



**Ivan Yeh** Sales Director

Mob: +86 15858277138

E-mail: yemeng@hzsoar.com

Web: www.hzsoar.com

Address: No.38, Xiangyuan Road, Hangzhou, China



# Product Brochure

## Hangzhou Soar Security Technology Co., Ltd.

PTZ expert since 2005



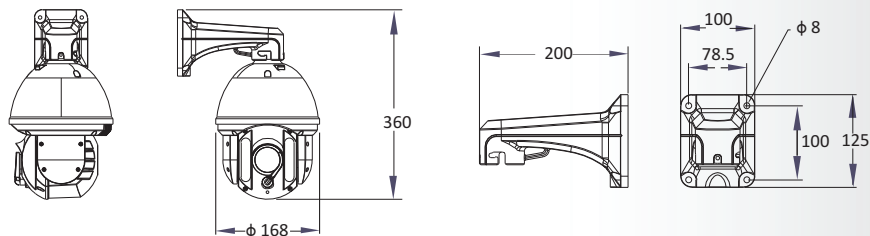
# IR SPEED DOME PTZ



## Description

- High quality imaging with optional 2 MP/4MP resolution
- Excellent low-light performance
- Up to 33x Optical Zoom (5.5~180mm), 16x Digital Zoom
- 3D DNR, WDR, HLC, BLC, ROI
- Support H.265/H.264 video compression
- IR distance up to 120m
- Pan range : 360° endless, tilt range : -3°~93°
- Support ONVIF profile S,G.
- High-strength alloy aluminum integral die-casting shell, internal all-metal structure;
- IP 66 waterproof, outdoor applicable; Wiper optional
- Private mold/customized mold, flexible option for OEM/ODM service;

## Dimension



Model No.	SOAR918-2133
<b>CAMERA</b>	
Image Sensor	1/2.8" Progressive Scan CMOS, 2MP;
Effective Pixels	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 33x, 16x digital zoom
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05°~120° /s
Tilt Range	-3°~93°
Tilt Speed	0.05°~120°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4 , with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 120m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network</b>	
Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF, PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...
<b>General</b>	
Power	AC 24V, 36W(Max)
Working temperature	-40℃~60℃
Humidity	90% or less
Protection level	IP66, TVS 4000V Lightning protection, surge protection
Mount option	Wall Mounting, Ceiling Mounting
Weight	3.5kg
Dimension	Φ 196×253(mm)

## Note:

We just listed most standard/recommended configuration in above datasheet.  
As manufacturer, we are willing to design solutions based your application, and budget.

# IR SPEED DOME PTZ



## IR SPEED PTZ

**HD IP, 4MP, 37x**  
**All metal structure**  
**Waterproof, IP66**  
**Wiper, Heater, etc**

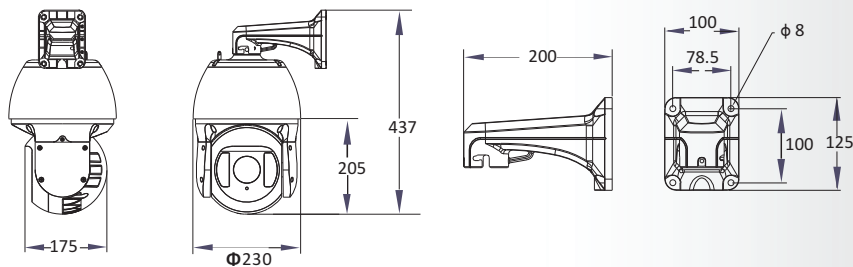


## Description

- ✦ High quality imaging with 4 MP resolution
- ✦ Excellent low-light performance
- ✦ 37x Optical Zoom (6.5~240mm), 16x Digital Zoom
- ✦ 3D DNR, WDR, HLC, BLC, ROI
- ✦ Support H.265/H.264 video compression
- ✦ IR distance up to 150m
- ✦ Pan range : 360° endless, tilt range : -15°~93°
- ✦ Support ONVIF profile S,G, GB/T28181, etc.
- ✦ High-strength alloy aluminum integral die-casting shell, internal all-metal structure;
- ✦ IP 66 waterproof, outdoor applicable; Wiper optional
- ✦ Private mould/customized mould, flexible option for OEM/ODM service;



## Dimension



Model No.	SOAR788-4237
<b>CAMERA</b>	
Image Sensor	1/1.8" Progressive Scan CMOS, 4MP;
Effective Pixels	2560(H) x 1440(V), 4MP;
Minimum Illumination	Color: 0.0005Lux@F1.5; B/W: 0.0001Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 6.5mm~240mm
Optical Zoom	Optical Zoom 37x
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05°~300° /s
Tilt Range	-15°~93°
Tilt Speed	0.05°~200°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4, with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 150m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network</b>	
Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF, PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...
<b>General</b>	
Power	AC 24V, 50W(Max)
Working temperature	-40℃ -60℃
Humidity	90% or less
Protection level	IP66, TVS 4000V Lightning protection, surge protection
Mount option	Wall Mounting, Ceiling Mounting
Weight	6.5kg
Dimension	Φ 230x437(mm)

## Note:

We just listed most standard/recommended configuration in above datasheet.

As manufacturer, we are willing to design solutions based your application, and budget.

# IR SPEED DOME PTZ

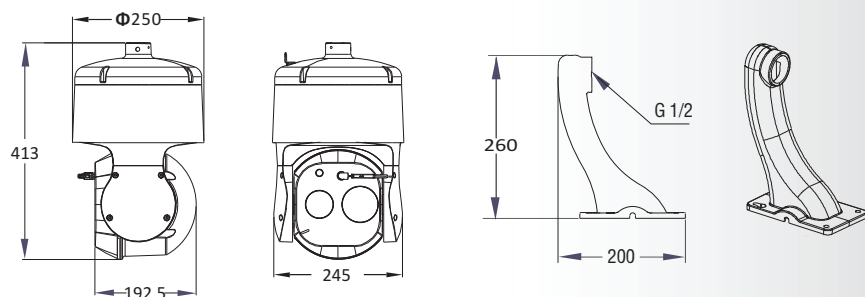


## Description

- ✘ High quality imaging with 4 MP resolution
- ✘ Excellent low-light performance
- ✘ 37x Optical Zoom (6.5~240mm), 16x Digital Zoom
- ✘ 3D DNR, WDR, HLC, BLC, ROI
- ✘ Support H.265/H.264 video compression
- ✘ IR distance up to 800m (with a laser illuminator )
- ✘ Pan/tilt closed-loop control system, positioning accuracy up to 0.3°
- ✘ Automatic rain sensor
- ✘ Pan range : 360° endless, tilt range : -25°~90°
- ✘ High-strength alloy aluminum integral die-casting shell, internal all-metal structure;
- ✘ IP 66 waterproof, outdoor applicable
- ✘ Private mould/customized mould, flexible option for OEM/ODM service;



## Dimension



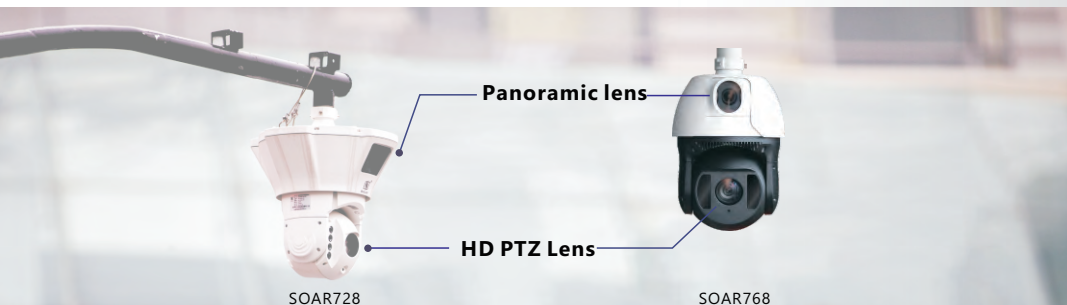
Model No.	SOAR789-4237LS8
<b>CAMERA</b>	
Image Sensor	1/1.8" Progressive Scan CMOS
Effective Pixels	2560(H) x 1440(V), 4 Megapixels;
Minimum Illumination	Color: 0.0005Lux@F1.5; B/W:0.0001Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 6.5mm~240mm
Optical Zoom	Optical Zoom 37x
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05°~200° /s
Tilt Range	-25°~90°
Tilt Speed	0.05°~120°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4, with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 800m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network</b>	
Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF
Web Viewer	IE10/Google/Firefox/Safari...
<b>General</b>	
Power	AC 24V, 48W(Max)
Working temperature	-40℃ -70℃
Humidity	90% or less
Protection level	IP66, TVS 4000V Lightning protection, surge protection
Mount option	Wall Mounting, Ceiling Mounting
Weight	7.8kg
Dimension	Φ 250x413(mm)

## Note:

We just listed most standard/recommended configuration in above datasheet.

As manufacturer, we are willing to design solutions based your application, and budget.

# Panoramic & PTZ camera



## Description

### Key function:

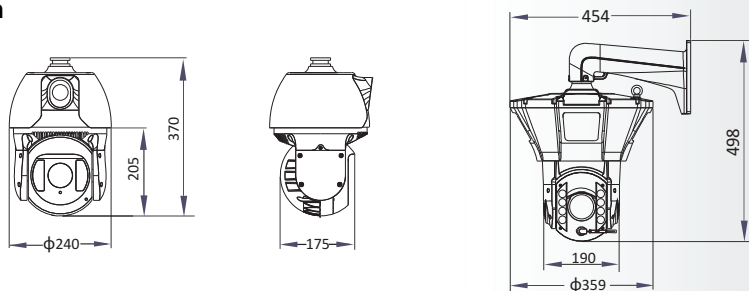
1. Linked panoramic camera and HD camera; face capture and upload
2. Multi targets auto tracking

### Main features:

- Integration of panoramic lens HD camera and Intelligent algorithm module  
Support multi-target tracking and close-up face capture. ;
- Starlight panoramic fixed focus lens and HD lens;
- With deep learning algorithm inside;
- Effective Face capture distance up to 70 meters ;
- ANPR; (to be customized) ;
- Support 3D position; preset cruise, home position, idle action, etc.
- Comply with GB/T 28181、ONVIF protocol;
- All metal structure ; Anti-Fog, waterproof, Anti-corrosion, IP66 rated.



## Dimension



Model No.	SOAR728	SOAR768
<b>System Function</b>		
Intelligent Identification	Facial Capture	
Facial Detection Range	70meters	
Auto Tracking	Support	
Multiple Targets Tracking	Support. Up To 30 Targets In One Second	
Smart Detection	People And Facial Are Recognized Automatically.	
<b>Panoramic Camera</b>		
Image Sensor	1/1.8" Progressive Scan Cmos	
Day/night	ICR	
Min. Illumination	Color: 0.001 Lux@(f1.2, Agc On), B/w: 0.0001 Lux@(f1.2, Agc On)	
S/N Ratio	>55 dB	
Smart Image Enhancement	WDR, Defog, HLC, BLC, HLC	
Horizontal Fov	106°	
Vertical Fov	58°	
Smart Detection	Motion Detection, People Detection	
Video Compression	H.265/h.264/mjpeg	
Lens	3.6mm	
<b>Tracking Ptz Camera</b>		
Image Sensor	1/1.8" Progressive Scan Cmos	
Effective Pixels	1920x1080	
Minimum Illumination	Color: 0.001 Lux@(f1.2, Agc On), B/w: 0.0001 Lux@(f1.2, Agc On)	
Shutter Time	1/1~1/ 30000s	
S/N Ratio	>55 dB	
Day/Night	ICR	
Horizontal Fov	66.31°~3.72°(wide-tele)	
Aperture Range	F1.5 To F4.8	
<b>Pan/tilt</b>		
Pan Range	360°endless	
Pan Speed	0.05° -100°/s	0.05~300°/s
Tilt Range	-3°~90°(auto Flip)	-15°~90°(auto Flip)
Tilt Speed	0.05° -100°/s	0.05~200°/s
Proportional Zoom	Rotation Speed Can Be Adjusted Automatically According To Zoom Multiples	
Number Of Preset	256	
Patrol	6 Patrols, Up To 16 Presets Per Patrol	
Pattern	4 Patterns, With The Recording Time Not Less Than 10 Minutes Per Pattern	
<b>Trace Function</b>		
Application Scene	Facial Capture And Uploading	
Precautionary Area	6 Areas	
Monitoring Area	70meters	
<b>Network</b>		
API	Support Onvif, Support Hikvision Sdk And Third-party Management Platform	
Protocols	Ipv4, Http, Ftp, Rtsp,dns, Ntp, Rtp, Tcp,udp, Icmp, Arp	
Network Interface	Rj45 10base-t/100base-tx	
Infrared	200m	
Ir Irradiation Distance	Adjustable By Zoom	
<b>Genera</b>		
Power Supply	24VAC	
Power Consumption	Max.: 55 W	
Working Temperature	Temperature: Outdoor: -40°C To 70°C (-40°F To 158°F)	
Working Humidity	Humidity: 90%	
Protection Level	IP66 Standard	
Material	Aluminum Alloy	
Weight (approx.)	Approx. 10 Kg	Approx. 7.5 Kg

# Portable Mobile PTZ



## SOAR971 Mobile surveillance PTZ

SOAR971 series mobile PTZ is designed for rough condition and mobile applications. This rugged, all weatherproof PTZ Camera is completely waterproof to IP66 standards and has an internal heater that allow this PTZ Camera to work under the condition of temperatures down to -40° C.

