

MACOM's RoadScape™ Technology Allows Vehicles to Predict the Future

M/A-COM Technology Solutions Inc.

ADASIS v2.x compliant technology enables a new era of location and situational awareness - with dramatic breakthroughs in fuel savings and emission reductions for the automotive and transportation industry.



Novi, MI- [M/A-COM Technology Solutions Inc. \(MACOM\)](#) [1] has introduced RoadScape at the Telematics Detroit Show in Novi, Michigan. RoadScape, MACOM's innovative technology, provides highly accurate position, direction, and time information, enabling a new era of location and situational awareness for the automotive and transportation industry - allowing industrial and commercial vehicles to "predict the future."

By providing detailed Advanced Driver Assistance Systems (ADAS) data such as road slope, curvature and height to vehicle control systems, RoadScape enables OEMs to develop end user powertrain applications that enable dramatic fuel savings and CO2 reductions that were previously unachievable.

For example, by identifying the slope and curvature information early, RoadScape can aid in shifting of multi-speed transmissions, resulting in fuel savings and CO2 emission reductions. The same road curvature information can be compared to the vehicle's speed, providing the driver with an early warning for dangerous road segments. RoadScape-generated ADAS messages can predict the slope of the road ahead, and using this information, power management can be programmed to turn off fuel burning accessories such as air conditioning for a short time until the road levels out.

For more examples of how RoadScape can be implemented, please visit: macomtech.com/content/automotive [2]

MACOM currently offers two RoadScape solution sets: RoadScape GPS and RoadScape electronic Horizon (eHorizon).

RoadScape GPS provides leading edge, highly accurate geo-location information to

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vehicle infrastructure. This single module delivers data to multiple systems, enabling OEMs to deliver to their end customer a variety of beneficial applications such as eCall, navigation, compass, infotainment and telematics. MACOM's RoadScape GPS boasts 2m accuracy at 2 σ in open sky conditions, and includes a fully dead-reckoned solution for confidence in all environments. The module publishes a complete blended GPS solution to the vehicle bus, providing latitude, longitude and height, UTC, speed over ground, heading and 8-point compass.

RoadScape eHorizon incorporates all the features and benefits of the RoadScape GPS Module, plus an advanced map and electronic horizon processing algorithm. The RoadScape eHorizon module provides key environment and horizon data to vehicle control systems, and enables applications such as power management, transmission control and driver warning. Additional benefits include internal map matching for improved positional accuracy, Ethernet connection, WiFi and BT capabilities and the ability to customize message content – altogether providing an ADASIS v2.x compliant eHorizon solution for both the transportation and passenger car markets.

“The long predicted energy savings and efficiency of eHorizon are ready to be realized, and MACOM's RoadScape technology is leading the way. Building on our high volume GPS module production, we are now extending our capabilities by leveraging eHorizon algorithms and onboard map data,” says Scott Nist, Director, Automotive Business Unit, MACOM. “Providing a true predictive solution for the road ahead, RoadScape equips OEMs with powerful ADAS data allowing them to provide improved fuel efficiency and cost saving benefits to the end customer.”

MACOM anticipates RoadScape to be available in vehicles for the 2017 model year. RoadScape evaluation kits are available to customers for purchase and can be customized to connect to nearly any MS CAN bus for vehicle-based testing. Additional product information can be obtained from MACOM's automotive landing page at: macomtech.com/automotive [3].

For more information visit www.macomtech.com [1].

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[1] <http://www.macomtech.com>

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