

Certification Report

BSI-CC-PP-0100-V2-2025

for

eUICC for Consumer and IoT Devices Protection Profile, Version 2.1

developed by

GSM Association

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Deutsches erteilt vom



IT-Sicherheitszertifikat

Bundesamt für Sicherheit in der Informationstechnik

BSI-CC-PP-0100-V2-2025

Common Criteria Protection Profile

eUICC for Consumer and IoT Devices Protection Profile Version 2.1

Developed by: GSM Association

Assurance Package claimed in the Protection Profile: Common Criteria Part 3 conformant / EAL 4 augmented with ALC_DVS.2 and AVA_VAN.5

Valid until: 5 May 2035



SOGIS Recognition Agreement



The Protection Profile identified in this certificate has been evaluated at an approved evaluation facility using the Common Methodology for IT Security Evaluation (CEM), Version CC:2022 for conformance to the Common Criteria for IT Security Evaluation (CC), Version CC:2022. CC and CEM are also published as ISO/IEC 15408 and ISO/IEC 18045.

This certificate applies only to the specific version and release of the Protection Profile and in conjunction with the complete Certification Report.

The evaluation has been conducted in accordance with the provisions of the certification scheme of the German Federal Office for Information Security (BSI) and the conclusions of the evaluation facility in the evaluation technical report are consistent with the evidence adduced.

This certificate is not an endorsement of the Protection Profile by the Federal Office for Information Security or any other organisation that recognises or gives effect to this certificate, and no warranty of the Protection Profile by the Federal Office for Information Security or any other organisation that recognises or gives effect to this certificate, is either expressed or implied.

Bonn, 6 May 2025 For the Federal Office for Information Security

Sandro Amendola Director-General



Common Criteria Recognition Arrangement



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A Certification

1 **Preliminary Remarks**

Under the Act on the Federal Office for Information Security (BSIG), the Federal Office for Information Security (BSI) has the task of issuing certificates for information technology products as well as for Protection Profiles (PP).

A PP defines an implementation-independent set of IT security requirements for a category of products which are intended to meet common consumer needs for IT security. A PP claimed by a user, consumer or stakeholder for IT gives them the possibility to express their IT security needs without referring to a specific product. Product certifications can be based on Protection Profiles. For products which have been certified based on a Protection Profile an individual certificate will be issued but the results from a PP certification can be re-used for the Security Target evaluation within a product evaluation when conformance to the PP has been claimed.

Certification of the Protection Profile is carried out on the instigation of the BSI or a sponsor. A part of the procedure is the technical examination (evaluation) of the Protection Profile according to Common Criteria [1]. The evaluation is usually carried out by an evaluation facility recognised by the BSI or by BSI itself. The result of the certification procedure is the present Certification Report. This report contains among others the certificate (summarised assessment) and the detailed Certification Results.

2 Specifications of the Certification Procedure

The certification body conducts the procedure according to the criteria laid down in the following:

- Act on the Federal Office for Information Security (BSIG)¹
- BSI Certification and Approval Ordinance²
- BMI Regulations on Ex-parte Costs³
- Special decrees issued by the Bundesministerium des Innern und für Heimat (Federal Ministry of the Interior and Community)
- DIN EN ISO/IEC 17065 standard
- BSI certification: Scheme documentation describing the certification process (CC-Produkte) [3], including PP Certification

• BSI certification: Scheme documentation on requirements for the Evaluation Facility, its approval and licencing process (CC-Stellen) [3]

- ¹ Act on the Federal Office for Information Security (BSI-Gesetz BSIG) of 14 August 2009, Bundesgesetzblatt I p. 2821 Current version see website: <u>http://www.gesetze-im-internet.de/bsig_2009/index.html</u>
- Ordinance on the Procedure for Issuance of Security Certificates and approval by the Federal Office for Information Security (BSI-Zertifizierungs- und -Anerkennungsverordnung - BSIZertV) of 17 December 2014, Bundesgesetzblatt 2014, part I, no. 61, p. 2231 Current version see website: http://www.gesetze-im-internet.de/bsizerty_2014/index.html
- ³ BMI Regulations on Ex-parte Costs Besondere Gebührenverordnung des BMI für individuell zurechenbare öffentliche Leistungen in dessen Zuständigkeitsbereich (BMIBGebV), Abschnitt 7 (BSI-Gesetz) - dated 2 September 2019, Bundesgesetzblatt I p. 1365 Current version see website: <u>https://www.bsi.bund.de/Gebuehrenverordnung</u>

