Dahua TECHNOLOGY

5 MP PTZ Network Camera
30x IR PTZ Network Camera

- 1/1.9-in. 5 MP STARVIS™ CMOS Imager
- Powerful 30x Optical Zoom
- H.265 and H.264 Video Compression Encoding
- 5 MP at 30 fps and 1080p at 30/60 fps
- Supports High PoE
- Intelligent Video System (IVS) with Auto-tracking
- Max. IR distance up to 200 m (656 ft)
- IP67 Environmental Protection Rating and IK10 Vandal Resistance
- Five-year Warranty*

H.265 | ICR D/N | IP67 | Vandal-proof | Hi-PoE

System Overview

The 5 MP IR PTZ Dome camera features a 1/1.9-in STARVIS™ CMOS imager with a 30x optical zoom lens, and provides an all in one solution for capturing long-distance video surveillance for outdoor applications. The camera uses the H.265 video compression standard to improve encoding efficiency while preserving high-quality video. The PTZ camera is equipped with quick and accurate pan/tilt/zoom control and Digital Wide-dynamic Range for applications with direct sunlight or glare.

Functions

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

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

The camera uses innovative PFA Technology to improve zoom accuracy and to decrease focus time. A series of advanced algorithms more accurately judge the direction and the distance to a subject, improving picture clarity throughout the zooming process.

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

Interoperability

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

Environmental

With a built-in heater and a temperature range of –40 °C to +70 °C (–40 °F to +158 °F), the camera is designed for extreme temperature environments. The camera complies with the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

ONVIF PSIA

Technical Specification

Camera

Image Sensor	1/1.9-in. STARVIS™ CMOS
Effective Pixels	2560(H) x 1920(V), 5 MP
RAM/ROM	1024 MB / 128 MB
Scanning System	Progressive
Electronic Shutter Speed	1/1 s to 1/30,000 s
Minimum Illumination	Color: 0.01 lux at F1.5 0 lux at F1.5 with IR on
S/N Ratio	More than 55 dB
IR Distance	Distance up to 200.0 m (656.17 ft)
IR On/Off Control	Auto, Manual
IR LEDs	10

Lens

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

DORI[1] Distance

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
2250 m (7832 ft)	900 m (2953 ft)	450 m (1476 ft)	225 m (738 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: −20° to 90°, Auto Flip 180°
Manual Control Speed	Pan: 0.1° to 200° /s Tilt: 0.1° to 120° /s
Preset Speed	Pan: 240° /s Tilt: 200° /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, or Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (auto recognition)

Video

Compression		H.265, H.264
Streaming Capability		Three (3) Streams
Resolution		5 MP (2560 x 1920), 3 MP (2048 x 1536), 1080p (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), D1 (704 x 480), CIF (352 x 240)
Frame Rate	Main Stream	5 MP, 3 MP at 30 fps 1080p, 1.3 MP, 720p at 60 fps
	Sub Stream 1	D1, CIF at 30 fps
	Sub Stream 2	5 MP, 1080p, 1.3 MP, 720p, D1, CIF at 30 fps or

Bit Rate Control	CBR, VBR
Bit Rate	H.265, H.264: 448 K to 8192 Kbps
Day/Night	Auto (ICR), Color, B/W
Backlight Compensation	BLC, HLC, Digital WDR
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto, Manual
Noise Reduction	Ultra DNR (2D/3D)
Advanced Features	Motion Detection, Region of Interest, Electronic Image Stabilization (EIS), Defog
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a, G.711Mu, AAC, G.722, G.726, MPEG2-L2

Network

Ethernet	RJ-45 (10 Base T/100 Base-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, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage) Local PC for Instant Recording Micro SD Card, maximum 128 GB
Web Viewer	IE 10, Firefox, Safari
Management Software	Smart PSS, DSS
Mobile Operating System	IOS, Android

Certifications

CE	EN 55032 EN 55024 EN 50130-4
UL	UL60950-1 + CAN/CSA C22.2, No.60950-1
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B ANSI C63.4-2014

Interface

Video Interface	One (1) BNC (1.0 Vp-p, 75 Ω)
Audio Interface	Input: One (1) Channel Output: One (1) Channel
RS485	One (1)
Alarm	Input: Seven (7) Channels Output: Two (2) Channel

Electrical

Power Supply	24 VAC, 3 A (±25%), Hi-PoE
Power Consumption	24 W, 38 W with IR On

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1. The DORI distance is a measure of the general proximity for a specific classification to help pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4, the standard that defines the criteria for the Detect, Observe, Recognize and Identify classifications.

Environmental

Operating Conditions	−40° C to 70° C (−40° F to +158° F), Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	ø240.0 mm x 382.0 mm (ø9.45 in. x 15.04 in.)
Net Weight	6.80 kg (14.99 lb)
Gross Weight	10.10 kg (22.207 lb)

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

Standard Features	• Tampering with the camera. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera.
Premium Features	
Motion	An object moves through any part of the scene.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.
Advanced Features	
Facial Detection	Detects and captures a snapshot of a human face in a defined area within a scene.
Heat Map	Generates a visual representation of data.
Auto-tracking	Controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene.

Ordering Information

Type	Part Number	Description
5 MP PTZ Camera	6AE530UNI	5 MP 30x IR PTZ Network Camera, IVS
Accessories, included	PFA111	Mount Adapter
	AC24V/3A	Power Adapter
	PFB303W	Wall Mount
Accessories, optional	PFA140	Power Box
	PFB300C	Ceiling Mount
	PFA120	Water-proof Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

Accessories

Included:

PFA111
Mount Adapter

AC24V/3A
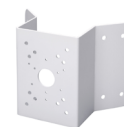Power Adapter

PFB303W
Wall Mount

Optional:

PFA140
Power Box

PFB300C
Ceiling Mount

PFA120
Junction Box

PFA150
Pole Mount

PFA151
Corner Mount

PFB303S
Parapet Mount

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFA111 + PFB303W + PFA120

Power Box Mount	Pole Mount
PFA111 + PFB303W + PFA140	PFA111 + PFB303W + PFA150

Corner Mount	Parapet Mount
PFA111 + PFB303W + PFA151	PFA111+ PFB303S

Dimensions (mm)

46.30 mm
(1.82 in.)

50.0 mm
(1.97 in.)

174.0 mm
(6.85 in.)

382.0 mm
(15.04 in.)

214.0 mm
(8.43 in.)

ø240.0 mm
(ø9.45 in.)