



**Fiber  
Connections Inc.**

*Innovate | Design | Deliver*



## **FIBER OPTICS AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**

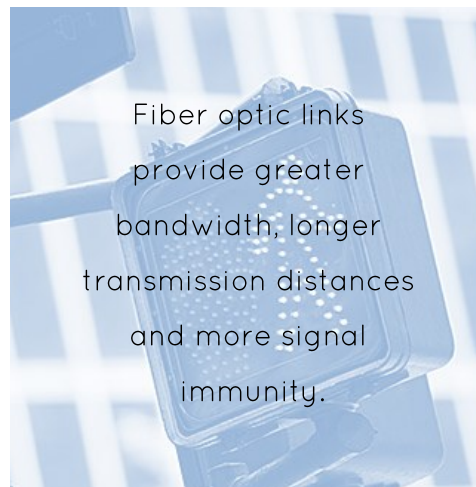
Solutions to congestion and  
other traffic control issues





# FIBER OPTICS AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Solutions to congestion and  
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Intelligent transportation systems (ITS) apply communications and information technology to provide solutions to congestion as well as other traffic control issues. ITS information ranges from real-time traffic conditions to sensors for weather conditions to toll booth information. Things like variable message signs can warn of Amber Alerts, accidents, speed limit changes or delays. ITS controls the flow of traffic via traffic signals, or by opening and closing special lanes based on traffic conditions. Video surveillance cameras are also a big part of the ITS infrastructure, adding to the network bandwidth demands.

Regardless of the exact function, fiber optic links offer a valuable component in the overall traffic network infrastructure. Modern ITS networks require ever-increasing data rates to facilitate real-time communications between a wide variety of remote field devices and traffic control centers. Fiber-based ITS infrastructures are displacing twisted pair copper and coax for both data and video transmission requirements in urban and rural areas around the world. Video transmission for surveillance of intersections, ramps and tunnels, incident detection or verification, and replacement of traffic signal loop sensors are areas of growth within this market. All of these applications require distance between the site where the information is collected and the location where the information is stored. Fiber optic links provide greater bandwidth, longer transmission distances and more signal immunity.



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## Video Transmission

Video transmission that incorporates 2-way data has grown as an ITS application. This system transmits video and data to a control center. The control center sends data to the remote camera that allows a PTZ (pan, tilt, zoom) device to be custom positioned as needed by the person at the control center. Intelligent transportation systems, as with many fiber optic applications, require a network of nodes, controls and signal paths, but finding the space for mounting the required hardware is not always easy.



## Benefits of the Gator Patch

With a limited amount of space inside the traffic control cabinets, Fiber Connections Inc. designed the Gator Patch™ to provide fiber connectivity between the primary fiber optic cable and the field devices such as signal controllers, modems, security cameras, video detection systems, and messaging signs. A modular approach to the connectivity needs of the ITS market offers easy adds, drops and changes in an ever changing application environment. The added bandwidth and distances afforded by installing fiber is a given, but choosing the Gator Patch provides a rugged, long term solution.

Customers choose the Gator Patch over other fiber patching options for many reasons. One of the most common is the small footprint and the ability to install these units just about anywhere. No rack space is needed – nothing special. Just a few inches in an existing cabinet will do. The harsh environments experienced in many locations around the world can wreak havoc on standard fiber optic patch panels and splice trays and even worse, rodent damage can be devastating. The Gator Patch completely encloses the fiber within the shell and then adds an extra layer of protection by filling the void with epoxy. Gator Patch units can be terminated onto armored, rodent proof cables as well – providing unmatched protection for years of uninterrupted service.



## ITS and Gator Patch – a perfect match.

Fiber Connection's GatorLink family of products takes this interconnection scheme to the next level. The GatorLink product adds media conversion and Power-over-Ethernet to the scheme. This eliminates several down steam individually powered devices, drastically simplifying cabinet interconnections and improving reliability. Check out the GatorLink on our website or call the factory for details.