ahua
TECHNOLOGY

DH-SD49225T-HN-W
2MP 25x Starlight IR PTZ Wi-Fi Network Camera

· 1/2.8" 2Megapixel STARVIS™ CMOS
· Powerful 25x optical zoom
· Starlight technology
· Max. 25/30@1080P
· IVS
· Support Wifi
· IR distance up to 100m
· IP66

H.265 | WDR | 0.005Lux | ICR D/N | IP66 | Wi-Fi

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 1080P 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

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.

Environmental
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +60 °C (-40 °F to +140 °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) 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	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	1024M/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 50dB
IR Distance	Distance up to 100m (328ft)
IR On/Off Control	Auto/Manual
IR LEDs	6

Lens

Focal Length	4.8mm~120mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 59.2° ~ 2.4°
Optical Zoom	25x
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: -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

Intelligence

Auto Tracking	N/A
IVS	Tripwire, Intrusion,Abandoned/Missing, Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/720P(1280×720)/ D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 1080P/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 Detetion	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	N/A
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711Mu/G.726/AAC

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Wi-Fi	Wi-Fi(IEEE802.11a/b/g/n/ac) , Dual-Band Wi-Fi
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
RS485	N/A
Audio I/O	1/1
Alarm I/O	2/1

Electrical

Power Supply	DC 12V/3A
Power Consumption	13W, 22W (IR 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
2MP PTZ Camera	DH-SD49225T-HN-W	2MP 25x Starlight IR PTZ Wi-Fi Network Camera, WDR, PAL
	DH-SD49225TN-HN-W	2MP 25x Starlight IR PTZ Wi-Fi Network Camera, WDR, NTSC
	SD49225T-HN-W	2MP 25x Starlight IR PTZ Wi-Fi Network Camera, WDR, PAL
	SD49225TN-HN-W	2MP 25x Starlight IR PTZ Wi-Fi 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
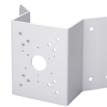

PFB300C
Ceiling Mount

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)

89mm

50mm

109mm

295mm

Φ 140mm

Φ 160mm