With compact design and light weighs , the PTZ is a ideal choice for marine and vehicle rapid deployment for vehicle, marine and militaries application around the world.

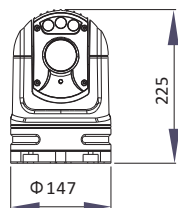
### Feature

- ✦ 1920x1080 Progressive Scan CMOS, Day/Night monitoring
- ✦ 33X Optical zoom, 5.5~180mm
- ✦ IR LED Illumination for Night Vision, 50m IR distance
- ✦ 360 degree endless rotation, tilt range :-25~90°
- ✦ IP66 Design
- ✦ Operation Temperatures Ranging from -40° to +65°C
- ✦ Optional Magnetic Mount
- ✦ Optional damper absorber
- ✦ Optional dual-sensor version, to be integrated with thermal camera

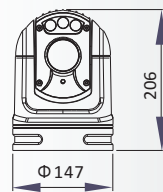
### Application

- ✦ Police car cctv
- ✦ Military vehicle surveillance
- ✦ Marine surveillance
- ✦ Robot cctv
- ✦ Patrol vehicle surveillance
- ✦ Mining monitoring
- ✦ Fire rescue camera

### Dimension



With Damper



Without Damper

Unit : mm

**Model No.** SOAR971-2133

#### CAMERA

Image Sensor	1/2.8" Progressive Scan CMOS, 2MP;
Effective Pixels	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)

#### LENS

Focal Length	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 33x, 16x digital zoom

#### Video

Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual

#### Network

Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF , PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...

#### PTZ

Pan Range	360° endless
Pan Speed	0.05~60° /s
Tilt Range	-25~90°
Tilt Speed	0.05~50°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4 , with the total recording time not less than 10 mins
Power loss recovery	Support

#### Infrared

IR distance	Up to 50m
IR intensity	Automatically adjusted, depending on the zoom ratio

#### General

Power	DC 12~24V, 24W(Max)
Working temperature	-40~65°C
Humidity	90% or less
Protection level	IP66, TVS 3000V Lightning protection, surge protection
Mount option	Vehicle mouting, Ceiling/tripod Mounting
Weight	3.5kg
Dimension	/

### Note:

We just listed most standard/recommended configuration in above datasheet.

As manufacturer, we are willing to design solutions based your application, and budget.

We can customize the configuration in several ways, including offer different camera module option, private protocol implement, function customization, etc.

# Mobile Surveillance



## SOAR970 Vehicle Mounted PTZ

SOAR970 series mobile PTZ is designed for mobile surveillance application. With its excellent waterproof ability up to Ip67 and optional gyroscope stabilization, it is also widely applied in marine application. The PTZ can be optionally be ordered with HDIP(2MP, 4MP), Analog;  
Integrated IR LED or laser illumination allows it to see from 150m up to 800m in complete darkness.

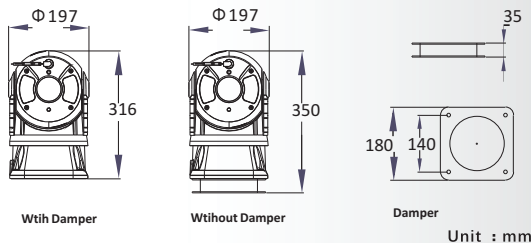
### Feature

- ✦ 1920x1080 Progressive Scan CMOS, Day/Night monitoring
- ✦ 33X Optical zoom, 5.5~180mm
- ✦ IR LED Illumination for Night Vision, 150m IR distance
- ✦ 360 degree endless rotation
- ✦ IP67 Design
- ✦ Operation Temperatures Ranging from -40° to +65°C
- ✦ Optional gyroscope stabilization
- ✦ Optional damper absorber
- ✦ Optional dual-sensor version, to be integrated with thermal camera

### Application

- Military vehicle surveillance
- Marine surveillance
- Law enforcement surveillance
- Command center cctv
- Mining monitoring
- Boundary security

### Dimension

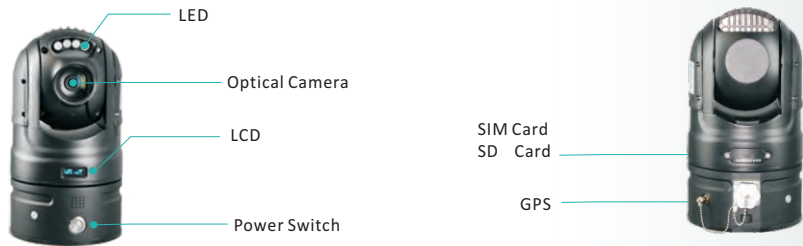


Model No.	SOAR970-2133
<b>CAMERA</b>	
Image Sensor	1/2.8" Progressive Scan CMOS, 2MP;
Effective Pixels	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 33x, 16x digital zoom
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network</b>	
Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF , PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05°~80° /s
Tilt Range	-20°~90°
Tilt Speed	0.05°~80°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4, with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 150m (up to 800m, with laser illuminator)
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>General</b>	
Power	DC 12~24V, 40W(Max)
Working temperature	-40~60°C
Humidity	90% or less
Protection level	IP67, TVS 4000V Lightning protection, surge protection
Wiper	Optional
Mount option	Vehicle mounting, Ceiling/tripod Mounting
Weight	6.5kg
Dimension	Φ197x316

### Note:

We just listed most standard/recommended configuration in above datasheet. As manufacturer, we are willing to design solutions based your application, and budget. We can customize the configuration in several ways, including offer different camera module option, private protocol implement, function customization, etc.

# Mobile Surveillance 4G PTZ



## SOAR972 Battery-powered Rapid Deployment HD 4G PTZ Camera

It's a high-definition IP camera powered by a high-performance lithium battery pack. It is waterproof, shock-proof, with characteristics particular to the demands of a temporary or rapid installation such as a magnetic base for vehicle application or tripod mount. With built in 4G/wifi/GPS.

### Feature



### Application

- Temporary Traffic Monitoring
- People Gathering Event Monitoring
- Emergency Action Taker
- Police Law Enforcement
- Fire Rescure
- Mobile Command Center



<b>Model No.</b>	<b>SOAR972-2133</b>
<b>CAMERA</b>	
Image Sensor	1/2.8" Progressive Scan CMOS, 2MP;
Effective Pixels	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 33x, 16x digital zoom
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network and connection</b>	
Dial-up	LTE-FDD: B1/B3/B5/B8/(B28); LTE-TDD: B38/B39/B40/B41; WCDMA: B1/B8 TD-SCDMA: B34/B39; CDMA&EVDO: BC0 GSM: 900/1800.
Wi-Fi Protocol	802.11b;802.11g;802.11n;802.11ac
Wi-Fi Working Mode	AP, Station
Wi-Fi Frequency	2.4 Ghz
Positioning	GPS; Bidou;
Bluetooth	4.0
Interface Protocol	Ehome; Hikvision SDK; Gb28181; ONVIF
<b>Battery</b>	
Working time	9 Hours
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05~80° /s
Tilt Range	-25°~90°
Tilt Speed	0.05~60°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4 , with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 50m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>General</b>	
Power	DC 12~24V,45W(Max)
Working temperature	-40~60°C
Humidity	90% or less
Protection level	IP66, TVS 4000V Lightning protection, surge protection
Mount option	Vehicle mouting, Ceiling/tripod Mounting
Weight	4kg



# Cost Effective Mobile Surveillance 4G PTZ



## SOAR973

### Cost effective Battery-powered Rapid Deployment HD 4G PTZ Camera

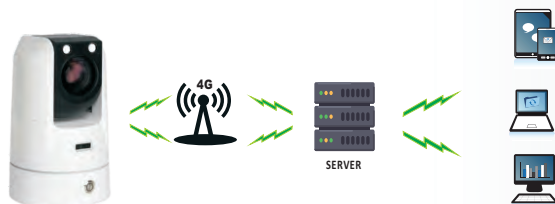
It's a high-definition IP camera powered by a high-performance lithium battery pack. It is waterproof, plastic, with characteristics particular to the demands of a temporary or rapid installation such as a magnetic base for tripod mount. With built in 4G/wifi/GPS.

#### Feature



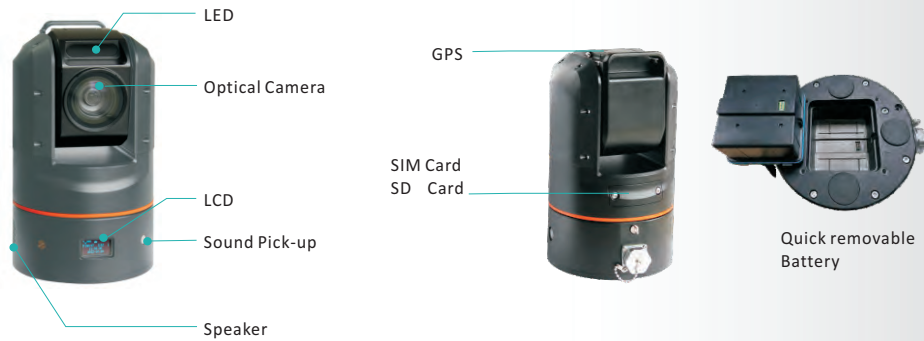
#### Application

- Temporary Traffic Monitoring
- People Gathering Event Monitoring
- Emergency Action Taker
- Police Law Enforcement
- Fire Rescue
- Mobile Command Center



Model No.	SOAR973-2133
<b>CAMERA</b>	
Image Sensor	1/2.8" Progressive Scan CMOS, 2MP;
Effective Pixels	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)
<b>LENS</b>	
Focal Length	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 33x, 16x digital zoom
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
<b>Network and connection</b>	
Dial-up	LTE-FDD: B1/B3/B5/B8/(B28); LTE-TDD: B38/B39/B40/B41; WCDMA: B1/B8 TD-SCDMA: B34/B39; CDMA&EVDO: BCO GSM: 900/1800.
Wi-Fi Protocol	802.11b;802.11g;802.11n;802.11ac
Wi-Fi Working Mode	AP, Station
Wi-Fi Frequency	2.4 Ghz
Positioning	GPS; Bidou;
Bluetooth	4.0
Interface Protocol	Ehome; Hikvision SDK; Gb28181; ONVIF
<b>Battery</b>	
Working time	9 Hours
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.1°~12° /s
Tilt Range	-25°~90°
Tilt Speed	0.1°~12°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4, with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 30m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>General</b>	
Power	DC 12±2V, 36W(Max)
Working temperature	-20~60°C
Humidity	90% or less
Protection level	IP65, TVS 4000V Lightning protection, surge protection
Mount option	Tripod Mounting
Weight	2.5kg

# Mobile Surveillance 5G PTZ



## SOAR976

### High End Battery-powered Rapid Deployment HD 5G PTZ Camera

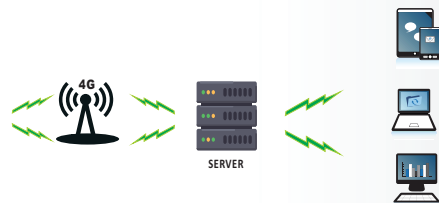
It's a high-definition IP camera powered by a high-performance lithium battery pack(quick removable). It is waterproof, shock-proof, with characteristics particular to the demands of a temporary or rapid installation such as a magnetic base for vehicle application or tripod mount. With built in 5G/4G/wifi/GPS. With various zoom camera module options.

