



## IP-16MS-EA

### 8x2MP Multi-Sensor Panoramic Network Camera+PTZ Camera



### System Overview

The Unisight IP-16MS-PA Panoramic Multi-Sensor plus PTZ camera combines eight 2MP sensors working in tandem and a high-speed PTZ camera to create a comprehensive 360° view. With its all-in-one design, the camera provides a 360° panorama and provides region of interest details at the same time. In addition, the camera offers the Intelligent Video System (IVS), a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection and smart tracking. A camera with IVS quickly and accurately responds to monitoring events in a specific area. The camera can replace multiple single-sensor cameras providing a higher return on investment.

### Features

- Panoramic: Eight 1/1.9" 2Megapixel progressive scan CMOS
- PTZ: One 1/1.9" 2Megapixel progressive scan CMOS
- H.265/H.264 triple-stream encoding
- 2x25fps@4096x1800+50/60fps@1080P
- Support 360-degree panoramic view
- Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Smart tracking
- Intelligent Function
- Micro SD memory, IP67, IK10

### Functions

#### Panoramic

Panoramic cameras provide 180°, 360° full range of video scene, bringing people a new sense of real live and interactive experience. Unisight provides two kinds of panoramic camera, single sensor fisheye camera and multi-sensor camera, both of them can offer 180-degree & 360-degree panoramic image. Through working together with PTZ camera which offer whole scene and region details at same time. It provided new surveillance experience to end user and improved the surveillance quality.

#### True Day/Night

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

#### Starlight Technology

Featured with the 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 color images in nearly complete darkness.

#### HEVC (H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264, some retain the original technology, while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream, encoding quality, and the delay between algorithm complexity, optimize settings specific contents include: Improve compression efficiency, improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random access delay, reduce complexity, etc.

#### Smart H.265+

Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265.

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

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. IP67 is supported by the camera, which makes it suitable for both indoor and outdoor environments. IK10 compliance enables the camera to sustain the equivalent of 55 kg (120lbs) force.

#### Environmental

The camera can function from -30°C to +60°C (-22°F to +140°F) with 95% humidity, meanwhile some models support heater module optional which allows the camera to function from -40°C to +60°C (-40°F to +140°F). With a temperature range of -40°C to +60°C, the camera is designed for extreme temperature environments.





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### Technical Specification

#### Panoramic Camera

Image Sensor	Eight 1/1.9" 2Megapixel CMOS			
Effective Pixels	2x4096(H)x1800(V)			
Scanning System	Progressive			
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s			
Minimum Illumination	0.005Lux/F2.2( Color,1/3s,30IRE) 0.03Lux/F2.2( Color,1/30s,30IRE) 0.003Lux/F2.2( B/W,1/3s,30IRE) 0.02Lux/F2.2( B/W,1/30s,30IRE)			
S/N Ratio	More than 50dB			

#### Panoramic Lens

Lens Type	Fixed			
Mount Type	Board-in			
Focal Length	5mm			
Max. Aperture	F2.2			
Angle of View	H: 360°, V: 80°			

DORI Distance	Detect	Observe	Recognize	Identify
	53m(178ft)	21m(69ft)	10m(33ft)	5m(17ft)

#### PTZ Camera

Image Sensor	1/1.9" 2Megapixel CMOS			
Effective Pixels	1920(H)x1080(V)			
RAM/ROM	1024MB/128MB			
Scanning System	Progressive			
Electronic Shutter Speed	Auto/Manual, 1~1/30000s			
Minimum Illumination	0.002Lux/F1.5( Color,1/3s,30IRE) 0.01Lux/F1.5( Color,1/30s,30IRE) 0.001Lux/F1.5( B/W,1/3s,30IRE) 0.008Lux/F1.5( B/W,1/30s,30IRE)			
S/N Ratio	More than 50dB			

#### PTZ Lens

Lens Type	Motorized /Auto Iris(HALL)			
Mount Type	Board-in			
Focal Length	5.5mm~206mm			
Max. Aperture	F1.5			
Angle of View	H: 65.8°~2.0°			
Optical Zoom	37x			
Focus Control	Motorized			

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	70m(229ft)	28m(92ft)	14m(46ft)	7m(23ft)
	T	2080m(6824ft)	832m(2730ft)	416m(1365ft)	208m(682ft)

### PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -20° ~ 90°, auto flip 180°
Manual Control Speed	Pan: 0.1° ~ 240° /s; Tilt: 0.1° ~ 120° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	Pelco-P/D (Auto recognition)

