

IPC-D1A20

2MP IR Mini-Dome Network Camera



- · 1/2.9" 2Megapixel progressive CMOS
- · H.264+ & H.264 dual-stream encoding
- · 25/30fps@2M(1920x1080)
- · DWDR, Day/Night(ICR), 3DNR, AWB, AGC, BLC
- \cdot Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- · 2.8 mm fixed lens (3.6 mm optional)
- · Max IR LEDs Length 30m
- · IP67, IK10, PoE











System Overview

The EZ-IP series is perfect for small to medium size applications like home/residential security, small retail shops, and other typical SMB applications. It offers a perfect alternative to migrate from analog to an IP system with its easy to use nature and cost effectiveness.

The EZ-IP series is fully in line with Dahua's quality assurance protocol. Various tests such as anti-vibration, water resistance, and aging tests are performed to ensure Dahua quality standards.

Functions

True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens

Regions of interest

Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object. Smart IR technology prevents IR LEDS from whiting out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 30m (98ft).

Image flip

Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

Environmental

With a temperature range of -30 °C to +60 °C (-22°F to +140 °F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

Protection

Supporting $\pm 10\%$ input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protectection against the camera and its structure from the effects of lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer

Smart H.264+

Delivering high quality video without straining the network, Smart H.264+ is the optimized implementation of H.264. The Smart H.264+ encoding platform includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing a savings of up to 70% of bandwidth and storage when compared with standard H.264.



Image Sensor	Technical Specification		
Effective Pixels 1920H)x1080(V) RAM/ROM 128MB/16MB Scanning System Progressive Minimum Illumination 0.1Lux/F2.0(Color), 0Lux/F2.0(IR on) S/N Ratio More than 50dB IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDs 24 Lens Lens Lens Type Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*/V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan:0* ~355*; Tilt:0* ~65*; Rotation:0* ~355* Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 720P(1280×720)/D1/704×576/704×480)/CIF(352×288/352×240) Prame Rate 2M (1 ~25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W <td>Camera</td> <td></td>	Camera		
RAM/ROM 128MB/16MB Scanning System Progressive Minimum Illumination 0.1Lux/F2.0(Color), 0Lux/F2.0(IR on) S/N Ratio More than 50dB IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDS 24 Lens Lens Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0* ~355* ;Tilt:0* ~65* ;Rotation:0* ~355* Video Video Compression H.264+/H.264 Streaming Capability 2 streams Resolution 20M(17.25/30fps) Frame Rate 2M (1 ~25/30fps) D1/CIF(1 ~25/30fps) Bit Rate Control Bit Rate H264:24K ~8 192Kbps Day/Night Auto(ICR) / Color / B/W	Image Sensor	1/2.9" 2Megapixel progresive CMOS	
Scanning System Progressive Minimum Illumination 0.1Lux/F2.0(Color), 0Lux/F2.0(IR on) S/N Ratio More than 50dB IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDS 24 Lens Lens Lens Type Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan:0* ~355* ;Tilt:0* ~65* ;Rotation:0* ~355* Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Prame Rate 2M (1 ~25/30fps)s) D1/CIF(1 ~25/30fps) D1/CIF(1 ~25/30fps) Bit Rate Control CBR/VBR Day/Night Auto(ICR) / Color / B/W	Effective Pixels	1920H)x1080(V)	
Minimum Illumination 0.1Lux/F2.0(Color), 0Lux/F2.0(IR on) S/N Ratio More than 50dB IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDS 24 Lens Event Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan/Tilt Range Pan:0* ~355* ;Tilt:0* ~65* ;Rotation:0* ~355* Video Video Compression H.264+/H.264 Streaming Capability 2 streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Prame Rate 2M (1 ~25/30fps)s) D1/CIF(1 ~ 25/30fps) D1/CIF(1 ~ 25/30fps) Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	RAM/ROM	128MB/16MB	
S/N Ratio More than 50dB IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDS 24 Lens Lens Elens Lens Type Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0* ~355* ;Tilt:0* ~65* ;Rotation:0* ~355* Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/320) Frame Rate 2M (1 ~ 25/30fps)s Bit Rate Control CBR/VBR Bit Rate H264:24K~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Scanning System	Progressive	
IR Distance Distance up to 30m(98ft) IR On/Off Control Auto/ Manual IR LEDS 24 Lens Lens Elens Lens Type Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0* ~355*; Tilt:0* ~65*; Rotation:0* ~355* Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Minimum Illumination	0.1Lux/F2.0(Color), 0Lux/F2.0(IR on)	
R On/Off Control Auto/ Manual	S/N Ratio	More than 50dB	
IR LEDs 24 Lens Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5*/83*,V:57*/44* Focus Control Fixed Close Focus Distance N/A PTZ Pan:0* ~355* ;Tilt:0* ~65* ;Rotation:0* ~355* Video Compression H.264+/H.264 Streaming Capability Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Errame Rate 2M (1 ~ 25/30fps)s D1/CIF(1 ~ 25/30fps) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	IR Distance	Distance up to 30m(98ft)	
Lens Fixed Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5°/83°,V:57°/44° Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan/O° ~355° ;Tilt:0° ~65° ;Rotation:0° ~355° Video Compression Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Errame Rate 2M (1 ~25/30fps)s) D1/CIF(1 ~ 25/30fps) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	IR On/Off Control	Auto/ Manual	
Eins Type	IR LEDs	24	
Mount Type Board-in Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5°/83°,V:57°/44° Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) D1/CIF(1 ~ 25/30fps) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Lens		
Focal Length 2.8 mm (3.6 mm optional) Max. Aperture F2.0/F2.0 Angle of View H:105.5°/83°,V:57°/44° Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) 2M (1 ~ 25/30fps)s Frame Rate D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Lens Type	Fixed	
Max. Aperture F2.0/F2.0 Angle of View H:105.5°/83°,V:57°/44° Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0° ~355°;Tilt:0° ~65°;Rotation:0° ~355° Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Frame Rate 2M (1 ~ 25/30fps)s) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Mount Type	Board-in	
Angle of View H:105.5°/83°,V:57°/44° Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) 2M (1 ~ 25/30fps)s) Bit Rate D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Focal Length	2.8 mm (3.6 mm optional)	
Focus Control Fixed Close Focus Distance N/A PTZ Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) Frame Rate 2M (1 ~ 25/30fps)s) Frame Rate D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Max. Aperture	F2.0/F2.0	
Close Focus Distance N/A PTZ Pan/O° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240) Erame Rate 2M (1 ~ 25/30fps)s) D1/CIF(1 ~ 25/30fps) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Angle of View	H:105.5°/83°,V:57°/44°	
PTZ Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) 2M (1 ~ 25/30fps)s) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Focus Control	Fixed	
Pan/Tilt Range Pan:0° ~355°; Tilt:0° ~65°; Rotation:0° ~355° Video Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) 2M (1 ~ 25/30fps)s) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Close Focus Distance	N/A	
Video Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) 2M (1 ~ 25/30fps)s) Bit Rate D1/CIF(1 ~ 25/30fps) Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	PTZ		
Compression H.264+/H.264 Streaming Capability 2 Streams Resolution 1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) 2M (1 ~ 25/30fps)s) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Pan/Tilt Range	Pan:0° ~355° ;Tilt:0° ~65° ;Rotation:0° ~355°	
	Video		
1080P(1920×1080)/1.3M(1280×960)/ 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Compression	H.264+/H.264	
Resolution 720P(1280×720)/D1(704×576/704×480)/ CIF(352×288/352×240) 2M (1 ~ 25/30fps)s) D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Streaming Capability	2 Streams	
Frame Rate D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Resolution	720P(1280×720)/D1(704×576/704×480)/	
D1/CIF(1 ~ 25/30fps) Bit Rate Control CBR/VBR Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W		2M (1 ~ 25/30fps)s)	
Bit Rate H264:24K ~ 8192Kbps Day/Night Auto(ICR) / Color / B/W	Frame Rate	D1/CIF(1 ~ 25/30fps)	
Day/Night Auto(ICR) / Color / B/W	Bit Rate Control	CBR/VBR	
	Bit Rate	H264:24K ~ 8192Kbps	
BLC / HLC / DWDR	Day/Night	Auto(ICR) / Color / B/W	
	BLC Mode	BLC / HLC / DWDR	

