

# Roadway Sensors

## Vantage® Wireless Camera

*[Extending the vision beyond the wire]*

The Vantage wireless camera system offers traffic engineers and installation contractors an elegant and cost-efficient way to implement video detection in situations where cable installation is undesirable or not possible. Such situations could consist of intersection re-construction, temporary installations, full cable conduits or advance detection requiring excessive cable runs between the camera and the controller cabinet.

The benefits obtained from using an easily-installed video detection system in construction zones for road widening, intersection reconstruction and temporary lane closures is obvious. Other applications include positioning video detection cameras beyond rail tracks, over decorative paving or pavements and other surfaces where an underground cable conduit is unavailable or not permitted.

The wireless camera system utilizes the unlicensed 2.4GHz frequency band to transmit live video from the Vantage wireless camera to the controller cabinet. The system has been designed to incorporate a transmitter in the camera, a receiver located in the cabinet plus the antenna and other camera power connection options to simply installation and setup. Line of sight is approximately 500 feet and up to 4 wireless cameras can communicate simultaneously to a single receiver.

Wireless technology expands the flexibility of video detection installations without the limitations of cables and other hard-wired connections. Iteris has taken a leading position in the video detection industry by integrating our proven Vantage Edge2 and camera products to provide even greater flexible configurations to meet the needs of our customers.

## Installation and Configuration

The wireless camera has an integrated wireless transmitter that includes a small antenna on the rear edge of the camera housing. The wireless receiver is located in the controller cabinet and converts the wireless video signal back into an analog video signal for connection to the Vantage Edge2 processor module. An antenna is installed near the controller cabinet to receive the video signals from the camera(s). All Vantage wireless camera system components are FCC compliant and approved that precludes the end user from needing an operator's license from the FCC.



## Features

- Camera
  - Color or monochrome image sensors available
  - Latest CCD Sensing element and DSP technology
  - Electronic shutter and auto iris lens
  - Auto focus with manual override
- Camera Housing
  - Sealed housing to IP67 specification
  - 2.4GHz integrated wireless transmitter
  - Integrated antenna
  - 1, 2 or 4 channel receiver configuration
  - Up to 500 feet line of sight transmission
  - Integrated adjustable sunshield
  - Auto-sensing power supply – 115/240 VAC 50/60 Hz
  - Internal heater with proportional power control
  - Integrated mounting bracket
- Options
  - DC power for solar or battery applications
  - Junction Box adapter for field terminations



# Roadway Sensors



Multi Channel Receiver  
Single Channel Receiver  
Luminaire Power Adapter  
Receiver Antenna



## Benefits

- Integrated wireless transmitter eliminates the need for coaxial cable between camera and processor module saving time and cost.
- Wireless receiver can accommodate up to 4 wireless cameras allowing for minimal disruption to traffic during intersection reconstruction
- Integrated mounting brackets reduce installation and setup time
- Proportional power-controlled internal heater prevents ice and condensation resulting in improved video detection performance in adverse weather conditions.

## Typical Applications

- Intersection flow control
- Ramp metering
- Traffic data collection
- Bicycle detection
- Traveler information system input
- Temporary and construction zone vehicle detection replacement
- Moving or wrong way motion detection
- Automatic Incident Detection (AID) in tunnels and on bridges

## Vantage Family Products

- Machine Vision Processor modules
- Input and Output Extension modules
- Communications modules
- Video detector rack systems

## Technical Specifications

Resolution	470 TVL lines horizontal minimum
Sensitivity	.1 lux capable
Standard Lens	Focal length and focus adjustable through connector at rear of housing for a horizontal field of view ranging from 5.4° wide to 50.7° wide
Connections	BNC connector for video at rear of housing for setup use. Power connector for line power and safety ground at rear of housing.
Camera Weight	5.7 pounds (2.6 Kg), including camera, lens, housing, sunshield, and mounting bracket
Wireless Transmitter	FCC Part 15 compliant 2.4 GHz ISM Band 3" linear polarized antenna up to 500 ft. line of sight transmission with standard receiver antenna
Wireless Receiver	One, two or four-channel configurations
Receivers Weight/Dimensions	<u>1-Channel</u> 1 lb (0.45 Kg) 6.5" (H) x 4.0" (W) x 2.0" (D) (16.51 x 10.16 x 5.08 cm) <u>4-Channel</u> 4 lbs (1.8 Kgs) 6.25" (H) x 8.25" (W) x 5.5" (D) (15.87 x 20.95 x 13.97 cm)
Environment	
Camera Temperature	-31° F to +140° F (-35° C to +60° C)
Humidity	0% to 100%
Vibration	0.5G, 3 axes, 5-30 Hz
Receivers Temperature	-35°F to +165°F (-37°C to +74°C) 0-95% relative humidity (non-condensing)
Power	
Camera	115/230 VAC, 45W (max.)
Receivers	<u>1-Channel</u> 12 VDC (power supply included), 6W (max.) <u>4-Channel</u> 115/230 VAC, 15W (max..)



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