

## OS-13-WENS4F-MST-0280-V3 | 4MP IR Fixed-focal Dome Network Camera



### System Overview

Osiris 3 Series Network Camera greatly saves on bandwidth and storage space through its AI Coding technology. Driven by its advanced deep learning algorithms, the camera supports intelligent functions such as perimeter protection, smart motion detection (SMD), Quick Pick, and AI SSA (AI Scene Self-adaptation), making it easy and convenient to use. Starlight technology and its large aperture lens also allow the camera to produce clear, vivid images even in poor lighting conditions

- 4 MP 1/3" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 4 MP (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, max. IR distance: 30 m.
- ROI, SMART H.264 +/-H.265+, AI H.264/H.265. flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, 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, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply facilitates installation.
- IP67, IK10 protection.
- SMD 4.0, AI SSA.



### Functions

#### SMD 4.0

Osiris Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

#### AI SSA

Osiris AI Scene Self-adaptation (AI SSA) adopts deep learning algorithms to detect environmental conditions, such as rain, fog, backlight, low light and flicker, to adjust the parameters of the image to suit the conditions, ensuring that clear images are always produced.

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

With advanced scene-adaptive rate control algorithm, Osiris 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, Osiris 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) are largely reduced.

#### 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  $\pm 30\%$  (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

#### Cyber Security

Osiris 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 comprising the device.

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### Technical Specifications

Camera					
Image Sensor		1/3" CMOS			
Max. Resolution		2688 (H) × 1520 (V)			
ROM		128 MB			
RAM		512 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s–1/100,000 s			
Min. Illumination		0.005 lux@F1.4 (Color, 30 IRE) 0.0005 lux@F1.4 (B/W, 30 IRE) 0.01 lux@F2.0 (Color, 30 IRE) 0.001 lux@F2.0 (B/W, 30 IRE) 0 lux (Illuminator on)			
S/N Ratio		>56 dB			
Illumination Distance		30 m (98.43 ft)			
Illuminator On/Off Control		Auto/Manual			
Illuminator Number		2 (IR LED)			
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: -20°–70° Rotation: 0°–355°			
Lens					
Lens Type		Fixed-focal			
Lens Mount		M12			
Focal Length		2.1 mm; 2.8 mm; 3.6 mm; 6 mm			
Max. Aperture		2.1 mm: F2.0; 2.8 mm; 3.6 mm; 6 mm: F1.4			
Field of View		2.1 mm: Horizontal: 137°; vertical: 70°; diagonal: 142° 2.8 mm: Horizontal: 102°; vertical: 54°; diagonal: 121° 3.6 mm: Horizontal: 84°; vertical: 42°; diagonal: 101° 6 mm: Horizontal: 52°; vertical: 28° ; diagonal: 61°			
Iris Control		Fixed			
Close Focus Distance		2.1 mm: 0.5 m (1.64 ft) 2.8 mm: 0.9 m (2.95 ft) 3.6 mm: 1.6 m (5.25 ft) 6 mm: 3.2 m (10.50 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.1mm	52.0 m (170.60 ft)	20.8 m (68.24 ft)	10.4 m (34.12 ft)	5.2 m (17.06 ft)
	2.8mm	63.6 m (208.66 ft)	25.4 m (83.33 ft)	12.7 m (41.66 ft)	6.4 m (21.00 ft)
	3.6mm	85.4 m (280.18 ft)	34.2 m (112.20 ft)	17.1 m (56.10 ft)	8.5 m (27.89 ft)
	6mm	124.0 m (406.82 ft)	49.6 m (162.73 ft)	24.8 m (81.36 ft)	12.4 m (40.68 ft)

Intelligence	
IVS (Perimeter Protection)	Tripwire, intrusion (support the classification and accurate detection of vehicle and human)
AI SSA	Yes
Quick Pick	With AI NVR, quickly pick up the human/vehicle targets that users are interested in from SMD events
Smart Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
Video	
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	Main stream: 2688 × 1520 @ (1–25/30) fps Sub stream 1: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) Sub stream 2: 1920 × 1080 @ (1–25/30 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	4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–8192 kbps H.265: 3 kbps–8192 kbps
Day/Night	Auto (ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 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 (Rol)	Yes (4 areas)
Defog	Yes