#### Feature



#### Application

- Temporary Traffic Monitoring
- People Gathering Event Monitoring
- Emergency Action Taker
- Police Law Enforcement
- Fire Rescue
- Mobile Command Center



## Model No. SOAR976-2133

<b>Camera</b>	
Image Sensor	1/2.8" progressive scan cmos, 2MP;
Effective Pixels	1920(h) x 1080(v), 2 megapixels;
Minimum Illumination	Color: 0.001lux@f1.5; W/B: 0.0005lux@f1.5 (ir on)
<b>Lens</b>	
Focal Length	Focal length 5.5mm~180mm
Optical Zoom	Optical zoom 33x, 16x digital zoom
<b>Video</b>	
Compression	H.265/h.264 / MJPEG
Streaming	3 Streams
Blc	BLC / HLC / WDR(120db)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network And Connection</b>	
5g Connection	DL 4x4 mimo (n1/41/77/78/79); dl 2x2 mimo (n20/28); UL 2x2 mimo (n41/77/78/79);dl 256 qam,ul 256 qam
Lte Connection	DL 2x2 mimo(b1/2/3/4/5/7/8/20/26/28/34/38/39/40/41); dl 256 qam,ul 64 qam
Wi-fi Protocol	IEEE 802.11a/IEEE 802.11an/IEEE 802.11ac
Band Width	20/40/80mhz(optional)
Wi-fi Security	Wpa-psk/wpa2-psk,wpa-psk,wpa2-psk
Positioning	GPS
Sim Card	Dual nano sim card
Sd Card Storage	Built-in card slot,support micro sd/sdxc /sdxc card ,nas(nfs,smb/cifs ); 256g
Microphone	Built-in microphone,dual microphone
Speaker	Built-in 2 speaker
<b>Battery</b>	
Battery Type	Quick removable lithium battery with high capacity
Capacity	14.4v 6700mah(96.48wh)
Duration	10 hours (ir closed,low power mode)
<b>PTZ</b>	
Pan Range	360° endless
Pan Speed	0.05°~80° /s
Tilt Range	-25°~90°
Tilt Speed	0.05°~60°/s
Number Of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4 , with the total recording time not less than 10 mins
Power Loss Recovery	Support
<b>Infrared</b>	
Ir Distance	Up to 50m
Ir Intensity	Automatically adjusted, depending on the zoom ratio
<b>General</b>	
Power	DC 12~24v,45w(max)
Working Temperature	-40~60°C
Humidity	90% or less
Protection Level	IP66, tvs 4000v lightning protection, surge protection
Mount Option	Vehicle mouting, ceiling/tripod mounting
Weight	4kg

# LASER PTZ



Model No.	SOAR911-LS	SOAR789-LS	SOAR970-LS	SOAR800-LS	SOAR977-LS
<b>Camera option</b>					
2mp, 33x,5.5~180mm	Appliable	Appliable	Appliable	Appliable	Appliable
2mp, 52x,6.1~317mm	NA	NA	NA	Appliable	Appliable
4mp, 37x,6.5~240mm	NA	Appliable	NA	Appliable	Appliable
<b>laser option</b>					
500 meters	Appliable	Appliable	Appliable	Appliable	Appliable
800 meters	Appliable	Appliable	Appliable	Appliable	Appliable
1000 meters	NA	NA	NA	Appliable	Appliable
<b>Pan/tilt</b>					
Pan	360°, 0.05°~150°/s	360°, 0.05°~200°/s	360°, 0.05°~80°/s	360°, 0.05°~90°/s	360°, 0.05°~250°/s
Tilt	-2°~90°, 0.05°~120°/s	-25°~90°, 0.05°~120°/s	-20°~90°, 0.05°~80°/s	-82°~58°, 0.1°~9°/s	-90°~90°, 0.05°~150°/s,
Communicate interface	Rs485, RJ45	Rs485, RJ45	Rs485, RJ45	Rs485, RJ45	Rs485, RJ45
Protocols	Onvif support	Onvif support	Onvif support	Onvif support	Onvif support
Power Supply	AC 24V	AC 24V	DC12~ 24V	AC 24V	DC 24V
Consumption	48W	48W	40W	72W	60W
Weight	3.5 KG	7.8 KG	6.5 KG	9.5 KG	15 KG
Operate Temperature	-40°C -60°C	-40°C -70°C	-40°C -60°C	-40°C -60°C	-40°C -70°C
IP rate	IP 66	IP 66	IP 67	IP 66	IP 67

# Laser PTZ Network Camera



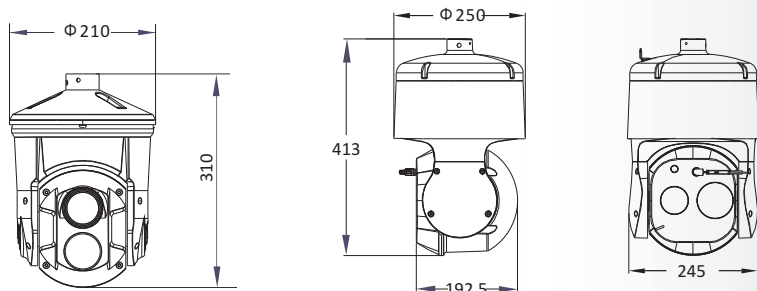
SOAR911-LS, SOAR789-LS  
Starlight Laser PTZ Network Camera

The camera combines infrared lighting and starlight technology, the camera is the perfect solution for dark and low light applications. This camera has powerful optical zoom and precise pan/tilt/zoom performance, providing an all-in-one solution for capturing long-distance video surveillance for outdoor applications.

## Feature

- Up to 4MP, 37x Optical Zoom
- 1/1.9" Progressive Scan CMOS
- Weatherproof IP66
- ONVIF
- IR distance up to 800m

## Dimension



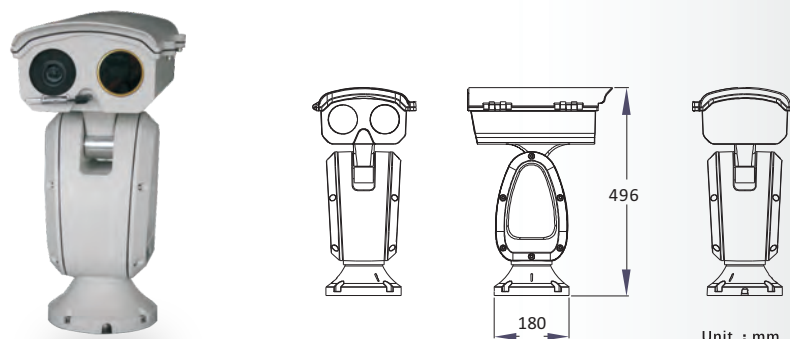
Model No.	SOAR789-4237LS8	SOAR911-2133LS8
<b>CAMERA</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	1/2.8" Progressive Scan CMOS
Effective Pixels	2560(H) x 1440(V), 4Megapixels;	1920(H) x 1080(V), 2 Megapixels;
Minimum Illumination	Color: 0.0005Lux@F1.5; B/W:0.0001Lux@F1.5 (IR on)	Color: 0.001Lux@F1.5; W/B: 0.0005Lux@F1.5 (IR on)
<b>LENS</b>		
Focal Length	Focal Length 6.5mm~240mm	Focal Length 5.5mm~180mm
Optical Zoom	Optical Zoom 37x	Optical Zoom 33x, 16x digital zoom
<b>PTZ</b>		
Pan Range	360° endless (closed loop control system)	360° endless
Pan Speed	0.05°~200° /s	0.05°~150° /s
Tilt Range	-25°~90° (closed loop control system)	-2°~90°
Tilt Speed	0.05°~120°/s	0.05°~120°/s
Number of Preset	255	
Patrol	6 patrols, up to 18 presets per patrol	
Pattern	4 , with the total recording time not less than 10 mins	
Power loss recovery	Support	
<b>Infrared</b>		
IR distance	Up to 800m	
IR intensity	Automatically adjusted, depending on the zoom ratio	
<b>Video</b>		
Compression	H.265/H.264 / MJPEG	
Streaming	3 Streams	
BLC	BLC / HLC / WDR(120dB)	
White Balance	Auto,ATW,Indoor,Outdoor,Manual	
Gain Control	Auto / Manual	
<b>Network</b>		
Ethernet	RJ-45 (10/100Base-T)	
Interoperability	ONVIF, PSIA, CGI	
Web Viewer	IE10/Google/Firefox/Safari...	
<b>General</b>		
Power	AC 24V, 48W(Max)	AC 24V, 48W(Max)
Working temperature	-40°C -60°C	
Humidity	90% or less	
Protection level	IP66, TVS 4000V Lightning protection, surge protection	
Mount option	Wall Mounting, Ceiling Mounting	
Weight	7.8 kg	3.5kg
Dimension	Φ 250×413(mm)	Φ 210×310(mm)

## Note:

We just listed most standard/recommended configuration in above datasheet.

As manufacturer, we are willing to design solutions based your application, and budget.

# Long Range Laser PTZ



SOAR800  
Starlight Laser PTZ Network Camera

The camera combines infrared lighting and starlight technology, the camera is the perfect solution for dark and low light applications. This camera has powerful optical zoom and precise pan/tilt/zoom performance, providing an all-in-one solution for capturing long-distance video surveillance for outdoor applications.

It is a project-oriented product that applicable for various application, such as perimeter protection, protection of key components (electrical facilities, gas pumps, etc.) and over-heating detection in critical infrastructure, forest fire prevention, and other scenarios.

With numerous zoom lens options up to 317mm/52xzoom, and multiple sensor resolutions available from Full-HD up to 4MP. Paired with up to 1000m of laser illumination , this camera system offers excellent night surveillance performance.

All of these sensors are integrated into a rugged IP66 weatherproof housing constructed of strengthened aluminum.

## Feature

- Optional optical camera, up to 4MP; 52x Optical Zoom
- Optional laser illuminator, up to 800 meters
- Day&night surveillance
- Weatherproof IP66
- 360° endless pan rotation
- ONVIF comply
- Support customization

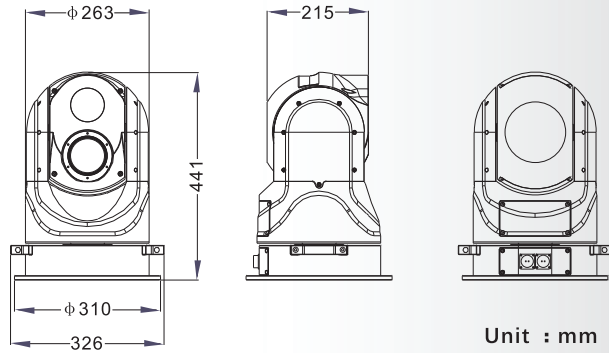
Model No.	SOAR800-4252LS8
<b>CAMERA</b>	
Image Sensor	1/1.8" Progressive Scan CMOS
Effective Pixels	2560(H) x 1440(V), 4 Megapixels;
Minimum Illumination	Color: 0.0005Lux@F1.4; B/W:0.0001Lux@F1.4
<b>LENS</b>	
Focal Length	Focal Length 6.1mm~317mm
Optical Zoom	Optical Zoom 52x
<b>PTZ</b>	
Pan Range	360° (endless)
Pan Speed	0.05°/s ~ 90°/s
Tilt Range	- 82° ~ +58° (auto reverse)
Tilt Speed	0.1° ~ 9°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4 , with the total recording time not less than 10 mins
Power loss recovery	Support
<b>Infrared</b>	
IR distance	Up to 800m
IR intensity	Automatically adjusted, depending on the zoom ratio
<b>Video</b>	
Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual
<b>Network</b>	
Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF, PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...
<b>General</b>	
Power	AC 24V, 72W(Max)
Working temperature	-40°C -60°C
Humidity	90% or less
Protection level	IP66, TVS 4000V Lightning protection, surge protection
Mount option	Wall Mounting, Ceiling Mounting
Weight	9.5kg

## Note:

As manufacturer, we are willing to design solutions based your application, and budget.

