DH-SD50131U-HNI

720P 31x Starlight PTZ Network Camera

- 1/2.8" STARVIS™ CMOS
- Powerful 31x optical zoom
- H.265 Encoding
- Starlight technology
- Max. 50/60fps@720P
- Auto-tracking and IVS
- Support PoE+
- IP67, IK10

H.265 | WDR | 0.005Lux | ICR D/N | IP67 | Vandal-proof | PoE+

System Overview

Featuring with powerful optical zoom and accurate pan/tilt/zoom performance, the SD50 series PTZ camera can provide large monitoring range and great detail. The camera delivers 720P resolution at 50/60 fps, with 31x optical zoom, and has very excellent low light performance due to adopting the latest starlight technology. SD50 series PTZ is equipped with quick and smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

Functions

Starlight Technology

Thanks to our experience and expertise in hardware and software development , the camera is equipped with the latest image processing algorithm, high performance hardware and high quality optical components, which make the camera have very exellent low light performance. In most conditions, this camera can deliver clear, bright and low-noise color images.

Wide Dynamic Range

Embedded 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 (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

The camera supports 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.

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.

Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Protection

This camera suits even the harsh conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of 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.

ONVIF PSIA

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Effective Pixels	1280(H) x 720(V), 1 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/300,000s
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6
S/N Ratio	More than 55dB
IR Distance	N/A
IR On/Off Control	N/A
IR LEDs	N/A

Lens

Focal Length	4.8mm~150mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 58.3° ~ 1.9°
Optical Zoom	31x
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
1613m(5292ft)	646m(2119ft)	323m(1060ft)	161m(528ft)

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: 0° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~350° /s; Tilt: 0.1° ~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/ Pattern if there is no command in the specified period
Protocol	DH-SD

Intelligence

Auto Tracking	Support
IVS	Tripwire, Intrusion,Abandoned/Missing, Face Detection

Video

Compression		H.265/H.264 / MJPEG
Streaming Capability		3 Streams
Resolution		720P(1280×720)/D1(704×576/704×480)/CIF(352× 288/352×240)
Frame Rate	Main stream	720P(1 ~ 50/60fps)
	Sub stream1	D1/CIF(1 ~ 25/30fps)
	Sub stream2	720P/D1/ CIF (1 ~ 25/30fps)
Bit Rate Control		CBR/VBR
Bit Rate		H.265/H.264: 448K ~ 8192Kbps, MJPEG: 5120K ~ 10240Kbps
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 Detetion		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

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 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	N/A
Audio Interface	1/1
RS485	N/A
Alarm	2/1

Electrical

Power Supply	AC24V/1.5A(±10%), PoE+(802.3at)
Power Consumption	13W,23W (Heater on)

Environmental

Operating Conditions	-40°C ~ 60°C (-40°F ~ +140°F) / Less than 90% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	Φ186.0(mm) x 253(mm)
Net Weight	2.5kg(5.51lb)
Gross Weight	4.5kg(9.92lb)

Ordering Information

Type	Part Number	Description
720P PTZ Camera	DH-SD50131U-HNI	720P 31x Starlight PTZ Network Camera, WDR, PAL
	DH-SD50131UN-HNI	720P 31x Starlight PTZ Network Camera, WDR, NTSC
	SD50131U-HNI	720P 31x Starlight PTZ Network Camera, WDR, PAL
	SD50131UN-HNI	720P 31x Starlight PTZ Network Camera, WDR, NTSC
Accessories	PFB300S	Wall Mount
	PFA110	Mount Adapter
	AC24V/1.5A	Power Supply
	PFA140	Power box
	PFB300C	Ceiling Mount
	PFA120	Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet mount

Accessories

Included:

PFB300S Wall Mount • PFA110 Mount Adapter • AC24V/1.5A Power Supply
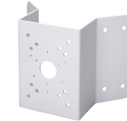
Optional:

PFA140 Power box • PFB300C Ceiling Mount • PFA120 Junction Box

PFA150 Pole Mount • PFA151 Corner Mount • PFB303S Parapet Mount

Ceiling Mount	Junction Mount
PFA110 + PFB300C	PFA110 + PFB300S + PFA120

Power Box Mount	Pole Mount
PFA110 + PFB300S + PFA140	PFA110 + PFB300S + PFA150

Corner Mount	Parapet Mount
PFA110 + PFB300S + PFA151	PFA110 + PFB303S

Dimensions (mm)

Ø47mm

25mm

140mm

253mm

9mm

Ø140mm

Ø186mm

Dahua
TECHNOLOGY