- Common Criteria for IT Security Evaluation (CC)⁴ [1] also published as ISO/IEC 15408
- Common Methodology for IT Security Evaluation [2] also published as ISO/IEC 18045
- BSI certification: Application Notes and Interpretation of the Scheme (AIS) [4]
- Internal procedure for the issuance of a PP certificate

3 Recognition Agreements

In order to avoid multiple certification of the same Protection Profile in different countries a mutual recognition of IT security certificates - as far as such certificates are based on CC - under certain conditions was agreed. Therefore, the results of this evaluation and certification procedure can be re-used by the product certificate issuing scheme in the evaluation of a Security Target within a subsequent product evaluation and certification procedure.

3.1 European Recognition of CC – Certificates (SOGIS-MRA)

The SOGIS-Mutual Recognition Agreement (SOGIS-MRA) Version 3 became effective in April 2010. It defines the recognition of certificates for IT-Products at a basic recognition level up to and including Common Criteria (CC) Evaluation Assurance Levels EAL 4, and in addition at higher recognition levels for IT-Products related to certain technical domains only. In addition, certificates issued for Protection Profiles based on Common Criteria are part of the recognition agreement.

The SOGIS-MRA logo printed on the certificate indicates that it is recognised under the terms of this agreement by the related bodies of the signatory nations. A disclaimer beneath the logo indicates the specific scope of recognition.

Details on recognition, the signatory nations, technical domains and the agreement itself can be found at <u>https://www.sogis.eu.</u>

3.2 International Recognition of CC – Certificates (CCRA)

The international Common Criteria Recognition Arrangement (CCRA) became effective in September 2014 in its current version. It defines the recognition of certificates for IT-products based on collaborative Protection Profiles (cPP) (exact use), CC certificates based on assurance components up to and including EAL 2 or the assurance family Flaw Remediation (ALC_FLR) and CC certificates for Protection Profiles and for collaborative Protection Profiles (cPP).

The Common Criteria Recognition Arrangement logo printed on the certificate indicates that this certification is recognised under the terms of this agreement by the related bodies of the signatory nations. A disclaimer beneath the logo indicates the specific scope of recognition.

Details on recognition, the signatory nations and the agreement itself can be found at <u>https://www.commoncriteriaportal.org</u>.

4 **Performance of Evaluation and Certification**

The certification body monitors each individual evaluation to ensure a uniform procedure, a uniform interpretation of the criteria and uniform ratings.

⁴ Proclamation of the Federal Office for Information Security of 14 April 2023 on <u>https://www.bsi.bund.de</u>

The eUICC for Consumer and IoT Devices Protection Profile has undergone the certification procedure at BSI. This is a re-certification based on BSI-CC-PP-0100-2018. Specific results from the evaluation process based on BSI-CC-PP-0100-2018 were re-used.

The evaluation of the eUICC for Consumer and IoT Devices Protection Profile was conducted by the ITSEF Deutsche Telekom Security GmbH (Bonn). The evaluation was completed on 15 April 2025. The ITSEF Deutsche Telekom Security GmbH (Bonn) is an evaluation facility (ITSEF)⁵ recognised by the certification body of BSI.

For this certification procedure the sponsor and applicant is: GSM Association.

The certification is concluded with the comparability check and the production of this Certification Report. This work was completed by the BSI.

5 Validity of the certification result

This Certification Report only applies to the version of the Protection Profile as indicated.

In case of changes to the certified version of the Protection Profile, the validity can be extended to new versions and releases, provided the sponsor applies for assurance continuity (i.e. re-certification or maintenance) of the modified Protection Profile, in accordance with the procedural requirements, and the evaluation does not reveal any security deficiencies.

For the meaning of the CC concepts and terms please refer to CC [1] Part 1 through 5.

The validity of this certificate ends as outlined on the certificate. The applicant and the sponsor of this certificate are recommended to review the technical content of the Protection Profile certified according to the evolvement of the technology and of the intended operational environment of the type of product concerned as well as according to the evolvement of the Protection Profile accordingly. Typically, technical standards are reviewed on a five years basis.

The limitation of validity of this PP certificate does not necessarily impact the validity period of a product certificate referring to this Protection Profile, but the certification body issuing a product certificate based on this Protection Profile should take it into its consideration on validity.