Our Pan/Tilt supports various lens/sensor and payloads. The above chart we just listed most standard/recommended configuration, for quick overview.

# Marine Laser PTZ



## Feature

- Starlight optical Camera with 1/1.8" Cmos sensor, 317mm lens, 52x Zoom;
- Optional laser illuminator up to 1500meter;
- 360° omnidirectional high-speed PTZ; ±90° Tilt range;
- Built-in heater/fan, allows the withstand the harshest climates;
- Gyro Stabilization, 2 axis;
- Marine rated design,
- Onvif Support;
- Waterproof index: IP67.



## Application

- Coastal Surveillance and Reconnaissance
- Harbor and Offshore Platform Security
- Maritime Traffic monitoring
- Oil Spill and Water Pollution Detection
- Search and Rescue
- Coast Guard and Police Patrol Boats
- Critical Infrastructure Protection

Model No.

SOAR977-4252LS8

### CAMERA

Image Sensor	1/1.8" Progressive Scan CMOS, 4MP;
Effective Pixels	2560(H) x 1440(V), 4 Megapixels;
Minimum Illumination	Color: 0.0005Lux@F1.4; B/W:0.0001Lux@F1.4

### LENS

Focal Length	Focal Length 6.1mm~317mm
Optical Zoom	Optical Zoom 52x

### PTZ

Pan Range	360° (endless)
Pan Speed	0.05°/s ~ 250°/s
Tilt Range	-60° ~ +90° (auto reverse)
Tilt Speed	0.1° ~ 150°/s
Number of Preset	255
Patrol	6 patrols, up to 18 presets per patrol
Pattern	4, with the total recording time not less than 10 mins
Power loss recovery	Support

### Infrared

IR distance	Up to 1500m
IR intensity	Automatically adjusted, depending on the zoom ratio

### Video

Compression	H.265/H.264 / MJPEG
Streaming	3 Streams
BLC	BLC / HLC / WDR(120dB)
White Balance	Auto,ATW,Indoor,Outdoor,Manual
Gain Control	Auto / Manual

### Network

Ethernet	RJ-45 (10/100Base-T)
Interoperability	ONVIF, PSIA, CGI
Web Viewer	IE10/Google/Firefox/Safari...

### General

Power	DC 24V, 72W(Max)
Working temperature	-40°C -70°C
Humidity	90% or less
Protection level	IP67, TVS 4000V Lightning protection, surge protection
Mount option	Desk Mounting
Weight	15kg

### Note:

As manufacturer, we are willing to design solutions based your application, and budget. Our Pan/Tilt supports various lens/sensor and payloads. The above chart we just listed most standard/recommended configuration, for quick overview.

# Dual Payload Mobile PTZ



## SOAR971-TH, SOAR970-TH Thermal + Optical Bi-spectrum mobile PTZ

SOAR971-TH/970-TH series dual sensor PTZ is a rugged, vehicle mounted PTZ camera system. The camera incorporates a 30x HD day/night zoom camera and an uncooled thermal imager, allows long range surveillance both daytime and night time.

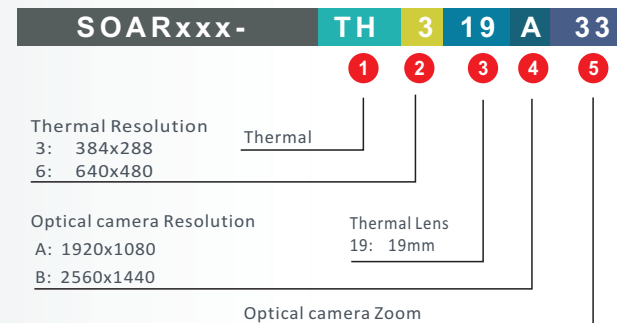
Enclosed with aluminum housing and excellent sealing solution, the camera is designed with an ingress protection rating of IP66/67, protecting the internal components from dust, dirt and liquids. The rugged, mobile mounting options make this camera ideal choice for many mobile surveillance application, like law enforcement, military vehicle surveillance, specialized robot, marine surveillance.

### Feature

- 2MP; 33x Optical Zoom
- Optional Thermal Lens, up to 40mm
- 640\*480 resolution, high sensitivity sensor, support contrast adjustment
- Weatherproof IP66/67
- ONVIF comply
- Optional gyroscope stabilization
- Ideal for mobile surveillance, for vehicle, marine application

Model No.	SOAR971-TH	SOAR970-TH
<b>Thermal Imaging</b>		
Detector	Uncooled amorphous silicon FPA	
Array format/Pixel pitch	384x288/17μm ; 640x480/17μm	
Lens	19 mm ; 25 mm;	40mm
Sensitivity(NETD)	≤50mk@300K	
Digital Zoom	1x 2x 4x	
Pseudo color	9 Pseudo Color palettes changeable; White Hot/black hot	
<b>Daytime Camera</b>		
Image Sensor	1/2.8" Progressive Scan CMOS, 2MP	
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON); Black:0.0005Lux @(F1.5,AGC ON);	
Focal Length	5.5-180mm; 33x optical zoom	
Protocol	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
Interface Protocol	ONVIF(PROFILE S,PROFILE G)	
<b>Pan/Tilt</b>		
Pan Range	360° (endless)	
Pan Speed	0.05°/s ~ 60°/s	0.05°/s ~ 80°/s
Tilt Range	-25° ~ +90° (auto reverse)	-20° ~ +90° (auto reverse)
Tilt Speed	0.05° ~ 50°/s	0.05° ~ 80°/s
<b>General</b>		
Power	DC 12V-24V, wide voltage input ; Power consumption ≤24w ;	
COM/Protocol	RS 485/ PELCO-D/P	
Video Output	1 channel Thermal Imaging video; Network video, via Rj45 1 channel HD video ; Network video, via Rj45	
Working temperature	-40~60°C	
Mounting	Vehicle mounted ; Mast mounting	
Ingress Protection	IP66	IP67
Dimension	Φ147*208 mm	Φ197*316 mm
Weight	3.5 kg	6.5 kg

### MEANING OF MODEL NAME



### OPTIONS

SOAR971-TH319A33
SOAR971-TH325A33
SOAR971-TH619A33
SOAR971-TH625A33
SOAR970-TH319A33
SOAR970-TH325A33
SOAR970-TH340A33
SOAR970-TH619A33
SOAR970-TH625A33
SOAR970-TH640A33

# Dual Sensor Speed Dome PTZ



## SOAR911-TH, SOAR789-TH

### Thermal + Optical Bi-spectrum Speed Dome PTZ

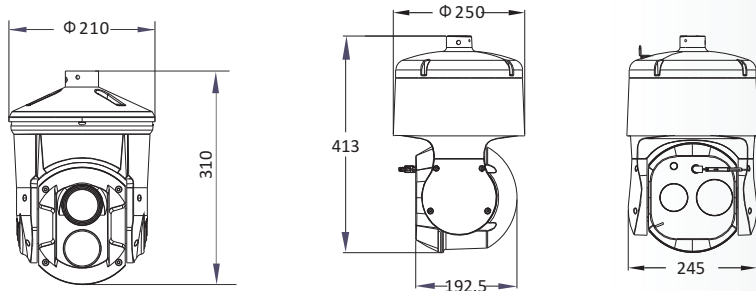
Applied to perimeter defense and fire-prevention purposes in critical infrastructures such as: airport, railway, prison, power station, and so on. The pre-alarm system helps you discover unexpected events immediately and protects you from property loss.

### Feature

- 2MP/4MP option; up to 37x Optical Zoom
- 1/1.8", 1/2.8" Progressive Scan CMOS
- Up to 50mm Thermal Lens
- Weatherproof IP66
- Onvif comply
- Thermal Imaging Module Function
- 640\*480 resolution, high sensitivity sensor, support contrast adjustment
- Support shutter adjustment in various modes
- 3D DNR, 15 palettes of color adjustable, image detail enhancement

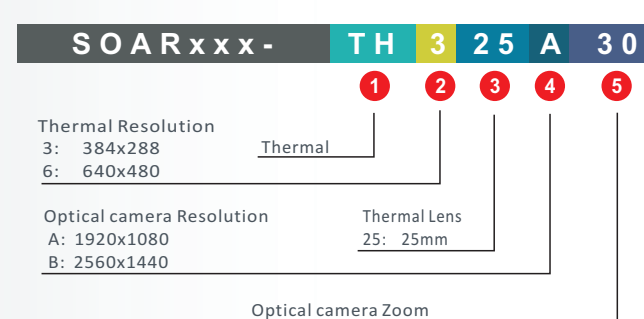


### Dimension



Model No.	SOAR911-TH	SOAR789-TH
<b>Thermal Imaging</b>		
Detector	Uncooled amorphous silicon FPA	
Array format/Pixel pitch	384x288/17μm ; 640x480/17μm	
Lens	25 mm	50mm
Sensitivity(NETD)	≤50mk@300K	
Digital Zoom	1x 2x 4x	
Pseudo color	9 Pseudo Color palettes changeable; White Hot/black hot	
<b>Daytime Camera</b>		
Image Sensor	1920x1080; 1/2.8" CMOS	2560x1440; 1/1.8" CMOS
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON); B/W:0.0005Lux @(F1.5,AGC ON);	Color:0.0005 Lux @(F1.5,AGC ON); B/W:0.0001Lux @(F1.5,AGC ON);
Focal Length	5.5-180mm; 33x optical zoom	6.5-240mm; 37x optical zoom
Protocol	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
Interface Protocol	ONVIF(PROFILE S,PROFILE G)	
<b>Pan/Tilt</b>		
Pan Range	360° endless	360° endless (closed loop control system)
Pan Speed	0.05°~150°/s	0.05°~200°/s
Tilt Range	-2°~90°	-25°~90° (closed loop control system)
Tilt Speed	0.05°~120°/s	0.05°~120°/s
<b>General</b>		
Power	AC24V voltage input ; Power consumption : ≤48w ;	
COM/Protocol	RS 485/ PELCO-D/P	
Video Output	1 channel Thermal Imaging video ; Network video, via Rj45 1 channel HD video ; Network video, via Rj45	
Working temperature	-40~60°C	
Mounting	Vehicle mounted; Mast mounting	
Ingress Protection	IP66	
Dimension	Φ210*310 mm	Φ250*413 mm
Weight	3.5 kg	7.8kg

### MEANING OF MODEL NAME

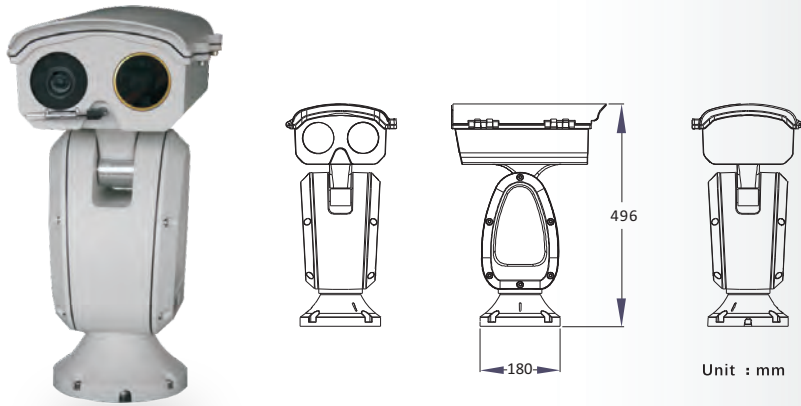


### OPTIONS

SOAR911-TH325A30
SOAR911-TH625A30
SOAR789-TH340A30
SOAR789-TH350A30
SOAR789-TH640A30
SOAR789-TH650A30
SOAR789-TH340B37
SOAR789-TH350B37
SOAR789-TH640B37
SOAR789-TH650B37



# Dual Sensor Long Range PTZ



## SOAR800-TH

### Thermal + Optical Bi-spectrum Long Range PTZ

SOAR800-TH series dual sensor PTZ is a project-oriented product that applicable for various application, such as perimeter protection, protection of key components (electrical facilities, gas pumps, etc.) and over-heating detection in critical infrastructure, forest fire prevention, and other scenarios.

