

WIZCOLOR

AS BRIGHT AS DAYLIGHT



As Bright As Daylight



F1.0 Large Aperture



Large Pixel Size Sensor



AI-ISP

What is WizColor?

Dahua WizColor Technology seamlessly combines with the powerful AI-ISP, large pixel size sensor and large aperture in cameras. This unique integration enables cameras to effortlessly capture high-quality images with vibrant colors during nighttime scenarios, ensuring fine details are preserved and minimizing motion blur.



DEVELOPMENT

Low-illumination Technology

Starlight Starlight+

- Black and white image
- 0.01lux~0.001lux illumination

2018

2020

Full-Color

- 24/7 colorful monitoring
- F1.0 large aperture
- Warm light illumination
- High performance sensor
- Dahua ISP 4.0

2021

Full-Color 2.0

- Minimizes white light pollution
- UHD color image to capture clear details
- Wide focal range to cover more applications



- F1.0 large aperture
- Large pixel size sensor
- AI-ISP

2024

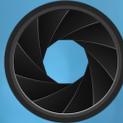
F1.0 LARGE APERTURE



With higher amount of absorbed light by the larger aperture, the WizColor camera is able to present a more vivid, brighter image under lowlight conditions.



F1.0



F1.6



F2.0

The amount of incoming light of WizColor F1.0 aperture is 2.5 times the amount of F1.6.

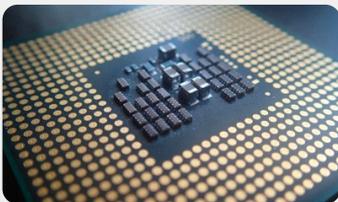
LARGE PIXEL SIZE SENSOR

The larger the pixel size, the more photons can be received and converted into stronger electrical signals. This greatly enhances the signal, resulting in an image with higher brightness and lower noise.

 <p>2.9μm Large pixel photosensitive area</p>	<p>General Image Sensor</p>  <p>General camera Single pixel photosensitive area</p> <p>2.1 Times</p>	<p>Smart Phone</p>  <p>Smart phone main camera Single pixel photosensitive area</p> <p>5.6 Times</p>
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AI-ISP

High-performance AI-ISP Chip



- **40% increase** in efficiency in visual model processing
- **30% reduction** in power consumption

AI-ISP Deep Image Processing Algorithm



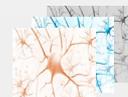
Precise
motion detection

- Detail restoration increased by **50%**
- Motion blur decreased by **80%**

Billion Level Model Training



Billion level
scenarios library



50+ layers
of visual training network



30+ categories
of extreme scenario algorithms

WIZCOLOR IMAGE

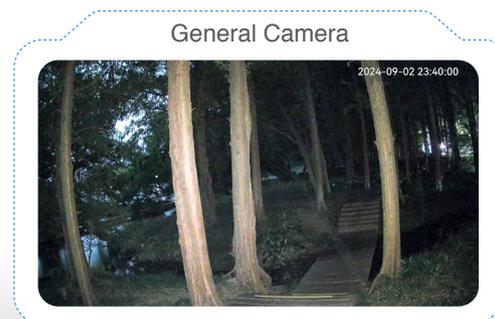
Accurate and Clear Details

- Detail restoration is increased by 50%
- AI-ISP detects noise and relevant target information
- Pixel level precise denoising algorithm



More Realistic Color Images

- Color restoration is increased by 30%
- Excellent color denoising capability
- More accurate color information helps to extract accurate target information



Less Motion Blur

- Easy to distinguish between moving targets and backgrounds
- No blurring and ghosting in moving targets
- Motion detection accuracy is increased by 200%
- Motion blur is decreased by 80%



WIZCOLOR IMAGE

Long Visible Distance

- Long visible distance, longer detection distance
- No light pollution at night
- No flying insects and dust reflections

WizColor Camera



General Camera



Image Distortion Correction

- System level omnidirectional distortion correction technology
- Fixes the distorted edge of the image
- Restores the real scene

WizColor Camera



General Camera



Clear Vehicle Plate

- No exposure of vehicle number plate at night
- Target details are clearer

WizColor Camera



General Camera



APPLICATION SCENARIOS



PRODUCT

4MP: Released

2MP: 2024.10



IPC-HFW2x49TL-S-PRO
IPC-HFW2x49M-S-B-PRO
IPC-HDW2x49T-S-PRO

4MP/2MP, 2.8/3.6/6mm
1/1.8" Sensor(4MP), 1/2.9" Sensor(2MP), F1.0
120dB WDR
Full-color with WizColor
Built-in Mic
SMD Plus, Perimeter Protection
IP67 protection level

Released

WizColor FW: 2024.10



IPC-HFW3x49T1-AS-PV-PRO
IPC-HDW3x49H-AS-PV-PRO
x: 4/6/8MP

4/6/8MP, 2.8/3.6mm
1/1.8" Sensor, F1.0
120dB WDR
TiOC PRO with WizColor
Red & Blue Lights & Sounds Alarm
Built-in Dual Mic and Speaker
SMD 4.0, Perimeter Protection
AI SSA, AI Coding ABR
AcuPick for accurate search

Sample: 2024.8

Release: 2024.Q4



**SD2C400NA-GNY-B-
PV-S2-PRO**

4MP, 4mm
1/1.8" Sensor, F1.0
120dB WDR
Smart Dual Light with WizColor
White Lights & Sound Alarms
Built-in Dual Mic and Speaker
SMD 3.0, Perimeter Protection
AI SSA, AI Coding ABR
IP66 protection level

2024.Q4



SD2C305 PoE
SD2C305 4G

3MP, 5x Zoom
1/2.8" Sensor, F1.0
120dB WDR
Smart Dual Light with WizColor
White Lights & Sound Alarms
Built-in Dual Mic and Speaker
SMD 3.0, Perimeter Protection
AI SSA, AI Coding ABR
IP66 protection level

2024.10



**IPC-WPT2249D-PV-
2E2-PRO**

2+2MP, 3.6+3.6mm
1/2.9" Sensor, F1.0
120dB WDR
Full-color with WizColor
Built-in Mic & Speaker
SMD Plus, Perimeter Protection
IP67 protection level
White Lights & Sound Alarms
One channel supports Pan & Tilt

2025.Q1



SDT2C305 PoE
SDT2C305 4G

3MP+3MP, 5x Zoom
1/2.8" Sensor, F1.0
120dB WDR
Smart Dual Light with WizColor
White Lights & Sound Alarms
Built-in Dual Mic and Speaker
SMD 3.0, Perimeter Protection
AI SSA, AI Coding ABR
IP66 protection level

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Partner App



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