



# INTELLIGENT TRANSPORTATION

**Enable Wireless Connectivity to  
Improve Safety and Efficiency**

## **Control and Manage the Transfer of Information**

- Enable safer roadways and improve traffic flow, reducing environmental impacts.
- Enhance transportation system information sharing, supporting operational performance.
- Manage fleets more efficiently and improve productivity, saving time and expenses.



# Create Powerful Wireless Connections



Through enhanced wireless solutions, PCTEL® enables transportation organizations and public safety fleets to connect reliably, providing fast emergency response, improved security, reduced congestion, and optimized operational efficiencies.

- Monitor and control information between fleet operations and control centers.
- Handle extreme environments with rugged antenna solutions tailored to specific operations.
- Increase wireless network capacity and provide continuous connectivity.

## BUILT WITH ATTENTION TO DETAIL

Our antenna platforms are specifically designed to address the challenges of intelligent transportation fleets worldwide. As a preferred vendor among many of the leading global original equipment manufacturers of land mobile radio and cellular routing equipment, our platforms offer the best value in the industry with top quality construction and performance at competitive prices.

### Wideband/Multiband Antennas

- RF efficient, no field tune solutions
- 118 MHz LMR to 6 GHz frequencies
- Rugged construction with UV-stable materials
- Ground plane independent designs
- Covert and glass mount platforms available



### GNSS Enabled Antennas

- Carrier grade 5G and FirstNet ready multiport platforms
- Proprietary high rejection GNSS technology
- Different footprint/height options
- 801.11 ax/ac WiFi MIMO capability
- GNSS L1, L2, L5 alternatives



### Fixed/Cabinet Antennas

- Carrier grade directional and omnidirectional platforms
- 5G and FirstNet® ready, multiband, multiport designs
- Impact resistant housing
- IP67 compliant designs
- Pole/Mast mount options



### Railway Antennas

- Purpose-built, heavy duty solutions for antenna farms and Positive Train Control (PTC) applications
- Precision GNSS for location and asset tracking
- EN50155 and AAR-compliant solutions
- Cable and surge suppression accessories



# ROBUST ANTENNAS DESIGNED TO OPTIMIZE SAFE COMMUNICATIONS

## Public Safety and Emergency Response Fleets

Support FirstNet's network interoperability and technology requirements with multiband antennas that optimize 5G LTE connectivity and enable fast livestream video, situational information, navigation, and asset tracking.

- **Provide dedicated coverage** – Equip public safety personnel with dedicated coverage and capacity with antenna solutions that operate in the FirstNet Band 14 spectrum.
- **Keep connected** – Maintain real-time access to voice, data, video, images, and text tools when emergencies occur with high reliability and security.
- **Track seamlessly** – Get situational awareness, track, and communicate effortlessly with first responders using innovative devices with high-precision GNSS capability.



## Smart Roadways

Depend on wireless connections to share critical data with back-office operations, from intersection cameras to traffic light controls.

- **Reduce congestion** – Support wireless sensors on critical light poles to make real-time decisions for effective control of traffic flows.
- **Share real-time information** – Use GPS coordinates to allow public safety authorities to immediately respond to traffic accidents and congestion.
- **Improve operations** – Process ticketing and payment data over WiFi or cellular networks for faster, more efficient business operations.



## Smart Railways

Do more with fewer resources — serve a growing ridership, enable passenger connectivity, improve system-wide efficiency and safety, and reduce operating costs.

- **Improve rail operations** – Intelligently manage Positive Train Control (PTC) operations with connected solutions that provide real-time vehicle and operational data transmissions.
- **Manage data sharing** – Utilize multiband MIMO cellular antennas to control and log GPS data, surveillance video, passenger counts, fare tracking, and on-board ticketing.
- **Advance security** – Speed up response times by relying on a communications system that links rail and local jurisdiction networks.



## Smart Industrial Fleets

Maximize efficiency, boost productivity, and reduce costs with wireless solutions for agriculture, construction, and commercial trucking fleet operations.

- **Manage equipment locations** – Easily control operations and optimize efficiencies with GPS antenna solutions.
- **Engineered to survive** – Withstand harsh chemicals, extreme vibration, and water and dust ingress with environmentally tested, rugged antennas.
- **Reduce costs** – Save time and money by using wireless technology to automate labor-intensive processes.





## STAY CONNECTED WITH THE RIGHT WIRELESS SOLUTION

Gains in efficiency, safety, and security can only be realized if your devices stay connected. Industrial organizations, citizens, and public safety personnel depend on reliable wireless communication, including FirstNet, to share critical data and keep services running smoothly. You need an expert whose core focus is designing rugged wireless solutions for mission-critical and business-critical organizations.

### Wireless Expertise

Our skilled RF and mechanical design teams offer decades of experience solving wireless challenges.

### Unique Design

We identify new ways to design products so organizations can communicate better.

### Quality Built In

We ensure total RF system performance through the entire design and development cycle, from planning to production.

### Customer Relationships

We work side by side with our customers to create purpose-built solutions with advanced wireless designs.

### Peace of Mind

We provide warranty assurance that our products are free from defects in material and workmanship, taking the risk out of your wireless development network.

### Solving Complex Wireless Challenges

PCTEL is a leading global provider of wireless technology, including purpose-built Industrial IoT devices, antenna systems, and test and measurement solutions. Trusted by our customers for over 25 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.

For more information, please visit our website at  
[pctel.com](https://pctel.com)



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