DHI-TPC-AEBF5201-T

Thermal Network Explosion-proof Bullet Camera

· Vanadium oxide uncooled focal plane detector.

· Supports up to 18 color palettes.

· High-precision non-contact temperature measurement.

· Explosion-proof certification: II 2G Ex db IIC T6 Gb/II 2D Ex tb IIIC T80 °C Db.

The Thermal Network Explosion-proof Bullet Camera measures temperature through the thermal channel with high accuracy Max (±2°C, ±2%), and generates alarm when the temperature is abnormal, which help user find potential hazard. It is widely applied in flammable and explosive environment, such as oil and chemical industries.

Technical Specification

Thermal

Detector Type	Vanadium oxide uncooled focal plane detector
Effective Pixels	256 (H) × 192 (V)
Pixel Pitch	12 µm
Spectral Range	8 µm–14 µm
Sensitivity (NETD)	≤35 mK (@f/1.0)
Focal Length	3.5 mm; 7 mm
Field of View	3.5 mm: H: 50.6°; V: 37.8° 7 mm: H: 24°; V: 18°
Thermal Focus Control	F1.0
Detection Distance[①]	3.5 mm: Vehicle: 400 m (1,312.34 ft); Human: 150 m (492.13 ft) 7 mm: Vehicle: 789 m ((2,588.58 ft); Human: 295 m (967.85 ft)
Recognition Distance[②]	3.5 mm: Vehicle: 100 m (328.08 ft); Human: 38 m (124.67 ft) 7 mm: Vehicle: 498 m (1,633.86 ft); Human: 38 m (124.67 ft)
Identification Distance[③]	3.5 mm: Vehicle: 50 m (164.04 ft); Human: 19 m (62.34 ft) 7 mm: Vehicle: 197 m (646.33 ft); Human: 76 m (249.34 ft)

Note:

[①] Detection Distance: Detects objects, but cannot recognize their characteristics (objects must cover more than 3.6 pixels of the image).

[②] Recognition Distance: Classifies objects into general categories, such as human, vehicle (the object must cover more than 14 pixels of the image).

[③] Identification Distance: Classifies objects into specific categories based on their characteristics, such as engineering truck, car (the object must cover more than 28 pixels of the image).

Digital Detail Enhancement (DDE)	Yes
Thermal AGC	Auto/Manual
Thermal Noise Reduction	2D NR/3D NR
Image Flip	180°; Mirror
Color Palettes	18 (white hot/black hot/fusion/rainbow/golden autumn/midday/iron red/amber/jade/sunset/icefire/painting/pomegranate/emerald /spring/summer/autumn/winter)
Temperature Measurement Range	Low temperature mode: −20 °C (−4 °F) to +150 °C (+302 °F) High temperature mode: +100 °C (+212 °F) to +550 °C (+1022 °F) Auto mode
Temperature Measurement Accuracy	Max. (±2 °C, ±2%) Operating temperature: −20 °C (−4 °F) to +50 °C (+122°F)
Temperature Measurement Mode	Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously

Audio and Video

Video Compression	H.264 (High, Main); M-JPEG; H.265
Resolution	Main stream: 1280 × 960 ; 1024 × 768; 640 × 480; 256 × 192; 1280 × 960 (default) Sub stream: 640 × 480; 256 × 192; 256 × 192 (default)
Video Frame Rate	Thermal: 50 Hz: (main stream) 1 fps–25 fps adjustable, 25 fps by default; (sub stream) 1 fps–25 fps adjustable, 15 fps by default 60 Hz: (main stream) 1 fps–30 fps adjustable, 30 fps by default; (sub stream) 1 fps–30 fps adjustable, 15 fps by default

Image Encoding Format	JPEG

Function

Network Protocol	IPv4/IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE
Region of Interest (RoI)	Yes (customizable)
Storage	FTP; Micro SD card (256 G, hot swapping)
Interoperability	ONVIF; CGI
Browser	IE: IE8 and the later, and explorer with IE core Google: 42 and the earlier Firefox: 42 and the earlier
User/Host	Up to 6 (total bandwidth: 64 MB)
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Up to 20 users; supports multi-level user permissions (2 levels): management group and user group
Malfunction Detection	Network disconnection detection; IP conflict detection; memory card state detection; memory space detection
Micro SD Card (Max.)	256 GB

