

Security Target

ST introduction

The reference of this ST is **TESS v5.2 Rev02, TESS v5.2 Rev03, TESS v5.2.1 Rev01, TESS v5.2.1 Rev02 with MIFARE Desfire EV1/M4Mv2 Security Target version v1.1**

TOE

The TOE is an **open platform** implementing the MIFARE specification [**MIFARE-DES-EV1**] and the access control in the MIFARE services.

See PP(s) for details.

TOE reference

The TOE is referred to as **TESS v5.2 Rev02, TESS v5.2 Rev03, TESS v5.2.1 Rev01, TESS v5.2.1 Rev02 with MIFARE Desfire EV1/M4Mv2**, and is named and uniquely identified using the GetVersion command as follows:

Platform identification data (TESS v5.2 and TESS v5.2.1)

Identification data Get Data command (tag FE)

Value for this product FE15060A**2B060104012A026E0103**0607**D0026115C60115**

Field	Value
Javacard version	2B060104012A026E0103
OS information	
- PDM counter	D0026115C6
- OS release	0115 (1.21)

Four patches configurations are available:

Configuration 1: TESS v5.2 Rev 02

Identification data Get Data command (tag FD)

Value for this product FD0400090000

Field	Value
- OS Patch revision	00090000

Configuration 2: TESS v5.2 Rev 03

Identification data Get Data command (tag FD)

Value for this product FD04000A0000

Field	Value
- OS Patch revision	000A0000

Configuration 3: TESS v5.2.1 Rev 01

Identification data Get Data command (tag FD)

Value for this product FD04000B0000

Field	Value
- OS Patch revision	000B0000

Configuration 4: TESS v5.2.1 Rev 02

Identification data Get Data command (tag FD)

Value for this product FD04000C0000

Field	Value
- OS Patch revision	000C0000

Applet identification data (DESFIRE EV1)

Field	Value
VendorID	0x40 (ISO affected value by NXP to GTO)
HWMajorVersion	0x01
HWMinorVersion,	0x00
SWMajorVersion	0x01
SWMinorVersion	0x02

Applet identification data (M4M v2)

Field	Value
VendorID	47454D414C544F
HWMajorVersion	-
HWMinorVersion,	-
SWMajorVersion	04
SWMinorVersion	01

[TOE overview](#)

The TOE consists of the following:

TOE component	Identification	Form of delivery	Certification identifier	Certificate issue date
Hardware IC	S3NSEN6 Rev2	(diced) wafer/module/card	ICCN0291	22/06/2022
Crypto libraries	V1.7.0	Embedded in the above	PCN0203.03 PCN0203.04 PCN0203.05 PCN0203.06 valid until	2023-02-24

			24 Feb 2026	
JavaCard	TESS v5.2 Rev02, TESS v5.2 Rev03, TESS v5.2.1 Rev01, TESS v5.2.1 Rev02	Embedded in the above	PCN0203.03 PCN0203.04 PCN0203.05 PCN0203.06 valid until 24 Feb 2026	2023-02-24
MIFARE applet		Embedded in the above	MIFARE4Mobile _PC0I_2501_00 1	15/01/2024
(Pre)personalisation documentation			n/a	n/a

No operational guidance other than the MIFARE specifications is provided. Any (pre-)personalisation performed by the developer of the TOE on behalf of its customers will lead to a state identical to states possible by executing the MIFARE commands for personalisation.

Conformance claims

This ST claims strict compliance to **[MIFARE DESFIRE PP]** (called “PP(s)” in the remainder of this document) under Common Criteria version 3.1, revision 5.

Exactly the SFRs of the PP(s) are included by reference, no omissions nor additions have been made. The ST is therefore CC Part 2 conformant.

The assurance package is **EAL4 augmented with AVA_VAN.5 and ALC_DVS.2**. The ST is therefore CC Part 3 conformant.

The rationale behind this claim is the requirement that the MIFARE security evaluation scheme requires compliance to this PP(s) for this TOE type (MIFARE products).

Security Problem Definition

See PP(s).

Objectives

See PP(s).

Extended components definition

There are no extended components, see PP(s).

Security Requirements

Security Functional Requirements

See PP(s). Note that the PP has no open operations.

Security Assurance Requirements

See section “Conformance claims”.

Rationale

See PP(s).

TOE Summary Specification

The TOE implements the SFRs by access control to the MIFARE services in accordance to the MIFARE specification, sufficiently hardened to counter attackers at AVA_VAN.5 level.

References

[MIFARE-DES-EV1] MIFARE DESFire EV1 Interface Specification, Rev. 1.1 (ts335111)

[MIFARE DESFIRE PP] MIFARE DESFire EV1/EV2/EV3 Protection Profile v1.5

ST revision history

- 0.1 Creation with v1.5 template
- 0.2 06/11/2024 Update: TOE reference (Identification), TOE overview (Lib version)
- 0.3 26/11/2024 Update: TOE reference (Identification with command/response)
- 1.0 16/01/2025 Update: TOE reference (M4M identification), TOE overview (certificate)
- 1.1 21/01/2026 Minor updates