

OS-13-EENS8F-MST-0280-V3 | 8MP IR Fixed-focal Eyeball Network Camera



System Overview

Osiris 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.

- 8-MP 1/2.8" CMOS image sensor, excellent low luminance performance and high definition of images.
- Outputs max. 8MP (3840 × 2160) @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.
- Max. 256 G Micro SD card. built-in Mic.
- 12 VDC/PoE power supply facilitates installation.
- IP67 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	1/2.8" CMOS				
Max. Resolution	3840 (H) × 2160 (V)				
ROM	128 MB				
RAM	1 GB				
Scanning System	Progressive				
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s				
Min. Illumination	0.007 lux@F1.4 (Color, 30 IRE) 0.0007 lux@F1.4 (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°–360° Tilt: 0°–78° Rotation: 0°–360°				
Lens					
Lens Type	Fixed-focal				
Lens Mount	M12				
Focal Length	2.8 mm; 3.6 mm				
Max. Aperture	F1.4				
Field of View	2.8 mm: Horizontal:107°; vertical: 56°; diagonal: 127° 3.6 mm: Horizontal:84°; vertical: 47°; diagonal: 97°				
Iris Control	Fixed				
Close Focus Distance	2.8 mm: 1.5 m (4.9 ft) 3.6 mm: 2 m (6.6 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	87.7 m (287.73 ft)	35.1 m (115.16 ft)	17.5 m (57.41 ft)	8.8 m (28.87 ft)
	3.6mm	102.1 m (334.97 ft)	40.8 m (133.86 ft)	20.4 m (66.93 ft)	10.2 m (33.46 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: 3840 × 2160 @ (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	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 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 Motion Detection	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
AFSA	Yes
Image Rotation	0°/90°/180°/270° (support 90°/270° with 2688×1520 resolution and lower)
Mirror	Yes
Privacy Masking	4 areas

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Technical Specifications

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; 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
Certification	
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
Power	
Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 4.3 W (12 VDC); 4.9 W (PoE) Max. (WDR + IR intensity + Intelligence): 7.6 W (12 VDC); 8.9 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
Structure	
Casing	Metal
Product Dimensions	93.6 mm × 106.0 mm (3.69" × 4.17")
Net Weight	500 g (1.10 lb)
Gross Weight	770 g (1.70 lb)

Accessories (optional)

PFA130-E Junction Box 	PFB204W Wall Mount 
PFA106 Ceiling Mount 	PFB220C Ceiling Mount Bracket 
PFA152-E Pole Mount 	PFM321D 12VDC 1A Power Adapter 
PFM900-E Integrated Mount Tester 	TF-P100 TLC SD Card 

Dimensions (mm/inch)

