alhua
TECHNOLOGY
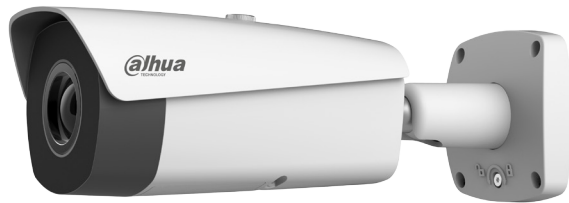
DH-TPC-BF5601-T

Thermal Network Bullet Camera

- 640 × 512 uncooled VOx thermal sensor technology
- Athermalized lens (thermal), focus-free
- Support temperature measurement
- Various lens optional (7.5/13/25 mm)
- 2/2 alarm in/out
- Micro SD memory, IP67, PoE,ePoE

System Overview

Featuring a fixed lens bullet camera, this series provides an all-in-one solution that is especially beneficial for temperature measurement. Together with Thermal technology, the camera's long range capabilities are able to be utilized even at night.

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

Temperature Measurement

Dahua thermal cameras (-T models) provide remote temperature monitoring functionality with the ability to set temperature threshold alarms. Object temperatures can be monitored in daytime or at night, making them ideal for usage in power plant or oil extraction applications where overheating can be dangerous. When the temperature exceeds the set threshold, an alarm is triggered. The temperature range is between -20 °C to 550 °C.

Intelligent Video System (IVS)

IVS is a built-in video analytics algorithm that delivers intelligent functions to monitor a scene for tripwire violations, intrusion detection. A camera with IVS quickly and accurately responds to monitoring events in a specific area.

Environmental

With a temperature range of-40 °C to +70 °C (-40 °F to +158 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

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.

Technical Specification

Thermal

Detector Type	Vanadium Oxide Uncooled Focal Plane Detector
Max. Resolution	640 × 512
Pixel Pitch	17μm
Spectral Range	8μm–14μm
Thermal Sensitivity (NETD)	≤ 40mK@f/1.0

Focal Length	7.5 mm	13 mm	25 mm
Field of View	H: 91.2° × V: 70.3°	H: 48.9° × V: 38.8°	H: 24.6° × V: 19.8°
Effective Distance Human (1.8 m × 0.5 m)	D: 221 m (725.07 ft) R: 57 m (187.01 ft) I: 28 m (91.86 ft)	D: 382 m (1253.28 ft) R: 98 m (321.52 ft) I: 49 m (160.76 ft)	D: 735 m (2411.42 ft) R: 189 m (620.08 ft) I: 95 m (311.68 ft)
Effective Distance Vehicle (4.0 m × 1.4 m)	D: 558 m (1830.71 ft) R: 147 m (482.28 ft) I: 74 m (242.78 ft)	D: 1020 m (3346.47 ft) R: 255 m (836.61 ft) I: 127 m (416.67 ft)	D: 1961 m (6433.73 ft) R: 490 m (1607.61 ft) I: 245 m (803.81 ft)

Focus Mode	Athermalized
Aperture	F1.0
Digital Detail Enhancement (DDE)	Yes
Image Stabilization	Electronic Image Stabilization
Digital Zoom	24×
AGC	Auto; Manual
Noise Reduction	2D NR; 3D NR
Image Flip	90°/180°/mirror

Intelligence

Advanced Intelligence	Fire Detection & Alarm Cold & Hot Spot Trace Tripwire & Intrusion Human & Vehicle Classification

Temperature Measurement

Temperature Range	Low Temperature Mode:-20°C to +150°C (-4°F to +302°F) High Temperature Mode: 0°C to +550°C (+34°F to +1022°F)
Temperature Accuracy	Max (±2°C, ±2%) Operating Temperature:-20°C to +60°C (-4°F to +140°F)
Temperature Mode	Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously

Video and Audio

Video Compression	H.265/H.264M/H.264H/H.264B/MJEPG
Resolution	Main stream: (1280 × 1024/1280 × 720/640 × 512/), 1280 x 1024 by default; Sub stream: (640 × 512/320 × 256), 640 × 512 by default
Frame Rate	50Hz: Main Stream: 1fps–25fps, 25fps by default; sub stream: 1fps–25fps, 15fps by default 60Hz: Main Stream: 1fps–30fps, 30fps by default; sub stream: 1fps–30fps, 15fps by default
Audio Compression	G.711a; G.711mu; PCM

General Function

Network Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; SNMP; QoS; UPnP; NTP
Region of Interest (ROI)	Yes
Edge Storage	FTP; Micro SD card (256G)
Interoperability	ONVIF; CGI; DAHUA SDK
Browser	IE: IE9 and the later (Edge not support) Google: 42 and the earlier Firefox: 52 and the earlier
User/Host	20 channels at most (the total bandwidth 64M)
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Support 20 users at most and users are classified as two groups-administrator group and user group.
Malfunction Detection	Network disconnection; IP addresses conflict; SD card error (status or storage space)

Certification

Certifications	CE; FCC

Port

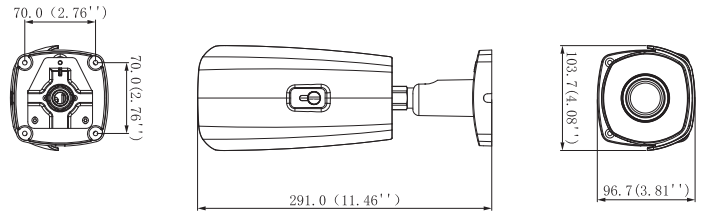|	
Analog Video Output	1 channel of CVBS output with BNC port
Network	1 10M/100M Ethernet port (RJ-45)
Audio Input	1
Audio Output	1
Alarm Input	2
Alarm Output	2
RS-485	1 pair

Power

Power Supply	12V±20% DC, 1.2A, PoE (802.3af), ePoE
Power Consumption	Basic: 5.0W Maximum: 13W (power adapter excluded)

Environment

Operating Temperature	-40°C to +70°C (-40°F to +158°F)
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)
Product Dimensions (L × W × H)	291 mm × 103.7 mm × 97 mm(11.46" × 4.06" × 3.82")
Packaging Dimensions (L × W × H)	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)
Lens	Contained
Power Adaptor	Selectable

Dimensions (mm[inch])

70.0（2.76''）
70.0（2.76''）
291.0（11.46''）
103.7（4.08''）
96.7(3.81'')

Ordering Information

Type	Model	Description
DH-TPC-BF5601-T	DH-TPC-BF5601P-TB7	(with temperature measurement function) Thermal: 640 × 512 7.5 mm lens
	DH-TPC-BF5601N-TB7	
	DH-TPC-BF5601P-TB13	(with temperature measurement function) Thermal: 640 × 512 13 mm lens
	DH-TPC-BF5601N-TB13	
	DH-TPC-BF5601P-TB25	(with temperature measurement function) Thermal: 640 × 512 25 mm lens
	DH-TPC-BF5601N-TB25	

Accessories

DH-PFA121-V2   DH-PFA151   DH-PFA152-E

Wall Mount	Corner Mount	Pole Mount
PFA121	PFA121+PFA151	PFA121+PFA152-E