Spirent **TTsuite-ITS-G5**

Running Conformance Tests against ITS Equipment

Benefits

- Ensure the 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
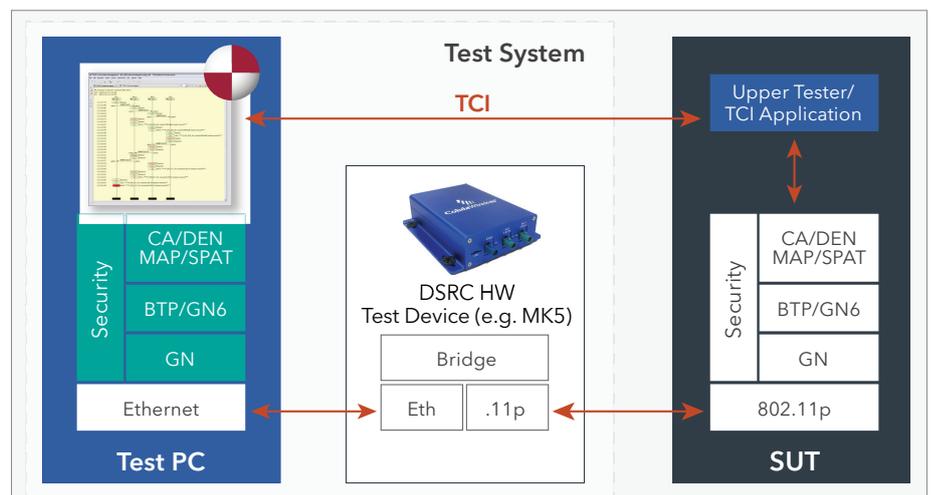
Target Audience

- Companies supplying or testing ITS technology

Requirements

- Test System: WAVE-DSRC Radio with Bridge Software (e.g. Cohda Wireless MK5)
- DUT: Upper Tester functionality implemented via Test Control Interface (TCI)
  - Necessary to execute selected test cases

Features

- ETSI TTCN-3 Conformance Test Suite for
  - Transmission of IP packets over GeoNetworking (GN6)
  - Cooperative Awareness Basic Service (CA)
  - Decentralized Environmental Notification Basic Service (DEN)
  - GeoNetworking Basic Transport Protocol (BTP)
  - GeoNetworking ITS-G5 (GN)
  - Facilities layer protocols and infrastructure services (MAPEM/SPATEM, IVIM, SREM/SSEM)
  - TS 102 867 and TS 102 941 Security Testing
- Free codec and adaptation based on the validation done by ETSI
- Direct Ethernet communication for protocol messages and UDP communication for upper tester communication
  - Freely exchangeable
  - Wired (Ethernet) communication with the Device Under Test or radio communication via DSRC Radio Hardware (e.g. Cohda MK5) + Bridge software
- Platform-independent in using Java (existing ETSI adaptation implementation)
  - Usage of ANSI C as adaptation possible as well
- Freely combinable with additional test access (TTplugins)

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About Spirent Communications

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks.

We help bring clarity to increasingly complex technological and business challenges.

Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

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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 102 859-3 V1.2.1:** Conformance test specifications for Transmission of IP packets over GeoNetworking (GN6)

- **ETSI TS 102 868-3 V1.4.1**: Conformance test specifications for Cooperative Awareness Basic Service (CA)

- **ETSI TS 102 869-3 V1.5.1**: Conformance test specification for Decentralized Environmental Notification Basic Service (DEN)

- **ETSI TS 102 870-3 V1.1.1:** Conformance test specifications for GeoNetworking Basic Transport Protocol (BTP)

- **ETSI TS 102 871-3 V1.4.1**: Conformance test specifications for GeoNetworking ITS-G5 (GN)

- **ETSI TS 103 096-3 V1.3.1**: Conformance test specification for ITS Security

- **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 7/8/10
- Linux (GTK2, x86-32, x86-64)

Ordering Information	
Part Number	**Description**
TEC-SUITE-ITSG5	TTsuite-ITS-G5
TEC-SVC-1015-TS-1Y	TTSUITE SUPPORT & MAINTENANCE 1YR
TEC-TT-WP	TTWORKBENCH PROFESSIONAL
TEC-SVC-1015-WB-1Y	TTWORKBENCH SUPPORT & MAINTENANCE 1YR
TEC-HW-MK5-1	Cohda MK5 OBU
TEC-HW-MK5-SVC-1Y	DSRC PROXY HW SUPPORT & MAINTENANCE MK5 1YR

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