

# HAC-HUM3201B

2MP Starlight HDCVI Pinhole Camera

## HDCVI



- Starlight, 120dB true WDR, 3DNR
- Max 30fp@1080P
- HD and SD output switchable
- 3.6mm fixed lens (2.8mm optional)
- DC12V



### System Overview

Experience full HD 1080P video with the simplicity of using existing cabling infrastructure. The starlight HDCVI pinhole camera presents high quality image with rich details even under extreme lowlight environment and supports 120dB true WDR. It offers multi-language OSD and HD/SD switchable output. The compact design and high image performance makes the pinhole camera an ideal choice for invisible monitoring applications such as ATM.

### Functions

#### Elaborate Design

For better adapting the applications for invisible monitoring, the pinhole camera is designed with micro-sized compact case, which minimizes the interference against on-going activities. Taking aesthetics requirements into consideration, the body of the camera is all-black.

#### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the HCVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

#### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

#### Starlight

With the adoption of high performance sensor, the camera is able to provide incomparable performance even under extreme lowlight environment. The starlight feature allows more details to be captured and accurate color to be recognized at night or in scenes with limited illumination.

#### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide amazing usable video.

#### Multi-formats

The camera supports multiple video formats including HDCVI, CVBS and other two common HD analog formats in the market. The four formats can be switched over through OSD menu or by PFM820(UTC controller). This feature makes the camera to be compatible with not only HCVRs but also most end users' existing HD/SD DVRs.

#### Multi-language OSD

OSD menu provides multiple image adjustments and function settings to meet the requirements of different monitoring scenes. The OSD menu includes configurations such as backlight mode, day/night, white balance and privacy mask. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

#### Protection

Supporting  $\pm 25\%$  input voltage tolerance, this camera suits the unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

**Technical Specification**

## Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1937(H)×1097(V), 2MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/4s~1/100,000s NTSC: 1/3s~1/100,000s
Minimum Illumination	0.05Lux/F2.4 (Color), 0.005Lux/F2.4 (B/W), 30IRE
S/N Ratio	More than 65dB
IR Distance	N/A
IR On/Off Control	N/A
IR LEDs	N/A

## Lens

Lens Type	Fixed lens / Fixed iris
Mount Type	Board-in
Focal Length	3.6mm (2.8mm Optional)
Max Aperture	F2.4
Angle of View	H: 92°(103°)
Focus Control	N/A
Close Focus Distance	600mm (500mm) 23.6" (19.7")

## 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.

	DORI Definition	Distance
Detect	25px/m (8px/ft)	2.8mm: 42m(138ft) 3.6mm: 51m(167ft)
Observe	63px/m (19px/ft)	2.8mm: 17m(55ft) 3.6mm: 20m(67ft)
Recognize	125px/m (38px/ft)	2.8mm: 8m(28ft) 3.6mm: 10m(33ft)
Identify	250ppm (76px/ft)	2.8mm: 4m(14ft) 3.6mm: 5m(17ft)

## Pan / Tilt / Rotation

Pan/Tilt/Rotation	Pan: 0° ~ 360° Tilt: 0° ~ 180° Rotation: N/A
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## Video

Resolution	1080P (1920×1080)
Frame Rate	25/30fps@1080P, 25/30fps@720P
Video Output	1-channel BNC high definition video output / CVBS video output (Can switch)

Day/Night	Auto (Electronic) / Manual
OSD Menu	Multi-language
BLC Mode	BLC / HLC / WDR
WDR	120dB
Gain Control	AGC
Noise Reduction	2D / 3D
White Balance	Auto / Manual
Smart IR	N/A

## Certifications

Certifications	CE (EN55032, EN55024, EN50130-4) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)
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## Interface

Audio Interface	N/A
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## Electrical

Power Supply	12V DC ±25%
Power Consumption	Max 1.2W (12V DC)

## Environmental

Operating Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH * Start up should be done at above -30°C (-22°F)
Storage Conditions	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH
Ingress Protection & Vandal Resistance	N/A

## Construction

Casing	Aluminium
Dimensions	35.5mm×29.9mm×22.1mm (1.40"×1.18"×0.87")
Net Weight	0.09kg (0.20lb)
Gross Weight	0.12kg (0.27lb)

**Ordering Information**

Type	Part Number	Description
2MP Camera	HAC-HUM3201BP 2.8mm	2MP Starlight HDCVI Pinhole Camera, PAL
	HAC-HUM3201BP 3.6mm	2MP Starlight HDCVI Pinhole Camera, PAL
	HAC-HUM3201BN 2.8mm	2MP Starlight HDCVI Pinhole Camera, NTSC
	HAC-HUM3201BN 3.6mm	2MP Starlight HDCVI Pinhole Camera, NTSC
Accessories	PFM321	12V 1A Power Adapter
	PFM320D-015	12V 1.5A Power Adapter
	PFM320	12V 2A Power Adapter

**Accessories**

Optional:



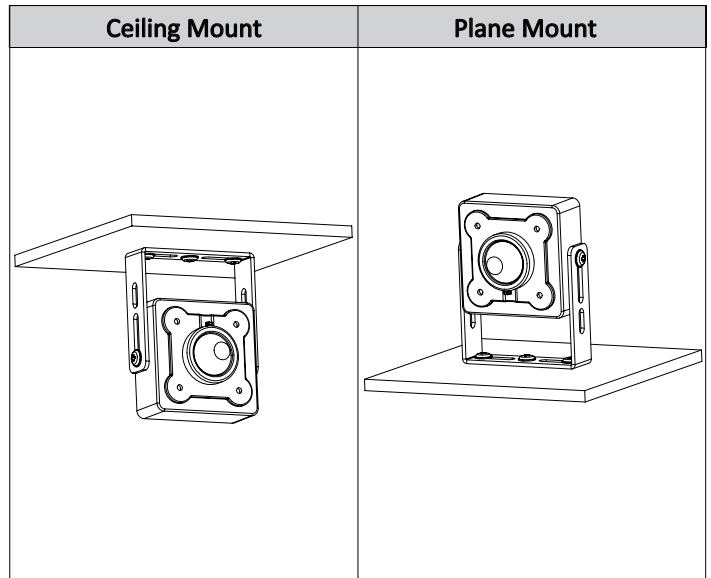
PFM321  
12V 1A Power Adapter



PFM320  
12V 2A Power Adapter



PFM320D-015  
Power Adapter



**Dimensions (mm/inch)**

