RBX71242F

12MP Box AI Network Camera

- 12MP 1/1.7" CMOS image sensor, high definition
- Outputs max. 12MP (4000x3000) @ 25/30 fps
- H.265 codec, high compression rate, ultra-low bit rate
- Rotation mode, DWDR; 3D NR, HLC, BLC, digital watermarking
- ROI, SVC, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Perimeter Protection , Face Detection , Video Metadata , ANPR , People Counting , Queue Management
- Alarm: 2 in, 2 out; audio: 2 in, 1 out; RS-485; BNC; supports max. 256GB SD card
- 24VAC / 12VDC / PoE power supply; 12V DC power output, max current 165mA; easy for installation.
- IP67, IK10 protection
- Five streams for three-channel HD video

AI is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, AI provides precise, reliable and comprehensive AI solutions for verticals.

System Overview

With advanced deep learning algorithm, AI Series network camera supports various intelligent functions and satisfies the requirements in different scenes. The camera can accurately recognize person, vehicle, and non-motor vehicle, face, ANPR, and liveness. This series camera has ultra-starlight night version effect, and works with ultra-low stream. It supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

Functions

Video Metadata

With deep learning algorithm, Video Metadata technology can detect, track, capture vehicle, non-motor vehicle and people, and select the best images, and extract attributes. The camera can count targets by directions (A>B, B>A, or A< >B), and export the report.

Face Detection

Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

Face and Human Body Association

With deep learning algorithm, Face and Human Body Association technology detects face and human body of one person, captures them separately, selects the best image, and then associates them.

Face Recognition

Face Recognition technology extracts the features of captured faces and compares them with that in face database to recognize the person identity.

Advanced Customer Counter

With Advanced Customer Counter, the camera can remove staff and returning customers from your store traffic count. It enables managers to build a full picture of the number and groups of customers.

PPE Detection

With the PPE Detection function, the camera can detect attributes including face masks, helmets, glasses, safety vests, and the color of tops and bottoms, and determine whether PPE requirements are met. Match attributes alarm or mismatch attributes alarm can be triggered according to the alarm settings.

ANPR

With high-performance GPU chip, deep learning algorithm, and lots of sample training learning, ANPR technology can automatically collect and recognize the vehicle information, including license plate, logo, vehicle type, and vehicle color.

Perimeter Protection

With deep learning algorithm, Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

People Counting

With deep learning algorithm, People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs reports to meet your requirements.

Queue Management

With advanced image processing technology and deep leaning algorithm, Queue Management technology counts people quantity in selected area in real time to realize queue management. It supports multiple polygon areas. When No. in area/strand time is not smaller or not larger than the threshold, it triggers alarm.

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.

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Technical Specification

Camera	
Image Sensor	1/1.7" 12Megapixel progressive CMOS
Effective Pixels	4000(H) x 3000(V)
ROM	4GB
RAM	2GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3s – 1/100,000s
Minimum Illumination	0.01 Lux@F1.8 (Color,30IRE) 0.001 Lux@F1.8 (B/W,30IRE)
S/N Ratio	>56 dB
Lens	
Mount Type	C/CS
Smart Event	
IVS	Abandoned object; missing object
Professional, Intelligent	
IVS (Perimeter Protection)	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
Face Detection	Face detection; track; optimization; snapshot; face enhancement; face exposure; face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting; Support Duration Optimal, Non-living Filtering
Face Recognition	There are two models: General mode and counting mode. General mode: Face detection; track; snapshot; snapshot optimization; face enhancement; face exposure; face attribute extraction including 6 attributes (gender, age, glasses, expressions, mask and beard) and 8 expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear); supports up to 5 face databases with 50,000 face pictures in total; supports non-living filtering Counting mode: Offers advanced customer counter, filtering of specified face database, and exporting of reports before and after removing duplicate faces.
Face and Body Detection	There are two modes: General mode and PPE Detection. General mode: Supports enabling face detection and human detection at the same time, and alarms can be triggered. PPE Detection: Supports PPE detection, can detect attributes including face mask, safety helmet, glasses, and safety vest, top color and bottom color, and determine whether PPE requirements are met. Alarms can be triggered according to the alarm settings.
People Counting	Support tripwire number counting, people counting in area, and displaying and outputting yearly / monthly / daily reports. Support queue management, and displaying and outputting monthly / daily reports. Support 4 tripwire rules configuration, people counting in 4 areas, and 4 queue management functions.
ANPR	ANPR, track, priority, snapshot Vehicle attributes: License plate, vehicle type, vehicle color. Other attributes: Seat belt, smoking, phoning
Video Metadata	Vehicle detection, non-motor vehicle detection, face Supports human body, human face, motor vehicle and non-motor vehicle image capture, attributes extraction, counting targets by directions (A>B, B>A, or A< >B), and exporting the report.
Intelligent Search	Works together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos.
Video	
Compression	H.265,H.264,H.264B,H.264H, MJPEG (only supported by sub stream)
Smart Codec	Smart H.264+ Smart H.265+
Video Frame Rate	Main stream: 4000×3000@1-25/30fps Sub stream: 704×576@1-25fps 704×480@1-30fps Third stream: 1920×1080@1-25/30fps Fourth stream: 1920×1080@1-25/30fps Fifth stream: 704×576@1-25 fps 704×480@1-30 fps
Streaming Capability	5 Streams
Resolution	12M (4000 × 3000); 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728); 5M (2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536); 3M (2304 × 1296); 2M (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32Kbps – 16384Kbps H.265: 32Kbps – 14080Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC	Yes
HLC	Yes
DWDR	Yes
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
Defog	Yes
Image Rotation	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	8 areas
Audio	
Built-in Mic	Yes
Audio Compression	G.711A; G.7711Mu; G.726; G.723
Alarm	
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; defocus detection; external alarm; face detection; people counting in area; stay alarm; people counting; people counting exception detection; safety exception; queue management; face & body detection; face & body detection (match attributes alarm); face & body detection (mismatch attributes alarm); face recognition

