



Integri

a Clear2Pay product

End-to-End Level 1 Platform

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 Test Suite enables to verify compliance of the protocol elements of EMV cards to the EMVCo specifications.

Product features

With this Test Tool card manufacturers can cover an essential part of the mandatory EMVCo Level 1 Card Type Approval process.

The EMV Level 1 Card test suite is available as an off-the-shelf product that runs on the Integri Level 1 Platform, our core platform for all solutions in Low-Level Protocol Testing. The test suite is **qualified by EMVCo** and uses MicroPross MP300 TC3 hardware.

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 MP300TC3 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

All-inclusive Level 1 solution for EMV cards

MicroPross' MUST² Test Tool for testing the electrical elements of EMV cards is built on the Integri Open Platform as well. Card manufacturers simply need one platform and hardware for running both tools, covering the complete EMVCo Level 1 Card Type Approval Process. An important gain of time and money.

Out of the box testing



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 protocol level

Technical Specifications

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

- EMV Integrated Circuit Card Specifications for Payment Systems, book 1, Application Independent ICC to Terminal Interface Requirements, v4.2, June 2008
- 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 4.2b, May 2010

Product Family

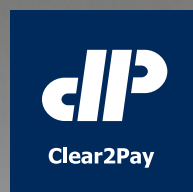
Runs on the INQ Level 1 Platform - Contact Card Testing Configuration
Requires MP300TC3 Card Reader



Related product

MicroPross MUST² for testing electrical elements of EMV cards

www.clear2pay.com/carddivision



Integri is a product brand of Clear2Pay, an international financial technology company focused on delivering globally applicable solutions for secure, timely electronic payments. Clear2Pay employs over 500 staff.

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