DH-PTZ12230F-IRB-N

2MP 30x Starlight IR Network Positioning System

- 1/1.9” 2Megapixel CMOS
- Powerful 30x optical zoom
- Starlight technology
- Support Triple-stream encoding
- Max. 25/30fps@1080P, 25/30/50/60fps@720P
- Auto-tracking and IVS
- IR Distance up to 300m
- IP66

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

Starlight Technology
For challenging low-light applications, Dahua’s Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.002 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range
The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

PFA Technology
PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection
The camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning.

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

Technical Specification

Camera

Image Sensor	1/1.9" CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	1024M/64M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.002Lux@F1.5; B/W: 0.0002Lux@F1.5; 0Lux@F1.5 (IR on)
S/N Ratio	More than 55dB
IR Distance	Distance up to 300m(984ft)
IR On/Off Control	Auto/Manual
IR LEDs	4
Wiper	Support

Lens

Focal Length	6mm ~ 180mm
Max. Aperture	F1.5~ F4.3
Angle of View	H: 61.2° ~ 2.1°
Optical Zoom	30x
Focus Control	Auto/Manual
Close Focus Distance	100mm~ 1000mm

DORI Distance

*Note: The DORI distance is a “general proximity” of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

Detect	Observe	Recognize	Identify
1920m(6299ft)	768m(2520ft)	384m(1260ft)	192m(630ft)

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -90° ~ 45°
Manual Control Speed	Pan: 0.1° ~160° /s; Tilt: 0.1° ~60° /s
Preset Speed	Pan:160° /s; Tilt: 60° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (Auto recognition)

Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing
Advanced Intelligent Functions	Face Detection, Heat Map

Video

Compression	H.264 / MJPEG
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 1080P(1~25/30fps), 720P(1~50/60fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/720P/D1/CIF (1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 448K~8192Kbps, MJPEG: 4096K~20480Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR (120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711mu/G.726/AAC

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	Local PC for instant recording, Micro SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

Certifications	
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA C22.2,No.60950-1
Interface	
Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
RS485	1
Audio I/O	1/1
Alarm I/O	7/2
Electrical	
Power Supply	AC24V/5A(±25%)
Power Consumption	50W, 90W (IR on, Heater on)
Environmental	
Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP66
Vandal Resistance	N/A
Construction	
Casing	Metal
Dimensions	Φ202.7(mm)×390.8(mm)×472.2(mm)
Net Weight	10.5kg(23.15lb)
Gross Weight	16.5kg(36.38lb)

Ordering Information

Type	Part Number	Description
2MP Positioning System	DH-PTZ12230F-IRB-N	2MP 30x Starlight IR Network Positioning System, WDR, PAL
	DH-PTZ12230FN-IRB-N	2MP 30x Starlight IR Network Positioning System, WDR, NTSC
	PTZ12230F-IRB-N	2MP 30x Starlight IR Network Positioning System, WDR, PAL
	PTZ12230FN-IRB-N	2MP 30x Starlight IR Network Positioning System, WDR, NTSC
Accessories	AC24V/5A	Power Adapter
	PFB712W	Wall Mount

Accessories

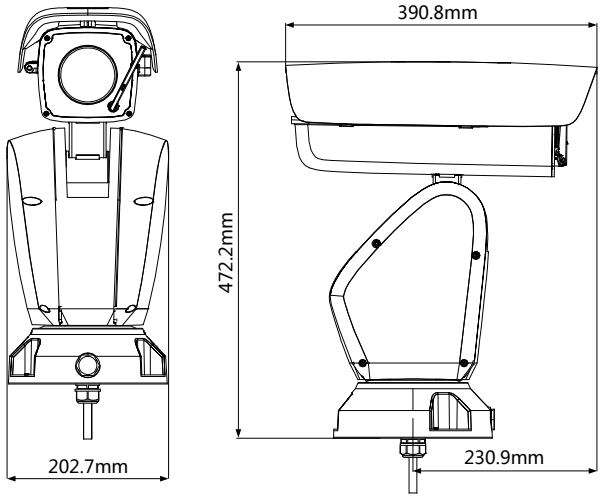
Included:

AC24V/5A
Power Adapter

Optional:

PFB712W
Wall Mount

Dimensions (mm)



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