

Automotive Telematics Measurement



Outdoor Telematics Measurement System

About Telematics

Telematics is the combination of communication and information technology in vehicles. With the addition of new consumer-oriented services, cars are becoming 'antenna farms' with as many as 10 to 20 antennas mounted on them for cell phones, GPS, satellite radio, collision avoidance, automated tolling, traffic monitoring, personal area networking and AM/FM radio. Military vehicles and industrial fleet vehicles continually add additional antennas for specialized communications, movement coordination and data gathering.

While conventional antenna testing techniques are not effective due to new spatial coverage and frequency requirements, MI Technologies has developed and is delivering automotive antenna test systems to test the complete antenna/automobile interaction.

The systems include:

- Outdoor far-field and spherical near-field system
- Indoor spherical near-field system

The far-field system measures the pattern of antennas on vehicles at low elevation angles for terrestrial communications. The spherical near-field test systems measure antenna patterns on vehicles from zenith to the horizon as needed for satellite and other overhead communication requirements.

MI Technologies has developed spherical near-field measurement systems for telematics applications in both indoor and outdoor environments. Transformation software is available to account for the presence of the ground plane in the vicinity of the vehicle to ensure the best accuracy possible.

With each automatic telematics installation, MI Technologies provides all the test and measurement instrumentation and appropriate software.