



EMV LEVEL 1 CARD TEST SUITE

Description

In order to simplify implementations and to enhance global interoperability of Integrated Circuit Card (ICC) implementations, EMVCo defined a new test specification for EMV cards. This standard specifies a minimum common set of card implementation options, card application behaviours and data element definitions sufficient to accomplish an EMV transaction

The EMV Level 1 Card test suite is available as an off-the-shelf product that runs on the INQ Level 1 Platform, Integri's core platform for all solutions in Low-Level Protocol Testing.

The testing of the following features is automated and detailed (by using trace viewer, navigator and log files).

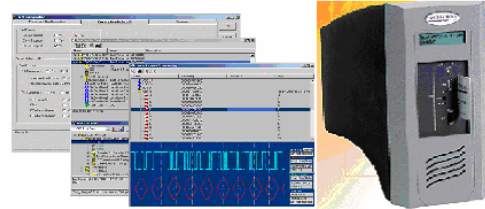
- Answer to reset
- Character transmission
- T=0 protocol requirements
- T=1 protocol requirements

Prior to the test execution, the user starts to configure the so-called ICS file, i.e. the 'Implementation Conformance Statement'. In this file, the different options, as defined in the EMV specifications, are configured.

Using this file, a reference EMV transaction is automatically executed and the commands are prepared at protocol level.

Any error reported by the tests is associated with a time stamp that can be found in the *TimeStamp* column in the viewer, making it easy to locate the reported problem.

Cursors can be used to measure delays at various locations.

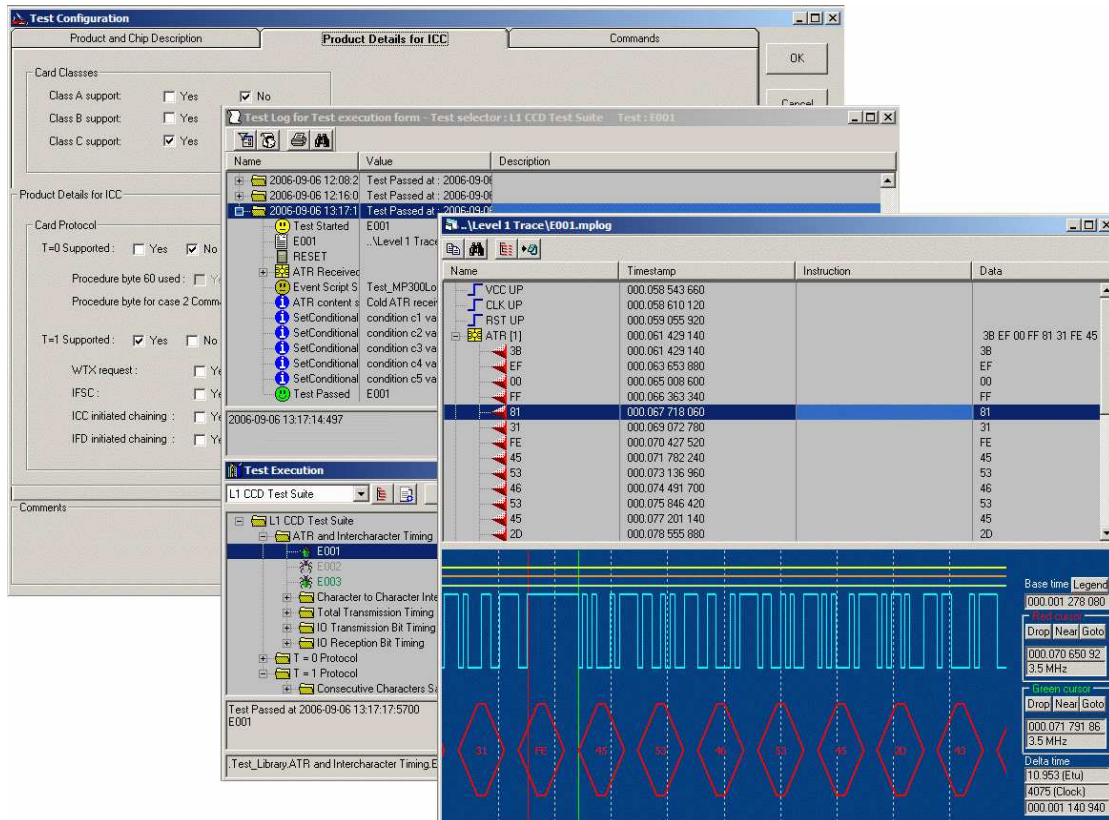


Perturbations can be performed easily within scripts with a direct access to the Micropross MP300TC2 sequencer:

- Forced parity errors in emission and reception
- Glitch generation on Vcc and Clock
- Modification of timings (TA, TB, TC...)
- ETU width adjustable
- Protocol level perturbations

Highlights

- Fully automated – no user action required
- Complete set of functional tests for Card level 1 approval
- Enables fully detailed tracking of completed transactions from bit to packet level
- Card Debugging during implementation
- High level reporting functionality foreseen
- Simulation of various conformant and non-conformant behaviors at connection level



Technical Specifications

The implementation of the EMV L1 Card Test Suite is based on the following specifications:

- ❑ Specification Update Bulletin No. 25, Common Core definitions, Second Edition April 2004
- ❑ Specification Update Bulletin No. 41, Corrections to Common Core Definitions, First Edition June 2005
- ❑ Specification Update Bulletin No. 46, Replacement of EMV Session Key Derivation Method, First Edition October 2005
- ❑ Specification Update Bulletin No. 47, Support for Proprietary Authentication Data in CCD, First Edition April 2006
- ❑ EMVCo COMMON CORE DEFINITIONS IMPLEMENTATION CONFORMANCE STATEMENT LEVEL 1 & 2 - FOR EMV SPECIFICATIONS v4.1, December 2005, Draft V1.0
- ❑ EMVCo COMMON CORE DEFINITIONS IMPLEMENTATION CONFORMANCE STATEMENT LEVEL 1 & 2 - FOR EMV SPECIFICATIONS v4.1, June 2006, Draft v2.5
- ❑ EMVCo Card Type Approval CCD Level 1 and Level 2 Card Images Requirements, Version 4.1.a, July 2006
- ❑ EMVCo Card Type Approval Level 1 Electrical and Protocol Test Cases Version 4.1b, February 2006

Product Family

Runs on the INQ Level 1 Platform - Contact Card Testing Configuration

Requires MP300TC2 Card Reader