6 Publication

The eUICC for Consumer and IoT Devices Protection Profile has been included in the BSI list of the certified Protection Profiles, which is published regularly (see also Internet: <u>https://www.bsi.bund.de</u>). Further information can be obtained from BSI-Infoline +49 228 9582-111.

The Certification Report may be obtained in electronic form at the internet address stated above.

⁵ Information Technology Security Evaluation Facility

B Certification Results

The following results represent a summary of

- the certified Protection Profile,
- the relevant evaluation results from the evaluation facility, and
- complementary notes and stipulations of the certification body.

1 Protection Profile Overview

The eUICC for Consumer and IoT Devices Protection Profile [5] is established by the GSM Association as a basis for the development of Security Targets in order to perform a certification of an IT-product, the Target of Evaluation (TOE).

The TOE of this Protection Profile is the eUICC software that implements:

- GSMA RSP Architecture for Consumer Devices and/or

- GSMA eSIM IoT Architecture for IoT Devices.

The Protection Profile is a single-assurance Protection Profile defining four different configurations. The Protection Profile includes all components to build the four configurations. The TOE type is "software" loaded on a secure IC or a secure subsystem integrated in a SoC. The secure IC can be embedded or integrated in a device, but it can also be removable. The secure subsystem within a SoC is always integrated in a device. The lifecycle for the secure IC or the secure subsystem integrated in a SoC are slightly different nevertheless the software loading, and personalization is assigned to the dedicated lifecycle phases for both type of platforms. Details can be found in [5], sec. 1.2.3. The Runtime Environment (RE) is not part of the TOE. However, the TOE requires that the underlying Runtime Environment meets the security objectives for the environment as defined in [5], sec. 4.2.2.

The assets to be protected by a TOE claiming conformance to this PP are defined in the Protection Profile [5], chapter 3.1. Based on these assets the security problem definition is defined in terms of assumptions, threats and organisational security policies. This is outlined in the Protection Profile [5], chapters 3.3-3.5.

These assumptions, threats and organisational security policies are split into security objectives to be fulfilled by a TOE claiming conformance to this PP and security objectives to be fulfilled by the operational environment of a TOE claiming conformance to this PP. These objectives are outlined in the PP [5], chapter 4.

The Protection Profile [5] requires a Security Target based on this PP or another PP claiming this PP to fulfil the CC requirements for demonstrable conformance.

2 Security Functional Requirements

Based on the security objectives to be fulfilled by a TOE claiming conformance to this PP the security policy is expressed by the set of security functional requirements (SFR) to be implemented by a TOE. It covers the following issues:

- Secure Channel Protocol information flow control SFP,
- Platform services information flow control SFP,
- ISD-R content access control SFP,
- ECASD access control SFP.

These TOE security functional requirements are outlined in the PP [5], chapter 6. They are all selected from Common Criteria Part 2. Thus the SFR claim is called:

Common Criteria Part 2 conformant

3 Assurance Requirements

The TOE security assurance package claimed in the Protection Profile is based entirely on the assurance components defined in part 3 of the Common Criteria. Thus, this assurance package is called:

Common Criteria Part 3 conformant EAL 4 augmented by with ALC_DVS.2 and AVA_VAN.5

(for the definition and scope of assurance packages according to CC see [1], part 3 for details).

4 Results of the PP-Evaluation

The Evaluation Technical Report (ETR) [6] was provided by the ITSEF according to the Common Criteria [1], the Methodology [2], the requirements of the Scheme [3] and all Application Notes and Interpretations of the Scheme (AIS) [4] as relevant for the TOE.

As a result of the evaluation the verdict PASS is confirmed for the assurance components of the class APE (Protection Profile evaluation) and class ACE (Protection profile Configuration evaluation).

The following assurance components were used:

- APE_INT.1 PP introduction
- APE_CCL.1 Conformance claims
- APE_SPD.1 Security problem definition
- APE_OBJ.2 Security objectives
- APE_ECD.1 Extended components definition
- APE_REQ.2 Derived security requirements
- ACE INT.1 PP-Module introduction
- ACE_CCL.1 PP-Module conformance claims
- ACE_SPD.1 PP-Module security problem definition
- ACE_OBJ.2 PP-Module security objectives
- ACE_ECD.1 PP-Module extended components definition
- ACE_REQ.2 PP-Module derived security requirements
- ACE_MCO.1 PP-Module consistency
- ACE_CCO.1 PP-Configuration consistency

The results of the evaluation are only applicable to the Protection Profile as defined in chapter 1.

