

## 5 In1- AHD/CVI/TVI/EXSDI/CVBS Outdoor IR Bullet HD High Performance Camera

- 5MP@20 fps • Starlight • 3DDNR, WDR • OSD, UTC • 2.7-13.5 Motorized DC Lens
- Smart IR II • 50M IR • IP67 • IK10 -- 12 V/DC

- Max.20 fps@5MP
- Starlight, 120 dB true WDR, 3D NR
- CVI/CVBS/AHD/TVI/EXSDI switchable
- 2.7 mm–13.5 mm motorized DC lens
- Max. IR length 50 m, Smart IR
- IP67, 12V DC±30%



### System Overview

Experience 5MP full HD video and the simplicity of using existing cabling infrastructure with 5in1 (AHD/TVI/CVI/EXSDI/CVBS). The series 5MP 5 in 1 camera features a compact design and offers a high quality image at a friendly price. It offers various motorized/fix lens models with 120 dB true WDR and a multi-language OSD and switchable output. Its structural flexibility and high cost-performance make the camera an ideal choice for SMB solutions.

### Functions

#### 5 Signals over 1 Coaxial Cable

5IN1 technology supports **5 signals** to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the AHD/CVI/TVI/EXSDI/CVBS camera to interact with the XVR, such as sending control signal or triggering alarm. Moreover, 5IN1 technology supports PoC for construction flexibility.

#### Long Distance Transmission

5IN1 technology guarantees real-time transmission at long distance without any loss. It supports up to 500 m for 5MP HD video via coaxial cable, and up to 300 m via UTP cable.\*

#### Simplicity

5IN1 technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. 5IN1 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 large sized 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.

#### Smart IR

The camera is designed with IR LED illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. With unique Smart IR adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object come closer to the camera.

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

#### Advanced 3D NR

3D NR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. The advanced 3D NR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3D NR effectively decreases the band width and saves the storage space.

#### Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. The camera complies with an IK10 vandal resistance rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in). Supporting ±30% input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 4kV lightning rating provides protection against the camera and its structure from the effects of lightning.

# EXHB-2020/BU

## Technical Specification

### Camera

Image Sensor	1/2.8" SONY Starvis Back-illuminated CMOS sensor
Max. Resolution	2880 (H) × 1620 (V)
Pixel	5MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/3 s–1/100,000 s NTSC: 1/4 s–1/100,000 s
S/N Ratio	> 65 dB
Min. Illumination	0.001 Lux/F1.6; 30IRE; 0 Lux IR on
Illumination Distance	50M
Illuminator On/Off Control	Auto; manual
Illuminator Number	24PCS SMT LEDs
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

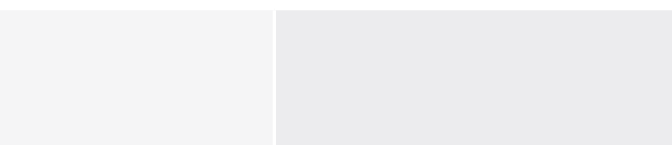
### Lens

Lens Type	Motorized vari-focal				
Auto Focus	Yes				
Mount Type	φ14				
Focal Length	2.7 mm–13.5 mm				
Max. Aperture	F1.6				
Field of View	Horizontal: 31.4°–113° Vertical: 17.6°–58° Diagonal: 36°–138°				
Iris Type	Fixed iris				
Close Focus Distance	0.8 m (2.6 ft)				
DORI distance	Lens	Detect	Observe	Recognize	Identify
	2.7mm	64.0 m (210.0 ft)	25.6 m (84.0 ft)	12.8 m (42.0 ft)	6.4 m (21.0 ft)
	13.5mm	210.0 m (689.0 ft)	84.0 m (275.6 ft)	42.0 m (137.8 ft)	21.0 m (68.9 ft)

### Video

Frame Rate	<ul style="list-style-type: none"> <li>EX SDI: 5M@20fps/12.5fps, 4M/2M@30fps/25fps;</li> <li>AHD: 5M@20fps/12.5fps, 4M/2M@30fps/25fps;</li> <li>CVI: 5M/2M@30fps/25fps</li> <li>TVI: 5M@20fps/12.5fps, 4M/2M@30fps/25fps</li> <li>CVBS: PAL: 960H, NTSC: 960H</li> </ul>
Resolution	5M (2880 × 1620); 4M (2560 × 1440); 1080p (1920 × 1080); 960H (960 × 576/960 × 480)
Day/Night	Auto switch by ICR
BLC	BLC/HLC/WDR/HLC-Pro
WDR	120 dB

White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	3D NR
Smart Illumination	Yes
Digital Zoom	4x
Defog	Electronic defog
Mirror	Off/On
Privacy Masking	Off/On (8 areas, rectangle)



Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)
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### Power

Power Supply	<b>12V DC ±30%</b>
Power Consumption	Max. 10.7W (12V DC, IR on)

### Environmental

Operating Temperature	–30°C to +60°C (–22°F to +140°F); < 95% (non-condensation)
Storage Temperature	–30°C to +60°C (–22°F to +140°F); < 95% (non-condensation)
Protection Grade	IP67

### Structure

Casing	Metal throughout the whole casing
Camera Dimensions	270(L)*120(W)*75mm(H)
Net Weight	0.76 kg (1.7 lb)
Gross Weight	1.07 kg (2.4 lb)

### Dimensions (mm [inch])

