

DH-SDZW2030U-SL

2MP 30x Anti-corrosion IR Network Camera



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 0.005 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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive 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.

- 1/2.8" 2Megapixel STARVIS™ CMOS
- Powerful 30x optical zoom
- Starlight technology
- H.265 Encoding
- Max. 50/60fps@1080P
- IVS
- IP68
- Material: 316L Stainless steel



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 -50 °C to +70 °C (-58 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP68 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 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) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

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; CB/W 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)
S/N Ratio	More than 55dB
IR Distance	Distance up to 100m (328ft)
IR On/Off Control	Auto/Manual
IR LEDs	5

Lens	
Focal Length	4.5mm~135mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 67.8° ~ 2.4°
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
1862 m(6109 ft)	744 m(2441 ft)	372 m(1220 ft)	186 m(610 ft)

Intelligence	
Auto Tracking	N/A
IVS	Tripwire, Intrusion,Abandoned/Missing
Advanced Intelligent Functions	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(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
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/AAC/G.722 /G.726/G.729/ MPEG2-L2

Interface	
Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
RS485	1
Audio I/O	1/1
Alarm I/O	2/2

Electrical	
Power Supply	AC24V(optional)/DC12V(optional)/PoE+(802.3at)
Power Consumption	10W, 25W (Heater on, IR on)

Environmental	
Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP68
Vandal Resistance	N/A
Anti-corrosion Level	Moderate Protection *The products feature high-grade anti-corrosion protection, making them well-suited for environments with standard corrosion resistance requirements. They perform reliably from 2 km (1.24 mi) and above in coastal areas and in locations prone to acid rain exposure.

Construction	
Casing	316L stainless steel
Dimensions	Φ180mm×193mm×201.5mm
Net Weight	6.0kg(13.2lb)
Gross Weight	7.3Kg(16.09lb)

Ordering Information		
Type	Part Number	Description
2MP PTZ Camera	DH-SDZW2030U-SL	2MP 30x Anti-corrosion IR Network Camera, WDR, PAL
	DH-SDZW2030UN-SL	2MP 30x Anti-corrosion IR Network Camera, WDR, NTSC
2MP Positioning System	EXB109	Wall Mount
	AC24V/3A	Power Adapter
	DC12V/3A	Power Adapter

Accessories

Optional:

