

S31AHD High Definition Camera

Superior Hi-Definition Imaging.



Key Features & Benefits

720P (1280 x 720) @ 30 fps

Integrated microphone to capture audio

24 IR LEDs for Capturing Video in Complete Darkness

3D gimbal functionality allows image to be "Squared Up" when camera is mounted at an angle

Anti-Vibration / Rugged Vandal Resistant Metal Housing

Connectivity to DVR – analog cabling

IP 65 - Dust Proof and Water Resistant

The S31AHD is a 720P (1280x720) High Definition, color day / night camera. The camera produces stunningly clear images in the most demanding conditions by utilizing a Sony EXMOR 1/3" CMOS Sensor.

Built rugged, the camera is designed to operate over the extreme temperatures and vibration found in vehicles. The S31AHD metal housing makes the camera vandal resistant and virtually immune to tampering.

The S31AHD camera is plug compatible with Gatekeeper's AHD mobile DVR's utilizing Gatekeeper's standard molex terminated analog cables. This is the same cabling used with Gatekeeper's NTSC analog cameras. Cable length of 15', 30' and 60' with strain resistant over molded connectors are available. This makes upgrading a vehicle from NTSC analog cameras

to AHD cameras very easy as existing analog cables can be reused.

The S31AHD camera has an internal microphone with audio processing circuitry that allows voices to be heard in noisy environments.

The S31AHD 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 be captured at each camera.

Get the best of both worlds.
Megapixel resolution images with the simplicity and cost of Analog.

Applications

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



AHD Resolution Image (720p AHD)



IP High Definition Image (720p HD)



960H Resolution Image



Superior Imaging Systems™

S31AHD High Definition 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 S31AHD - 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 S31AHD 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 S31AHD 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 camera's 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 S31AHD camera protects from internal reflected IR's still maintained, when shorter lenses are implemented.

Specifications S31AHD Camera

GATEKEEPER® AHD

Video		Audio	
Image Sensor	Sony EXMOR IMX225 1/3" CMOS	IR	Yes - Integrated mic and line driver 24 IR LEDs (850nm) with integrated on/off sensor. Effective IR distance is approx. 10-15 meters
Processor	Nextchip NVP2431H		
Minimum Illumination	0.0 Lux With IR On 0.001 lux with IR off		
Resolutions	720p (1280X720), WD1 (928X480), WHD1(928X240), WCIF (464X240), D1 (704x480), HD1 (704x240), CIF (352x240) DVR Dependent	Housing	Gatekeeper's S3 camera housing
		Available Lenses	2.8mm, 3.6mm, 4.2mm, 6.0mm
		Aperture	Fixed Aperture F1.8
Sync	50/60 Hz	Power	DC12V Nominal
S/N Ratio	≥50db (AGC Off)	Voltage	180 mA @ 12v IR On
Electronic Shutter	Auto - 1/30 to 1/10,000 Second	Consumption	70 mA @ 12v IR Off
White Balance	Auto	Physical	
Frame Rate	Up to 30 fps (DVR Dependent)	Dimensions	3" high x 3.5" base diameter (8cm x 9cm)
Video	Analog High Definition	Weight	.84 lbs (380 g)
		IP Rating	IP65
		Operating Temperature	-40°F to +158°F (-40°C to +70°C)
Cabling	4 Pin Molex – analog cable	Operating RH	Under 90% non-condensing

Specifications subject to change without notice.