



# 4MP IR Vari-focal Dome Network Camera

IP-D4MWAC-WS

## features

- 4MP, 1/3" CMOS image sensor, low illuminance, high image definition
- Outputs max. 4MP (2688 × 1520)@30 fps
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 40 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio abn ,PUM0004243 ,ornality detection, no SD card, SD card SD Card full,SD Card error, network disconnection, IP conflict, illegal access, voltage detection
- Alarm: In, out; Audio: In, out; Supports max. 256 G Micro SD card
- 12V DC/POE power supply
- IP67, IK10 protection
- SMD Plus

## System Overview

Launched by Snappy Technology, a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Snappy's advanced technologies, provides intelligent, simple and inclusive products and solutions.

With advanced deep learning algorithm, Snappy 3 Series network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance

## Functions

### SMD Plus

With intelligent algorithm, Snappy Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion

detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

### Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Snappy smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

### Perimeter Protection

With deep learning algorithm, Snappy 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.

### Starlight

Snappy Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

### Cyber Security

Snappy network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

### Protection (IP67, IK10, wide voltage)

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

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows  $\pm 30\%$  input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

# Technical Specification

| Camera                    |   |                |                 |                 |                |
|---------------------------|---|----------------|-----------------|-----------------|----------------|
| Image Sensor              | 1/3" 4Megapixel progressive CMOS  |                |                 |                 |                |
| Effective Pixels          | 2688 (H) × 1520 (V)   |                |                 |                 |                |
| RAM/ROM                   | 128 MB / 512MB  |                |                 |                 |                |
| Scanning System           | Progressive   |                |                 |                 |                |
| Electronic Shutter Speed  | Auto/Manual, 1/3 s–1/100000 s   |                |                 |                 |                |
| Minimum Illumination      | 0.005 Lux@F1.5 (Color, 30IRE)0.0005 Lux@F1.5 (B/W, 30IRE)0 Lux (Illuminator on)   |                |                 |                 |                |
| IR Distance               | 40 m (131.23 ft)  |                |                 |                 |                |
| IR On/Off Control         | Auto/Manual   |                |                 |                 |                |
| IR LEDs                   | 2 (IR LED)  |                |                 |                 |                |
| S/N Ratio                 | > 56 dB   |                |                 |                 |                |
| Pan/Tilt/Rotation Range   | Pan: 0°–355°; Tilt: 0°–65°; Rotation: 0°–355°   |                |                 |                 |                |
| Lens                      |   |                |                 |                 |                |
| Lens Type                 | Motorized vari-focal  |                |                 |                 |                |
| Mount Type                | φ14   |                |                 |                 |                |
| Focal Length              | 2.7 mm–13.5 mm  |                |                 |                 |                |
| Max. Aperture             | F1.5  |                |                 |                 |                |
| Angle of View             | H: 104°–27°, V: 55°–15°, D: 124°–31°  |                |                 |                 |                |
| Iris Type                 | Fixed   |                |                 |                 |                |
| Close Focus Distance      | 0.8 m (2.6 ft)  |                |                 |                 |                |
| DORI Distance             | Lens  | Detect         | Observe         | Recognize       | Identify       |
|                           | W   | 64m(120ft)     | 25.6m(84ft)     | 12.8m(42ft)     | 6.4m(21ft)     |
|                           | T   | 222m (728.3ft) | 88.8m (291.3ft) | 44.4m (145.7ft) | 22.2m (72.8ft) |
| Professional, Intelligent |   |                |                 |                 |                |
| Perimeter Protection      | Tripwire; intrusion (Recognition of human and vehicle)  |                |                 |                 |                |
| Intelligent Search        | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos   |                |                 |                 |                |
| Video                     |   |                |                 |                 |                |
| Compression               | H.265,H.264,H.264B,H.264H, MJPEG (sub stream)   |                |                 |                 |                |
| Smart Codec               | Smart H.265+/ Smart H.264+  |                |                 |                 |                |
| Streaming Capability      | 3 Streams   |                |                 |                 |                |
| Frame Rate                | Main stream (2688 × 1520@1–25/30 fps)   |                |                 |                 |                |
|                           | sub stream (704 × 576@1–25 fps/<br>704 × 480@1–30 fps)  |                |                 |                 |                |
|                           | third stream (1280 × 720@1–25/30 fps)   |                |                 |                 |                |
| Resolution                | 4M (2688 × 1520); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |                |                 |                 |                |
| Bit Rate Control          | CBR/VBR   |                |                 |                 |                |
| Bit Rate                  | H.264: 32 Kbps–8192 Kbps<br>H.265: 19 Kbps–8192 Kbps  |                |                 |                 |                |
| Day/Night                 | Auto(ICR)/Color/B/W   |                |                 |                 |                |
| BLC /HLC                  | Yes   |                |                 |                 |                |
| WDR                       | 120 dB  |                |                 |                 |                |
| White Balance             | Auto/Natural/Street Lamp/Outdoor/Manual/Regional/Custom   |                |                 |                 |                |

| Gain Control         | Auto/Manual   |
|----------------------|---|
| Noise Reduction      | 3D DNR  |
| Motion Detection     | Off/On (4 Area, Rectangle)  |
| Region of Interest   | Off/On (4 Area)   |
| Smart IR             | Yes   |
| Flip                 | 0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower.)  |
| Mirror               | Yes   |
| Privacy Masking      | 4 Areas   |
| Audio                |   |
| Compression          | G.711a; G.711Mu; G726   |
| Alarm                |   |
| Alarm Event          | No SD card; SD card full; SD card error; less service time of SD card (smart card supports); network disconnection; IP conflict; illegal access; voltage detection; security exception; motion detection; video tampering; scene changing; input abnormal; intensity change; tripwire; intrusion; SMD |
| Network              |   |
| Ethernet             | 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   |
| Protocol             | IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP ;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP ;NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP  |
| Interoperability     | ONVIF Profile S/Profile G/Profile T , CGI, Milestone, Genetec, P2P  |
| Streaming Method     | Unicast/Multicast   |
| User/Host            | 20 (Total bandwidth: 64 M)  |
| Edge Storage         | FTP; SFTP; Micro SD Card (support max. 256 G); NAS  |
| Web Viewer           | IE: IE8, IE9, IE11ChromeFirefox   |
| Management Software  | Smart PSS, DSS, DMSS  |
| Smart Phone          | iOS, Android  |
| Certification        |   |
| Certifications       | CE-LVD: EN60950-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07  |
| Port                 |   |
| Audio Input          | 1-channel (RCA port)  |
| Audio Output         | 1-channel (RCA port)  |
| Alarm Input          | 1 channel In: 5mA 5V DC   |
| Alarm Output         | 1 channel out: 300mA 12V DC   |
| Electrical           |   |
| Power Supply         | 12V DC/PoE (802.3af)  |
| Power Consumption    | <8.5W   |
| Environment          |   |
| Operating Conditions | -30°C to +60°C (-22°F to +140°F)/less than 95%  |
| Storage Conditions   | -40°C to +60°C (-40°F to +140°F)  |
| Protection Grade     | IP67, IK10  |
| Structure            |   |
| Casing               | Metal   |
| Dimensions           | Φ122 mm × 88.9 mm (Φ4.8" × 3.5")  |
| Net Weight           | 492 g (1.1 lb)  |
| Gross Weight         | 663 g (1.5 lb)  |

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