

# DH-TPC-BF5421-T

## Thermal Temperature Monitoring Camera



- 400 × 300 Vanadium Oxide Uncooled FPA
- Athermalized lens (thermal camera), focus-free
- Smart linkage with strobe light & audio
- Temperature Accuracy  $\pm 0.3^{\circ}\text{C}$  with black body
- Temperature Measurement Range:  $30^{\circ}\text{C}$  to  $45^{\circ}\text{C}$
- IP67; Micro SD storage; This product is not for medical use

### System Overview

Featuring two video channels, it can realize the high accuracy temperature measurement. This series is designed for temperature screening.

### Technical Specification

#### Thermal

Effective Pixels	400 × 300	
Pixel Pitch	17 $\mu\text{m}$	
Spectral Range	8 $\mu\text{m}$ –14 $\mu\text{m}$	
Thermal Sensitivity (NETD)	$\leq 40\text{mK}@f/1.0$	
Focal Length	10 mm	13 mm
Field of View	Horizontal: 36.2°, Vertical: 27.5°;	Horizontal: 30°, Vertical: 22.6°;
Focus Mode	Athermalized	
Aperture	F/1.0	
Digital Detail Enhancement (DDE)	Yes	
AGC	Auto; Manual	
Noise Reduction	2D NR; 3D NR	
Image Flip	180°/Mirror	
Color Palettes	18 (Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2 .etc)	
Temperature Measurement Range	$30^{\circ}\text{C}$ to $45^{\circ}\text{C}$ ( $86^{\circ}\text{F}$ to $113^{\circ}\text{F}$ )	

Temperature Accuracy	$\pm 0.3^{\circ}\text{C}$ (with black body) when the environment temperature is $10^{\circ}\text{C}$ to $30^{\circ}\text{C}$ ( $50^{\circ}\text{F}$ to $86^{\circ}\text{F}$ )
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#### Visible

Image Sensor	1/2.8 inch CMOS	
Effective Pixels	1920 × 1080	
Max. Resolution	2MP	
Electronic Shutter Speed	1/30000s–1s	
Min. Illumination	Color: 0.01 Lux@F1.6 Black & white: 0.001 Lux@F1.6 0 Lux (IR on)	
IR Illumination Distance	$\geq 50$ m (164 ft)	
IR Illuminator On/Off Control	Auto; Manual	
Focal Length	6 mm	8 mm
Aperture	F/2.0	F/2.0
Field of View	Horizontal: 52.8°, Vertical: 30.3°	Horizontal: 40°, Vertical: 22°
Focus Mode	Fixed	
Close Focus Distance	0.7 m (2.3 ft)	
BLC	Yes	
WDR	Yes	
HLC	Yes	
White Balance	Auto/Manual/Indoor/Outdoor/Tracking/Sodium lamp/Street lamp/Natural	
AGC	Auto; Manual	
Noise Reduction	2D NR; 3D NR	

S/N Ratio	≥ 55 dB
Region of Interest (RoI)	Yes
Image Flip	180°/Mirror
Exposure Compensation	Yes

### Video and Audio

Video Compression	H.265/H.264M/H.264H/H.264B
Resolution	Thermal Main stream: 1280 × 1024, 1280 × 960, 1280 × 720, 400 × 300. 1280 × 960 by default Sub stream: 640 × 512, 640 × 480, 400 × 300. 400×300 by default Visible Main stream: 1080P (1920 × 1080), 720P (1280 × 720), D1 (704 × 576). 1080P by default Sub stream: D1 (704 × 576), CIF (352 × 288). CIF by default
Frame Rate	Thermal (50Hz): Main stream: 1fps–25fps adjustable. 25fps by default; sub stream: 1fps–25fps adjustable. 15fps by default. Visible (50Hz): Main stream: 1fps–25fps adjustable. 25fps by default; sub stream: 1fps–25fps adjustable. 15fps by default.
Audio Compression	G.711a; G.711mu; AAC; PCM

### Network

Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; SNMP; QoS; UPnP; NTP; Multicast; SFTP; 802.1x;
Edge Storage	Micro SD card (256G)
Interoperability	ONVIF; CGI; DAHUA SDK
Browser	IE: IE8 and the later, and explorer with IE core Google: 42 and the earlier Firefox: 42 and the earlier
User/Host	20 users at most (total bandwidth 64M)
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access

### Certification

Certifications	CE: EN55032:2015; EN61000-3-2:2014 FCC: CFR 47 FCC Part15 subpart B; ANSI C63.4-2014
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### Port

Ethernet	1 10M/100M Ethernet port (RJ-45)
Audio Input	1
Audio Output	1
Alarm Input	2
Alarm Output	1
RS-485	1 pair

### Power

Power Supply	12V±20% DC; POE (802.3af); ePOE
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Power Consumption	Basic consumption: <8W (12V DC) Max consumption: <18W (12V DC, without power adapter)
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### Environment

Operating Temperature	10°C to +30°C (50°F to 86°F)
Operating Humidity	≤93%@40°C (104°F)
Ingress Protection	IP67

### Structure

Product Dimensions	291.6 mm × 103.8 mm × 96.7 mm ( 11.48" × 4.09" × 3.81" )
Packaging Dimensions	365 mm × 175 mm × 176 mm ( 14.37" × 6.89" × 6.93" )
Net Weight	≤1.8 kg (3.97 lb)
Gross Weight	≤2.3 Kg (5.07 lb)

### Ordering Information

Type	Model	Description
Camera	DH-TPC-BF5421P-TB13F8	Thermal: 13 mm Visible: 8 mm
	DH-TPC-BF5421N-TB13F8	Thermal: 13 mm Visible: 8 mm
	DH-TPC-BF5421P-TD13F8	Thermal: 13 mm Visible: 8 mm
	DH-TPC-BF5421N-TD13F8	Thermal: 13 mm Visible: 8 mm
	DH-TPC-BF5421P-TD10F6	Thermal: 10 mm Visible: 6 mm
	DH-TPC-BF5421N-TD10F6	Thermal: 10 mm Visible: 6 mm

### Dimensions (mm[inch])

