

# DH-TPC-BF2221-HTM

## Thermal Temperature Monitoring Camera



- 256 × 192 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

### System Overview

Dahua thermal cameras characterized by non-contact, rapid, and no risk to temperature testers, etc. It can be conveniently deployed in public places with dense crowds, and can be used for efficient and safe preliminary screening of temperature anomalies.

### Technical Specification

#### Thermal

Effective Pixels	256 × 192
Spectral Range	8 $\mu\text{m}$ –14 $\mu\text{m}$
Thermal Sensitivity (NETD)	$\leq 50\text{mK}@f/1.0$
Focal Length	7.5mm
Field of View	H: 32.4° V: 24.6°
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 $86^{\circ}\text{F}$ )

#### 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 Black & white: 0.001 Lux 0 Lux (IR on)
IR Illumination Distance	50 m (164 ft)
IR Illuminator On/Off Control	Auto; Manual
Focal Length	6 mm
Aperture	F/2.0
Field of View	H: 52.8° V: 30.3°
Focus Mode	Fixed
Close Focus Distance	1.6 m (5.2 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	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 64Mbps)
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

## Power

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

## Environmet

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	287.3 mm × 92.7 mm × 87.0 mm (11.3" × 3.6" × 3.4")
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)

## Dimensions (mm[inch])

