

# DH-TPC-BF3221-T

## Thermal Body Temperature Monitoring Camera



- 256 × 192 Uncooled VOx focal plane detector
- 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; ePOE; Micro SD storage

### System Overview

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

### Technical Specification

#### Thermal

Max. Resolution	256 × 192
Pixel Pitch	12 $\mu\text{m}$
Spectral Range	8 $\mu\text{m}$ –14 $\mu\text{m}$
Thermal Sensitivity (NETD)	$\leq 50\text{mK}@f/1.0$
Focal Length	7 mm
Field of View	Horizontal: $24^{\circ}$ Vertical: $18^{\circ}$
Focus Control	Fixed
Aperture	F/1.0
Digital Detail Enhancement (DDE)	Yes
AGC	Auto; Manual
Noise Reduction	2D NR; 3D NR
Image Flip	$180^{\circ}$
Color Palettes	18 (Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2, etc.)
Temperature Measurement Range	$30^{\circ}\text{C}$ – $45^{\circ}\text{C}$ ( $86^{\circ}\text{F}$ – $113^{\circ}\text{F}$ )
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 $86^{\circ}\text{F}$ )

#### Visible

Image Sensor	1/2.8 inch CMOS
Max. Resolution	1920 × 1080
Pixel	2MP
Electronic Shutter Speed	1/30000 s–1 s
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	8 mm
Aperture	F/2.0
Field of View	Horizontal: $38.4^{\circ}$ ; Vertical: $22.2^{\circ}$
Focus Control	Fixed
Close Focus Distance	2.0 m (6.6 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	$\geq 55$ 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	<p>Thermal Main stream: 1280 × 960, 1024 × 768, 640 × 480, 256 × 192. 1280 × 960 by default Sub stream: 640 × 480, 256 × 192. 256 × 192 by default</p> <p>Visible Main stream: 1920 × 1080, 1280 × 720, 704 × 576. 1920 × 1080 by default Sub stream: 704 × 576, 352 × 288. 352 × 288 by default</p>
Frame Rate	<p>Thermal (50Hz): Main stream: 1fps–25fps adjustable. 25fps by default; sub stream: 1fps–25fps adjustable. 15fps by default.</p> <p>Visible (50Hz): Main stream: 1fps–25fps adjustable. 1080P by default; sub stream: 1fps–25fps adjustable. 15fps by default.</p>
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
Storage	Micro SD card (512 G)
Interoperability	ONVIF; CGI; DAHUA SDK
Browser	IE: IE8 and the later, and explorer with IE core Google: 42 and the earlier Firefox: 52 and the earlier
User/Host	20 users at most (total bandwidth 64 M)
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

Network	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
Power Consumption	Basic consumption: <5W (12V DC) Max consumption: <13W (12V DC, without power adapter)

## Environment

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

## Structure

Product Dimensions	292.1 mm × 103.8 mm × 96.7 mm (11.50" × 4.09" × 3.81")
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)

## Ordering Information

Type	Model	Description
Camera	DH-TPC-BF3221P-TB7F8	Thermal: 7 mm Visible: 8 mm
	DH-TPC-BF3221N-TB7F8	Thermal: 7 mm Visible: 8 mm

## Dimensions (mm[inch])

