

# DH-SD49412T-HN

4MP 12x IR PTZ Network Camera



- 1/3" 4Megapixel CMOS
- Powerful 12x optical zoom
- Max. 25/30fps@4M/3M
- IVS
- Support PoE+
- IR distance up to 100m
- IP66



## System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, the camera provides a wide monitoring range and great detail. The camera delivers 4MP resolution at 25/30fps. The camera is equipped with smooth control, high quality image, and good protection, meeting compact size demands of video surveillance applications.

## 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.

### 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.

### 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 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

### Protection

The camera allows for 6KV lightning rating, which 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			
<b>Camera</b>			
Image Sensor	1/3" CMOS		
Effective Pixels	2592(H) x 1520(V), 4 Megapixels		
RAM/ROM	1024M/128M		
Scanning System	Progressive		
Electronic Shutter Speed	1/1s~1/30,000s		
Minimum Illumination	Color: 0.05Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)		
S/N Ratio	More than 50dB		
IR Distance	Distance up to 100m (328ft)		
IR On/Off Control	Auto/Manual		
IR LEDs	6		
<b>Lens</b>			
Focal Length	5.3mm~64mm		
Max. Aperture	F1.6 ~ F4.4		
Angle of View	H: 58.2° ~ 4.8°		
Optical Zoom	12x		
Focus Control	Auto/Manual		
Close Focus Distance	100mm~ 1000mm		
<b>DORI Distance</b>			
*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
1280m(4200ft)	512m(1680ft)	256m(840ft)	128m(420ft)
<b>PTZ</b>			
Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°, auto flip 180°		
Manual Control Speed	Pan: 0.1° ~200° /s; Tilt: 0.1° ~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		
Protocol	DH-SD		
<b>Intelligence</b>			
Event Trigger	Motion detection, Video tampering, Network disconnection, IP address conflict, Illegal access, Storage anomaly		
Auto Tracking	N/A		
IVS	Tripwire, Intrusion, Abandoned/Missing		

Advanced Intelligent Functions	Face Detection
<b>Video</b>	
Compression	H.265/H.264
Streaming Capability	3 Streams
Resolution	4M(2592×1520)/3M(2304×1296)/1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 4M/3M/1080P/1.3M/720P (1~25/30fps)
	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
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)	N/A
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas
<b>Audio</b>	
Compression	G.711a/G.711Mu/G.726/AAC
<b>Network</b>	
Ethernet	RJ-45 (10XBase-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 Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage), Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android
<b>Certifications</b>	
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
RS485	N/A
Audio I/O	1/1
Alarm I/O	2/1

**Electrical**

Power Supply	DC 12V/3A, PoE+(802.3at)
Power Consumption	13W, 22W (IR on, Heater on)

**Environmental**

Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP66
Vandal Resistance	N/A

**Construction**

Casing	Metal
Dimensions	Φ160(mm) x 295(mm)
Net Weight	3kg(6.61lb)
Gross Weight	4.2kg(9.26lb)

**Ordering Information**

Type	Part Number	Description
4MP PTZ Camera	DH-SD49412T-HN	4MP 12x IR PTZ Network Camera, WDR, PAL
	DH-SD49412TN-HN	4MP 12x IR PTZ Network Camera, WDR, NTSC
	SD49412T-HN	4MP 12x IR PTZ Network Camera, WDR, PAL
	SD49412TN-HN	4MP 12x IR PTZ Network Camera, WDR, NTSC
Accessories	PFB305W	Wall Mount
	PFA111	Mount Adapter
	DC12V/3A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount
	PFA120	Water-proof Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

**Accessories**

Included:



PFB305W  
Wall Mount

Optional:



PFA111  
Mount Adapter



DC12V/3A  
Power Adapter



PFA140  
Power Box



PFB300C  
Ceiling Mount



PFA120  
Junction Box



PFA150  
Pole Mount



PFA151  
Corner Mount



PFB303S  
Parapet Mount

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFB305W + PFA120
Power Box Mount	Pole Mount
PFB305W + PFA140	PFB305W + PFA150
Corner Mount	Parapet Mount
PFB305W + PFA151	PFA111+ PFB303S

Dimensions (mm)

