

Introduction

The 73S1209F Evaluation Board is a dual-voltage power supply, serial smart card reader development kit for the efficient evaluation and development of stand-alone solutions. The board provides two interfaces. The board can be used in conjunction with any Windows® XP host system that has an RS-232 port. The host application can access the board through the Teridian Pseudo-CCID (PCCID) commands to communicate with asynchronous smart cards, following T-0 and T-1 protocols, in compliance with ISO7816-3 and EMV 4.1 standards.

For details about use of this development board in embedded applications (i.e. platforms other than PC Windows XP), refer to the *73S12xxF Pseudo-CCID Host Application Guide* (UG_12xxF_052) or contact Teridian support.

System Requirements

- A PC running Microsoft® Windows XP and equipped with a serial port.
- Eight megabytes of disk storage for the Teridian Exerciser application and documentation.

Package Contents

- A 73S1209F Evaluation Board populated with a 73S1209F and pre-loaded with the Teridian Pseudo-CCID firmware.
- A CD containing the associated drivers, applications and documentation.
- An RS-232 serial cable female/male, 2 meters.
- A 7-12 V DC power supply.

Default Setup

The 73S1209F Evaluation Board ships with a default configuration suitable for use as a turnkey Transparent Smart Card Reader using a RS-232 serial connection to communicate with a host PC application. The board's hardware and firmware are both pre-configured by Teridian to work in this state and the information in this document assumes this default configuration. Refer to the *73S1209F Evaluation Board User Guide* for details on alternate hardware configurations and uses.

Software Installation on Windows XP

Follow these steps using a PC running Windows XP:

- Extract "PCCID V **y.yy** Release.zip" (where **y.yy** is the latest version of the firmware release).
 - o Create an install directory. For example: "C:\TSC\".
 - o Unzip "PCCID V **y.yy** Release.zip" to the just created folder. All applications and documentation needed to run the board with a Windows PC will be loaded to this folder.
- Connect the Serial cable between the host system and the board.
- Plug the supplied adapter into the 5V DC jack on the board.
- Press the ON/OFF button once. The power LED D4 should turn on.

At this point the application is now installed and the development board is ready to use. The provided host application or any other host application can now be launched from Windows XP to access the smart card reader.



THIS EVALUATION SYSTEM IS ESD SENSITIVE! ESD PRECAUTIONS SHOULD BE TAKEN WHEN HANDLING THE BOARD!

Demonstration Host Application

Included on the CD is a demonstration application named "TSCP-CCID.exe" which is located in the "x:\yyy\ \PCCID Vz.zz Release\Host Applications\Windows App\Bin\Release" directory (where *x* refers to the drive, *yyy* refers to the directory the installation .zip file was expanded to and *z.zz* is the latest version of the firmware release). This is a host application that allows:

- Smart card activation and deactivation, in ISO or EMV mode.
- Smart card APDU commands to be exchanged with the smart card inserted in the board.
- Starting a test sequence in order to test and evaluate the board performance against an EMV test environment.

Run "TSCP-CCID.exe" to execute the host demonstration application. At this point the application window should appear. For additional information regarding the use of the Teridian Host application, refer to the *Pseudo-CCID Host GUI Users Guide* (UG_12xxF_037).

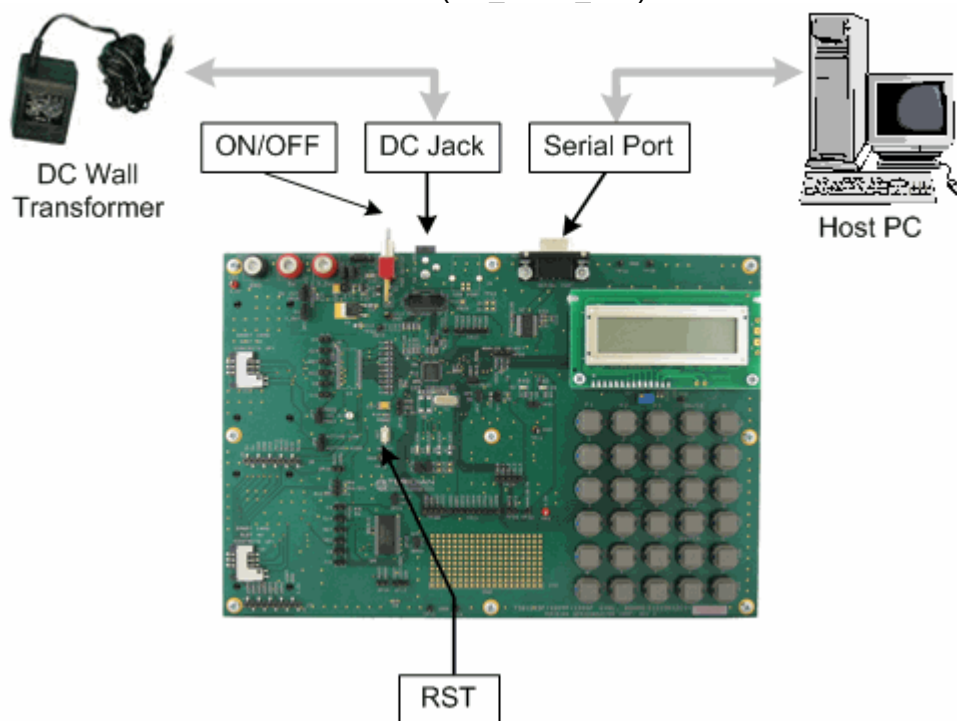


Figure 1: 73S1210F Evaluation Board Configuration

Integration in an Embedded System

The 73S1209F Evaluation Board can also be connected to a host microprocessor in an embedded architecture, like in Point-of-Sales terminals, solid-state utility meters and digital Set-Top Boxes. In such cases, a software Pseudo-CCID driver must be integrated within the host processor embedded software. The Teridian CD provided with this Development Board includes the ANSI C source code of the Teridian generic driver that will allow seamless integration into virtually any processor and operating system. For additional information, refer to the *73S12xxF Pseudo-CCID Host Application Guide* (UG_12xxF_052).

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