

RDO2431F-AS-S2

4MP IR Fixed-focal Dome Network Camera



- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs 4MP (2560x1440)@25/30fps, max. supports 4MP (2688x1520)@20 fps
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 30m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire
- Abnormality detection: Motion detection, video tampering, scene changing, audio abnormality detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, voltage detection
- Alarm: 1 in, 1 out; Built-in Mic; Supports max. 256 G Micro SD card
- 12V DC/POE power support
- IP67, IK10 protection

System Overview

With upgraded H.265 encoding technology, the camera has efficient video encoding capacity, which saves bandwidth and storage space. This camera adopts the latest starlight technology and displays better colorful image in the environment of low illumination. It supports SD card storage, waterproof function, dust-proof function, complying with the standards of IP67.

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.

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.

Starlight

With advanced image processing technology and optical technology, 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, the camera supports intelligent detection, such as tripwire and intrusion and so on.

Cyber Security

The 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. With UL CAP Certification, TÜV Rheinland Protected Privacy IoT Product Certification, and ETSI EN 303645 Certification, the network camera better meets the demands of cyber security and privacy protection.

Protection (IP67, IK10, 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.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 m (Impact energy is 20J).

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

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Technical Specification

Camera

Image Sensor	1/3" 4Megapixel Progressive CMOS
Effective Pixels	2688(H) x 1520(V)
ROM	128MB
RAM	128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s-1/100,000 s
Minimum Illumination	0.008Lux@F1.6
S/N Ratio	>56dB
Illuminator Distance	30m (98.4ft)
Illuminator On/Off Control	Auto/ Manual
Illuminator LEDs Number	3 (IR LED)
Pan / Tilt / Rotation Range	Horizontal: -30°-30° Vertical: 0°-80° Rotation: 0°-360°

Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	2.8mm 3.6mm				
Max. Aperture	F1.6				
Field of View	2.8mm: Horizontal: 102°, Vertical: 55°, Diagonal: 121° 3.6mm: Horizontal: 84°, Vertical: 45°, Diagonal: 100°				
Iris Type	Fixed				
Close Focus Distance	2.8mm: 0.9m (3.05ft) 3.6mm: 1.6m (5.2ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	56m (183.73ft)	22.4m (73.49ft)	11.2m (36.75ft)	5.6m (19.37ft)
	3.6mm	80m (262.47ft)	32m (104.99ft)	16m (52.49ft)	8m (26.25ft)

Smart Event

General IVS Analytics	Tripwire; intrusion
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Video

Compression	H.265; H.264; H.264B; MJPEG (only supported by the sub stream)
Smart Codec	Main stream: 2688 x 1520 (1 fps-20 fps) 2560 x 1440 (1 fps-25/30 fps) Sub stream: 704 x 576 (1 fps-25 fps) 704 x 480 (1 fps-30 fps)
Video Frame Rate	Main stream: 1920x1080 (1-25/30 fps) Sub stream: 704x576 / 704x480 (1-25/30 fps)
Streaming Capability	2 Streams
Resolution	2688 x 1520 (2688 x 1520); 2560 x 1440 (2560 x 1440) 1296 (2304 x 1296); 1080p (1920 x 1080); 1.3M (1280 x 960); 720p (1280 x 720); D1 (704 x 576/704 x 480); VGA (640 x 480); CIF (352 x 288/352 x 240)

Bit Rate Control	CBR / VBR
Video Bit Rate	H.264: 32K - 6144Kbps H.265: 12K - 6144Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC	Yes
HLC	Yes
WDR	120dB
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 IR	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1920 x 1080 resolution.)
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; safety exception
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Network

Ethernet	RJ-45 (10/100Base-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
Edge Storage	FTP; Micro SD Card (Max. 256GB); NAS; SFTP
Web Viewer	IE, Chrome, Firefox
Smart Phone	iOS, Android

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Certifications

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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Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V~5V DC
Alarm Output	1 channel out: 300mA 12V DC

Power

Power Supply	12VDC, PoE (802.3af)
Power Consumption	<5.4W

Environmental

Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH
Storage Conditions	-40°C ~ +60°C (-40°F ~ +140°F)
Ingress Protection	IP67, IK10

Construction

Casing	Metal
Dimensions	55mm × φ108.9mm (2.2" × φ4.3")
Net Weight	0.38Kg (0.8lb)
Gross Weight	0.52g (1.1lb)

Accessories

Optional:



RPFA139
Junction Box



RPFB204W
Wall Mount



RPFA152-E
Pole Mount



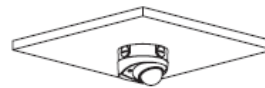
RPFB220C
Ceiling Mount



RPFA106
Mount Adapter

Junction Mount

RPFA139



Wall Mount

RPFB204W



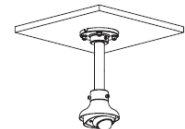
Pole Mount

RPFB204W + RPFA152-E



Ceiling Mount

RPFB220C + RPFA106



Dimensions (mm[inch])

