# 30x Starlight Laser PTZ Dome
2 MP Indoor/Outdoor Network Camera

- Max 60 fps at 720p and 30 fps at 1080p
- Powerful 30x Optical Zoom
- Starlight Ultra-low Light Technology
- Laser Beam Distance Up to 500 m (1640 ft)
- Intelligent Video System with Auto-tracking
- Built-in 7/2 Alarm in/out
- IP67 Ingress Protection
- Hi-PoE
- Five-year Warranty*

500 m IR | 0.002 Lux | TRACKING Smart Tracking | IVS | WDR | IP67 | Wiper
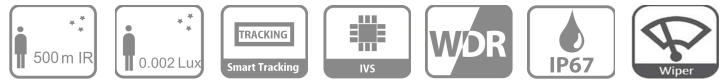
System Overview

Featuring a True Day/Night, 2-megapixel resolution, Pan/Tilt/Zoom (PTZ) camera with a 30x optical zoom lens, this series provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with its 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 for variable lighting conditions during the day and True WDR for applications with direct sunlight or glare.

Functions

Starlight Technology

Featuring Dahua's Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (0.002 lux).

Wide Dynamic Range

Embeded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. 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)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides standard intelliegence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, Heat Map, ideal for business intelligence, and Facial Detection, for searching or identification of individuals.

Defog

Untilizing Dahua's advanced algorithm tecchnology, the Defog feature dynamically adjusts the camera's contrast settings to provide satisfying image quality in scenes affected by fog, smog, mist, smoke or other lowcontrast scenes. Regardless of weather conditions, the quality and relevancy of video images are improved with the Defog feature.

Auto-tracking

The camera supports single-scene and multiple-scene auto-tracking. The tracking action can be triggered manually or automatically by defined rules. Once rules are triggered, the camera can zoom in and track the defined target automatically.

Environmental

With a temperature range of -40 °C to +70 °C (-40 °F to +158 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For enviorments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.

Protection

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 8KV lightning rating provides protectection against the camera and its structure from the effects of lightning.

Onvif **PSIA**

Technical Specification

Camera

Image Sensor	1/1.9-in. Exmor CMOS
Effective Pixels	1944 H x 1092 V
Scanning System	Progressive
Electronic Shutter Speed	1/1 to 1/30,000s
Minimum Illumination	Color: 0.002 Lux at F1.6; B/W: 0.0002 Lux at F1.6; 0 Lux (IR on)
S/N Ratio	More than 56 dB
IR Distance	500 m (1640 ft)
IR On/Off Control	Auto / Manual
IR LEDs	1

Lens

Lens Type	Motorized/ Auto Iris
Mount Type	Board-in
Focal Length	6 mm to 180 mm (30x Optical zoom)
Max Aperture	F1.6 to F4.8
Angle of View	H: 61.2° to 2.1°
Focus Control	Auto / Manual
Close Focus Distance	100 mm to 1000 mm

PTZ

Pan/Tilt Range	Pan: 0° to 360° Endless, Tilt: -20° to 90°, Auto Flip 180°
Manual Control Speed	Pan: 0.1° to 240° /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/ Pattern if there is no command in the specified period
Time Task	Auto activation of Preset/ Pan/ Scan/ Tour/ Pattern by preset-time
Protocol	DH-SD, Pelco-P/D (Auto recognition)

Auto-tracking

Auto Tracking	Single-scene and multiple-scene
Tracking Trigger Mode	Manual / Auto (alarm triggered)
Tracking Trigger Event	Targeting, Zoom, Tracking, Recording, Snapshot, Alarm

Video

Compression	Smart H.265+ / MJPEG
Streaming Capability	3 Streams
Resolution	1080p (1920 × 1080), 720p (1280 × 720), D1 (704 × 576/704 × 480), CIF (352 × 288/352 × 240)
	Main Stream: 1080p, D1 at 30 fps, 720p at 60 fps
	Sub Stream 1: D1, CIF at 30 fps
	Sub Stream 2: 720p, D1, CIF at 30 fps
Bit Rate Control	CBR / VBR
Bit Rate	H.264: 56 K to 8192 Kbps, MJPEG: 56 K to 20480 Kbps
Day/Night	Auto (ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120 dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	16x
Flip	0°/180°
Privacy Masking	Up to 24 Areas

