 (default)/ 720P @30fps Visible: 1080P (default)/720P@30fps Sub Stream: Thermal: 640*512 (default)/ 320*256 @15fps Visible: CIF(default)/D1@15fps
Bit Rate Control	CBR / VBR
Bit Rate	H.264: 1280K ~14Mbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW,Indoor, Outdoor, Manual
Noise Reduction	Ultral DNR
Motion Detetion	Off / On (4 zone, Rectangle)
Region of Interest	off/On (4 zone)
Electronic Image Stabilization (EIS)	NA
Defog	Off/On
Digital Zoom	16x
Flip	180°
Mirror	Off/On
Privacy Masking	Off / On (4 area, Rectangle)

### Audio

Compression	G.711a/G.711Mu/AAC
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Intelligent Function

Auto Tracking	NA
IVS (optional)	Tripwire, Intrusion, Object ection(People&Vehicle), Abandon detection, Missing detection, Fire detect& alarm .etc.
Tracking Trigger Mode	NA
Tracking Trigger Event	NA

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/ IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF PSIA CGI
Streaming method	Unicast / Multicast
Max. User Access	20
Edge Storage	micro SD (128GB) Memory status display (Normal / Error / Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for instant recording
Web Viewer	<IE11, <Chrome44, Firefox
Management Software	Smart PSS, DSS
Smart Phone	Android, ios

Certifications

Certification	CE (EN 60950:2000) FCC (FCC Part 15 Subpart B )
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Inteface

Video Interface	1.0Vp-p/75Ω, PAL / NTSC (HDCVI Optional)
Audio Interface	Input/Output 1 Input / 1 Output
RS485	Support
Alarm	2/2 In/Out

Electrical

Power Supply	AC100V~AC300V/DC24V
Power Consumption	Max. 100W (Laser range finder on), Max. 150W (Laser Illuminator on),

Environmental

Operating Condition	-35°C ~ +65°C (-31°F ~ +149°F) /(-40°C ~ +70°C optional) / 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	655mm x 515mm x 617mm (26.2"x 20.2" x 24.2")
Net Weight	75Kg (34lb)
Gross Weight	90Kg(40.8lb)

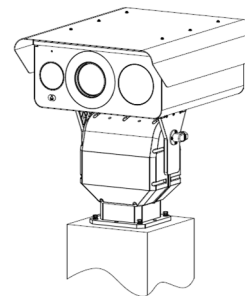
Note:

- ① Effective 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
- ③ R: Recognition
- ④ I : Identification

Ordering Information

Type	Part Number	Description
DH-TPC-PT8320C	DH-TPC-PT8320C-A30150ZC710BR	Thermal: 336*256 lens:30~150mm Visible: 2Mp 62X(12~775mm) Laser Range Finder:5Km
	DH-TPC-PT8320C-A30150ZC510BR	Thermal: 336*256 lens:30~150mm Visible: 2Mp 25X(21~500mm) Laser Range Finder:5Km
	DH-TPC-PT8320C-A30150ZC310BR	Thermal: 336*256 lens:30~150mm Visible: 2Mp 24X(15~360mm) Laser Range Finder:5Km
	DH-TPC-PT8320C-A20100ZC510BR	Thermal: 336*256 lens:20~100mm Visible: 2Mp 25X(21~500mm) Laser Range Finder:5Km
	DH-TPC-PT8320C-A20100ZC310BR	Thermal: 336*256 lens:20~100mm Visible: 2Mp 24X(15~360mm) Laser Range Finder:5Km
	DH-TPC-PT8320C-A20100ZD110BR	Thermal: 336*256 lens:20~100mm Visible: 2Mp 30X(6~180mm) Laser Range Finder:5Km

Mounting Type



Dimensions (mm)