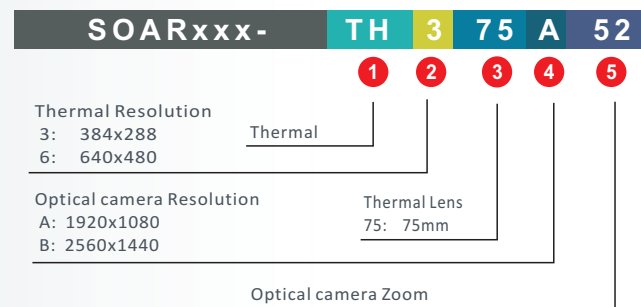
Thermal cameras doesn't require a light source, are excellent for providing enhanced coverage in in diverse environments, such as those with harsh conditions or extreme darkness. In addition, thermal cameras have long range detection and temperature measurement capabilities, allowing them to be used in conjunction with visible light cameras to achieve all-weather, comprehensive surveillance.

## Feature

- Optional optical camera, up to 4MP; 37x Optical Zoom
- Optional Thermal Lens, up to 75mm
- 640\*480 resolution, high sensitivity sensor, support contrast adjustment
- Weatherproof IP66
- 360° endless pan rotation
- ONVIF comply
- Ideal for mobile surveillance, for vehicle, marine application
- Support customization

Model No.	SOAR800-TH
<b>Thermal Imaging</b>	
Detector	Uncooled amorphous silicon FPA
Array format/Pixel pitch	384x288/17μm ; 640x480/17μm
Lens	25 mm, 50mm, 75mm
Sensitivity(NETD)	≤50mk@300K
Digital Zoom	1x 2x 4x
Pseudo color	9 Pseudodo Color palettes changeable; White Hot/black hot
<b>Daytime Camera</b>	
Image Sensor	1920x1080; 1/2.8" CMOS
Min. Illumination	Color:0.0005 Lux @(F1.4,AGC ON) B/W:0.0001Lux @(F1.4,AGC ON);
Focal Length	6.1-317mm; 52x optical zoom
Protocol	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6
Interface Protocol	ONVIF(PROFILE S,PROFILE G)
<b>Pan/Tilt</b>	
Pan Range	360° (endless)
Pan Speed	0.05°/s ~ 90°/s
Tilt Range	-82° ~ +58° (auto reverse)
Tilt Speed	0.1° ~ 9°/s
<b>General</b>	
Power	AC24V voltage input; Power consumption : ≤72w;
COM/Protocol	RS 485/PELCO-D/P
Video Output	1 channel Thermal Imaging video; Network video,via Rj45 1 channel HD video; Network video, via Rj45
Working temperature	-40 ~60°C
Mounting	Mast mounting
Ingress Protection	IP66
Dimension	/
Weight	9. 5kg

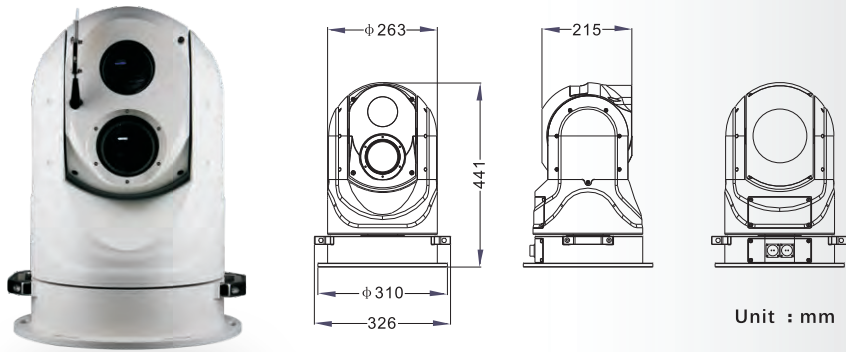
## MEANING OF MODEL NAME



## OPTIONS

SOAR800-TH350A52
SOAR800-TH650A52
SOAR800-TH375A52
SOAR800-TH675A52
SOAR788-TH350B37
SOAR800-TH650B37
SOAR788-TH375B37
SOAR788-TH675B37

# Dual Sensor Marine PTZ



## Feature

- ✦ Dual Payload system:
- ✦ Starlight optical Camera with 1/1.8" Cmos sensor, 317mm lens, 52x Zoom;
- ✦ High Resolution Thermal Imaging Sensor 640×512 Resolution, with up 75mm Lens;
- ✦ 360° omnidirectional high-speed PTZ, ±90° Tilt range;
- ✦ Built-in heater/fan, allows the withstand the harshest climates;
- ✦ Gyro Stabilization, 2 axis;
- ✦ Marine rated design, Ip67 Waterproof, anti-corrosion;
- ✦ Onvif Support;
- ✦ Optional auto tracking function.
- ✦ Waterproof index: IP67;

## Application

- ✦ Coastal Surveillance and Reconnaissance
- ✦ Harbor and Offshore Platform Security
- ✦ Maritime Traffic monitoring
- ✦ Oil Spill and Water Pollution Detection
- ✦ Search and Rescue
- ✦ Coast Guard and Police Patrol Boats
- ✦ Critical Infrastructure Protection

Model No.	SOAR977-TH375A52	SOAR977-TH675A52
<b>Thermal Imaging Camera</b>		
Detector	Uncooled amorphous silicon FPA	
Array format/Pixel pitch	384x288 /12μm	640x512 /12μm
NETD	≤50mK@25℃, F#1.0	
Image Frame Rate	50 Hz	
Spectral range	8-14μm	
Lens	75 mm	
FOV	3.5°×2.6°	5.9°×4.7°
Digital Zoom	1x, 2x, 4x, 8x	
Pseudo color	9 Pseudocolor palettes changeable; White Hot/black hot	
Detecting Range	Human:8000m	
	Vehicle:12000m	
Recognition Range	Human:1000m	
	Vehicle:1500m	
<b>Daytime Camera</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	
Min. Illumination	Color:0.0005 Lux @(F1.4,AGC ON); B/W:0.0001Lux @(F1.4,AGC ON);	
Focal Length	6.1-317mm; 52x optical zoom	
Aperture Range	F1.4-F4.7	
Field of View	Horizontal field of view: 61.8-1.6° (wide-tele)	
Video Compression	H.265 / H.264 / MJPEG	
Resolution	1920 × 1080,	
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Defog	Support	
EIS	Support	
Compatibility	Onvif 2.4	
<b>Gyro stabilization</b>		
Stabilization	Support. 2 Axis	
Static Accuracy	<0.2°RMS	
Mode	ON/OFF	
<b>Pan/Tilt</b>		
Pan Range	360° (endless)	
Pan Speed	0.05°/s ~ 250°/s	
Tilt Range	-60° ~ +90° (auto reverse)	
Tilt Speed	0.05° ~ 150°/s	
Number of Presets	256	
Patrol	6 patrols, up to 18 presets per patrol	
Pattern	4, with the total recording time not less than 10 mins	
<b>General</b>		
Power	DC 24V, wide voltage input;Power consumption:≤60w;	
COM/Protocol	RS 422/ RS485, PELCO-D/P	
Video Output	1 channel Thermal Imaging video;Network video via Rj45	
Working temperature	1 channel HD video;Network video, via Rj45	
	-40~60°C	
Mounting	Mast mounting	
Ingress Protection	IP67 Protection Standard	
Dimension	φ265*425 mm	
Weight	15 kg	

# Multi Sensor PTZ



## OVERVIEW

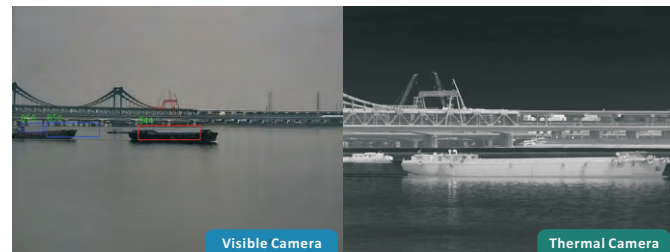
SOAR977 is specially designed for marine and mobile applications. It has optional various multi-sensor payload configuration and a high-performance 2-axis gyroscope stabilization system.

Visible zoom lens options up to 300 mm and multiple sensor resolutions from Full HD to 4MP (sony starlight cmos sensor) make this PTZ a high-performance long-distance day camera. The optical fog function of the camera makes dense fog The scene below becomes clear. When paired with 1000 meters laser illuminator or high-performance 75 mm thermal imaging camera, the SOAR977 PTZ system can also provide excellent night monitoring performance. In addition, you can also choose to install LFR (LASER RANGE FINDER) to accurately obtain the location of the target object.

SOAR977 can withstand some of the harshest climates, making it an ideal choice for perimeter security, homeland defense, and coastal protection.

SOAR977 series multi sensor PTZ is a maritime/marine standard multi sensor system. Housed with anodized and powder-coated housing, to provide maximum protection. The PTZ camera is anti-corrosive and IP67 waterproof rated. The PTZ can withstand some of the harshest climates.

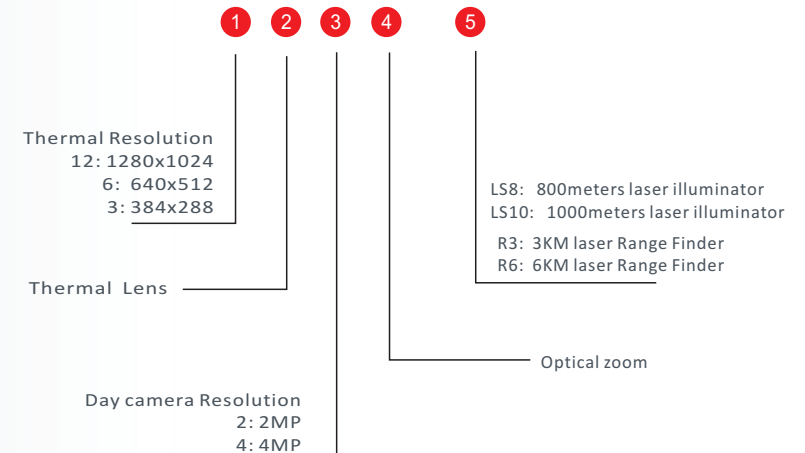
## OVERVIEW



Model No.	Thermal Imager	Visible camera	Laser	LRF	
SOAR977-TH335A37	384X288, 35mm lens	2MP, 6.5~240mm, 37x zoom	●	●	
SOAR977-TH335B37		4MP, 6.5~240mm, 37x zoom	●	●	
SOAR977-TH355A46	384X288, 55mm lens	2MP, 7~322mm, 46x zoom	●	●	
SOAR977-TH375A52	384X288, 75mm lens	2MP, 6.1~317mm, 52x zoom	●	●	
SOAR977-TH375B52		4MP, 6.1~317mm, 52x zoom	●	●	
SOAR977-TH375A72		2MP, 6.1~440mm, 72x zoom	●	●	
SOAR977-TH375A92		2MP, 6.1~561mm, 92x zoom	●	●	
SOAR977-TH635A37	640X512, 35mm lens	2MP, 6.5~240mm, 37x zoom	●	●	
SOAR977-TH635B37		4MP, 6.5~240mm, 37x zoom	●	●	
SOAR977-TH655A46	640X512, 55mm lens	2MP, 7~322mm, 46x zoom	●	●	
SOAR977-TH675A52	640X512, 75mm lens	2MP, 6.1~317mm, 52x zoom	●	●	
SOAR977-TH675B52		4MP, 6.1~317mm, 52x zoom	●	●	
SOAR977-TH675A72		2MP, 6.1~440mm, 72x zoom	●	●	
SOAR977-TH675A92		2MP, 6.1~561mm, 92x zoom	●	●	
SOAR977-TH355A46LS8	384X288, 55mm lens	2MP, 7~322mm, 46x zoom	800 meters	●	
SOAR977-TH375A46LS10	384X288, 75mm lens		1000 meters	●	
SOAR977-TH655A46LS8	640x512, 55mm lens		800 meters	●	
SOAR977-TH675A46LS10	640x512, 75mm lens		1000 meters	●	
SOAR977-TH355A46R3	384X288, 55mm lens		●	3KM	
SOAR977-TH375A46R6	384X288, 75mm lens		●	6KM	
SOAR977-TH655A46R3	640x512, 55mm lens		●	3KM	
SOAR977-TH675A46R6	640x512, 75mm lens		●	6KM	
SOAR977-A46LS8	●			800 meters	●
SOAR977-A52LS10	●		2MP, 6.1~317mm, 52x zoom	1000 meters	●
SOAR977-A72LS10	●	2MP, 6.1~440mm, 72x zoom	1000 meters	●	
SOAR977-A92LS10	●	2MP, 6.1~561mm, 92x zoom	1000 meters	●	