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Network	
Network	RJ-45 (10/100/1000 Base-T)
SDK & 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; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec; P2P;RTMP
User / Host	20 (Total bandwidth: 240M)
Storage	FTP; SFTP; Micro SD card (support max. 256G); NAS
Browser	IE: IE9 and later Chrome: Chrome 42 and later Firefox: Firefox 48.0.2 and later
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
Port	
RS-485	1 (baud rate range: 1200 bps–115200 bps)
Audio Input	2 channels (3.5mm JACK port)
Audio Output	1 channel (3.5mm JACK port)
Alarm Input	2 channels in: 5mA 3V–5V DC
Alarm Output	2 channels out: 1,000mA 30V DC/500mA 50V DC
Power	
Power Supply	12V DC/24V AC/POE (802.3af); ePoE
Power Consumption	Basic power consumption: 5.3W (12V DC); 5.1W (24V AC active power); 5.1W (PoE) Max. power consumption: 12.7W (12V DC); 12.2W(24V AC active power); 12.6W (PoE)
Environment	
Operating Temperature	-30°C ~ 60°C (-22°F ~ +140°F) / Less than 95% RH
Storage Temperature	-30°C ~ 60°C (-22°F ~ +140°F)
Structure	
Casing	Metal
Dimensions	86mm × 74mm × 150mm (3.39" ×2.91" ×5.91") (L × W × H)
Net Weight	780g (1.72lb)
Gross Weight	918g (2.02lb)

Power	
Power Supply	12V DC/24V AC/POE+(802.3at); ePoE
Power Consumption	Basic power consumption: 4.9W (12V DC); 6.53W (24V AC active power); 6.3W (PoE) Max. power consumption: 15.2W (12V DC); 19.32W(24V AC active power); 18.9W (PoE)
Environment	
Operating Temperature	-40°C ~ 65°C (-40°F ~ +149°F) / Less than 95% RH
Storage Temperature	-40°C ~ 65°C (-40°F ~ +149°F)
Protection Grade	IP67, IK10, Anti-Corrosion Protection: NEMA 4X (optional)
Structure	
Casing	Metal + Plastic
Dimensions	340.1mm × 138.3mm × 134mm (13.39" × 5.44" × 5.28") (L × W × H)
Net Weight	1600g (3.53lb)
Gross Weight	2400g (5.29lb)

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Accessories

Optional:

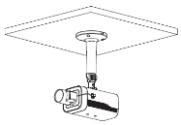
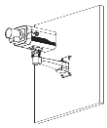
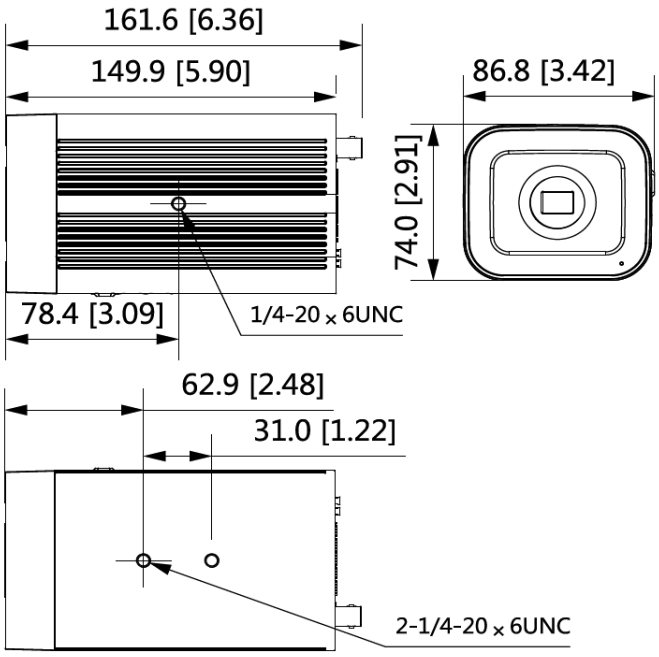
RPLZ20C0-D
3.7-16mm Lens

RPLZ21C0-D
10.5-42mm Lens

RPFH610V
Housing

RPFB110W
Ceiling Mount

RPFB121W
Wall Mount

Ceiling Mount	Wall Mount
RPFB110W	**RPFB121W**
	

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