### Intelligence

Auto Tracking	Support
IVS	Tripwire, Intrusion

### Video

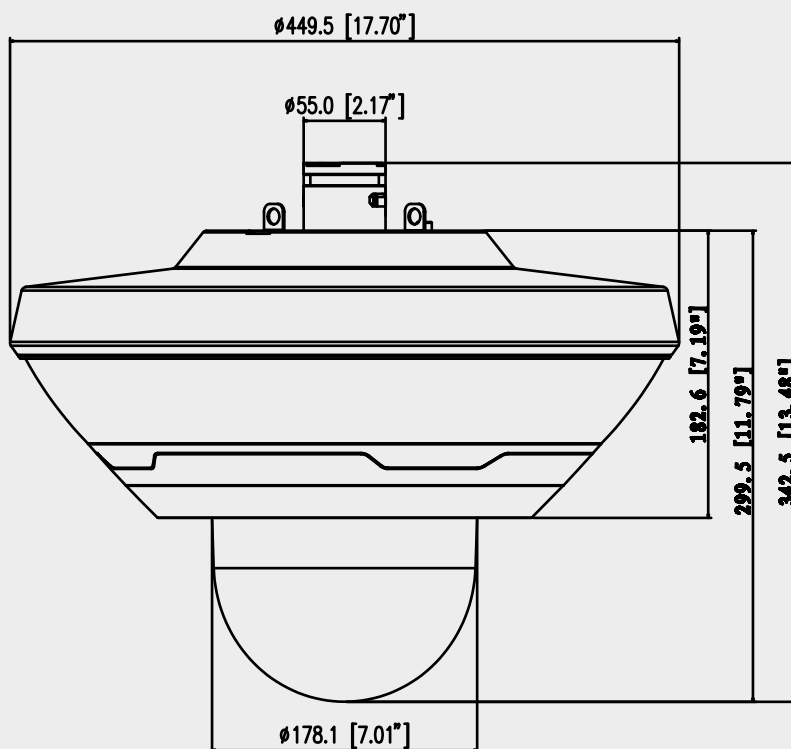
Compression	H.265+/H.265/H.264+/H.264	
Streaming Capability	3 Streams	
Resolution	Panoramic Camera	2x4096x1800/2x3840x1680/2x2880x1264/2x1920x832/2x1280x560/2x1024x452
	PTZ Camera	1080P(1920x1080)/ 1.3M(1280x960)/ 720P(1280x720)/ D1(704x576/704x480)/ CIF(352x288/352x240)
Frame Rate	Panoramic Camera	Main Stream: 2x4096x1800(1~25fps) Sub Stream: 2x1024x452 (1 ~ 25/30fps) Third Stream: 2x1920x832 (1 ~ 25/30fps)
	PTZ Camera	Main Stream: 1080P(1~50/60fps) Sub Stream: D1(1~50/60fps) Third Stream: 1080P(1~50/60fps)
Bit Rate Control	CBR/VBR	
Bit Rate	Panoramic Camera	H.265: 2x (14Kbps~ 8192Kbps) H.264: 2x (24Kbps~ 8192Kbps)
	PTZ Camera	H.265: 4Kbps~ 8192Kbps H.264: 8Kbps~ 7168Kbps
Day/Night	Auto(ICR) / Color / B/W	
BLC Mode	BLC / HLC / WDR	
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D DNR	
Motion Detetion	Off / On (4 Zone, Rectangle)	
Region of Interest	Off / On (4 Zone)	
Electronic Image Stabilization(EIS)	N/A	
Smart IR	N/A	
Defog	Support(For PTZ Camera only)	



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Digital Zoom	16x	
Flip	N/A	
Mirror	N/A	
Privacy Masking	Panoramic Camera	Off / On (4 Area, Rectangle)
	PTZ Camera	Off / On (24 Area, Rectangle)
<b>Audio</b>		
Compression	G.711a/G.711Mu/AAC/ G.726	
<b>Network</b>		
Ethernet	RJ-45 (100/1000Base-T)	
Protocol	HTTP;HTTPS;TCP;ARP;RTSP;RTP;UDP;SMTP;FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;QoS;UPnP;NTP;Bonjour;802.1x;Multicast;IGMP;SNMP	
Interoperability	ONVIF, PSIA, CGI	
Streaming Method	Unicast / Multicast	
Max. User Access	10 Users/20 Users	
Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB	
Web Viewer	IE, Chrome, Firefox, Safari	
Management Software	Unisight VMS	
Smart Phone	IOS, Android	
<b>Certifications</b>		
Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B	
<b>Interface</b>		
Video Interface	1 Port(For PTZ Camera only)	
Audio Interface	2/1 channel In/Out	
RS485	1 Port	
Alarm	7 channel In: 5mA 5VDC 2 channel Out: 1A 30VDC / 0.5A 50VAC	
<b>Electrical</b>		
Power Supply	DC36V	
Power Consumption	<120W	
<b>Environmental</b>		
Operating Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH	
Storage Conditions	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH	
Ingress Protection	IP67	
Vandal Resistance	IK10	
<b>Construction</b>		
Casing	Metal	
Dimensions	Φ449.5mm×342.5mm(Φ17.7"×13.48")	
Net Weight	16kg(35.27lb)	
Gross Weight	25kg(55lb)	

### Dimensions(mm/inch)





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### Accessories (optional)

