The lynchpin of successful ITS systems will be dependable, consistent wireless coverage. User expectations are high, and network infrastructures will be pushed to the limit. The antenna solution is an important piece of the puzzle, and it is a piece that Mobile Mark understands.

Wireless coverage must reach seamlessly into hard-to-cover corners of city intersections and along vast expanses of interstate highways. Each setting is different but what they all share in common is the need for dependable connections.

DSRC system designers need a complete palate of options to construct a network that offers continuous and balanced coverage. Mobile Mark’s wide range of antennas can help make that possible.

Highway traffic management (V2V)
ITS trials are being held around the world to see if we can provide safer and more efficient driving conditions. These Smart Highway projects range from Advance Warning of Traffic Tie-ups to Collision Avoidance to Tolling. Multiple wireless technologies are being used including Cellular, WiFi and DSRC (Dedicated Short Range Communications) at 5.9 GHz. Vehicle-to-Vehicle (V2V) communication is key to developing an effective wireless web.

Highway wayside communications (V2I)
The Vehicle-to-Infrastructure (V2I) portion of the ITS trial poses a number of difficult challenges for antenna selection such as finding products that will withstand harsh conditions or optimizing coverage based on trade-offs between gain and pattern shape. A mixture of directional and omni-directional antennas will be needed, including our compact, low profile PN series panel antennas and our slim-line ECO omni-directional antennas available in various gains.

Intersection traffic management (V2V & V2I)
Traffic management at busy intersections is offered as one of the key benefits of future ITS networks. In addition to providing a warning of oncoming dangerous drivers, the ITS networks will allow traffic management to accommodate more efficient traffic flow for emergency vehicles. For omni-directional coverage at traffic intersections, we recommend our ECO series, ranging from 6-12 dBi gain or the RM Series.

Specialized vehicles: motorcycles, buses
In order to be truly effective, ITS networks need to accommodate vehicles of various sizes, from motorcycles to buses. We offer antennas that meet different size and use requirements from our small MRM antennas for motorcycles to our multi-band SMW & LTM antennas for buses and our ECOS Series spring-mounted omni-directional antennas equipped with a mirror mount for long haul trucks.

Specialized DSRC applications: tolling, parking
DSRC applications are moving beyond the initial plans for ITS networks at intersections and along highways. Trials are currently underway using the 5.9 GHz frequency for highway tolling, trucking oversight, and parking lot controls. Antenna styles will range from small Directional antennas for more narrowly configured coverage to Omni-directional antennas for settings where the path to the antenna is not pre-determined.

Antennas for Intelligent Transportation Systems . . .
Connections for seamless communication
Mobile Mark antennas cover commercially available wireless networks as well as specialized networks. We can help you tie together the right mix of wireless systems for both vehicles and infrastructure. And, installers love the fact our antennas are easy to install and service free.

If you need something special, Mobile Mark has the facilities and the experience to take a project from initial conception through to final production. Our team of design engineers brings years of experience and a proven track record for developing innovative, high quality antennas.