5 Obligations and notes for the usage

The following aspects need to be fulfilled when using the Protection Profile:

Note that the Assurance Component ALC_FLR.2 is optional and can be added by the author of the Security Target. If the assurance component ALC_FLR.2 is selected it shall be applied for all components of the selected PP-Configuration.

6 **Protection Profile Document**

The eUICC for Consumer and IoT Devices Protection Profile, Version 2.1 [5] is being provided within a separate document as Annex A of this report.

7 Definitions

7.1 Acronyms AIS Application Notes and Interpretations of the Scheme BSI Bundesamt für Sicherheit in der Informationstechnik / Federal Office for Information Security, Bonn, Germany BSIG BSI-Gesetz / Act on the Federal Office for Information Security CCRA **Common Criteria Recognition Arrangement** CC Common Criteria for IT Security Evaluation CEM Common Methodology for Information Technology Security Evaluation EAL **Evaluation Assurance Level ECASD** eUICC Controlling Authority Security Domain embedded SIM eSIM ETR **Evaluation Technical Report** eUICC embedded Universal Integrated Circuit Card GSM **Global System for Mobile Communications GSMA GSM** Association ISD-R **Issuer Security Domain Root** ΙοΤ Internet of Things IT Information Technology ITSEF Information Technology Security Evaluation Facility PP **Protection Profile** RSP Remote SIM Provisioning SAR Security Assurance Requirement SF **Security Function** SFP Security Function Policy SFR Security Functional Requirement SIM Subscriber Identity Module SoC System on a Chip ST Security Target TOE Target of Evaluation

TSF TOE Security Functionality

7.2 Glossary

Augmentation - The addition of one or more requirement(s) to a package.

Extension - The addition to an ST or PP of functional requirements not contained in part 2 and/or assurance requirements not contained in part 3 of the CC.

Formal - Expressed in a restricted syntax language with defined semantics based on wellestablished mathematical concepts.

Informal - Expressed in natural language.

Object - A passive entity in the TOE, that contains or receives information, and upon which subjects perform operations.

Protection Profile - An implementation-independent statement of security needs for a TOE type.

Security Target - An implementation-dependent statement of security needs for a specific identified TOE.

Semiformal - Expressed in a restricted syntax language with defined semantics.

Subject - An active entity in the TOE that performs operations on objects.

Target of Evaluation - A set of software, firmware and/or hardware possibly accompanied by guidance.

TOE Security Functionality - Combined functionality of all hardware, software, and firmware of a TOE that must be relied upon for the correct enforcement of the SFRs.

8 Bibliography

[1] ISO-Version:

ISO 15408:2022, Common Criteria for Information Technology Security Evaluation

- Part 1: Introduction and general model
- Part 2: Security functional components
- Part 3: Security assurance components
- Part 4: Framework for the specification of evaluation methods and activities
- Part 5: Pre-defined packages of security requirements

https://www.iso.org/standard/72891.html https://www.iso.org/standard/72892.html https://www.iso.org/standard/72906.html https://www.iso.org/standard/72913.html

CCRA-Version:

CC:2022 R1, Common Criteria for Information Technology Security Evaluation

- Part 1: Introduction and general model
- Part 2: Security functional components
- Part 3: Security assurance components
- Part 4: Framework for the specification of evaluation methods and activities
- Part 5: Pre-defined packages of security requirements

https://www.commoncriteriaportal.org

[2] ISO-Version:

ISO 18045:2022: Information technology Security techniques Methodology for IT security evaluation

https://www.iso.org/standard/72889.html

CCRA-Version: CEM:2022 R1, Common Methodology for Information Technology Security Evaluation <u>https://www.commoncriteriaportal.org</u>

- [3] BSI certification: Scheme documentation describing the certification process (CC-Produkte) and Scheme documentation on requirements for the Evaluation Facility, approval and licencing (CC-Stellen), <u>https://www.bsi.bund.de/zertifizierung</u>
- [4] Application Notes and Interpretations of the Scheme (AIS) as relevant for the TOE.
- [5] eUICC for Consumer and IoT Devices Protection Profile, Version: 2.1, Date: 03.02.2025, GSMA
- [6] Evaluation Technical Report for eUICC for Consumer and IoT Devices Protection Profile, Version 1.0, Date: 08.04.2025, Deutsche Telekom Security GmbH (confidential document)

C Annexes

List of annexes of this certification report

Annex A: Protection Profile eUICC for Consumer and IoT Devices Protection Profile, [5] provided within a separate document.

Note: End of report