

DH-TPC-BF2120-T

Thermal Network Mini Hybrid Bullet Camera



- 160x120 VOx uncooled thermal sensor technology
- Athermalized Lens (thermal camera), Focus-free
- 1/2.8" 2Megapixel progressive scan Sony CMOS
- Support ROI, Motion Detection, Color Palettes
- Support temperature measurement
- Support Fire detection & alarm
- Built-in 2/1 alarm in/out
- Micro SD memory, IP67, PoE



System Overview

Featuring a dual lens, fixed bullet camera, this series provides an all-in-one solution for capturing video surveillance for indoor and outdoor applications. Together with Thermal and Visible Technology, the camera is the perfect solution for dark, small area monitoring applications. The series combines one thermal camera for monitoring in total darkness and one visible camera with Smart IR for confirming details.

Functions

Uncooled Vox Technology

Dahua thermal cameras use uncooled Vox sensor technology. Because of small size and better performance, it's cost-effective solution for thermal security.

High Sensitivity

High thermal sensitivity (<50mK) makes cameras capture more image details and temperature difference information.

Fire Detection & Alarm

With built-in Fire detect function, the camera has the ability to detect fire in a long distance. Because thermal camera is sensitive to temperature, so the accuracy of fire detection will be higher than visible camera.

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 450 °C (-4°F to 842 °F).

Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed.

Environmental

With a temperature range of -30 °C to +55 °C (-22 °F to +131 °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

Supporting ±15% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Technical Specification

Thermal Camera

| | |
|----------------------------|--|
| Image Sensor | Uncooled VOx Microbolometer |
| Effective Pixels | 160(H)x120(V) |
| Pixel Size | 12um |
| Thermal Sensitivity (NETD) | <50mK@f/1.1 |
| Spectral Range | 7~14um |
| Image Setting | Brightness/Sharpness/ROI/AGC/FFC/3D DNR |
| Color Palettes | 14(Whitehot/Blackhot/Ironrow/Icefire/Fusion/Rainbow/Globow/Iconbow1/Iconbow2 .etc) |

Thermal Lens

| | |
|--|-------------------------------|
| Lens Type | Fixed |
| Focus Control | Athermalized, Focus-free |
| Focal Length | 1mm |
| Effective Distance ① Man(1.8m*0.5m) | D②: 60m R③: 20m I④: 10m |
| Effective Distance Vehicle(2.3m*2.3m) | D: 200m R: 60m I: 30m |
| Angle of View | H: 56° V: 44° |

Visible Camera

| | |
|--------------------------|---|
| Image Sensor | 1/2.8" 2M CMOS |
| Effective Pixels | 1944(H)x1092(V) |
| Electronic Shutter Speed | 1/1 ~ 1/30,000s |
| Min. Illumination | Color: 0.005Lux@F1.8; B/W: 0.0005Lux@F1.8; 0Lux (IR on) |
| IR Distance | 35m |
| IR On/Off Control | Auto/Manual |
| IR LEDs | 1 |

Visible Lens

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|---------------|----------------------|
| Focal Length | 4mm |
| Max Aperture | F2.0 |
| Angle of View | H: 86.2° V: 45.9° |

Temperature Measurement

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|----------------------|--|
| Measurement Range | -20°C ~+450°C |
| Measurement Accuracy | Low temperature : -20°C ~+150°C, Max (±5°C, ±5%); High temperature : +150°C ~+450°C, Max ±8%; |
| Measurement Mode | Spot/Line/Area |
| Measurement Rule | Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously |

Video

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|--------------------------------------|---|
| Compression | H.264/MJPEG |
| Frame Rate | Main Stream: Thermal: 1280*960 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps Sub Stream: Thermal: 640*480 (default)/ 320*240@1~25/30fps Visible: CIF(default)/D1@1~25/30fps |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 640 ~ 8192Kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC Mode | BLC/HLC/WDR |
| White Balance | Auto, Manual |
| Noise Reduction | Ultra DNR |
| Motion Detetion | Off/On (4 zone, Rectangle) |
| Region of Interest | Off/On (4 zone) |
| Electronic Image Stabilization (EIS) | NA |
| Defog | Off/On |
| Flip | 180° |
| Mirror | Off/On |
| Privacy Masking | Off/On (4 area, Rectangle) |

