



### Description

A rugged photoelectric pan-tilt camera designed for long-distance observation, mobile platforms, marine environments, high-altitude monitoring, fire detection, and perimeter surveillance.

### Features

- 4MP visible camera with 52X optical zoom
- 1000m laser class with listed 1500m lighting distance
- 2-axis gyro-stabilized image control
- Pan 360 deg continuous rotation
- Tilt -90 deg to +90 deg
- H.265, H.264, and MJPEG compression
- ONVIF Profile S/G and GB/T 28181 support
- Pyrotechnic smoke and flame detection
- Optional 1000m laser ranging
- IP67 environmental protection

### Applications

- Marine and vessel observation
- High-altitude tower surveillance
- Border and perimeter security
- Forest/fire prevention monitoring
- Long-range infrastructure protection
- Mobile or vibration-prone platforms

### Specifications

CAMERA		
<b>Image Sensor</b>		1/1.8" Progressive Scan CMOS
<b>Max. Resolution</b>		2560 × 1440 (4MP)
<b>Min. Illumination</b>	<b>Color</b>	0.0005 Lux @F1.4, AGC ON
	<b>B/W</b>	0.0001 Lux @F1.4, AGC ON
<b>Day/Night Switch</b>		IR cut filter; automatic, manual, timing, and alarm trigger modes
<b>Shutter</b>		1/25s to 1/100,000s; delayed shutter supported
<b>Digital Zoom</b>		16x
<b>Optical Zoom</b>		52x
<b>Video Output</b>		Network
LENS		
<b>Auto Iris</b>		PIRIS
<b>Aperture Range</b>		F1.4-F4.7
<b>Focal Length</b>		6.1-317 mm
<b>Field of View (H)</b>		61.8°-1.6° (Wide to Tele)
<b>Min. Working Distance</b>		100-2000 mm (Wide to Tele)
<b>Zoom Speed</b>		Approximately 5 seconds from wide to tele
LASER ILLUMINATION		
<b>Laser Class</b>		1000 m (3281 ft) laser
<b>Listed Lighting Distance</b>		1500 m (4921 ft)
<b>Wavelength</b>		808 +/- 5nm
<b>Laser Chip Power</b>		10 W
<b>Far Angle</b>		0.8°; lighting distance >1500 m; spot diameter <21 m
<b>Near Angle</b>		70°; lighting distance >40 m
<b>Optional Laser Ranging</b>		1000 m ranging distance, 1 m accuracy
VIDEO		
<b>Video Compression</b>		H.265 / H.264 / MJPEG
<b>H.265 Profile</b>		Main Profile
<b>H.264 Profile</b>		BaseLine Profile / Main Profile / High Profile
<b>Video Bitrate</b>		32 Kbps-16 Mbps

### Specifications

<b>Frame Rate</b>	<b>Main Stream</b>	50 Hz: 25 fps @2560 x 1440, 1920 x 1080, 1280 x 960, 1280 x 720; 60 Hz: 30 fps @same resolutions
	<b>Third Stream</b>	50 Hz: 25 fps @704 x 576; 60 Hz: 30 fps @704 x 576
<b>ROI</b>	3 streams and 4 fixed areas	
<b>IMAGE</b>		
<b>Image Settings</b>	Saturation, brightness, contrast, and sharpness adjustable by client or browser	
<b>BLC</b>	Supported	
<b>Exposure Mode</b>	AE, aperture priority, shutter priority, manual exposure	
<b>Focus Mode</b>	Auto focus, one focus, manual focus, semi-auto focus	
<b>Area Exposure / Focus</b>	Supported	
<b>Optical Fog Penetration</b>	Supported	
<b>Image Stabilization</b>	Supported	
<b>Digital Noise Reduction</b>	3D DNR	
<b>AUDIO</b>		
<b>Audio I/O</b>	Supported	
<b>Audio Compression</b>	G.711a / G.711u / G.722.1 / G.726 / MP2L2 / AAC / PCM	
<b>Audio Bitrate</b>	64Kbps (G.711); 16Kbps (G.722.1/G.726); 32-192Kbps (MP2L2); 16-64Kbps (AAC)	
<b>NETWORK</b>		
<b>Protocols</b>	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, RTP, RTSP, RTCP, NTP, SMTP, SNMP, IPv6	
<b>Compatible Integration</b>	ONVIF (Profile S, Profile G)	
<b>ANALYTICS</b>		
<b>Intelligent Computing Power</b>	1T	
<b>Smart Features</b>	Pyrotechnic detection for smoke and flame analysis with real-time alarm support	
<b>STORAGE</b>		
<b>Edge Storage</b>	Micro SD / SDHC / SDXC, up to 128 GB	
<b>Network Storage</b>	NAS support with NFS, SMB/CIFS	

<b>PTZ</b>		
<b>Pan</b>	<b>Range</b>	360° continuous rotation
	<b>Speed</b>	0.05°/s–400°/s
<b>Tilt</b>	<b>Range</b>	-90° to +90° rotation
	<b>Speed</b>	0.05°/s–200°/s
<b>Scaling</b>	Supported	
<b>Preset Positions</b>	256	
<b>Cruise Scanning</b>	6	
<b>INTERFACE</b>		
<b>Wiper</b>	Supported	
<b>Gyroscopic Stabilization</b>	2-axis gyro stabilization	
<b>Steady-State Accuracy</b>	0.1°	
<b>Max. Carrier Following Speed</b>	100°/s	
<b>Alarm I/O</b>	One-way	
<b>External Data Interface</b>	RS422	
<b>GENERAL</b>		
<b>Power Supply</b>	DC 24 V 5A +/-15%, 50 Hz	
<b>Power Consumption</b>	Max. 60 W	
<b>Protection Grade</b>	IP67	
<b>Electromagnetic Compatibility</b>	6KV GB/T 17626.5-4	
<b>Operating Environment</b>	<b>Temperature</b>	-40°C to +70°C (-40°F to +158°F)
	<b>Humidity</b>	<90% RH
<b>Weight</b>	29.6 kg (65.3 lb)	

### Dimensions — [mm]