## MEANING OF MODEL NAME

SOAR977-TH 6 75 A 52 LS8



# ZOOM CAMERA MODULE



## Description

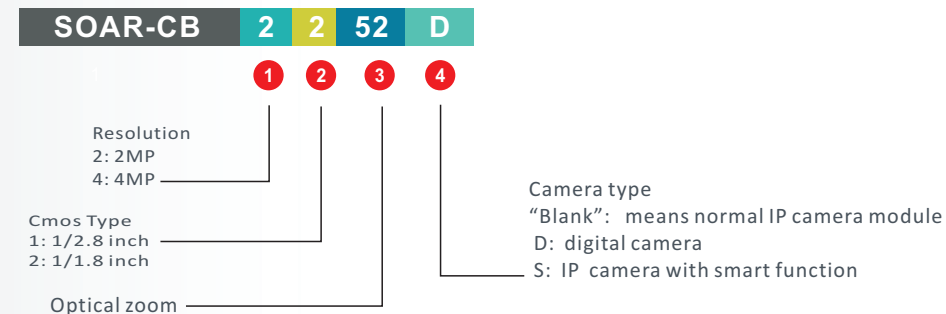
Zoom cameras/zoom block camera are modules that combine a CMOS sensor with a built-in lens and boards that allows control of both the shooting functions and the lens features (auto zoom, focus, shutter). Small, rugged, versatile, and affordable zoom camera/ block cameras are ideal for a variety of industrial, public safety, and other surveillance applications. With interfaces like HD and LVDS, image capture rates of 30 FPS/60 FPS, up to 92x zoom capability, impressive sensitivity in low light illumination and excellent optical defog/anti fog performance.

We offer a wide range of cameras with different sensors and lens ranges. Our product line covers all series of products from 4x to 92x, full HD to 4K, various zoom option, from normal range zoom to ultra long range zoom, optional artificial intelligence algorithm, specific target detection and capture; In addition, we offer interface boards that connect to the camera's output and enable video transmission using different technologies such as HDSDI, ANALOG, IP, wifi, all according to customer needs/environments.

## Application

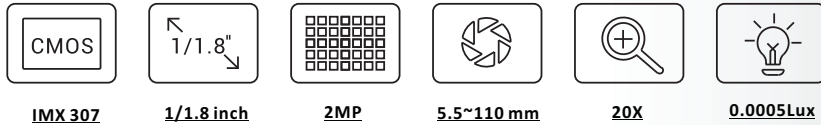
- ✦ Security domes/cameras
- ✦ Traffic and smart city surveillance
- ✦ UAVs, drones and ROVs
- ✦ Industrial inspection
- ✦ Remote monitoring
- ✦ Medical application
- ✦ Homeland security
- ✦ Military law enforcement

Model No.	Resolution	LENS	Dimension	Weight	NDAA			
SOAR-CB2120	1920X1080	5.5~110mm, 20x zoom	84.3*50.9*43.7	120 g	✗			
SOAR-CB2126		5~130mm, 26x zoom			97.5*61.5*50	256 g	✗	
SOAR-CB2126D		5~130mm, 26x zoom					✗	
SOAR-CB2133		5.5~180mm, 33x zoom					✗	
SOAR-CB2133S		5.5~180mm, 33x zoom	✗					
SOAR-CB2133D		5.5~180mm, 33x zoom	✓					
SOAR-CBS2133		5.5~180mm, 33x zoom	✗					
SOAR-CB2225		6.7~167.5mm, 25x zoom	116.5*57*69	415 g			✗	
SOAR-CB2225D		6.7~167.5mm, 25x zoom					✗	
SOAR-CB2237		6.5~240mm, 37x zoom	138.5*63*72.5	600 g			✗	
SOAR-CB2237D		6.5~240mm, 37x zoom					✗	
SOAR-CB2146		7~322mm, 46x zoom		576 g			✗	
SOAR-CB2146D		7~322mm, 46x zoom					✗	
SOAR-CB2252		6.1~317mm, 52x zoom	175.5*75*78	925g			✗	
SOAR-CB2252D		6.1~317mm, 52x zoom					✗	
SOAR-CB2272		6.1~440mm, 72x zoom					950g	✗
SOAR-CB2272D		6.1~440mm, 72x zoom						✗
SOAR-CB2292		6.1~561mm, 92x zoom		✗				
SOAR-CB2292D		6.1~561mm, 92x zoom		✗				
SOAR-CB4104		2560x1440		3~12mm, 4x zoom	55*47*35	60g	✓	
SOAR-CB4204	8~32mm, 4x zoom			63*45*44.5	110g	✗		
SOAR-CB4206	9~54mm, 6x zoom		94*45*39.5	160g	✗			
SOAR-CB4110	4.8~48mm, 10 zoom		42*42.5*50.5	95g	✓			
SOAR-CB4133	5.5~180mm, 33x zoom		97.5*61.5*50	256g	✗			
SOAR-CB4225	6.7~167.5mm, 25x zoom		116.5*57*69	415g	✗			
SOAR-CB4237	6.5~240mm, 37x zoom		138.5*63*72.5	600g	✗			
SOAR-CB4240	6.4~256mm, 40x zoom		145.3*67*77.3	620g	✓			
SOAR-CB4286	10~860mm, 86x zoom		374*150*141.5	5190g	✗			



Model: SOAR-CB2120

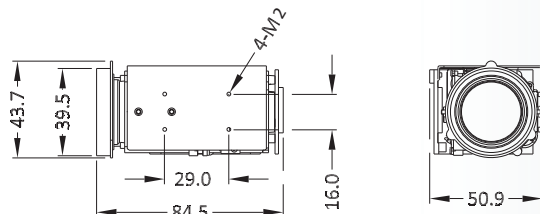
# 2MP 20x Zoom Camera Module



## Feature

- ✦ **2MP (1920×1080), Max Output: Full HD 1920×1080@30fps**
- ✦ **20X optical zoom, 5.5-110mm focal length**
- ✦ **Low illumination:**  
**0.0005Lux/F1.7(Color),**  
**0.0001Lux/F1.7(B/W), 0 Lux with IR**
- ✦ **ICR Automatic day/night shift**
- ✦ **Onvif support, SDK available for third party VMS integration**
- ✦ **Optional interface board**
- ✦ **Support Audio in/out; Alarm in/out**
- ✦ **Compact size and low power consumption**
- ✦ **Micro SD card, support up to 256G storage**

## Dimension

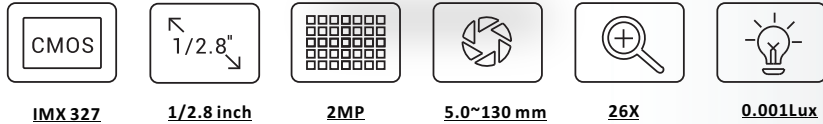


Unit : mm

Model No.	SOAR-CB2120
<b>Camera</b>	
Image Sensor	1/2.8" Progressive Scan CMOS
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON);
	Black:0.0005Lux @(F1.5,AGC ON);
Shutter	1/25 to 1/100,000s
Day & Night	IR Cut Filter
<b>Lens</b>	
Focal Length	5.5-110mm;20x optical zoom;
Aperture Range	F1.7-F3.7
Field of View	45-3.1° (wide-tele)
Working Distance	100mm-1500mm (wide-tele)
Zoom Speed	Approx. 3.5s (optical lens, wide-tele)
<b>Compression</b>	
Video Compression	H.265 / H.264
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM
<b>Image</b>	
Main Stream Resolution	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720);
	60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
BLC	Support
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure
Focus Control	Auto focus/one-time focus/manual focus
Area Exposure/Focus	Support
Defog	Support
EIS	Support
Day & Night	Auto(ICR) / Color / B/W
3D Noise Reduction	Support
Image Overlay	Support BMP 24 bit image overlay, optional region
ROI	ROI supports one fixed region for each three-bit stream
<b>Network</b>	
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)
Protocol	ONVIF (PROFILE S, PROFILE G), GB28181-2016
Web Protocol	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, RTP, RTSP, RTCP, NTP, SMTP, SNMP, IPv6
<b>Interface</b>	
External Interface	36pin FFC, or interface board with Ethernet, RS485, CVBS, Audio, Alarm In/Out
<b>General</b>	
Working Environment	-30°C to +60°C, Operating Humidity ≤ 95%
Power Supply	DC12V±25%
Consumption	2.5W MAX (ICR, 4W MAX)
Dimensions	84.5*43.7*50.9mm
Weight	120g

Model: SOAR-CB2126/SOAR-CB2126D

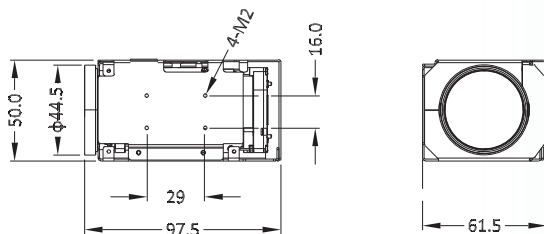
## 2MP 26x Zoom Camera Module



### Feature

- 2MP (1920×1080), Max Output: Full HD 1920×1080@30fps
- 26X optical zoom, 5-130mm focal length
- Low illumination:
  - 0.001Lux/F1.5(Color),
  - 0.0005Lux/F1.5(B/W) ,0 Lux with IR
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Compact size and low power consumption
- Micro SD card, support up to 256G storage

### Dimension

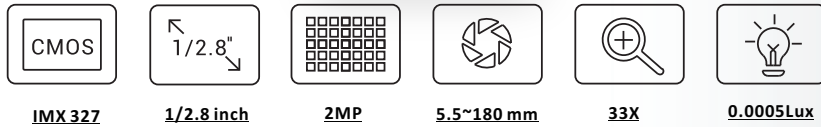


Unit : mm

Model No.	SOAR-CB2126	SOAR-CB2126D
<b>Camera</b>		
Image Sensor	1/2.8" Progressive Scan CMOS	
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON); Black:0.0005Lux @(F1.5,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	5-130mm;26x optical zoom;	
Aperture Range	F1.5-F3.8	
Field of View	56.9-2.9° (wide-tele)	
Working Distance	100mm-1500mm (wide-tele)	
Zoom Speed	Approx. 3.5s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720); 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)	
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Defog	Support	
EIS	Support	
Day &Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016	
web protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	36pin FFC , LVDS port
<b>General</b>		
Working Environment	-30°C to +60°C , Operating Humidity ≤ 95%	
Power Supply	DC12V±25%	
Consumption	2.5W MAX (ICR,3.5W MAX)	
Dimensions	97.5*61.5*50mm	
Weight	256g	

Model: SOAR-CB2133 / SOAR-CB2133D / SOAR-CB2133S

## 2MP 33x Zoom Camera Module

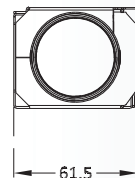
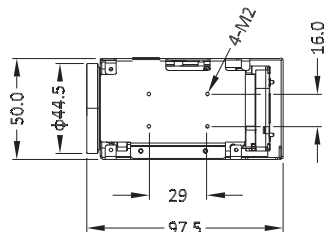


### Feature

- 2MP (1920×1080), Max Output: Full HD 1920×1080@30fps
- 33X optical zoom, 5.5-180mm focal length
- Low illumination:
  - *0.001Lux/F1.5(Color),*
  - *0.0005Lux/F1.5(B/W), 0 Lux with IR*
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Optional
- Micro SD card, support up to 256G storage