Audio

Compression	G.711a / G.711Mu (32 kbps)/ PCM (128 kbps)
Interface	1/1 Channel In/Out

Network

Ethernet	RJ-45 (10/100Base-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
Edge Storage	Micro SD (128GB) Memory Status Display (Normal / Error/ Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for Instant Recording, Micro SD, Max 128GB
Web Viewer	IE10
Management Software	Smart PSS, DSS
Smart Phone	Android, IOS

Certifications

Certifications	FCC (SEFV1505156-A)

Interface

Video Interface	BNC (1.0 Vp-p /75 Ω), PAL/NTSC
Audio Interface	Input/Output 1 Input / 1 Output
RS485	Support
Alarm	7/2 In/Out

Electrical

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

Environmental

Operating Conditions	-40°C to +70°C (-40°F to +158°F) / Less than 90% RH *Start up should be done at above -35°C (-31°F)
Storage Conditions	-30°C to +60°C (-22°F to +140°F) / Less than 90% RH
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	⌀240.0 mm x 357.0 mm (⌀ 9.45 in. x 14.06 in.)
Net Weight	6.90 kg (15.20 lbs)
Gross Weight	10.90 kg (24.03 lbs)

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
2 MP Camera	DH-SD6ALA230FN-HNI	2MP HD PTZ 30x Zoom, Starlight Laser Camera, True WDR, Auto-tracking, IVS (power supply included)
Accessories	DH-PFB303W	Wall Mount Bracket (Included)
	DH-PFA111	Mount Adapter (Included)
	DH-PFB300C	Ceiling Mount Bracket
	DH-PFB303S	Parapet Mount Bracket
	DH-PFA140	Junction Box
	DH-PFA120	Water-proof Junction Box
	DH-PFA150	Pole Mount Bracket
	DH-PFA151	Pole Mount Bracket

Accessories

Included:

DH-PFB303W Wall mount	DH-PFA111 Mount adapter	Power supply

Optional:

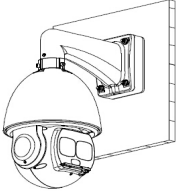| DH-PFB300C Ceiling mount	DH- PFB303S Parapet mount	DH- PFA140 Junction box
DH- PFA120 Junction box	DH-PFA150 Pole mount	DH-PFA151 Pole mount
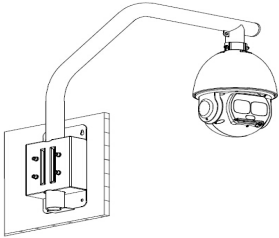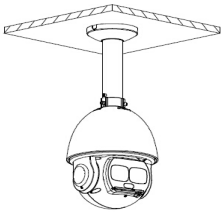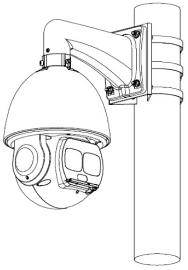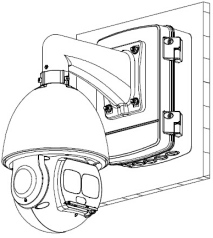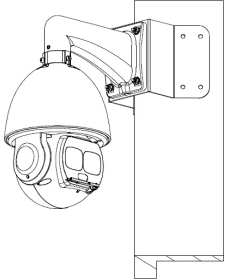
Installation

Parapet Mount	Ceiling Mount	Wall Mount
PFA111+PFB303S	PFA111+PFB300C	PFA111+PFB303W+PFA120

Pole Mount	Junction Mount	Corner Pole Mount
PFA111+PFB303W+PFA140	PFA111+PFB303W+PFA150	PFA111+PFB303W+PFA151

Dimensions

46.30 mm
(1.82 in.)

357.0 mm
(14.06 in.)

214.0 mm
(8.46 in.)

ø240.0 mm
(ø9.45 in.)

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TECHNOLOGY