Security Target

ST introduction

The reference of this ST is Security Target for **"Mobile FeliCa Applet4 on JCOP 6.2 R5.03.1 (SN220)"**, version 1.2 (25.Sep. 2026); (update to template v1.1, referenced [AGD-Applet]).

TOE

The TOE is an IC Platform composed with the FeliCa Crypto Lib and the FeliCa Applet. Designed to meet the security functionality of the Mobile FeliCa Applet Protection Profile [MFAPP].

TOE reference

The TOE has two configurations, one is Mobile FeliCa Applet4 (version **2.1.C**) and another is Mobile FeliCa Applet4 (version **82.1.0**), depending on supporting crypto.

The TOE is referred to as **Mobile FeliCa Applet4 on JCOP 6.2 R5.03.1 (SN220)**, and is named and uniquely identified by its response to the Request Product Information command sent from a FeliCa Reader/Write, as follows:

Field	Field	Value
Mobile FeliCa Applet4 (version **2.1.C**)	**Request Product information**	**0x 02 01 0C**
Mobile FeliCa Applet4 (version **82.1.0**)	**Request Product information**	**0x 82 01 00**

In addition, the platform and the hardware can be uniquely identified as
JCOP 6.2 R5.03.1 on S220 B0.1 C37 as follows:
GET VERSION QUERY command on wired interface to ISD or CASD; see [P_AGD1]

Field	Tag	Value
IC	**0x8C**	**0x35/0x3D (SN220 B0.1 C37 GF1/SMIC)**
Platform	**0x82**	**N5D2M005AC310600**
Crypto library	**Embedded in the above**	**Embedded in the above**

TOE overview

The TOE consists of the following:

TOE component	Identification	Form of delivery	Certification identifier	Certificate issue date
Hardware IC	**SN220 B0.1 C37**	**(diced) wafer**	**ICCN0281**	**15.Jul. 2021**
JavaCard	**JCOP 6.2 R5.03.1**	**Embedded in the above**	**PCN0189.07**	**12.Oct. 2021 (PCN) 08.Jul. 2026 (PCN0189.07**

				authorized)
FeliCa Crypto library	**FeliCa Crypto-Library v2.1.0**	**Embedded in the above**	**n/a**	**n/a**
FeliCa applet	**Mobile FeliCa Applet4**	**Embedded in the above**	**n/a**	**n/a**
Applet Guidance documentation	**[AGD-Applet]**	**PDF**	**n/a**	**n/a**
Security Guidance	**JCOP 6.2 R5.03.1, User Guidance Manual, Rev. 1.1, 25.Apr. 2025**	**Documentation**	**Part of PCN**	**Part of PCN**
	JCOP 6.2 R5.03.1, AMD I SEMS Application User Manual Addendum, Rev. 1.0, 26.Mar. 2025			
	JCOP 6.2 R5.03.1, CSP User Manual Addendum, Rev. 1.0, 26.Mar. 2025			
	JCOP 6.2 R5.03.1, Errata Sheet, Rev. 1.1, 25 Jun. 2026			

The TOE claims the following FeliCa Crypto library packages of the [MFAPP] section 6:
Mobile FeliCa Applet4(version 2.3.9, 2.4.2 and 2.1.c): DES1 / DES2 / DES3 / AES1 / AES2
Mobile FeliCa Applet4(version 82.3.0, 82.2.0 and 82.1.0): AES1

Conformance claims

This ST claims strict compliance to the Mobile FeliCa Applet Protection Profile (called "[MFAPP]" in the remainder of this document) under Common Criteria version 3.1, revision 5.
This ST is CC Part 2 conformant:

- Exactly, the SFRs of the [MFAPP] are included by reference.

The ST is CC Part 3 conformant:

- The assurance package is **EAL4 augmented with AVA_VAN.5 and ALC_DVS.2**.

The rationale behind these claims is the requirement that the FeliCa security evaluation scheme requires compliance to this [MFAPP] for this TOE type (FeliCa products).

Security Problem Definition

Refer to [MFAPP].

Objectives

Refer to [MFAPP].

Extended components definition

Refer to [MFAPP].

Security Requirements

Security Functional Requirements

Refer to [MFAPP].

Security Assurance Requirements and Rationale

See section “Conformance claims”.

TOE Summary Specification

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

References

[MFAPP] FeliCa Networks, Inc. Mobile FeliCa Applet Protection Profile, version 1.0

[P_AGD1] JCOP 6.2 R5.03.1, User Guidance Manual, Rev. 1.1, 25.Apr. 2025

[AGD-Applet] Mobile FeliCa OS 4.1 User Manual v1.10,
Mobile FeliCa OS 4.1 User Manual for Two Pass Authentication v1.01,
Mobile FeliCa Applet4 User Guidance v1.1,
Mobile FeliCa Applet4 TAP Interaction User's Manual v1.2 (for version 2.1.C),
Mobile FeliCa Applet2 TAP Interaction User’s Manual v1.0 (for version 82.1.0),
Applet Upgrade Specifications v2.1,
Mobile FeliCa IC Chip System Specification for Pre-issuance Process v1.20-RC,
Mobile FeliCa Applet Personalisation Specification v3.0 (for version 2.1.C),
Mobile FeliCa Applet2 Personalisation Specification v1.00 (for version 82.1.0),
Mobile FeliCa Applet Installation Procedure v1.10 (for version 2.1.C),
Mobile FeliCa Applet Installation Procedure v1.01 (for version 82.1.0),
FAST FeliCa Crypto Library Specifications for AES1, version 1.0,
FAST FeliCa Crypto Library Specifications for AES2, version 1.0,
FAST FeliCa Crypto Library Specifications for DES1, version 1.0,
FAST FeliCa Crypto Library Specifications for DES2, version 1.0,
FAST FeliCa Crypto Library Specifications for DES3, version 1.0,