Audio

| | |
|-------------|--------------------|
| Compression | G.711a/G.711Mu/AAC |
|-------------|--------------------|

Intelligence

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|--------------------------------|---|
| IVS | Tripwire, Intrusion, Object Abandon/Missing |
| Advanced Intelligent Functions | Fire detection & alarm, Temperature measurement |

Network

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|---------------------|--|
| Ethernet | RJ-45 (10/100Base-T) |
| Protocol | IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x |
| Interoperability | ONVIF Profile S & G, PSIA, CGI |
| Streaming Method | Unicast/Multicast |
| Max. User Access | 10 Users/20 Users |
| Edge Storage | micro SD (128GB) Memory status display (Normal/Error/Active/Formatting/Lock), NAS (Network Attached Storage), Local PC for instant recording |
| Web Viewer | <IE11, <Chrome45, <Firefox52 |
| Management Software | Smart PSS, DSS |
| Smart Phone | Android, IOS |

Certifications

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|-----------------|--|
| Certification | CE (EN 60950:2000) FCC (FCC Part 15 Subpart B) |
| Interface | |
| Video Interface | 1.0Vp-p/75Ω, PAL/NTSC (HDCVI Optional) |
| Audio Interface | In/Out 1/1 |
| RS485 | Support |
| Alarm | 2/1 In/Out |

Electrical

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|-------------------|--------------------------|
| Power Supply | DC 12V/PoE |
| Power Consumption | 12W (IR on), 9W (IR off) |

Environmental

| | |
|---------------------|---|
| Operating Condition | -30°C ~ +55°C (-22°F ~ +131°F)/Less than 95% RH * Start up should be done at above -30°C (-22°F) |
| Storage Conditions | -40°C ~ +70°C (-40°F ~ +158°F)/Less than 95% RH |
| Ingress Protection | IP67 |

Construction

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|------------|---|
| Casing | Metal |
| Dimensions | 238.6mm × 90.4mm × 90.4mm (9.39" x 3.56" x 3.56") (With bracket) |
| Weight | < 1Kg |

- Note:
- ① Effective distance values shown are nominal values and should be used as estimates only. Exact value calculations depend on a wide variety of conditions.
 - ② D: Detection Distance
 - ③ R: Recognition Distance
 - ④ I: Identification Distance

Ordering Information

| Type | Part Number | Description |
|-----------------|--|--|
| DH-TPC-BF2120-T | DH-TPC-BF2120P-T1F4 DH-TPC-BF2120N-T1F4 | Thermal: 160x120 1mm lens Visible: 2MP 4mm lens |

Accessories

Optional:

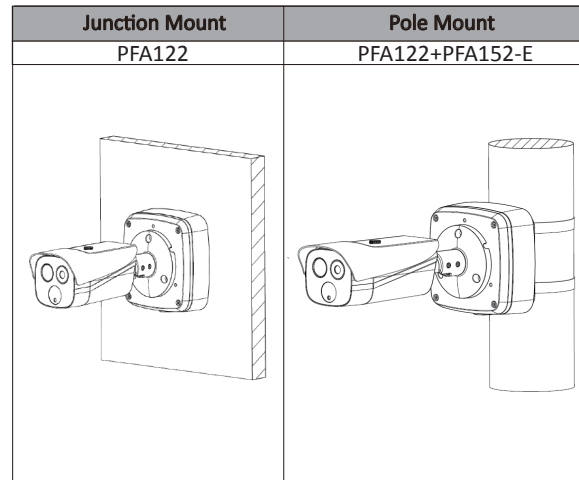


PFA122



PFA152-E

Mounting Type



Dimensions (mm)

