IP-5SS-F20-EA
5MP IR AI-fire Smoke Sensing Network Camera

· Remote check based on smoke sensing and video alarm linkage

· Intelligent monitoring: Flame detection

· With split-spectrum sensing smoke chamber and intelligent algorithm, eliminate the false alarm effectively

· Ultra-low power consumption design allows 3-year operation of smoke sensing module with built-in battery

· Built-in high decibel buzzer, smoke alarm is over 80 dB at 3 meters

· Self-test and low battery warning

· Intelligent compensation algorithm relieves the impact of dust accumulation and environment changing on smoke sensing module

· Insect-proof and dust-proof design for smoke sensing module

· Built-in 7 alarm voices, and user can import custom voices

· 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image

· H.265 codec, high compression rate, ultra-low bit rate

· Flip mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes

· 2/2 Alarm in/out, 1/1 audio in/out; supports max. 256 GB Micro SD card; built-in Mic and speaker

· Flip mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes

· 12V DC/PoE power supply

· Built-in IR light; the max. IR LEDs Length is 20 m (65.62 ft)

System Overview

Together with high-performance microprocessor and advanced electronic technology, AI-fire Smoke Sensing Network Camera has the characteristics of high sensitivity and stability. Based on the mounting bracket, it can be easily installed on the ceiling. With built-in high-decibel buzzer, it will send out a sound and light alarm signal in time to remind users to take effective measures immediately when the smoke concentration reaches the alarm setting value.

Functions

Multiple Sensing Technology
This device integrates functions of video surveillance and smoke detection, offering a solution to do the remote check through the camera.

Fire Detection & Alarm
With built-in fire detection function, the camera has the ability to detect fire from a long distance. Because camera integrates smoke sensing chamber and flame detection algorithm, it can provide higher fire detection accuracy and multiple fire prevention methods than general thermal camera.

Lower False Alarm
The smart algorithm of automatic compensation against dust concentration helps reduce false alarms. Based on the advanced chamber technology with dual photoelectric smoke sensing components, the device has higher accuracy rate on smoke detection.

High-quality Video
Supporting 5MP video output, the camera enables users to pinpoint the fire location.

Smoke Detection | Dual Photoelectric Smoke Sensing Chamber | AI-Fire AI Fire Detection | 5Mp

Scene

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

·Chain stores

·Unattended base stations

·Unmanned power distribution rooms

·ATM areas

·Libraries

·Garbage rooms

Onvif

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Technical Specification

Smoke Detector

Indicators	Standby: Green indicator flashes once per minute Fault: Red indicator flashes once per minute Alarm: Red indicator flashes once per second Self-testing: Red indicator flashes once per second
Protection Area	30 m²–60 m²
Operating Principle	Photoelectric
Alarm Method	Sound and LED Indicator
Power	12V DC/PoE and 3V lithium battery
Operating Current	≤ 30uA (Camera excluded) ≤ 300mA (Camera included)
Back-up Battery Life	＞ 3 years
Alarm Classification	Smoke alarm, fault alarm, low battery alarm
Alarm Sound Pressure	≥ 80 dB (A) @ 3 m (9.84 ft)

Network Camera

Appearance	Circular
Image Sensor	1/2.7" CMOS
Max. Resolution	2592 (H) × 1944 (V)
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3s~1/100000s
Minimum Illumination	0.007Lux (color) 0.003Lux (dark) 0Lux (IR)
S/N Ratio	＞ 56 dB
Illumination Distance	Distance up to 20 m (65.62 ft)
Illuminator Number	2 (IR LED)

Lens

Lens Type	Fixed-focal
Mount Type	M8
Focal Length	2.0 mm
Aperture	F2.0
Field of View	Horizontal: 144°; Vertical: 92°; Diagonal: 179.6°
Iris Control	Fixed
Close Focus Distance	0.2 m (0.66 ft)