### Dimension



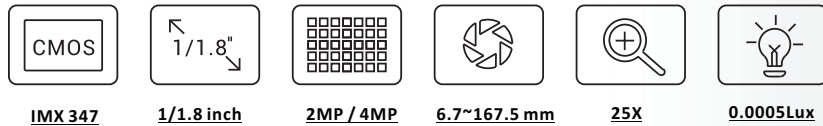
Unit : mm

Model No.    SOAR-CB2133    SOAR-CB2133S    SOAR-CB2133D

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON);
	Black:0.0005Lux @(F1.5,AGC ON);
Shutter	1/25 to 1/100,000s
Day & Night	IR Cut Filter
Lens	
Focal Length	5.5-180mm;33x optical zoom;
Aperture Range	F1.5-F4.0
Field of View	60.5-2.3° (wide-tele)
Working Distance	100mm-1500mm (wide-tele)
Zoom Speed	Approx. 3.5s (optical lens, wide-tele)
Compression	
Video Compression	H.265 / H.264
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM
Image	
Main Stream Resolution	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720);
	60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
BLC	Support
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure
Focus Control	Auto focus/one-time focus/manual focus
Area Exposure/Focus	Support
Defog	Support
EIS	Support
Day & Night	Auto(ICR) / Color / B/W
3D Noise Reduction	Support
Image Overlay	Support BMP 24 bit image overlay, optional region
ROI	ROI supports one fixed region for each three-bit stream
Network	
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)
Protocol	ONVIF(PROFILE S,PROFILE G),GB28181-2016
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6
Smart Function	
Structrued Data	NA                      Support                      NA
Interface	
External Interface	36pin FFC                      36pin FFC                      36pin FFC , LVDS port
General	
Working Environment	-30°C to +60°C , Operating Humidity ≤ 95%
Power Supply	DC12V±10%
Consumption	2.5W MAX ( ICR,3.5W MAX)
Dimensions	97.5*61.5*50mm
Weight	256g

Model: SOAR-CB2225 / SOAR-CB2225D / SOAR-CB4225

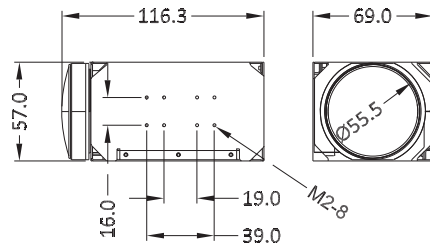
## 2MP/4MP, 25x Zoom Camera Module



### Feature

- Optional 2MP or 4MP resolution; 1/1.8" progressive scan CMOS
- 25X optical zoom, 6.7-167.5mm focal length
- Low illumination:
  - 0.0005Lux/F1.5(Color),
  - 0.0001Lux/F1.5(B/W), 0 Lux with IR
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Optional LVDS output
- Micro SD card, support up to 256G storage

### Dimension



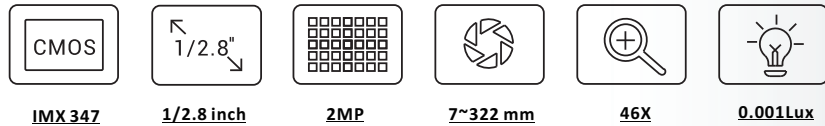
Unit : mm

Model No.	SOAR-CB2225	SOAR-CB2225D	SOAR-CB4225
<b>Camera</b>			
Image Sensor	1/1.8" Progressive Scan CMOS		
Min. Illumination	Color:0.0005 Lux @(F1.5,AGC ON);		
	Black:0.0001Lux @(F1.5,AGC ON);		
Shutter	1/25 to 1/100,000s		
Day & Night	IR Cut Filter		
<b>Lens</b>			
Focal Length	6.7-167.5mm;25x optical zoom;		
Aperture Range	F1.5-F3.4		
Field of View	57.9-3° (wide-tele)		
Working Distance	100mm-1500mm (wide-tele)		
Zoom Speed	Approx. 3.5s (optical lens, wide-tele)		
<b>Compression</b>			
Video Compression	H.265 / H.264		
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM		
<b>Image</b>			
Main Stream Resolution	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720);	50Hz: 25fps (2560 × 1440);	
	60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)	60Hz: 30fps (2560 × 1440);	
BLC	Support		
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure		
Focus Control	Auto focus/one-time focus/manual focus		
Area Exposure/Focus	Support		
Defog	Support		
EIS	Support		
Day & Night	Auto(ICR) / Color / B/W		
3D Noise Reduction	Support		
Image Overlay	Support BMP 24 bit image overlay, optional region		
ROI	ROI supports one fixed region for each three-bit stream		
<b>Network</b>			
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)		
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016		
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6		
<b>Interface</b>			
External Interface	36pin FFC, USB	36pin FFC, USB , LVDS port	36pin FFC , USB
<b>General</b>			
Working Environment	-30°C to +60°C , Operating Humidity ≤ 95%		
Power Supply	DC12V±25%		
Consumption	2.5W MAX ( ICR,4.5W MAX)		
Dimensions	116.3*57*69mm		
Weight	415g		



Model: SOAR-CB2146/ SOAR-CB2146D

## 2MP, 46x Zoom Camera Module

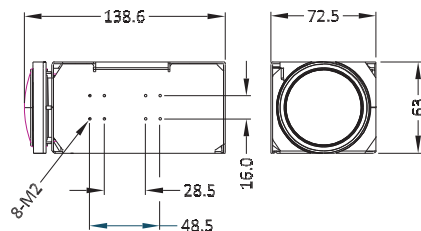


### Feature

- ✦ 2MP, 1920x1080 resolution; 1/2.8" CMOS
- ✦ 46X optical zoom, 7-322mm focal length
- ✦ Low illumination:
  - 0.001Lux/F1.8(Color),
  - 0.0005Lux/F1.8(B/W), 0 Lux with IR
- ✦ ICR Automatic day/night shift
- ✦ Onvif support, SDK available for third party VMS integration
- ✦ Optional interface board
- ✦ Support Audio in/out; Alarm in/out
- ✦ Optional LVDS output
- ✦ Micro SD card, support up to 256G storage



### Dimension

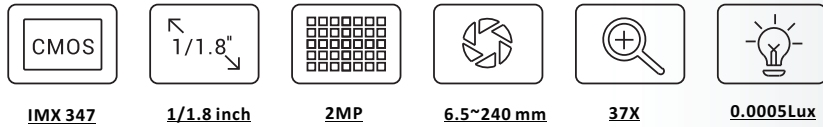


Unit : mm

Model No.	SOAR-CB2146	SOAR-CB2146D
<b>Camera</b>		
Image Sensor	1/2.8" Progressive Scan CMOS	
Min. Illumination	Color:0.001 Lux @(F1.8,AGC ON);	
	Black:0.0005Lux @(F1.8,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	7-322mm;46x optical zoom;	
Aperture Range	F1.8-F6.5	
Field of View	42-1° (wide-tele)	
Working Distance	100mm-1500mm (wide-tele)	
Zoom Speed	Approx. 5s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720);	
	60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)	
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Optical Defog	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	36pin FFC, USB , LVDS port
<b>General</b>		
Working Environment	-30°C to +60°C , Operating Humidity≤95%	
Power Supply	DC12V±25%	
Consumption	2.5W MAX ( ICR,4W MAX)	
Dimensions	138.6*63*72.5mm	
Weight	576g	

Model: SOAR-CB2237 / SOAR-CB2237D

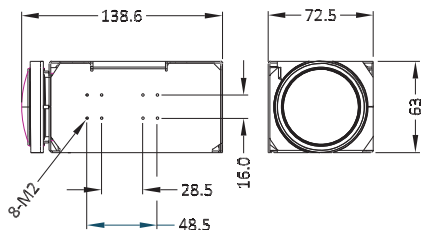
## 2MP, 37x Zoom Camera Module



### Feature

- ✦ 2MP, 1920x1080 resolution; 1/1.8" CMOS
- ✦ 37X optical zoom, 6.5-240mm focal length
- ✦ Low illumination:
  - 0.0005Lux/F1.5(Color),
  - 0.0001Lux/F1.5(B/W), 0 Lux with IR
- ✦ ICR Automatic day/night shift
- ✦ Onvif support, SDK available for third party VMS integration
- ✦ Optional interface board
- ✦ Support Audio in/out; Alarm in/out
- ✦ Optional LVDS output
- ✦ Micro SD card, support up to 256G storage

### Dimension

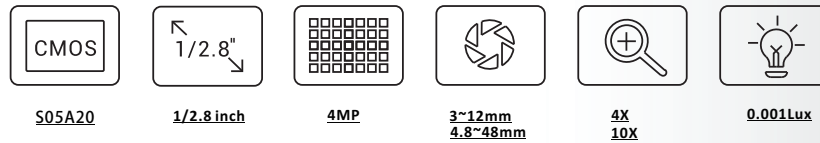
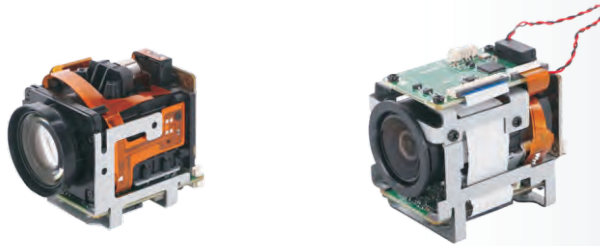


Unit : mm

Model No.	SOAR-CB2237	SOAR-CB2237D
<b>Camera</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	
Min. Illumination	Color:0.0005 Lux @(F1.5,AGC ON);	
	Black:0.0001Lux @(F1.5,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	6.5-240mm;37x optical zoom;	
Aperture Range	F1.5-F4.8	
Field of View	60.38-2.09° (wide-tele)	
Working Distance	100mm-1500mm (wide-tele)	
Zoom Speed	Approx. 4s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps ( 1920 × 1080, 1280 × 960, 1280 × 720);	
	60Hz: 30fps ( 1920 × 1080, 1280 × 960, 1280 × 720)	
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Defog	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	36pin FFC, USB , LVDS port
<b>General</b>		
Working Environment	-30°C to +60°C , Operating Humidity ≤ 95%	
Power Supply	DC12V±10%	
Consumption	2.5W MAX ( ICR,4W MAX)	
Dimensions	138.6*63*72.5mm	
Weight	600g	

Model: SOAR-CB4104 / SOAR-CB4110

# 4MP, 4x/10x Zoom Camera Module

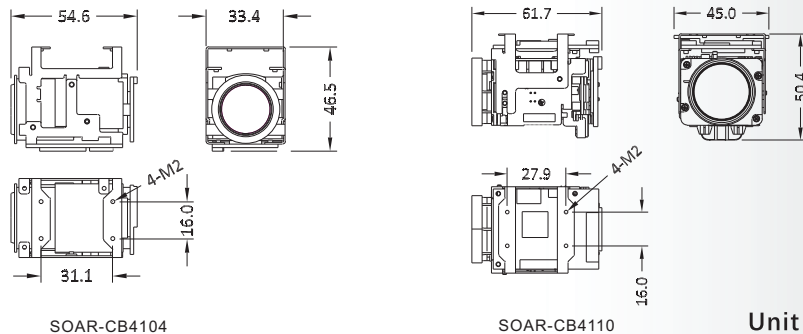


## Feature

- 4MP resolution ; 1/2.8" CMOS
- Optional 4X(3~12mm)/10x(4.8~48mm) optical zoom
- Light weight, compact design
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Micro SD card, support up to 256G storage



