Mx-DSRC Conformance Test System

The Mx-DSRC™ Conformance Test System exercises devices with DSRC modules (ASDs, OBUs, RSUs, etc.) to validate their conformance to the Wireless Access in Vehicular Environments (WAVE) standards for V2X communications. The easy-to-use tool provides a powerful framework that automatically executes tests and generates the reports needed for USDOT Certification. It is designed to be used by:

- Test laboratories to certify devices
- Product companies to pre-certify their devices

The platform is expandable for support of other vehicle functions, such as CANbus communications.

Benefits

Drastically reduces test time with set-and-forget automation
Easy-to-understand configuration for execution of tests

Features

Perform in-house pre-certification testing
Automatic test execution and reporting
Includes the USDOT Certification tests
Validated as Qualified Test Equipment (QTE) by OmniAir

Certification Tests Covered

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**Mx-DSRC Conformance Test System**

**RF Quality Training**

Comprehensive RF Quality measurements to ensure interoperability:

- Data Rate
- Adjacent /Non-adjacent Channel Rejection
- Transmit Spectral Mask
- Center Frequency Tolerance
- Symbol Clock Frequency Tolerance
- Constellation Error
- Spectral Flatness
- Transmit Center Frequency Leakage
- Transmit Power
- Receiver Input Sensitivity

**Versions**

**Mx-DSRC - Full Version**
Comprehensive tester that executes the full protocol and physical layers. Included tests:

- IEEE 802.11p DSRC
- IEEE 1609.2 Security Services for Applications and Management Messages
- IEEE 1609.3 Network Services
- IEEE 1609.4 Multi-channel Operations
- SAE J2945/1 On-Board Systems for V2V Safety Communications, bench tests only

**Mx-DSRC - Protocol Only**
The lighter version that tests messaging and security. (IEEE 802.11 not included.)

Mx-DSRC Conformance Test System underwent rigorous testing and is listed as a Qualified Test Equipment (QTE) for OmniAir Consortium’s Connected Vehicle Certification Program.

**Related Products**

**Mx-Suite Embedded Software Test Automation** is the most comprehensive automated platform for embedded software verification and validation.

**Mx-Drive Multi-Vehicle Simulator** provides an environment to generate and run real-world conditions to test smart/connected vehicle applications.