Artificial Intelligence

AI Event	Flame detection

Video

Image Setting	Brightness; contrast; sharpness; saturation; gamma
OSD	Channel/time/place/voltage of back-up battery
Video	Manual record; external alarm; alarm video record; timing record
Micro SD Card	Max. 256 GB
Compression	H.265; H.264; H.264H; H.264B
Smart Codec	Smart H.265+/ Smart H.264+
Frame Rate	Main stream: 2592×1944 (1 fps-20 fps) 2688×1520 (1 fps–25/30 fps) 2560×1440 (1 fps–25/30 fps) 2304×1296 (1 fps–25/30 fps) 1920×1080 (1 fps–25/30 fps) Sub stream: D1 (1 fps–20 fps) D1 (1 fps–25/30 fps) Third stream: 1920×1080 (1 fps-17/24 fps)
Video Bit Rate	H.264: 32 Kbps–10240 Kbps H.265: 12 Kbps–7168 Kbps
Day/Night	Auto (ICR)
BLC	Yes
HLC	Yes
WDR	90 dB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto; manual
Noise Reduction	3D NR
Default Frame Rate under Default Resolution	2048 Kbps (2688 × 1520)
Defog	Yes
Image rotation, mirroring, flipping	Yes
Privacy Masking	8 areas
Language	English; TradChinese; Italian; Spanish; Japanese; Russian; French; German; Portuguese; Turkish; Polish; Romanian; Hungarian; Korean; Czech; Dutch; Ukrainian;Vietnamese; Arabic; SpanishEU; Hebrew; Thai; Bahasa Indonesia

Audio

Audio Interface	Yes
Built-in MIC	Yes
Built-in Speaker	Yes
Audio Compression	PCM; G.711a; G.711Mu; G.726; AAC; G.723
Audio Sampling Frequency	8KHz/16KHz/32KHz/48KHz/64KHz

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; scene changing; smart motion detection; audio detection; flame detection; smoke detected alarm; fault alarm; smoke alarm disconnected; low battery alarm

Network

Communication	1 RJ-45 PoE 10M/100M Ethernet ports

Protocol	HTTP;TCP;RTSP;RTP;UDP;RTCP;SMTP;FTP;DHCP;DNS;DDNS;IPv4/v6;SNMP;QoS;UPnP;NTP
Interoperability	ONVIF; MileStone; Genetec; CGI; PISA
User	10 channels at most
Storage	FTP; SFTP; Micro SD card (256G); NAS
Browser	IE7 and newer versions; Chrome 8+; Firefox 3.5+; Safari 5+
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1X; controlled network access

Certification

Certification	CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B

Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input Interface	2 channels In: 5mA 5V DC
Alarm Output Interface	2 channels Out: 300mA 12V DC
RS 485 Port	1 channel

Electrical

Operating Power	Adapter: 12V DC(±25%); PoE: 802.3af
Power Supply	DC12V+PoE
Power Consumption	Basic power consumption: 2.1W (12V DC); 2W (PoE) Max. power consumption (ICR + IR LED intensity): 4.9W (12V DC); 4.8W (PoE)

Environmental

Operating Temperature	−10°C to +55°C (+14°F to +131°F)
Operating Humidity	0%–95% RH (non-condensing)

Construction

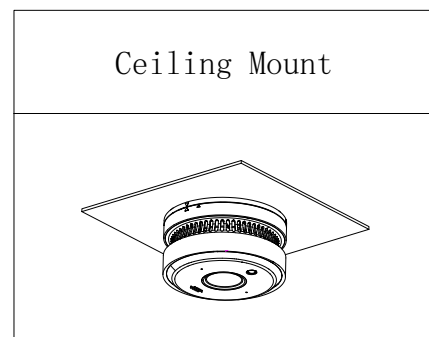| Casing	Plastic
Product Dimensions	Φ120 mm × 79 mm (Φ4.72" × 3.11")
Package Dimensions	164 mm × 153 mm × 111 mm (6.46" × 6.02" × 4.37")(L × W × H)
Net Weight	442 g (0.98 lb)
Gross Weight	613 g (1.35 lb)
Installation	Ceiling mount
Power Adapter	Excluded
Lens	Included

Ordering Information

Type	Part Number	Description
AI-Fire Smoke Sensing Network Camera	IP-5SS-F20-EA PAL	5MP IR AI-fire Smoke Sensing Network Camera with PAL standard
	IP-5SS-F20-EA NTSC	5MP IR AI-fire Smoke Sensing Network Camera with NTSC standard
Accessories (optional)	PFM300-E	DC Adapter
	PFM301-E	Power

Installation

Ceiling Mount

Dimensions (mm[inch])

Φ120.0[Φ4.72]   79.1[3.11]