

# DH-TPC-BF5421-T

# Thermal Network Bullet Camera



- $\cdot$  400  $\times$  300 uncooled VOx thermal sensor technology Athermalized lens (thermal), focus-free
- $\cdot$  Supports object surface temperature measurement Supports biological surface temperature measurement
- · Measurement Accuracy: ±0.3°C, with blackbody
- · Active deterrence with white light & siren
- · 2/2 alarm in/out
- · IP67, PoE,ePoE

# System Overview

Featuring a fixed lens bullet camera, this series provides an all-in-one solution . This series is designed for security screening.

#### **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 (<40 mK) allows cameras to capture more image details and temperature difference information.

#### **Protection**

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

#### **Temperature Measurement**

Dahua thermal cameras characterized by non-contact, mult-objectve, rapid, and no risk For detec object and biological temperature . This product is not for medical use



ThermalDetector TypeVanadium oxide uncooled focal plane detectorResolution(1280 × 1024/1024 × 768/640 × 480/256 × 192@), 1280 × 960 by default; Sub stream: (640 × 512/256 × 192@), 256 × 192 by default Visible Main stream: (1920 × 1080/1280 × 720/704 × 576@), 1920 × 1080/1280 × 720/704 × 576@), 1920 × 1080 by default; Sub stream: (800 × 1080 by default; Sub str	Technical Specification			Thermal
Peciator Type	Thermal			
Effective Pixels         400 * 300         Management (PAD * 1 1880 pt 7 7807) 4 * * 7506 pt 300 pt 7 7807 pt 4 * 7506 pt 300 pt 7 7807 pt 4 * 7506 pt 300 pt 2 780 pt 500	Detector Type	· · · · · · · · · · · · · · · · · · ·	Sub stream: (640 × 512/256 × 192@), 256  Resolution  192 by default  Visible  Main stream: (1920 × 1080/1280 × 720/76  × 576@), 1920 × 1080 by default;  Sub stream: (704 × 576/352 × 288@), 355	Sub stream: $(640 \times 512/256 \times 192@)$ , $256 \times 192$ by default
Pixel Pixels         1 June         Substraction (70 x 570 32 x 280 8), 33 x 280 8, 13 x 280 8 pt cells. (70 x 570 32 x 280 8), 33 x 280 8 pt cells.           Spectral Range         8 June 1 June         40 mk         1 mage from the Confidence of the Confiden	Effective Pixels	400 × 300		Main stream: (1920 × 1080/1280 × 720/704
Personal Length   Personal L	Pixel Pitch	17 μm		Sub stream: (704 × 576/352 × 288@), 355 x
Final Ength  13 mm Final of View 13 mm horizontal 30°, vertical 22.6° Final Ength Final of View 13 mm horizontal 30°, vertical 22.6° Final Ength Final of View 13 mm horizontal 30°, vertical 22.6° Final Ength Final of View Final Ength Final Office Final Ength Final Office Final Ength Final Office Final Ength Final Eng	Spectral Range	8 μm–14 μm	Audio Compression	G.711a; G.711mu; AAC; PCM
Fedit of View    13 mm. horizontal 30", vertical 22.6"   Network Protocol   SETE 1710-2409 RTS; PTT; IDP-3109, RTS; IDP-31109, RTD-3109, RTD-310	Thermal Sensitivity (NETD)	≤40 mK	Image Encoding Format	JPEG
Field of View   18 mm. horozontal 30°, vertical: 22.6°   18 me. horozontal: 30°, vertical:	Focal Length	13 mm	General Function	
Focus Mode	Field of View	13 mm: horizontal: 30°, vertical: 22.6°	Two-way Talk	
Segon of merest (AU)   Segon of merest (AU)   Storage	Focus Mode	Fixed-focal	Network Protocol	SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/
Thermal Image Stabilization   Electronic Image Stabilization   Interoperability   OnVie; Celi Dahua SDX	Aperture	F1.0	Region of Interest (ROI)	Yes
Noise Reduction 20 NR; 30 NR Browser Effects 22 and the earlier Safeti. 10 and the earlier Safeti. 20 channels at most (the total bandwidth 64M earlier Safeti. 20 and the safeti. 20 a	Digital Detail Enhancement (DDE)	Yes	Storage	FTP
Noise Reduction   20 NR; 30 NR   Sowser   Security	Thermal Image Stabilization	Electronic Image Stabilization	Interoperability	ONVIF; CGI; Dahua SDK
Noise Reduction         2D NR; 3D NR         Browser         Google: 2d and the earlier Filer 6xx 2d and the earlier Safari: 10 and t	AGC	Auto; manual		IE: IE9 and the later and evalurer with IE cor
