

# COG-HAKUCHO

8x2MP PANORAMIC MULTI-SENSOR IR NETWORK CAMERA + PTZ



- Panoramic: Eight 1/1.8" 2 Megapixel progressive scan CMOS
- PTZ: One 1/1.8" 4 Megapixel progressive scan CMOS
- Support 360-degree panoramic view
- Starlight technology
- H.265/H.264 triple-stream encoding
- Day/Night (ICR); 3D DNR; AWB; AGC; BLC
- IR distance up to 400 m
- Smart tracking
- Tripwire
- Intrusion
- Crowd map



## System Overview

Starlight panoramic HD network camera, with all-in-one design, provides a 360°panorama and region of interest details at the same time. The panoramic network combines 8 sensors working in tandem to realize 360°panoramic surveillance; all-in-one module and high-speed PTZ camera provides the function of quick position details. In addition, with video analytic algorithm and multi-target track algorithm, the camera can automatically or manually detect tripwire and intrusion of multiple targets in detection area, output alarm signal, and then link PTZ for smart tracking. With these excellent features, the camera can meet higher security requirements.

## Functions

### True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering colour images during the day and automatically switching to monochrome as the scene darkens.

### Starlight Technology

Featured with Starlight Technology, the camera is ideal for applications with challenging light conditions. Its low light performance delivers usable video with minimal ambient light. Even in extreme low light conditions, Starlight Technology is capable of delivering colour images in nearly complete darkness.

### Crowd map

1. The crowd map is displayed on panorama.
2. Customized ROIs setting, people counting overlay and people threshold alarm.
3. Global crowd density threshold setting and alarm.
4. Alarm linkage for global crowd density threshold and area people threshold (Arm period, record, sending E-mail and snapshot).

### Tripwire detection and intrusion detection

With advanced CNN algorithm, the detection distance, and the accuracy rate and timely rate of linkage track are much improved.

### Smart tracking

1. Panoramic channel supports manual position, frame selection zoom position.
2. Manual track.
3. Auto track after tripwire and intrusion are triggered.
4. Smart tracking after crowd map alarm is triggered.

## Technical Specification

### Camera

Image sensor	Panoramic network camera: 1/1.8"CMOS PTZ camera: 1/1.8"CMOS
Max. resolution	Panoramic network camera: 8192 × 1800 PTZ camera: 2560 × 1440
Scan	Progressive
Electronic shutter	Panoramic network camera: 1/3 s-1/100000 s, manual or auto adjust PTZ Camera: 1/1 s-1/300000 s, manual or auto adjust
Minimum illumination	Panoramic network camera: 0.01 Lux @ F2.0 PTZ camera: 0.0008 Lux @ F1.3
Max fill light distance	Panoramic network camera: None PTZ camera: ≥ 400 m (1312 ft) (IR fill light)
Fill light control	Auto
Fill light quantity	Panoramic network camera: None PTZ camera: 7 (IR LEDs)
Lens angle range	N/A

### Lens

Lens type	Panoramic network camera: Fix focal PTZ camera: Electric zoom				
Lens connector	Panoramic network camera : M12 PTZ camera: Core interface				
Focal length	Panoramic network camera 5 mm PTZ camera: 5.6mm–223mm, optical zoom (40 times)				
Aperture	Panoramic network camera: F2.0 PTZ camera: F1.3				
Angle of view	Panoramic network camera:Horizontal: 360° Vertical: 84° PTZ camera:Horizontal: 2°–61° vertical: 1°-36° Diagonal: 3°–68°				
Optical zoom	Panoramic network camera: None PTZ camera: 40 times				
Aperture type	Panoramic network camera: Fixed aperture PTZ camera: Auto aperture				
Min photographic distance	Panoramic network camera :1.2 m (3.94 ft) PTZ camera: 0.5 m (1.64 ft)				
DORI distance		Detect	Observe	Reconize	Identify
	Panoramic network camera	53.3m ( 174.9ft )	21.3m ( 69.9ft )	10.7m ( 35.1ft )	5.3m ( 17.4ft )
	PTZ camera	2873.1m ( 9426.2ft )	1149.2m ( 3770.3ft )	574.6m ( 1885.2ft )	287.3m ( 942.6ft )

