

# PC/SC (IFD) Test Tool Loaner and Sales Program

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## 1 Introduction

This document describes a test suite which can validate smart card reader drivers written for Microsoft Windows® to be compatible with the PC/SC version 2.0 of the Specification. This is an updated test suite. A set of cards accompany this test suite which must be used to validate the reader behavior. These cards are available for loan or sale from PC/SC Workgroup.

This test suite includes an updated version of IFDTEST program replacing most of the test cards with versions implemented on more modern smart cards. This new version was necessitated as a result of new cards which have much higher communication speeds (this means that some readers that passed the old test do not pass the new test). The new version cards are available for loan or sale from PC/SC Workgroup. It should be noted that readers that may have been successfully certified in the past may not pass the new version of the test.

## **PC/SC Workgroup**

## 2 Test Suite Details

The test suite contains the following types of tests:

1. **Card Monitor tests** verify correct detection and handling of card insertion and removal events.
2. **Reader Interface tests** are performed as a sample card is inserted into and removed from the reader, and test specific features of the driver interface.
3. **Resource Manager Simulation tests** simulate the interface requirements between the Smart Card Resource Manager and the reader driver.
4. **Smart Card Provider tests** verify correct reader/driver handling of both nominal and error condition operation communicating with an inserted test card using both T0 and T1 communications.
5. **Power Management tests** verify the correct handling of power management state changes such as shutdown and hibernation.

## 3 Requirements for installing and running this test suite

### 3.1 Supported Operating Systems

Windows XP SP2

Windows Server 2003 SP1, 2008, 2012, 2016

Windows 2000 SP4

Windows Vista, 8.1, 10

### 3.2 Supported PC/SC Test Cards

(Note that these cards are not available in the open market. They are available for loan or sale from the PC/SC Workgroup)

Test Card	Number
Infineon Technologies PC/SC Compliance Test Card Version 1.0	None
Athena T0 test card	1
Athena T0 inverse convention card	2
Axalto 32K eGate	3
Infineon SiCrypt Card Module Test Card (D3)	4

The numbers are used in the labeling of cards, most particularly to distinguish the two Athena and Infineon cards from each other.

## 4 PC/SC Test Card Loaner Program

You will be held to the following Loan Terms, as agreed upon when the Loaner Set was ordered. No exceptions can be made. We thank you in advance for your kind cooperation.

### 4.1 Loan Terms

#### 1. Cost

I will be charged USD 3,500 towards rental and shipping/handling charges. This payment covers USD 3,000/- towards deposit and \$500/- towards rental, shipping and handling charges to me for each test card set requested. A maximum of 2 sets can be rented at any time. This payment will be charged to the Mastercard or Visa credit card specified on the online payment form, when the Loaner Set is shipped to me. The deposit of USD 3,000 per set will be refunded upon return of the test card set(s).

I understand that I will be responsible for the payment of any customs/import fees which are assessed on the shipment of the Loaner Set.

#### 2. Shipping Timeframe

The Loaner Set will be shipped to me on a first-come, first-served basis. I understand that I may have to wait many weeks before the Loaner Set can be shipped to me, since there are only a few Loaner Sets and there may be many companies who need it. You may check current status of timeframe by sending email to [admin@pcscworkgroup.com](mailto:admin@pcscworkgroup.com).

#### 3. Loan Term

I understand that I may only keep the Loaner Set for four weeks. The four-week period will be defined as follows:

Day 1: the day that the Loaner Set is delivered to me, as recorded in the Federal Express tracking information.

Day 30: the day that the Loaner Set must be shipped back to the PC/SC Workgroup Administration, as recorded by the postmark and the Federal Express tracking information.

#### 4. Delinquency Fee

If I do not return the Loaner Set within the four-week period, I will forfeit my deposit of USD 5,000/-. In other words, even if I am only two days late in returning the Loaner Set, the \$5,000 deposit will be forfeited.

I recognize that this delinquency fee exists in order to strongly enforce that all companies return the Loaner Set in a timely manner. If I do not return the Loaner Set at the end of the four-week loan period, this represents a serious hardship for other industry participants, and I am fully prepared to pay the delinquency fee as defined above.

I am prepared to make full use of the four-week loan time period which I am allotted, and recognize that no exceptions will be made for my situation. I understand also that any proceeds from the delinquency fee will be used solely for the furtherance of the PC/SC standard.

**5. Return Shipping Method**

I will return the Loaner Set at the end of the four-week loan period using Federal Express. I will pay the cost of the return express shipping, using the method defined below:

In the USA: FedEx Standard Overnight

Outside of the USA: FedEx International Priority

I understand that no exceptions can be made on this point, and I am prepared to comply with these shipping requirements.

**6. Return Shipping Address**

I will return the Loaner Set at the end of the four-week loan period, using the shipping method described below, to the following address:

Jeanette Dreifuert  
PC/SC Workgroup Administration  
9 Crow Canyon Court, Suite 108  
San Ramon, CA 94583  
Tel: (925) 855-0558

**7. Compliance to Terms**

By submitting the online payment form to the PC/SC Workgroup Administration, I indicate that I have read and agreed to all of the loan terms, as detailed above.

## 5 PC/SC Test Card Sales Program

PC/SC test card sets for development purposes are available for members and nonmembers of PC/SC Workgroup via secure credit card purchase. To order, fill in and submit the online order form located at [www.pcscworkgroup.com/specifications/testcards](http://www.pcscworkgroup.com/specifications/testcards) . Orders are typically processed within 2-3 business days.

### 5.1 Sales Terms

1. The cards sold are for development purposes only. They may not be used for Windows Logo testing, because they do not constitute a complete Logo test set. Additional testing tools are available for download at <http://www.microsoft.com/whdc/resources/downloads.msp>
2. The cards listed below are offered at a special price. A maximum of 3 sets (each set containing one each of 5 cards) of test cards may be purchased per company, in an effort to distribute the stock in an equitable fashion.
3. Your credit card will be charged upon shipment, for the cards which are shipped to you.
4. All prices include shipping and handling. Any additional duties and taxes required by customs will be paid by customer.

5. Cost per Test Card Set:

Members	USD 1,000 + duties and taxes
Nonmembers	USD 3,000 + duties and taxes

6 How to Order

Go to [www.pcscworkgroup.com/specifications/testcards](http://www.pcscworkgroup.com/specifications/testcards)

1. Print and complete Adopters Agreement and return by email to [admin@pcscworkgroup.com](mailto:admin@pcscworkgroup.com), (Required for those loaning and purchasing test card sets.)
2. If applying for membership to PC/SC Workgroup complete and submit membership form located under the membership tab online and submit payment using our secure payment option. For additional information on the benefits of becoming a member, please visit [www.pcscworkgroup.com/members/membershipbenefits](http://www.pcscworkgroup.com/members/membershipbenefits).
3. Select test card loan or purchase option of your choice to complete online form and submit payment. Nonmembers can go directly to this step and select the option for nonmembers on the test card purchase form.

7 Microsoft WHQL Certification

To receive compliance certification, a reader must pass WHQL testing, but already certified readers don't need to recertify.

The certification includes the WHQL logo version, and customers will need to consider this version number when purchasing readers for newer platforms and applications.

Manufacturers of readers currently certified will be notified if defects are found in their hardware or driver software. If changes are made, the fix will need to be certified using the new test suite.

8 Support

8.1 Software Support

8.1.1 Test Cards Support

Contact the PC/SC Workgroup per email at [admin@pcscworkgroup.com](mailto:admin@pcscworkgroup.com)