

DHI-HY-FT431LFP

Flame Detection Network Camera



System Overview

Together with Visible and Thermal technology, this flame detection network camera provides an all-in-one solution for video surveillance. This camera has the ability to detect flame from long range, supports cold and hot spot alarm function and industrial temperature measurement alarm functions, enables flame tracking and positioning, and provides intelligent visual and audible warning. Featuring remote intercom and alarm input/output functionality, it realizes convenient linkage.

Functions

Flame Detection

Integrating thermal and video surveillance, detect flame based on abnormal temperature and conform details through the camera.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Sound and LED Indication

Supports the light alarm and voice alarm when flame is detected, to realize the deterrence and effective intervention. The camera is built in multiple voices for selection, and supports customized voice importing.

Remote Intercom

Built-in MIC and speaker enable remote intercom between software platform and App.

Alarm Output

Built-in alarm input and output port to realize linkage output.

- Industry leading uncooled VOx focal plane detector with high sensitivity
- Supports fire detection alarm, cold and hot spot alarm, and industrial temperature measurement alarm functions
- Supports sound and LED indication, and supports binocular fusion
- Visible light adopts a 4MP 1/2.7 inch CMOS image sensor, which has good low illumination effect and high image clarity
- Support IP whitelist and blacklist, MAC whitelist and blacklist, multi-level user management, humanized monitoring, confidentiality, and permission management
- Supports H.265 encoding with high compression ratio, achieving ultra-low bitstream transmission
- Supports 1-way alarm input and 1-way alarm output functions, supports max. 256 G Micro SD card
- Built in MIC and high volume speakers, high decibel alarm sound 70dB $\geq 1m$ (A-weighted)
- Built in high-efficiency infrared fill light, with a maximum infrared monitoring distance of 25 meters
- Supports DC12V/POE power supply mode for easy engineering installation
- Supports IP67 protection level

Scene

This device is applicable to most places where both fire alarm and video surveillance are needed, such as:

- Community
- Shopping mall
- Warehouse
- Libraries and archive rooms
- Garbage rooms

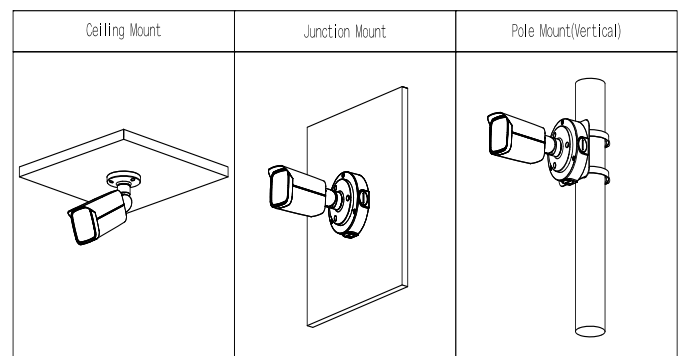
Technical Specification			
General			
Appearance	Bullet	Electronic Shutter Speed	1/3 s–1/100000 s (manual/auto)
Type	Radiometry	BLC	Yes
Thermal		WDR	DWDR
Detector Type	Vanadium oxide uncooled focal plane detector	HLC	Yes
Effective Pixels	120 (H) × 90 (V)	Day/Night	Auto (ICR); Color and B/W
Pixel Pitch	17 μm	Iris Control	Fixed
Spectral Range	8 μm–14 μm	Image Flip	Normal (0 °), corridor mode (90 °/270 °), Mirror/Flip (180 °)
Sensitivity (NETD)	< 60mK (@f/1.0, 300K)	Exposure Compensation	Yes
Focal Length	1.2 mm	Visible Focus Control	Fixed-focal
Field of View	Horizontal: 90° Vertical: 67.5°	Focal Length	4 mm
Thermal Focus Control	Fixed-focal	Field of View	H: 85° V: 44° D: 99°
Close Focus Distance	0.5 m (1.65 ft)	Close Focus Distance	1 m (3.28 ft)
Aperture	F1.1	Aperture	F1.6
Flame Detection Distance	10 m, flame size of 10 cm x 10 cm	Illuminator Type	2 (IR LED)
Thermal Noise Reduction	3D NR	Illuminator On/Off Control	Auto; Manual
Image Flip	Normal, corridor mode, reflection	Illumination Distance	25 m (80.35 ft)
Color Palettes	Supports 12 adjustable pseudo colors including White Heat, Lava, Iron Red, Hot Iron, Medical, Arctic, Rainbow, Black Heat, Human Screening, Red Paint, Blue Heat, and Green Heat	Audio and Video	
Temperature Measurement Range	-10°C to +200°C (+14°F to 392°F)	Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
Temperature Measurement Accuracy	MAX (±5°C, ±5%)	Resolution	Visible: Main stream: (4M (2688×1520)/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720), default (1920 × 1080) Sub stream: (D1 (704 × 576)/VGA (640x480)/CIF (352x288)), default (704x576)
Temperature Measurement Mode	1. Support real-time point temperature measurement function 2. There are three rules for measuring temperature simultaneously: points, lines, and polygons 3. Supports temperature alarm function 4. Supports cold and hot spot alarm function 5. The temperature measurement unit is Fahrenheit and Celsius, which can be set	Video Frame Rate	Visible: Main stream: 1 fps–25 fps adjustable, 25 fps by default Sub stream: 1 fps–25 fps adjustable, 25 fps by default
Visible		Audio Compression	MPEG2-Layer2; G.711a; G.711mu; AAC; PCM; G.722.1; G.726
Image Sensor	1/2.7" CMOS	Image Encoding Format	JPEG
Max. Resolution	2688(H)×1520(V)	Audio Sampling	8K; 16K
Pixel	4 MP	Function	
Scanning System	Progressive	Built-in MIC	Yes
Min. Illumination	Color: 0.0052 lux B/W: 0.0028 lux 0 lux (IR on)	Built-in Speaker	Yes
Visible AGC	Auto; Manual	Sound and Light Alarm	Yes
Visible Noise Reduction	2D NR; 3D NR	Network Protocol	HTTPS; HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; SNMP; QoS; UPnP; NTP
S/N Ratio	≥ 55 dB	Privacy Masking	Yes (4 areas)
White Balance	Auto/indoor/outdoor/track/manual/natural/street lamp	Storage	FTP; NAS; SFTP
		Interoperability	ONVIF; CGI; Wisualarm
		Browser	IE: IE 9 and later (Edge is not supported) Chrome: 42 and earlier Firefox: 42 and earlier
		User/Host	Up to 10 (total bandwidth: 100 MB)

