

# DH-SD50225DB-HC

2MP 25x Starlight HDCVI PTZ Camera



- 1/2.8" 2Megapixel STARVIS™ CMOS.
- Powerful 25x optical zoom.
- Starlight technology.
- 120 dB true WDR, 3D NR.
- Max. 25/30 fps@1080p, 25/30/50/60 fps@720p.
- IK10.
- IP67.



## System Overview

With its powerful optical zoom, and accurate pan and tilt capabilities, the HDCVI PTZ camera series provides an all-in-one solution for large-scale monitoring. It harnesses the latest starlight technology, allowing it to produce highly detailed images even in low light conditions. These cameras offer smooth control and high-grade protection that enable them to meet the requirements of video surveillance in small and medium-sized scenes.

## Functions

### Starlight Technology

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

### 3DNR

Dahua's 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

### Long Distance Transmission

HDCVI technology provides long distance transmission in real time without transmission loss. It supports transmission distances up to 300m for 2MP HD videos through coaxial cables, and up to 200m through UTP cables.

\*The results were obtained and verified through rigorous testing in Dahua's test laboratory.

## 3 Signals over 1 Coaxial Cable

HDCVI technology supports 3 signals (video, audio\* and data) which are simultaneously transmitted over a coaxial cable. Dual-way data transmission allows the HDCVI camera to interact with the XVR to perform various actions such as sending control signals and triggering alarms.

\* Audio input is available for select HDCVI camera models.

## Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

## PFA Technology

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

## Protection (IP67, TVS 6000 V)

IP67, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

Technical Specification				
Camera				
Image Sensor	1/2.8" CMOS			
Pixel	2 MP			
Max. Resolution	1920 (H) × 1080 (V)			
ROM	128 MB			
RAM	256 MB			
Electronic Shutter Speed	1/3 s–1/30,000 s			
Scanning System	Progressive			
Min. Illumination	0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE)			
Lens				
Focal Length	4.8 mm–120 mm			
Max. Aperture	F1.6–F3.5			
Field of View	H: 59.7°–3.5°; V: 34.1°–2.0°; D: 68.6°–4.0°			
Optical Zoom	25×			
Focus Control	Auto; semi-auto; manual			
Close Focus Distance	0.1 m–2 m (0.33 ft–6.56 ft)			
Iris Control	Auto; manual			
DORI Distance	Detect	Observe	Recognize	Identify
	1655.2 m (5430.45 ft)	653.8 m (2145.01 ft)	331.0 m (1085.96 ft)	165.5 m (542.98 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool.			
PTZ				
Pan/Tilt Range	Pan: 0° to 360° endless; Tilt: 0° to +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			
Preset	300			
Tour	8 (up to 32 presets per tour)			
Pattern	5			
Scan	5			
Power-off Memory	Yes			
Idle Motion	Pattern;Preset;Scan;Tour			
PTZ Protocol	DH-SD Pelco-P/D (Auto recognition)			
Video				
Resolution	1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480)			

Video Frame Rate	1080p (25/30 fps); 720p (25/30/50/60 fps)
Day/Night	Yes
BLC	Yes
WDR	120dB
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; manual
Noise Reduction	2D NR; 3D NR
Defog	Electronic
Digital Zoom	16×
Image Rotation	180°
Privacy Masking	Yes
S/N Ratio	≥50 dB
Function	
CVI Product Output Mode	TVI;CVI;CVBS;AHD(CVBS is only used for debugging)
Certification	
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpart B, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2, No.60950-1
Port	
Analog Output	1 channel (CVBS/CVI output, BNC)
RS-485	1 (baud rate range: 1200 bps–9600 bps)
Audio Input	1 channel (LINE IN, bare wire)
Alarm Input	2 (on-off value input: 0–5 VDC)
Alarm Output	1
Alarm Linkage	Scan; preset; tour; pattern; alarm digital output
Alarm Event	Alarm input
Power	
Power Supply	24 VDC, 2.5 A ± 25%
Power Consumption	Basic: 10.5 W Max.: 14 W (PTZ )
Environment	
Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95%
Protection	IP67; IK10; TVS 6000V lightning proof; surge protection; voltage transient protection
Structure	
Product Dimensions	253.0 mm × Φ186.2 mm (9.96" × Φ7.33")
Net Weight	2.5 kg (5.51 lb)
Gross Weight	4.4 kg (9.70 lb)

Ordering Information		
Type	Model	Description
2MP HDCVI Camera	DH-SD50225DB-HC	2MP 25x Starlight PTZ HDCVI Camera, PAL
	DH-SD50225DBN-HC	2MP 25x Starlight PTZ HDCVI Camera, NTSC
	SD50225DB-HC	2MP 25x Starlight PTZ HDCVI Camera, PAL
	SD50225DBN-HC	2MP 25x Starlight PTZ HDCVI Camera, NTSC
Accessories	DC24V/2.5A	Power Adapter
	PFA110	Mount Adapter
	PFB300S	Wall Mount Bracket
	PFA120	Junction Box
	PFB300C	Ceiling Mount Bracket
	PFB301C	Ceiling Mount Bracket
	PFA150	Pole Mount Bracket
	PFA151	Corner Mount Bracket
	PFB303S	Parapet Mount Bracket
	PFB301S-E	Plane Mount Bracket

Accessories

Included:



DC24V/2.5A  
Power Adapter



PFA110  
Mount Adapter



PFB300S  
Wall Mount Bracket

Optional:



PFA120  
Junction Box



PFB300C  
Ceiling Mount Bracket



PFB301C  
Ceiling Mount Bracket



PFA150  
Pole Mount Bracket



PFA151  
Corner Mount Bracket



PFB303S  
Parapet Mount Bracket



PFB301S-E  
Plane Mount Bracket

Wall Mount	Ceiling Mount	Ceiling Mount
PFA110+PFB300S+PFA120	PFA110+PFB300C	PFA110+PFB301C
Pole Mount(Vertical)	Pole Mount(Horizontal)	Corner Mount
PFA110+PFB300S+PFA150	PFA110+PFB300C+PFA150	PFA110+PFB300S+PFA151
Plane Mount	Parapet Mount	
PFB301S-E	PFA110+PFB303S	

Dimensions (mm [inch])

