

TTsuite-EU-ITS

Running Conformance Tests against ITS Equipment (ITS-G5 or C-V2X PC5)

Benefits

- Ensure conformance of an implementation or a system based on ETSI test specifications
 - Required for interoperability at ETSI PlugTests™
- Fast and simple test execution and analysis
- Repeatability of tests and full support of test automation
- Platform independence and rapid integration in existing test environments
- Flexibility through usage of the constantly evolving standardized test notation TTCN-3

Target Audience

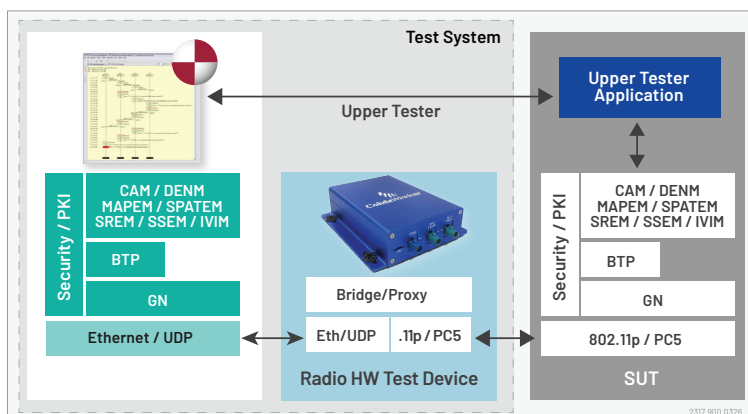
- Companies supplying or testing ITS technology

Requirements

- Test System
 - ITS-G5 Radio Device with Bridge/Proxy Software (e.g. Cohda Wireless MK6) or
 - C-V2X PC5 Radio device with Bridge/Proxy Software (e.g. Ficosa CARCOM)
- SUT: Implementation of Upper Tester functionality
 - For executing selected test cases automatically

Features

- ETSI TTCN-3 Conformance Test Suite for
 - Cooperative Awareness Basic Service (CA)
 - Decentralized Environmental Notification Basic Service (DEN)
 - GeoNetworking Basic Transport Protocol (BTP)
 - GeoNetworking (GN)
 - Transmission of IP packets over GeoNetworking (GN6)
 - Facilities layer protocols and infrastructure services (MAPEM/SPATEM, IVIM, SREM/SSEM)
 - ITS Security
 - PKI
- Free codec and adaptation based on the validation done by ETSI
- UDP communication for upper tester communication
- Three different modes for freely exchanging protocol messages
 - Wired (Ethernet) communication with the Device Under Test or
 - Radio communication via ITS-G5 Radio or
 - Radio communication via PC5 C-V2X Radio
- Platform-independent in using Java (existing ETSI adaptation implementation)
- Possible usage of ANSI C as adaptation
- Freely combinable with additional test access (TTplugins)



Base Specification

- **ETSI TS 102 636-4-1**

Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 4: Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 1: Media independent functionalities

Test Specifications (Parts 1/2/3*)

- **ETSI TS 102 868-3 V1.5.1:** Conformance test specifications for Cooperative Awareness Basic Service (CAM)
- **ETSI TS 102 869-3 V1.6.1:** Conformance test specifications for Decentralized Environmental Notification Basic Service (DEN)
- **ETSI TS 102 870-3 V1.2.1:** Conformance test specifications for GeoNetworking Basic Transport Protocol (BTP)
- **ETSI TS 102 871-3 V1.5.1:** Conformance test specifications for GeoNetworking ITS-G5 (GN)
- **ETSI TS 103 096-3 V1.4.1:** Conformance test specification for ITS Security
- **ETSI TS 103 525-3 V1.4.1:** Conformance test specification for ITS PKI management
- **ETSI TS 103 191-3 V1.2.1:** Conformance test specifications for Facilities layer protocols and communication requirements for infrastructure services (MAPEM/SPATEM, IVIM, SREM/SSEM)

*Part 1: Test requirements and Protocol Implementation Conformance Statement (PICS)

*Part 2: Test Suite Structure and Test Purposes (TSS&TP)

*Part 3: Abstract Test Suite (ATS) and Protocol Implementation eXtra Information for Testing (PIXIT)

Reference Platforms

- Java 8
- Microsoft Windows 10/11
- Linux (GTK2, x86-32, x86-64)

Ordering Information

Product Number	Description
TEC-SUITE-ITSG5	TTsuite-EU-ITS
TEC-SVC-1015-TS-1Y	TTsuite Support and Maintenance 1 Year
TEC-TT-WP	TTworkbench Professional
TEC-SVC-1015-WB-1Y	TTworkbench Support and Maintenance 1 Year
AUTO-CD-CCTM-2-EU	AUTO-CD-CCTM-2-EU;V2X OBU EU CERTIFIED
AUTO-CD-CCTM-2-SVC-1Y	AUTO-CD-CCTM-2-SVC-1Y;C-V2X TEST MODEM HW SUPPORT AND MAINTENANCE -CD 1YR



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