Default	Support one-click restore
Security	Username and password; MAC address; HTTPS; IEEE802.1x; network access control
User Management	Up to 10 users
Malfunction Detection	ICON network disconnection detection; IP conflict detection
Intelligence	
Heat Detection	Yes
Heat Detection Distance (recommend)	10 m (32.81 ft)
Port	
Network Port	1 RJ-45 PoE 10M/100M Ethernet ports
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC
Alarm Linkage	Trigger switch output/email/snapshot
Power	
Power Supply	DC12V(±30%)/POE
Power Consumption	Basic: 1.8 W Max.: 5.16 W

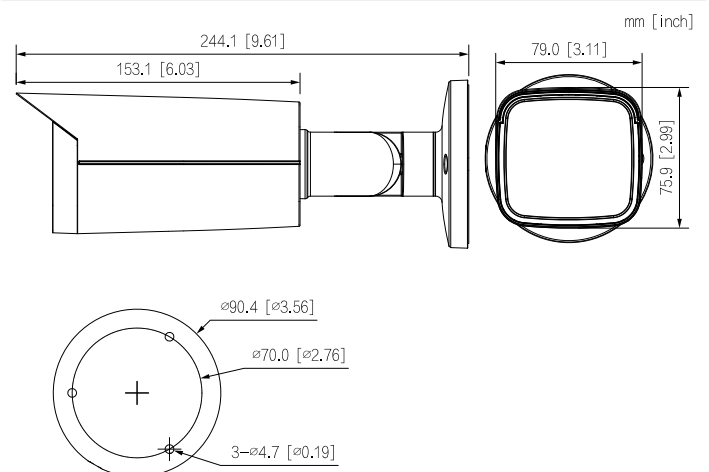
Environment	
Operating Temperature	–40°C to +60°C (-40°F to +140°F)
Operating Humidity	≤ 95%

Construction	
Protection	IP67
Product Dimensions	244.1 mm×79.0 mm×75.9 mm (9.61" × 3.11" × 2.99")
Packaging Dimensions	307.0 mm×155.0 mm×143.0 mm (12.09" × 6.10" × 5.63") (L × W × H)
Net Weight	0.8 kg (1.77 lb)
Gross Weight	1.1kg (2.43 lb)
Installation	Wall mount; Ceiling mount; Vertical pole mount
Power Adapter	Optional
Lens	Standard
Certifications	CE; UKCA

Installation



Dimensions (mm[inch])



Accessories

Optional:



PFA130-E
Water-proof
Junction Box



PFA152-E
Pole Mount Bracket



DHI-TF-P100
Micro SD Card
P100 256GB



PFM321D
12 VDC 1A
Power Adapter

Ordering Information		
Type	Part Number	Description
Flame Detection Network Camera	DHI-HY-FT431LFP-TD1F4	Flame Detection Network Camera
Accessories (optional)	PFM321D	12 VDC 1A Power Adapter
	PFA130-E	Water-proof Junction Box
	PFA152-E	Pole Mount Bracket
	DHI-TF-P100	Dahua micro SD Card P100 256GB