White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)
Audio	
Compression	N/A
Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP;HTTPs;TCP;ARP;RTSP;RTP;UDP;SMTP;FTP; DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP;NTP
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	10 Users/20 Users
Edge Storage	NAS(Network Attached Storage),Local PC for instant recording
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS,Easy4ip
Smart Phone	iPhone, iPad, Android Phone
Certifications	
Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B
Interface	
Video Interface	N/A
Audio Interface	N/A
RS485	N/A
Alarm	N/A
Electrical	
Power Supply	DC12V PoE (802.3af)(Class 0)
Power Consumption	<5.1W

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Strorage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	Ф109.9mm × 81mm (4.33" x 3.19")
Net Weight	0.34Kg (0.75lb)
Gross Weight	0.47Kg (1.04lb)

Ordering Information		
Туре	Part Number	Description
2MP Camera	IPC-D1A20P-0280B	2MP IR Mini-Dome Network Camera, 2.8mm,PAL
	IPC-D1A20N-0280B	2MP IR Mini-Dome Network Camera, 2.8mm,NTSC
	IPC-D1A20P-0360B	2MP IR Mini-Dome Network Camera, 3.6mm,PAL
	IPC-D1A20N-0360B	2MP IR Mini-Dome Network Camera, 3.6mm,NTSC
Accessories (optional)	PFA136	Junction box
	PFB203W	Wall mount
	PFA152	Pole mount

Accessories

Optional:









PFA136 Juntion Box

PFB203W Wall Mount

PFA152 Pole Mount

Junction Mount	Pole Mount
PFA136	PFB203W + PFA152-E
Wall Mount	
PFB203W	
	Pole Mount with Rain Shade
	PFA136W + PFA152-E+PFA200W
Wall Mount with Rain Shade PFA136W+PFA200W	

Dimensions (mm/inch)