## Dimension

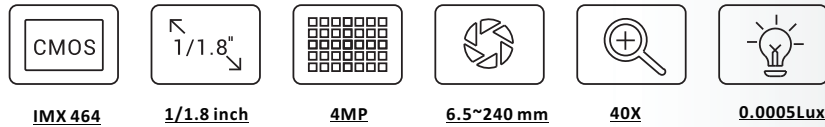


Unit : mm

Model No.	SOAR-CB4104	SOAR-CB4110
<b>Camera</b>		
Image Sensor	1/2.8" Progressive Scan CMOS	
Min. Illumination	Color:0.001 Lux @(F1.5,AGC ON);	Color:0.001 Lux @(F1.7,AGC ON);
	Black:0.0005Lux @(F1.5,AGC ON);	Black:0.0005Lux @(F1.7,AGC ON);
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	3-12mm;4x optical zoom;	4.8-48mm;10x optical zoom
Aperture Range	F1.6-F3	F1.7-F3.1
Field of View	108.6-32° (wide-tele)	62-7.6° (wide-tele)
Working Distance	100mm-1000mm (wide-tele)	1000mm-2000mm (wide-tele)
Zoom Speed	Approx. 2s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps	
	2560x1440; 1920 x 1080, 1280 x 960, 1280 x 720;	
	60Hz: 30fps	
BLC	2560x1440; 1920 x 1080, 1280 x 960, 1280 x 720	
	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G),GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	
<b>General</b>		
Working Environment	-30°C to +60°C , Operating Humidity≤95%	
Power Supply	DC12V±10%	
Consumption	2.5W MAX ( ICR,4W MAX)	
Dimensions	54.6*46.5*33.4mm	61.7*45*50.4mm
Weight	60g	95g

Model: SOAR-CB4240

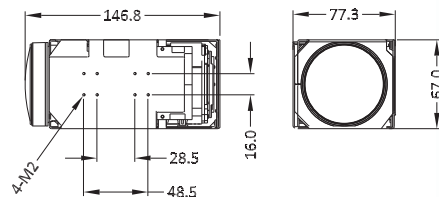
# 4MP, 40x Zoom Camera Module



## Feature

- 4MP, 2560x1440 resolution; 1/1.8" CMOS
- 40X optical zoom, 6.4-256mm focal length
- Low illumination:
  - 0.0005Lux/F1.8(Color).
  - 0.0001Lux/F1.8(B/W), 0 Lux with IR
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Micro SD card, support up to 256G storage

## Dimension



Unit : mm

Model No.

SOAR-CB4240

### Camera

Image Sensor	1/1.8" Progressive Scan CMOS
Min. Illumination	Color:0.0005 Lux @(F1.8,AGC ON);
	Black:0.0001Lux @(F1.8,AGC ON);
Shutter	1/25 to 1/100,000s
Day & Night	IR Cut Filter

### Lens

Focal Length	6.4-256mm; 40x optical zoom;
Aperture Range	F1.35-F4.6
Field of View	61.28-2.06° (wide-tele)
Working Distance	100mm-1500mm (wide-tele)
Zoom Speed	Approx. 4s (optical lens, wide-tele)

### Compression

Video Compression	H.265 / H.264
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM

### Image

Main Stream Resolution	50Hz: 25fps (2560x1440; 1920 × 1080, 1280 × 960, 1280 × 720);
	60Hz: 30fps (2560x1440; 1920 × 1080, 1280 × 960, 1280 × 720)
BLC	Support
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure
Focus Control	Auto focus/one-time focus/manual focus
Area Exposure/Focus	Support
Defog	Support
EIS	Support
Day & Night	Auto(ICR) / Color / B/W
3D Noise Reduction	Support
Image Overlay	Support BMP 24 bit image overlay, optional region
ROI	ROI supports one fixed region for each three-bit stream

### Network

Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6

### Interface

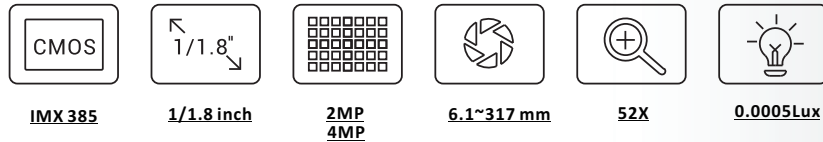
External Interface	36pin FFC, USB
--------------------	----------------

### General

Working Environment	-30°C to +60°C , Operating Humidity≤95%
Power Supply	DC12V±10%
Consumption	2.5W MAX (ICR,4W MAX)
Dimensions	146.8*67*77.3mm
Weight	600g

Model: SOAR-CB2252 / 4252

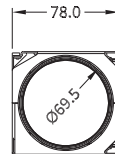
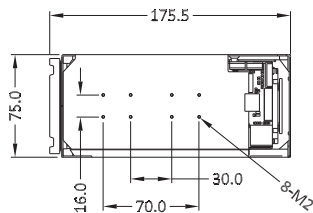
# 2MP/4MP, 52x Zoom Camera Module



## Feature

- ≡ **Optional 2MP or 4MP resolution ; 1/1.8" CMOS**
- ≡ **52X optical zoom, 6.1-317mm focal length**
- ≡ **Low illumination:**  
0.001Lux/F1.8(Color),  
0.0005Lux/F1.8(B/W), 0 Lux with IR
- ≡ **ICR Automatic day/night shift**
- ≡ **Onvif support, SDK available for third party VMS integration**
- ≡ **Optional interface board**
- ≡ **Support Audio in/out; Alarm in/out**
- ≡ **Optional LVDS output**
- ≡ **Micro SD card, support up to 256G storage**

## Dimension



Unit : mm

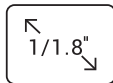
Model No.	SOAR-CB2252	SOAR-CB4252
<b>Camera</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	
Min. Illumination	Color:0.0005 Lux @(F1.4,AGC ON); Black:0.0001Lux @(F1.4,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	6.1-317mm;52x optical zoom;	
Aperture Range	F1.4-F4.7	
Field of View	61.8-1.6° (wide-tele)	
Working Distance	100mm-2000mm (wide-tele)	
Zoom Speed	Approx. 6s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps	50Hz: 25fps
	1920 × 1080, 1280 × 960, 1280 × 720;	2560*1440;1920 × 1080, 1280 × 960
	60Hz: 30fps	60Hz: 30fps
	1920 × 1080, 1280 × 960, 1280 × 720	2560*1440;1920 × 1080, 1280 × 960
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Optical Defog	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G),GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	36pin FFC, USB, LVDS port
<b>General</b>		
Working Environment	-30°C to +60°C, Operating Humidity ≤ 95%	
Power Supply	DC12V±10%	
Consumption	2.5W MAX (ICR, 4.5W MAX)	
Dimensions	175.5*75*78mm	
Weight	925g	950g

Model: SOAR-CB2272 / 2292

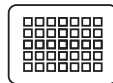
# 2MP, 72X /92X Zoom Camera Module



IMX385



1/1.8 inch



2MP



6.1~440mm  
6.1~561mm



72X  
92X



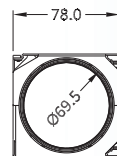
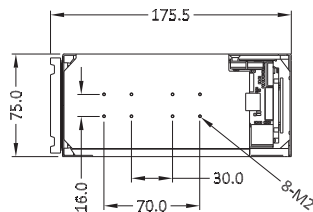
0.0005Lux

## Feature

- 2MP resolution ; 1/1.8" CMOS
- Optional 72X(5.1~449mm)/92x(6.1~561mm) optical zoom
- Low illumination:
  - 0.001Lux/F1.8(Color),
  - 0.0005Lux/F1.8(B/W) ,0 Lux with IR
- ICR Automatic day/night shift
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Optional LVDS output
- Micro SD card, support up to 256G storage



## Dimension



Unit : mm

Model No.	SOAR-CB2272	SOAR-CB2292
<b>Camera</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	
Min. Illumination	Color:0.0005 Lux @(F1.4,AGC ON);	
	Black:0.0001Lux @(F1.4,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	6.1-440mm;72x optical zoom;	6.1-561mm;92x optical zoom
Aperture Range	F1.4-F4.7	
Field of View	65. 5-1.8° (wide-tele)	65. 5-1.1° (wide-tele)
Working Distance	100mm-2500mm (wide-tele)	100mm-3000mm (wide-tele)
Zoom Speed	Approx. 7s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps	
	1920 × 1080, 1280 × 960, 1280 × 720;	
	60Hz: 30fps	
BLC	1920 × 1080, 1280 × 960, 1280 × 720	
	Support	
	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Optical Defog	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G) ,GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	
<b>General</b>		
Working Environment	-30°C to +60°C , Operating Humidity≤95%	
Power Supply	DC12V±10%	
Consumption	2.5W MAX (ICR,5.5W MAX)	
Dimensions	175.5*75*78mm	
Weight	925g	950g

Model: SOAR-CB4286 / 2290

# 2MP, 90x Zoom Camera Module 4MP, 86x Zoom Camera Module

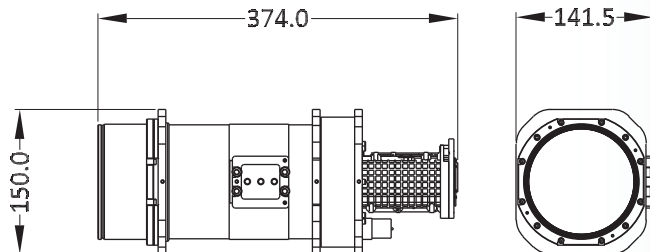


IMX 347	1/1.8 inch	2MP 4MP	10.5~945 mm 10~860 mm	90X 86X	0.0005Lux

## Feature

- 2MP/4MP resolution ; 1/1.8" CMOS
- Optional 86X(10~860mm)/90x(10.5~945mm)optical zoom
- ICR Automatic day/night shift
- Optic defog
- Onvif support, SDK available for third party VMS integration
- Optional interface board
- Support Audio in/out; Alarm in/out
- Optional LVDS output
- Micro SD card, support up to 256G storage

## Dimension



Unit : mm

Model No.	SOAR-CB2290	SOAR-CB4286
<b>Camera</b>		
Image Sensor	1/1.8" Progressive Scan CMOS	
Min. Illumination	Color:0.0005 Lux @(F2.1,AGC ON); Black:0.0001Lux @(F2.1,AGC ON);	
Shutter	1/25 to 1/100,000s	
Day & Night	IR Cut Filter	
<b>Lens</b>		
Focal Length	10.5-945mm; 90x optical zoom;	10-860mm; 86x optical zoom;
Aperture Range	F2.1-F11.2	F2.1-F11.2
Field of View	38.4-0.46° (wide-tele)	38.4-0.48° (wide-tele)
Mini Working Distance	1m-10mm (wide-tele)	1m-10mm (wide-tele)
Zoom Speed	Approx. 8s (optical lens, wide-tele)	
<b>Compression</b>		
Video Compression	H.265 / H.264	
Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM	
<b>Image</b>		
Main Stream Resolution	50Hz: 25fps 1920 × 1080, 1280 × 960, 1280 × 720; 60Hz: 30fps 1920 × 1080, 1280 × 960, 1280 × 720	50Hz: 25fps 2560*1440;1920 × 1080, 1280 × 960 60Hz: 30fps 2560*1440;1920 × 1080, 1280 × 960
BLC	Support	
Exposure Mode	Automatic exposure/aperture priority/shutter priority/manual exposure	
Focus Control	Auto focus/one-time focus/manual focus	
Area Exposure/Focus	Support	
Optical Defog	Support	
EIS	Support	
Day & Night	Auto(ICR) / Color / B/W	
3D Noise Reduction	Support	
Image Overlay	Support BMP 24 bit image overlay, optional region	
ROI	ROI supports one fixed region for each three-bit stream	
<b>Network</b>		
Network Storage	Support Micro SD/SDHC/SDXC, up to 256 GB; NAS (NFS, SMB/ CIFS)	
Protocol	ONVIF(PROFILE S,PROFILE G),GB28181-2016	
Web Protocol	TCP/IP,ICMP, HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6	
<b>Interface</b>		
External Interface	36pin FFC, USB	
<b>General</b>		
Working Environment	-30°C to +60°C, Operating Humidity≤95%	
Power Supply	DC12V±25%	
Consumption	2.5W MAX (ICR,11.5W MAX)	
Dimensions	374*150*141.5mm	
Weight	5190g	

**OEM/JDM/ODM  
PTZ CAMERA**

**Hangzhou Soar Security Technology Co., Ltd.**

---

**PTZ expert since 2005**

Contact

Web: [www.hzsoar.com](http://www.hzsoar.com)

Address: No.38, Xiangyuan Road, Hangzhou, China