### Smart event

IVS analyze	Intrusion, tripwire
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### Professional, Intelligent

Crowd map	Crowd map, Global setup and No. in area
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### Video

Video encoding	H.265; H.264; H.264H; H.264B; MJPEG
Intelligent code	H.264 H.265

Video frame rate	Main stream: 8192 × 1800 (1–25 fps/30 fps) Sub Stream: 3840 × 832 (1–25 fps/30 fps) Third Stream: 4800x × 3840 (1–25 fps/30 fps)
Decoding	3 Streams
Resolution	Panoramic network camera: 8192 × 1800; 7680 × 1680; 5760 × 1264; 4800 × 3840; 4096 × 900; 3840 × 832; 3200 × 2560; 2560 × 560; 2048 × 452; 1600 × 1280 PTZ camera: 2560 × 1440; 2048 × 1536; 1920 × 1080; 1280 × 960 1280 × 720; 704 × 576; 704×480; 352 × 288; 352×240
Bit rate control	Panoramic network camera: CBR/VBR PTZ camera:CBR/VBR
Video bit rate	Panoramic network camera: H.264: 512 Kbps-42995 Kbps H.265: 256 Kbps-26216 Kbps PTZ camera: H.264: 184 Kbps-15104 Kbps H.265: 110 Kbps-9216 Kbps
Day/Night	ICR
BLC	Yes
Wide dynamic range	120 dB
White balance	Panoramic network camera:Auto/Natural/street lamp/outdoor/manual/regional Custom PTZ camera: Auto/indoor/outdoor/tracking/ manual/sodium lamp/natural/street lamp
Gain control	Auto/Manual
Noise reduction	3D DNR
Motion Detection	Disable/Enable
Region of interest	Panoramic network camera: Yes (4 areas) PTZ camera:Yes (4 areas)
Electronic image stabilization(EIS)	Panoramic network camera: — PZT camera: Yes
Smart IR	Panoramic network camera: — PTZ camera: Yes (Adjusted by user.)
Defog	Panoramic network camera: — PTZ camera: Yes
Digital zoom	Panoramic network camera: N/A PTZ camera: 16 times
Privacy masking	Panoramic network camera (Privacy masking): 4 areas PTZ camera (Privacy masking): 8 areas

### Audio

Audio encoding	G.711Mu/G.711A/ G.726/ AAC/
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### Network

Ethernet	One 10/100/1000Mbps Ethernet port One 1000M fiber port(optional)
Network protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/IPv6; SNMP; QoS; UPnP; NTP
Third party access	ONVIF (Profile G); CGI
Scene self-adaptation	Yes
Max user	20 (Total bandwidth: 80 M)
Storage	SD card, FTP (SFTP), NAS (NFS/SMB)
Browser	IE, Chrome, Firefox, Safari

Platform	EVS, NVR, M70, DSS
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### Certification

Certification	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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### Port

RS-485 port	One (Bit rate: 1200 bps-115200 bps)
Audio input	2 channels (connecting terminal)
Audio output	2 channels (connecting terminal)
Alarm input	7 channels (Wet contact, and it supports potential 3V-5V and max current 0.5A.)
Alarm output	3 channels (Wet contact, and it supports max potential 30V DC, 1 A/max potential 50V AC, current 0.5 A.)
Analog output	1 channel CVBS BNC port

### Power

Power supply	DC36V
Power consumption	< 84.4W

### Environment

Operating temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	≤95%
Storage temperature	-40°C to +70°C (-40°F to +158°F)/Less than 95% RH
Protection grade	IP66

### Structure

Enclosure	Metal + Plastic
Dimensions	Φ383 mm × 389.8 mm (Φ1256.56 ft × 1279.8 ft)
Net weight	14.7 kg (32.41 lb)
Gross weight	19.8 kg (43.65 lb)

### Dimensions (mm[inch])

