

➤ **VISCAM**
Ethernet Systems



- **10/100/1000 BaseT Ethernet interface**
- **External trigger to cause immediate capture of a single full frame, or pre/post image sequences**
- **Triggering capability using Ethernet, TTL or serial (RS-485)**
- **Built-in Power PC processor running Linux O/S**
- **Image buffering (uncompressed TIF and JPEG)**
- **Static/DHCP support for TCP/IP configuration**
- **Image transfer over Ethernet using FTP and/or TCP/IP messaging**
- **NTP (network time protocol) date/time stamp and user-defineable image identifiers**
- **ADR (automatic dynamic range) control to maximize license plate contrast**
- **Monochrome or color cameras available**

VISCAM Ethernet Systems

Components

The JAI VISCAM System includes the following components, customized according to each application's needs:

- VISCAM 1000 Traffic Imaging System
TS-5000EN, TSC-5000EN (color version)
2560 x 2048 pixels
72 fps internal frame rate
- VJP300 Electronic Junction Panel
- TNL-50 LED Flash Unit
- VISCAM System Cable
Ethernet, power, TTL, outdoor-rated, shielded

General Description

The next-generation JAI VISCAM System is a high-performance imaging solution for advanced ITS imaging applications, including automated license plate reading systems and vehicle fingerprinting recognition applications. Consisting of a camera-based image capture subsystem plus an LED flash unit, a specially-designed shielded cable, and a junction panel for easily connecting both VISCAM components and external triggers and/or lane controllers, the VISCAM System is field-proven to produce high-contrast images of passing vehicles and their license plates under all weather and lighting conditions. Retro-reflective and non-retro-reflective license plates, even older plates, are easily captured by the VISCAM System in 24/7 operation

The JAI VISCAM System is suitable for multi-lane use in either lane-based or high-speed open-road applications. The VISCAM captures full-frame images on demand from a variety of vehicle detection triggers. This quality resolution (progressive scan) is critical to ensure plate legibility.

JAI provides multiple nighttime lighting options to help your system generate high quality images at night. These options include both on-axis LEDs in the VISCAM unit, as well as off-axis flash illumination (TNL-50) with spectral options to accommodate a wide range of plate color combinations. We can even handle those situations in which near-infrared lighting cannot produce legible plate images. All available VISCAM lighting options meet road safety standards.

Unlike other imaging systems, the JAI VISCAM System adapts instantly to changing lighting conditions, even when there is no vehicle in the camera's field of view. This intelligence is made possible by real-time adaptive light sensing technology that continuously measures the instantaneous dynamic range of plate/vehicle brightness and electronically adapts camera parameters (such as gain and shutter speed) to achieve optimal imaging. Because the camera uses no mechanical moving parts (i.e., no auto-iris lens), it is much less likely to fail. Other features include video streaming and clip recording, digital signing and encryption, and advanced in-image video triggering capability, to name a few. Please refer to our separate specification sheets for further details of the VISCAM components.

The VISCAM System communicates over a local network utilizing Ethernet communications. VISCAM subsystems can report the health and status of all components to any IP address on the network.

Smart Light Sensor Compatibility (TLS-300)

VISCAM Ethernet Systems include built-in, through-the-lens light sensing capabilities to ensure the best possible exposure. They are also backwards compatible with the JAI TLS-300 light sensor to support easy upgrades to legacy installations. The TLS-300 continuously monitors the ambient lighting conditions, then computes shutter, gain, and pedestal settings for the cameras on the network to ensure high contrast images. In legacy networks, a single light sensor may control up to 20 cameras for multi-lane applications.



VISCAM 1000 Traffic Imaging System

The VISCAM 1000 utilizes a state-of-the-art progressive scan, global shutter CMOS imager providing high resolution, high speed, and high image quality. The camera's high internal frame rate (72 fps) supports precise triggering, as well as traffic bursts and image sequence capture of speeding vehicles. The camera is integrated at the board level inside the VISCAM weatherproof enclosure and is equipped with custom-fitted optics tailored to the application setup. The system's built-in image processing functions optimize plate and vehicle images for maximum readability.



Junction Panel (VJP300)

The VJP300 Junction Panel makes site installation quick and easy. The Junction Panel is the interface between the JAI VISCAM System and the rest of your system. It is used with a DC output power supply (AC PSU) for the cameras and flash units, and has terminal blocks to simplify connecting trigger input, host interface and interconnecting multiple cameras and flash units.



Nighttime Illumination

JAI's TNL-50 LED flash unit complements the on-axis LEDs of the VISCAM 1000 with a high performance off-axis illumination solution essential for maximum vehicle identification and violation enforcement. This compact and lightweight system includes models for single-lane or multi-lane coverage, with near IR, white, or blue wavelength configurations. A unique traffic safety mode combines low-level continuous lighting with white or blue flash pulses to enable visible illumination of nighttime scenes while minimizing driver distraction. The rugged enclosure is IP66 and IK07-rated for long life and low total cost of ownership.



VISCAM System Cable

The VISCAM System Cable is an outdoor-rated, multi-strand cable complete with separate ground wire, internal braid and foil shielding. The individual wires are all organized and color-coded per the VISCAM documentation to simplify the installation process of the VISCAM Ethernet System components. Wiring is provided for making power, trigger, and Ethernet connections between the VJP300 Junction Panel and the I/O board inside the VISCAM 1000 imaging system.



About JAI

JAI is the world leader in high-performance vehicle imaging technologies that target the specific needs and concerns of roadway operators and transit authority executives. JAI provides advanced real-world proven lane hardware and software that delivers superior performance.

We also offer products and services to reduce back-office enterprise processing costs. Our wide range of uniquely tailored products includes high-speed vehicle capture (up to 200 MPH), license plate reading (LPR) combined with vehicle fingerprinting, patented video billing products and specific homeland security services.

Working together with our valued system integrator partners around the world, JAI has delivered more than 20,000 vehicle imaging cameras and systems devoted to the electronic tolling collection, speed enforcement, parking lot systems, and Homeland Security markets. JAI manufactures core imaging cameras and vehicle imaging products and services for worldwide traffic industry partners.

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