

## VD-2FS49-SA 4MP Lite Full-color Fixed-focal Bullet Network Camera

- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560 × 1440) @ 25/30 fps, Max. supports 4MP (2688 × 1520) @ 20 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in warm lights, max. illumination distance: 30 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Supports max. 256 GB Micro SD card and built-in Mic
- 12V DC/PoE power supply
- IP67 protection



### Series Overview

With upgraded H.265 encoding technology, Lite series network camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better color image in the condition of low illumination. It supports SD card storage, dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 (Supported by some select models).

### Functions

#### Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, 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.

#### Full-color

With high-performance sensor and large aperture lens, Full-color technology can display clear colorful image in the environment of ultra-low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

#### WDR

With advanced Wide Dynamic Range (WDR) technology, network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

#### IVS

With advanced video algorithm, IVS technology supports intelligent functions, such as tripwire and intrusion.

#### Cyber Security

Network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

#### Protection (IP67, wide voltage)

**IP67:** The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

**Wide voltage:** The camera allows  $\pm 30\%$  (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.



## Technical Specification

### Camera

Image Sensor	1/3" CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM	128 MB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Minimum Illumination	0.004 Lux@F1.0
S/N Ratio	> 56 dB
Illumination Distance	30 m (98.4 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	1 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

### Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	2.8 mm 3.6 mm				
Max. Aperture	2.8 mm: F1.0 3.6 mm: F1.0				
Field of View	2.8 mm: Horizontal 96° × Vertical 51° × Diagonal 115° 3.6 mm: Horizontal 81° × Vertical 44° × Diagonal 97°				
Iris Type	Fixed				
Close Focus Distance	2.8 mm: 1.3 m (4.3 ft) 3.6 mm: 1.8 m (5.9 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	56.0 m (183.7 ft)	22.4 m (73.5 ft)	11.2 m (36.7 ft)	5.6 m (17.1 ft)
	3.6mm	72.0 m (236.2 ft)	28.8 m (94.5 ft)	14.4 m (47.2 ft)	7.2 m (23.6 ft)

### Smart event

IVS	Tripwire; intrusion
-----	---------------------

### Video

Video Compression	H.265; H.264; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Smart H.265+ / Smart H.264+
Video Frame Rate	Main stream: 2688 × 1520 (1 fps–20 fps) 2560 × 1440 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–20/25 fps) 704 × 480 (1 fps–20/30 fps)
Stream Capability	2 streams
Resolution	2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)

Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Gain Control	Auto/Manual
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest(Rol)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688×1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

### Audio

Built-in MIC	Yes
Audio Compression	G.711A; G.711Mu; G.726

### Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; motion detection; video tampering; tripwire; intrusion; illegal access; voltage detection; audio detection; safety exception
-------------	---

### Network

Network	RJ-45 (10/100 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 72 M.)
Storage	Cloud; FTP; Micro SD card (support max. 256 G); NAS; SFTP
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Phone	IOS; Android



## Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
----------------	---

## Power

Power Supply	12V DC/PoE (802.3af)
Power Consumption	< 6.2 W

## Environment

Operating Conditions	-40 °C to +60 °C (-40 °F to +140 °F)/less than ≤ 95% RH
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Protection Grade	IP67

## Structure

Casing	metal
Dimensions	166.2 mm × Ø70 mm (6.5" × Ø2.8")
Net Weight	0.473 kg (1.0 lb)
Gross Weight	0.574 kg (1.3 lb)

## Ordering Information

Type	Part Number	Description
4MP Camera	DH-IPC-HFW2439SP-SA-LED-S2	4MP Lite Full-color Fixed-focal Bullet Network Camera, PAL
	DH-IPC-HFW2439SN-SA-LED-S2	4MP Lite Full-color Fixed-focal Bullet Network Camera, NTSC
Accessories (Optional)	PFA134	Junction Box
	PFA152-E	Pole Mount
	PFM321D	DC12V1A Power Adapter
	LR1002-1ET/1EC	Single-port Long Reach Ethernet over Coax Extender
	PFM900-E	Integrated Mount Tester
	P100	MicroSD Memory Card

## Accessories

Optional:



PFA134  
Junction Box



PFA152-E  
Pole Mount



PFM321D  
12V DC 1A Power  
Adapter



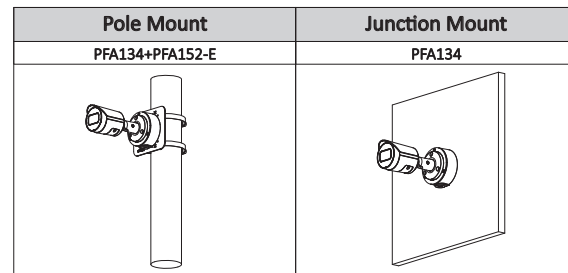
LR1002-1ET/1EC  
Single-port Long  
Reach Ethernet over  
Coax Extender



PFM900-E  
Integrated Mount  
Tester



P100  
MicroSD Memory  
Card



## Dimensions (mm[inch])

