

1/2.8" 2 Megapixel STARVIS™ CMOS • Powerful 45x Optical Zoom • Starlight technology • Max. 50/60fps@1080P • Auto-tracking and IVS • IR distance up to 820ft • Support PoE+ • IP67, IK10

Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera can provide large monitoring range and great detail. The camera has very excellent low light performance due to adopting

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the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

FEATURES

- **Starlight Technology**: For challenging low-light applications, Eyemax's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005lux. 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.
- **Smart H.265**+: Smart H.265+ is the optimized implementation of the H.265 codec that uses a sceneadaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.
- **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 $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim +158^{\circ}\text{F}$) with 95% humidity. The camera complies with the IK10 Vandal Resistance impact rating. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.
- **Protection**: The camera allows for ±25% input voltage tolerance, suitable for the unstable conditions for outdoor applications. Its 8KV 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) and PSIA (Physical Security Interoperability Alliance) specifications, ensuring interoperability between network video products regardless of manufacturer.

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SPECIFICATIONS

Camera		
Image Sensor	1/2.8" STARVIS™ CMOS	
Effective Pixels	1920(H) x 1080(V), 2 Megapixels	
RAM/ROM	512M/128M	
Scanning System	Progressive	
Electronic Shutter Speed	1/1s ~ 1/30,000s	
Minimum Illumination	Color: 0.005Lux@F1.6; 0Lux@F1.6 (IR on)	
S/N Ratio	More than 55dB	
IR Distance	Distance up to 250m (820ft)	
IR On/Off Control	Auto/ Manual	
IR LEDs	6	
Lens		
Focal Length	3.95 ~ 177.7mm	
Max. Aperture	F1.6~ F4.95	
Angle of View	H: 70.3° ~ 1.8°	
Optical Zoom	45x	
Focus Control	Auto/Manual	
Close Focus Distance	100 ~ 1000mm	
DORI Distance	Detect: 2345m(7694ft) Observe: 938m(3077ft) Recognize: 469m(1539ft) Identify: 234m(768ft)	
Pan/Tilt/Rotation		
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°, auto flip 180°	
Manual Control Speed	Pan: 0.1° ~ 200° /s; Tilt: 0.1° ~ 120° /s	
Preset Speed	Pan: 300° /s; Tilt: 200° /s	
Presets	300	
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan	
Speed Setup	Human-oriented focal Length/ speed adaptation	

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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	
Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing, Face Detection, Heat Map
Video	
Compression	H.265+ / H.265 / H.264+ / H.264
Streaming Capability	3 Streams
Resolution	1080P(1920×1080) / 1.3M(1280×960) / 720P(1280×720) / D1(704×576/704×480) / CIF(352×288/352×240)
Frame Rate	Main stream: 1080P/1.3M/720P(1~50/60fps) Sub stream1: D1/CIF(1 ~ 25/30fps) Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265 / H.264: 448K ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR (120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
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	16×
Flip	180°
Privacy Masking	Up to 24 areas
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Audio		
Compression	G.711a/G.711Mu/AAC/G.722 / G.726/G.729/MPEG2-L2	
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, 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 128GB	
Web Viewer	IE, Chrome, Firefox, Safari	
Management Software	Smart PSS, DSS	
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/3A(±25%), PoE+(802.3at)	
Power Consumption	17W, 25W(IR On, Heater On)	
Environmental		
Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10	

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Construction	
Casing	Metal
Dimensions	Ø209×337.4mm
Net Weight	5.8kg(12.79lb)
Gross Weight	9.1kg(20.06lb)

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