Image Flip         90/180/mirror         Safari: 10 and the earlier           Color Palettes         18 color modes selectable such as Whitehot/ Backhort/norrow/cefre.         User/Host         20 channels at most (the total bandwidth 64M)           Temperature Measurement Range         30°C **45°C         Security         Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access for the MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access for candidates at most and user a recomment Range           Temperature Accuracy         Max 10°C with blackbody Max 11°C without blackbody         User Management         Support 20 users at most and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access and users are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE 802.1x; controlled network access are candidates; encrypted HTTPS; IEEE	Noise Reduction	2D NR; 3D NR		Google: 42 and the earlier
Color Pactices Blackhot/Ironrow/Icefire. Color Pactices Blackhot/Ironrow/Icefire. Color Pactices Max #0.3°C **45°C  Temperature Accuracy Max #0.3°C with blackbody Max #1.°C without blackbody  Femperature Mode  Visible  Image Sensor  1/2.8° 2M CMOS  Effective Pixels  1920(H)x1080(V)  Analog Video Output  Analog Video Output  1.0M/100M Ethernet port (R)-45)  Alarm Input  2. channels Alarm Output  2. channels  R On/Off Control  Auto/Manual  Auto/Manual  Max Aperture  Analog Video  Alarm Linkage  Alarm Linkage  Output/siren and light/email/PTZ/ snapshot  Alarm Linkage  Alarm Event  Motion detection/privacy mask/audio detection/retwork aborromality/anti- burn warning  Alarm Event  Motion and Video  Video Compression  H. 265; H. 264; H. 264H; H. 264B; MJPEG  Power	Image Flip	90°/180°/mirror		
Measurement Range         Security         Actached Mac address, encrypted HTTPS; IEEE 802.1x; controlled network access in IEEE 802.1x; controlled network a	Color Palettes	·	User/Host	
Temperature Accuracy  Box ±1°C without blackbody  Temperature Mode  Sport: 12  Area: 12  Support 12 rules simultaneously  Visible  Feffetive Pixels  1920(H)x1080(V)  Analog Video Output  Alarm Input  2 channels  Alarm Output  2 channels  Alarm Output  3 channel  RLEDs  1 Auto/Manual  Auto/Manual  Auto/Manual  Auto/Manual  RLEDs  1 Auto/Manual  Auto/Manual  Auto/Manual  Alarm Linkage  Alarm Linkage  Alarm Event  Audio Output  Alarm Event  Audio output  Alarm Event  Audio output singlish desired in support 20 users at most and users are classified as two groups-administrator group and user group.  Network disconnection; IP addresses conflict  Port  Port  Alarm Linkage  Alarm Output  Audio Input  Audio Output  Alarm Linkage  Output/Siren and light/email/PTZ/ snapshot  Angle of View  Audio and Video  Video Compression  Motion detection/privacy mask/audio detection/nervacy mask/audio	·		Security	attached MAC address; encrypted HTTPS;
Temperature Mode  Line: 12 Area: 12 Area: 13 Area: 14 Area: 15 Area: 16 Area: 16 Area: 16 Area: 16 Area: 16 Area: 16 Area: 17 Area: 17 Area: 17 Area: 17 Area: 18 Are	Temperature Accuracy	·		
Visible       Malfunction Detection       conflict         Image Sensor       1/2.8" 2M CMOS       Port         Effective Pixels       1920(H)x1080(V)       Analog Video Output       1 channel of CVBS output with BNC port         Electronic Shutter Speed       1/1" 1/30,000s       Network       1 10M/100M Ethernet port (R)-4S)         Min. Illumination       Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)       Alarm Input       2 channels         IR Distance       35m       Alarm Output       2 channels         IR LEDS       Autio/Manual       Audio Input       1 channel         IR LEDS       1       Audio Output       1 channel         Focal Length       8mm       Alarm Linkage       Output/siren and light/email/PTZ/ snapshot         Max Aperture       F1.9       Alarm Event       Alarm Event       Motion detection/privacy mask/audio detection/privac	Temperature Mode	Line: 12 Area: 12	User Management	and user group.
Effective Pixels 1920(H)x1080(V) Analog Video Output 1 channel of CVBS output with BNC port  Electronic Shutter Speed 1/1 ~ 1/30,000s Network 110M/100M Ethernet port (RI-45)  Min. Illumination Color; 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual 1channel 1cha	Visible		Malfunction Detection	
