

# FD2521-FS

5MP Lite IR Fixed-focal Eyeball Network Camera

# PADMAX



- 5MP, 1/2.7" CMOS image sensor, low illuminance, high definition image
- Outputs max. 5MP (2592 × 1944)@20 fps, and supports 2688 × 1520 (2688 × 1520)@25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Built-in IR LED, max IR 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, built-in Mic
- 12 V DC/PoE power supply
- IP67 protection



## Series Overview

With upgraded H.265 encoding technology, Padmax 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, Padmax 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.

### WDR

With advanced Wide Dynamic Range (WDR) technology, Padmax 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.

### Starlight

With advanced image processing technology and optical technology, Padmax Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

## IVS

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

## Cyber Security

Padmax network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising 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 works 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**

<b>Camera</b>	
Image Sensor	1/2.7" CMOS
Max. Resolution	2592 (H) × 1944 (V)
ROM	128 MB
RAM	256 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.008 Lux@F1.6
S/N Ratio	> 56 dB
Illumination Distance	30 m (98.43 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	2 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

<b>Lens</b>					
Lens Type	Fixed				
Mount Type	M12				
Focal Length	2.8 mm 3.6 mm				
Max. Aperture	F1.6 F1.6				
Field of View	2.8 mm: Horizontal 103.0° × Vertical 71.0° × Diagonal 132.0° 3.6 mm: Horizontal 84.0° × Vertical 58.0° × Diagonal 110.0°				
Iris Type	Fixed				
Close Focus Distance	2.8 mm: 0.9 m (2.95 ft) 3.6 mm: 1.6 m (3.61 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	56 m (183.73 ft)	22.4 m (73.49 ft)	11.2 m (36.75 ft)	5.6 m (18.37 ft)
	3.6 mm	80 m (262.47 ft)	32.0 m (104.99 ft)	16.0 m (52.49 ft)	8.0 m (26.25 ft)

<b>Smart event</b>	
General IVS Analytics	Tripwire; intrusion

<b>Video</b>	
Video Compression	H.265; H.264; H.264B; MJPEG
Smart Codec	Yes
Video Frame Rate	Main stream: 2592 × 1944 (1 fps-20 fps) 2688 × 1520 (1 fps-25/30 fps) Sub stream: 704 × 576 (1 fps-25 fps) 704 × 480 (1 fps-30 fps)
Stream Capability	2 streams

Resolution	2592 × 1944 (2592 × 1944); 2688 × 1520 (2688 × 1520); 3M (2048 × 1536); 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–8192 kbps H.265: 12 kbps–8192 kbps
Day/Night	Auto (ICR)/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(RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower.)
Mirror	Yes
Privacy Masking	4 areas

<b>Audio</b>	
Built-in MIC	Yes
Audio Compression	G.711A; G.711Mu; G.726

<b>Alarm</b>	
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

<b>Network</b>	
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
Storage	FTP; Micro SD card (support max. 256 G); NAS; SFTP
Browser	IE Chrome Firefox

Management Software	Smart PSS; EasyViewer pro
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 UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Power

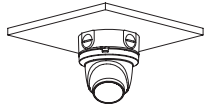
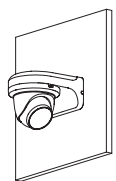

Power Supply	12 V DC/PoE (802.3af)
Power Consumption	< 7.2 W

Environment

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

Structure

Casing	Metal
Dimensions	99.1 mm × Φ121.9 mm (3.9" × Φ4.8")
Net Weight	0.48 kg (1.1 lb)
Gross Weight	0.65 kg (1.4 lb)

Junction Mount	Wall Mount	Pole Mount
PFA130-E	PFB203W	PFB152-E+PFA203W
		

Dimensions (mm[inch])