Intelligence

Heat Detection	Yes
Cold/Hot Spot Trace	Yes

Port

Network Port	1 × RJ-45 (10/100 Base-T)
Alarm Input	2
Alarm Output	1

Power

Power Supply	12 VDC, PoE (802.3af)
Power Consumption	<3 W
ePoE	Yes

Environment

Operating Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Operating Humidity	≤95%

Physical Characteristics

Protection	IP68
Reliability	Surge protection: 6 kV Air discharge of 15 kV Contact discharge of 8 kV

Structure

Product Dimensions	176.1 mm × 114.7 mm × 96 mm (6.93" × 4.52" × 3.78") (L × W × H)
Packaging Dimensions	257 mm × 188 mm × 187 mm (10.12" × 7.4" × 7.36") (L × W × H)
Net Weight	≤2 kg (4.41 lb)

Gross Weight	≤2.5 kg (5.51 lb)

Certification

Certifications	CE/FCC
Explosion-proof certification	ATEX, IECEx: II 2G Ex db IIC T6 Gb/II 2D Ex tb IIIC T80 °C Db

Temperature Measurement Distance

Focal Length	Min. Distance	Max. Distance
3.5 mm	1 m (3.28 ft)	5 m (16.4 ft)
7 mm	2 m (6.56 ft)	8 m (26.25 ft)

Note:
The table displays the measured distances obtained from using the target size 0.1 m x 0.1 m for testing in an environment where the temperature is 23 °C and the relative humidity is below 60%.
The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

Ordering Information

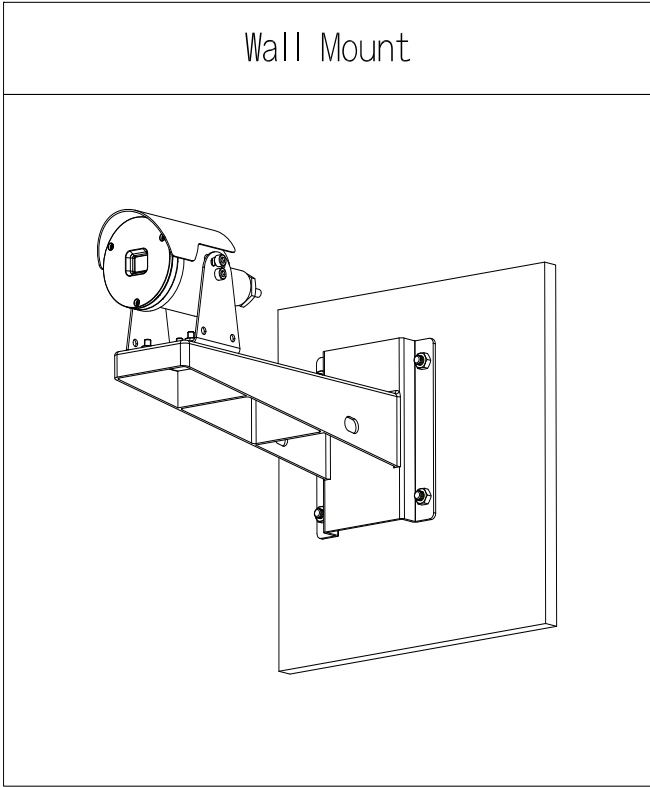| Type	Model	Description
Thermography	DHI-TPC-AEBF5201-TB3-DW-S4	Thermal: 3.5mm
	DHI-TPC-AEBF5201-TB7-DW-S4	Thermal: 7mm
Accessories (Optional)	DH-PFB735W-304	Wall Mount

Accessories

Optional:

DH-PFB735W-304
Wall Mount

Wall Mount

Dimensions (mm[inch])

52.0 [2.05]

4-Φ6.5 [Φ0.26]

2-15.0 [0.59]

30.0 [1.18]

176.1 [6.94]

114.7 [4.52]

96.0 [3.78]

98.5 [3.88]