Electronic Shutter Speed 1/1 ~ 1/30,000s Network 1 10M/100M Ethernet port (RJ-45)  Min. Illumination Color: 0.002Lux; B/W: 0.0002Lux; OLux (IR on)  IR Distance 35m  IR On/Off Control Auto/Manual 1 channel  IR LEDs 1 Alarm Linkage Output 1 channel  Max Aperture F1.9 Alarm Linkage Output/Siren and light/email/PTZ/ snapshot  Max Aperture H: 40° V: 22°  Audio and Video  Video Compression H.265; H.264; H.264H; H.264B; MJPEG  Network 1 10M/100M Ethernet port (RJ-45)  Alarm Input 2 channels  Alarm Output 3 channel  Alarm Output 1 channel  Alarm Linkage Output/siren and light/email/PTZ/ snapshot  Motion detection/privacy mask/audio detection/network abnormality/anti-burn warning  RS-485 1 channel	Image Sensor	1/2.8" 2M CMOS	Port	
Min. Illumination  Color: 0.002Lux; B/W: 0.0002Lux; 0Lux (IR on)  Alarm Input 2 channels  Alarm Output 2 channels  Alarm Output 1 channel  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage  Output/siren and light/email/PTZ/ snapshot  Angle of View Angle of View  Audio and Video  Video Compression  H. 265; H. 264; H. 264B; MJPEG  Alarm Linkage  Alarm Event  RS-485 Power	Effective Pixels	1920(H)x1080(V)	Analog Video Output	1 channel of CVBS output with BNC port
IR Distance 35m  IR On/Off Control Auto/Manual Audio Input 1 channel  IR LEDs 1 Focal Length 8mm  Max Aperture Angle of View H: 40° V: 22°  Audio and Video Compression H.265; H.264; H.264H; H.264B; MJPEG  Alarm Output 2 channels  Audio Input 1 channel  Audio Output 1 channel  Audio Output 3 channel  Audio Output/siren and light/email/PTZ/snapshot  Alarm Linkage Output/siren and light/email/PTZ/snapshot  Alarm Event detection/network abnormality/anti-burn warning  RS-485 1 channel  Power	Electronic Shutter Speed	1/1 ~ 1/30,000s	Network	1 10M/100M Ethernet port (RJ-45)
Alarm Output   2 channels	Min. Illumination	· · · · · · · · · · · · · · · · · · ·	Alarm Input	2 channels
IR On/Off ControlAuto/ManualAudio Input1 channelIR LEDs1Audio Output1 channelFocal Length8mmAlarm LinkageOutput/siren and light/email/PTZ/snapshotMax ApertureF1.9Alarm EventMotion detection/privacy mask/audio detection/network abnormality/anti-burn warningAngle of ViewH: 40° V: 22°RS-4851 channelVideo CompressionH.265; H.264; H.264H; H.264B; MJPEGPower	10.00	,	Alarm Output	2 channels
IR LEDs  1 Focal Length  Max Aperture Angle of View Alarm Linkage  F1.9 Alarm Event  Alarm Event  Alarm Event  RS-485  Power  Audio Output 1 channel  Output/siren and light/email/PTZ/ snapshot  Motion detection/privacy mask/audio detection/network abnormality/anti- burn warning  RS-485  Power			Audio Input	1 channel
Focal Length  Max Aperture  F1.9  Alarm Linkage  Alarm Linkage  Motion detection/privacy mask/audio detection/network abnormality/antiburn warning  RS-485  Video Compression  Alarm Event  Motion detection/privacy mask/audio detection/network abnormality/antiburn warning  RS-485  Power	IR On/Off Control	Auto/Manual	Audio Output	1 channel
Focal Length  Max Aperture  F1.9  Alarm Event  Motion detection/privacy mask/audio detection/network abnormality/antiburn warning  Audio and Video  Video Compression  H.265; H.264; H.264H; H.264B; MJPEG  Motion detection/privacy mask/audio detection/network abnormality/antiburn warning  RS-485  Power	IR LEDs	1	Alarm Linkage	
Angle of View Audio and Video Video Compression  Alarm Event Alarm Event  Alarm Eve	-			
Audio and Video  Video Compression  H: 40 V: 22  RS-485  RS-485  1 channel  Power			Alarm Event	detection/network abnormality/anti-
Video Compression H.265; H.264; H.264B; MJPEG Power		n: 40 V: ZZ	RS-485	·
		H 265: H 264: H 264H: H 264B: MIDEG	Power	
	VIGCO COTTIPI ESSIOTI	11.200, 11.207, 11.2071, 11.2040, IVIJF LO	Power Supply	12V±20% DC, 1.2A, PoE (802.3af), ePoE

# Pro Series | DH-TPC-BF5421-T

Power Consumption	Basic: 5.0W Maximum: 12W (power adapter excluded)
Environment	
Operating Temperature	10°C to +30°C
Storage Temperature	-40°C to +70°C
Operating Humidity	≤95%
Self-Adaptive	Auto heating to protect the chip under the cold environment
Physical Characteristics	

Protection Grade	IP67, anti-surge 6KV, anti-elctrostatic 8KV (touched by objects), anti-elctrostatic 15KV (air)	
Packaging Dimensions	365 mm × 175 mm × 176 mm (14.37" × 6.89" × 6.93")	
Net Weight	≤1.4 kg (3.09 lb)	
Gross Weight	≤1.9 kg (4.19 lb)	
Power Adaptor	Selectable	
Lens	Contained	

# Certification

Certifications	CE; FCC

Ordering Information				
Туре	Part Number	Description		
DH-TPC- BF5421-T	DH-TPC-BF5421P-TD13F8	(with temperature measurement function)		
	DH-TPC-BF5421N-TD13F8	Thermal: 400 × 300 13 mm lens		

# Accessories







DH-PFA121-V2

DH-PFA151

DH-PFA152-E

# Dimensions (mm [inch])