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### Technical Specifications

Video (2)	
AFSA	Yes
Image Rotation	0°/90°/180°/270° (support 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas
Audio	
Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723
Alarm	
Alarm Event	No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; external alarm; SMD; safety exception
Network	
Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
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
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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone; Genetec
User/Host	20 (Total bandwidth: 64 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE11 Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	IOS; Android
Network	
Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14

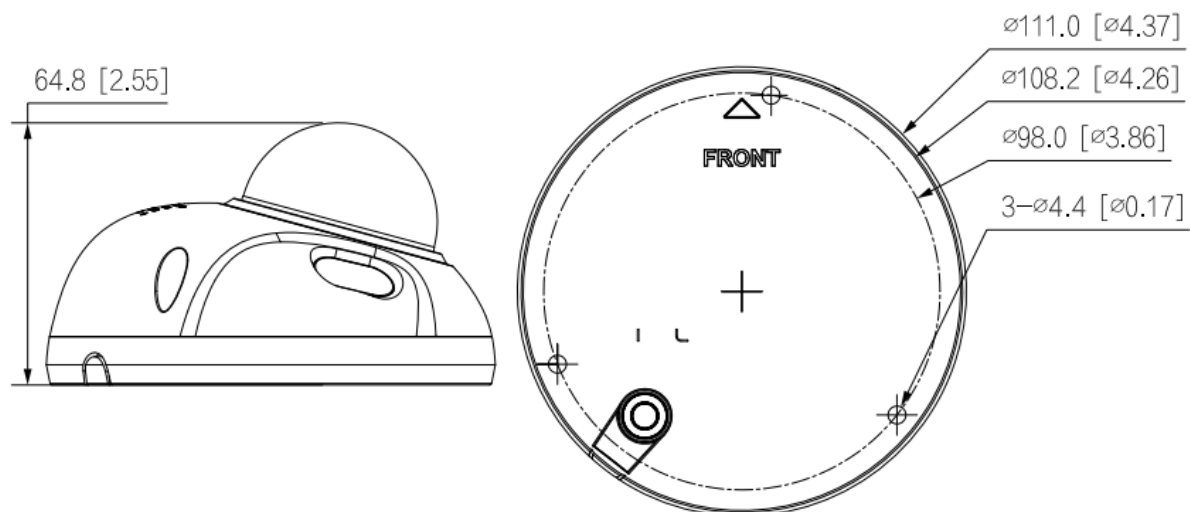
Port	
Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5 mA 3–5 VDC
Alarm Output	1 channel out: 300 mA 12 VDC
Power	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 3.8 W (12 VDC); 4.6 W (PoE) Max. (WDR + IR intensity + Intelligence): 5.9 W (12 VDC); 7.2 W (PoE)
Environment	
Operating Temperature	–40 °C to +60 °C (–40 °F to 140 °F) /Less than 95% RH
Storage Temperature	–40 °C to +60 °C (–40 °F to 140 °F)
Protection	IP67, IK10
Structure	
Casing	Metal
Product Dimensions	64.8 mm × Φ111.0 mm (2.55" × Φ4.37")
Net Weight	423 g (0.93 lb)
Gross Weight	530 g (1.17 lb)

### Accessories (optional)

<b>PFA136 Junction Box</b>	<b>PFA109 Ceiling Mount</b>
	
<b>PFB205W-E Wall Mount</b>	<b>PFM321D 12VDC 1A Power Adapter</b>
	
<b>PFB220C Ceiling Mount Bracket</b>	<b>PFA152-E Pole Mount</b>
	
<b>PFM900-E Integrated Mount Tester</b>	<b>TF-P100 TLC SD Card</b>
	

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### Dimensions (mm/inch)



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