DAHUA TECHNOLOGY

4 MP PTZ Network Camera
30x PTZ Network Camera

- 1/3-in. 4 MP Progressive Scan CMOS
- Powerful 30x Optical Zoom
- H.265 and H.264 Video Compression Encoding
- 4 MP / 3 MP at 30 fps and 1080p at 30/60 fps
- True Wide Dynamic Range
- Intelligent Video System (IVS) with Auto-tracking
- IK10 Vandal Resistance
- PoE+ Support
- Five-year Warranty

System Overview

The 4 MP In-ceiling PTZ Dome camera features a 1/3-in CMOS imager with a 30x optical zoom lens, and provides an all in one solution for capturing detailed video for all indoor 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 True WDR for applications with direct sunlight or glare.

Functions

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.

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
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. 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.

Defog
Utilizing Dahua's advanced algorithm technology, the Defog feature dynamically adjusts the camera's contrast settings to provide improved image quality in scenes affected by fog, smog, mist, smoke or other low-contrast interference.

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.

ONVIF **PSIA**

Technical Specification

Camera

Image Sensor	1/3-in. CMOS
Effective Pixels	2592(H) x 1520(V), 4 MP
RAM/ROM	1024 MB / 128 MB
Scanning System	Progressive
Minimum Illumination	Color: 0.05 Lux at F1.6 B/W: 0.005 Lux at F1.6
S/N Ratio	More than 55 dB

Lens

Focal Length	4.5 mm to 135 mm
Max. Aperture	F1.6 to F4.4
Angle of View	Horizontal: 2.2° to 60°
Optical Zoom	30x
Focus Control	Auto, Manual
Close Focus Distance	100 mm to 1000 mm

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: 0° to 90°, Auto Flip 180°
Manual Control Speed	Pan: 0.1° to 350° /s Tilt: 0.1° to 250° /s
Preset Speed	Pan: 500° /s Tilt: 500° /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

Video

Compression		H.265, H.264, MJPEG
Streaming Capability		Three (3) Streams
Resolution		4 MP (2592 x 1520), 3 MP (2304 x 1296), 1080p (1920 x 1080), 720p (1280 x 720), D1 (704 x 480), CIF (352 x 240)
Frame Rate	Main Stream	4 MP, 3 MP at 30 fps or 1080p, 1.3 MP, 720p at 60 fps[1]
	Sub Stream 1	D1, CIF at 30 fps
	Sub Stream 2	1080p, 1.3 MP, 720p at 30 fps

Bit Rate Control	CBR, VBR
Bit Rate	H.265/H.264: 448 K to 8192 Kbps MJPEG: 5120 K to 10240 Kbps
Day/Night	Auto (ICR), Color, B/W
Backlight Compensation	BLC, HLC, True WDR (120 dB)
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, G.729, MPEG2-L2

Network

Ethernet	RJ-45 (10/100 Base-T)
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, 128 GB
Web Viewer	IE 10, Firefox, Safari
Management Software	Smart PSS, DSS
Mobile Operating System	IOS, Android, Windows

Certifications

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

Interface

Audio Interface	In: One (1) Channel Out: One (1) Channel
Alarm	In: Two (2) Channels Out: One (1) Channel

Electrical

Power Supply	24 VAC, 1.5 A (± 10%), PoE+ (802.3at)
Power Consumption	13 W

1. Although this model supports streaming resolutions of 1080p, 1.3 MP, or 720p at 60 fps, the manufacturer recommends streaming only a resolution of 1080p at 60 fps, and resolutions of 1.3 MP or 720p at 30 fps.

Environmental

Operating Conditions	-30° C to 60° C (-22° F to +140° F), Less than 90% RH
Vandal Resistance	IK10
Lightning Protection Rating	6 kV

Construction

Casing	Metal
Dimensions	Φ198.0 mm x 177.0 mm (Φ7.80 in. x 6.97 in.)
Net Weight	2.20 kg (4.85 lb)
Gross Weight	3.70 kg (8.16 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.
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.
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
4 MP PTZ Camera	52C430UNI	4 MP 30x In-ceiling PTZ Network Camera, WDR, IVS
Accessories	AC24V/1.5A	Power Supply

Accessories

Included:

AC24V/1.5A
Power Supply

Dimensions (mm)

ø178.0 mm
(ø7.01 in.)

177.0 mm
(6.97 in.)

19.0 mm
(0.75 in.)

98.0 mm
(3.86 in.)

ø140.0 mm
(ø5.51 in.)

ø198.0 mm
(ø7.80 in.)