

# S31IP High Definition IP Camera

## Superior Hi-Definition Imaging.



### Key Features & Benefits

- 720P (1280 x 720) @ 30 fps
- True WDR - Wide Dynamic Range
- Integrated microphone to capture audio
- 12 IR LEDs for Capturing Video in Complete Darkness
- 3D gimbal functionality allows image to be "Squared Up" when camera is mounted at an angle
- Power via POE
- Anti-Vibration / Rugged Vandal Resistant Metal Housing
- Industry Standard RJ45 Network Connection
- IP 65 - Dust Proof and Water Resistant
- Quick Set Up when used with Gatekeeper G4 Hybrid Mobile DVR's
- Internal Web Server for Manual Configuration

### Applications

- School Buses
- Transit
- Transportation and Logistics
- Law Enforcement
- First Response
- Taxi

The S31IP is a 720P High Definition, Wide Dynamic Range, colour day / night camera. The camera produces stunningly clear images in the most demanding conditions. A true wide dynamic range camera using Sony internal electronics allows the camera to view both very dark areas (inside a vehicle) and very bright areas (outside a vehicle through an open door or window) in the same image. White out caused by light entering the scene through a glass window or open door is completely eliminated.

Built rugged, the camera is designed to operate over the extreme temperatures and vibration found in vehicles. The S31IP metal housing makes the camera vandal resistant and when installed virtually immune to tampering.

Camera configuration is easy when used with Gatekeeper's Hybrid Line of IP mobile DVR's "fast setup" configuration feature. No more struggling with IP addresses, subnets and default gateways to get the cameras to work. This means that one does not have to have network training in order to install and

maintain the system.

The D21IP camera is plug and play compatible with Gatekeeper's G4-Series IP DVRs with power over ethernet (POE) and uses industry a standard RJ45 connection (no proprietary cabling) which allows the use of Cat 5 cabling between the camera and DVR. Cable length of 15', 30' 45' and 60' with strain resistant over molded connectors are available.

The S31IP has an internal microphone with audio processing circuitry that allows voices to be heard in noisy environments.

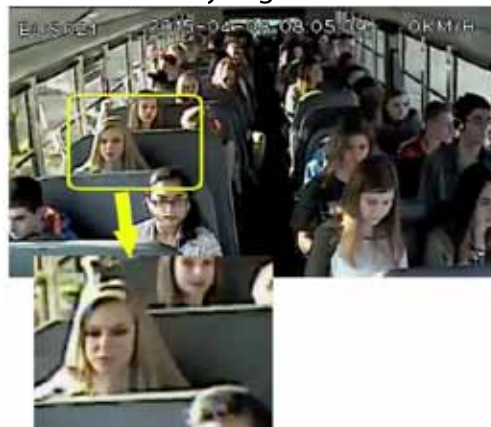
The S31IP ball has no vents, thus providing protection against water spray, while maintaining an operating temperature range of -40°F to +158°F, (-40°C to +70°C).

### Camera - Housing Features:

#### Integrated Microphone

The Gatekeeper S - Series camera housing includes an integrated microphone allowing high quality audio to

Color Day Night Camera



Hi-Def IP Camera



Incredible Image Detail



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be captured at each camera.

### Integrated IR

The integrated IR utilizes 24 infrared LED's to provide IR illumination at night. A sensor in the camera detects the ambient light and automatically turns on/off the IR LED's as needed.

### 3D Gimbal

The housing inherently implements a 3D gimbal design found in more expensive cameras. This allows the base to be mounted in almost any orientation while allowing the camera to be adjusted so that the image is correctly oriented.

### Tamper Proof Adjustments

Not only is the camera constructed of metal but there are set screws that when tightened, prevents the camera aim from being tampered with. This is important for installation where the camera can be accessed, either due to low ceilings or accessible camera placement.

### All Metal Housing

An all metal housing creates a vandal proof package that is resistant to physical damage.

### 90 Degree Aiming

The housing profile has been carefully designed so that the camera can be aimed 90° laterally and have a clear field of view. This is important for correct aiming when the camera is located at the front of a bus.

### Tolerant to Installation Error

The S31IP - Series housing has been designed so that the camera ball cannot be positioned behind the cameras shroud thus reflecting infrared light back into the lens. This reduces the probability of installation error.

### Sealed Design

The ball that houses the camera electronics has no vents thus making the camera resistant to water spray.

### Vibration Damping

In order to help reduce camera vibration, a rubber mounting ring is supplied. The rubber ring is installed between the camera base and the mounting surface. The rubber ring conforms to the camera base for easy alignment and quick installation.

### Flexible Cable Routing and Mounting Options

The S31IP camera is secured with 4 screws that are not accessible once the installation is complete. The camera's signal cable can be routed directly up through the camera base, so that it's not exposed. Alternatively, there are 4 cut outs in the base that allows the camera's signal cable to be routed out the side of the base. This is useful when the camera is mounted to a surface that is not accessible from the rear.

### Internal IR Light Leakage Eliminated

On the front of the S31IP camera is a flat lens that protects the camera lens from the environment. This flat lens is divided into two concentric circles. The outside circle allows the IR light to exit the camera. The inner circle allows the cameras imaging element to view the scene. A cylindrical sleeve is attached to the flat lens, and delineates the outside and inside circle. This cylinder extends from the flat lens and surrounds the camera lens. This mechanical assembly eliminates internally reflected IR light. Some camera designs have no such mechanism, while other designs use a soft rubber boot that is intended to prevent internal reflected IR from entering the camera lens. In Gatekeeper's experience, a rubber boot can allow IR light to enter the lens and cause optical flare. This can be exasperated as shorter lens sizes are used. The cylinder shroud used in Gatekeeper's S31IP camera protects from internal reflected IR's still maintained, when shorter lenses are implemented.

## Specifications S31IP Camera

### Video

Image Sensor	Sony IMX238 1/3" CMOS
Processor	Sony
Minimum Illumination	0.05LUX/F1.8 (Color),
Resolution	720p (1280 x 720)
Sync	50/60 Hz
S/N Ratio	≥40db
Electronic Shutter	1/30 to 1/10,000 Second
Wide Dynamic Range	Yes - Wide Dynamic Range ≥80db
Frame	Up to 30 fps
Video Compression	H.264
Compression Output Rate	768Kbs - 7Mbps
Image Resolution	Main: 720p @ 30fps; Network Sub : VGA @25fps Record Sub: VGA@30fps
Audio Compression Standard	ADPCM
CBR/VBR	Supported

### Network

Network Port	RJ45 Female 10M/100M x 1
Network Protocol	HTTP, TCP, ARP, RTSP, UDP, RTP, SMTP, DHCP, DNS, DDNS, PPPoE, IPV4, UPnP, NTP
Configuration	Built-In WEB server
Audio	Yes - Integrated mic and line driver
IR	12 LEDs (850nm) with integrated on/off sensor
Housing	Gatekeeper's S3 camera housing
Available Lenses	2.8mm, 4.0mm, 6.0mm, and 8.0mm
Aperture	Fixed Aperture F1.8
Power	
Voltage	POE12 (DC12V Nominal)
Consumption	<2W day <4W Night
Physical	
Dimensions	3" high x 3.5" base diameter (8cm x 9cm)
Weight	.5 lbs (215 g)
	IP65
Operating Temperature	-40°F to +158°F (-40°C to +70°C)
Operating RH	Under 90% non-condensing



Specifications subject to change without notice.