

# VN-H8MPAIOUT-IPC

High-end 8MP Outdoor Dual lens Bullet Camera with Deep Learning



Launched by VIRUNI Technology, VIRUNI is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, provides precise, reliable and comprehensive AI solutions for verticals.

## Series Overview

With starlight solution and deep learning algorithm, VIRUNI 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis.

## Functions

### EPTZ

With advanced target detection and tracking algorithms, VIRUNI EPTZ technology can simultaneously zoom in and track multiple humans and vehicles that trigger alarms. It provides rich details and a panoramic view at the same time.

### Perimeter Protection

With deep learning algorithm, VIRUNI Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

### People Counting

With deep learning algorithm, VIRUNI People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

- Outputs 180° wide angle splicing image.
- Outputs max. 8 MP (4096 × 1800)@25 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light, and the max. illumination distance is 40 m.
- ROI, SMART H.264 +/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card, built-in Mic and speaker, support two-way talk.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- Intelligent monitoring: Intrusion, tripwire, heat map, and people counting.
- EPTZ: Enlarge and track the targets of intelligent alarms.
- SMD3.0.



### ePoE

VIRUNI's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

### Cyber Security

VIRUNI network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

### Protection (IP67, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

**Technical Specification**

<b>Camera</b>	
Image Sensor	Dual 1/1.8" CMOS
Max. Resolution	4096 (H) × 1800 (V)
ROM	128 MB
RAM	1 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0005 lux@F1.0 (Color, 30 IRE) 0.0002 lux@F1.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	40 m (131.23 ft)
Illuminator On/Off Control	Auto
Illuminator Number	4 (Warm light)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

<b>Lens</b>					
Lens Type	Fixed-focal				
Lens Mount	M16				
Focal Length	3.6 mm				
Field of View	H: 180°±10° V: 48°				
Max. Aperture	F1.0				
Iris Control	Fixed				
Close Focus Distance	3.6 m (11.81 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	3.6 mm	70.3 m (230.64 ft)	28.1 m (92.19 ft)	14.1 m (46.26 ft)	7.0 m (22.97 ft)

<b>Intelligence</b>	
IVS (Perimeter Protection)	Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection
Heat Map	Yes
Smart Object Detection	Smart abandoned object; smart missing object
People Counting	Support the counting of enter number, leave number and pass number, and displaying and outputting yearly/monthly/daily reports. Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm. Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm

<b>Video</b>	
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)

Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Video Frame Rate	WDR Off: Main stream: 4096 × 1800 @ (1–25 fps) sub stream: 1024 × 452 @ (1–25 fps) third stream: 1920 × 832 @ (1–25 fps) WDR On: Main stream: 4096 × 1800 @ (1–20 fps) sub stream: 1024 × 452 @ (1–20 fps) third stream: 1920 × 832 @ (1–20 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.
Stream Capability	3 streams
Resolution	8M (4096 × 1800); 6.5M (3840 × 1680); 4M (3840 × 1080); 4M (2880 × 1264); 1.6M (1920 × 832); 0.7M (1280 × 560); 0.5M (1024 × 452)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 9 kbps–8192 kbps H.265: 9 kbps–8192 kbps
Day/Night	Color/B/W
BLC	Yes
HLC	Yes
WDR	140 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Privacy Masking	4 areas
Defog	Yes

<b>Audio</b>	
Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723

<b>Alarm</b>	
Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; SMD; people counting in area; stay detection; people counting; security exception

<b>Network</b>	
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Cyber Security	Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade

Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP; Bonjour
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Browser	IE: IE 8 and later Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	iOS; Android
<b>Port</b>	
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channels in: 5 mA 3 V–5 VDC
Alarm Output	1 channel out: 300 mA 12 VDC
<b>Power</b>	
Power Supply	12 VDC (±30%)/PoE+ (802.3at)/ePoE
Power Consumption	Basic: 4.8 W (12 VDC); 5.5 W (PoE) Max. (WDR + intelligence + warm light + SPK): 12.3 W (12 VDC); 13.8 W (PoE)
<b>Environment</b>	
Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Protection	IP67
<b>Structure</b>	
Casing	Metal + plastic
Product Dimensions	301.2 mm × 128.2 mm × 120.1 mm (11.86" × 5.05" × 4.73") (L × W × H)
Net Weight	1420 g (3.13 lb)
Gross Weight	1570 g (3.46 lb)

Ordering Information		
Type	Model	Description
8MP Camera	VN-H8MPAIOUT-IPC	High-end 8MP Outdoor Dual lens Bullet Camera with Deep Learning
Accessories (Optional)	VNA5400R	Junction Box
	VNA167	Pole Mount Bracket
	VNM910-E	Integrated Mount Tester
	VNTF-P110	MicroSD Memory Card
	VNM331D	12 VDC 1A Power Adapter

**Accessories**

Optional:



VNA5400R  
Junction Box



VNA167  
Pole Mount Bracket



VNM910-E  
Integrated Mount Tester



VNTF-P110  
MicroSD  
Memory Card



VNM331D  
12V DC 1A  
Power Adapter

Dimensions (mm[inch])

