Assurance Continuity Maintenance Report

BSI-DSZ-CC-0882-V2-2019-MA-01

S3CS9AB 32-Bit RISC Microcontroller for Smart Cards, Revision 0 with specific IC Dedicated Software

from

Samsung Electronics

SOGIS
Recognition Agreement

The IT product identified in this report was assessed according to the *Assurance Continuity: CCRA Requirements,* version 2.1, June 2012 and the developer's Impact Analysis Report (IAR). The baseline for this assessment was the Certification Report, the Security Target and the Evaluation Technical Report of the product certified by the Federal Office for Information Security (BSI) under BSI-DSZ-CC-0882-V2-2019.

The certified product itself did not change. The changes are related to an update of life cycle security aspects covered by updated audits and newest site certificates.

Consideration of the nature of the change leads to the conclusion that it is classified as an ALC re-evaluation and that certificate maintenance is the correct path to continuity of assurance.

The resistance to attacks has not been re-assessed in the course of this maintenance process. Therefore, the assurance statement as outlined in the Certification Report BSI-DSZ-CC-0882-V2-2019 dated 11 December 2019 is of relevance and has to be considered when using the product. Details can be found on the following pages.

This report is an addendum to the Certification Report BSI-DSZ-CC-0882-V2-2019.

Common Criteria
Recognition Arrangement
recognition for components
up to EAL 2

Bonn, 14 June 2021

The Federal Office for Information Security

DAkkS
Deutsche
Akkreditierungsstelle
D-ZE-19615-01-00

Assessment

The IT product identified in this report was assessed according to the *Assurance Continuity: CCRA Requirements* [1] and the Impact Analysis Report (IAR) [2] and [3]. The baseline for this assessment was the Certification Report of the certified product (Target of Evaluation, TOE) [4], its Security Target and the Evaluation Technical Report as outlined in [4].

The vendor for the S3CS9AB 32-Bit RISC Microcontroller for Smart Cards, Revision 0 with specific IC Dedicated Software, Samsung Electronics, submitted two IARs [2] and [3] to the BSI for approval. The IAR is intended to satisfy the requirements outlined in the document *Assurance Continuity: CCRA Requirements* [1]. In accordance with those requirements, the IAR describes (i) the changes made to the certified TOE, (ii) the evidence updated as a result of the changes and (iii) the security impact of the changes.

The certified product itself did not change.

The changes are related to an update of life cycle security aspects. The ALC re-evaluation was performed by the ITSEF TUV Informationstechnik GmbH. The procedure led to an updated version of the Evaluation Technical Report (ETR) [5]. The ETR for Composition [6] was not renewed.

The Common Criteria assurance requirements for ALC are fulfilled as claimed in the Security Target [7]. The Security Target did not change.

The Common Criteria assurance requirements ALC – Life cycle support (i.e. ALC_CMC.4, ALC_CMS.5, ALC_DEL.1, ALC_DVS.2, ALC_LCD.1 and ALC_TAT.2) are fulfilled for the development and production sites of the TOE listed below:

Site	Address	Function	References
Development			
Samsung Giheung	Samsung Electronics Co., Ltd. (Giheung) 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113 Korea	Development (IC and Test Programs)	on-site audit: 13 May 2019
Hwasung (DSR Building)	Samsung Electronics Co., Ltd.(Hwasung) 1, Samsung-jeonja-ro, Hwasung-si, Gyeonggi-do, 18448 Korea	Development (IC and Test Programs)	on-site audit: 13 May 2019
Tera Tower	452, Nongseo-Dong, Giheung-Gu, Yongin-si, Gyeonggi-do, 18448 Korea (Samsung occupies the complete 3rd and 4th floor)	Development (IC only)	on-site audit: 14 October 2020
Production			
Samsung Electronics Giheung & Hwaseong Factory (FAB 1, FAB 2, FAB 6, FAB S1)	Samsung Electronics Co., Ltd. (Giheung) 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113 Korea, Samsung Electronics Co., Ltd. (Hwaseong) 1, Samsung-jeonja-ro, Hwaseong-si, Gyeonggi-do, 18448 Korea	Giheung: Wafer Fabrication, Inking, DC test, Inspection, Grinding, Scrap, Stock Hwaseong:	BSI-DSZ-CC-S-0130-2019

Site	Address	Function	References
		Receipt of GDS file provided by clients (i.e. IC manufacturers), GDS file checking and optimisation for mask data generation, Mask Data Preparation, Data Center / IT (Server room)	
Samsung Onyang	Samsung Electronics Co., Ltd. 158, Baebang-ro, Baebang-eup, Asan-si, Chungcheongnam-do, 31489 Korea	Warehouse / Delivery, Grinding, Sawing, Assembly, Module testing	BSI-DSZ-CC-S-0173-2020
PKL Cheonan	PKL Co., Ltd. 493-3 Sungsung-Dong, Cheonan-City, Choongcheongnam-Do, 330-300, Korea	Mask house	on-site audit: 14 May 2019
Toppan Icheon	Toppan Photomasks Korea Ltd. 91, Wonjeok-ro 290 beon-gil, Sindun-myeon Icheon-Si, Gyeonggi-do 467-842 Korea	Mask house	on-site audit: 15 May 2019
HANA Micron Asan	HANA Micron Inc. 77 Yeonamyulgeum-ro, Umbong-Myeon, Asan-Si, Chung-Nam, 336-864 Korea	Grinding, Sawing, Assembly, Module testing	BSI-DSZ-CC-S-0166-2020
Inesa Shanghai	Inesa Co., Ltd. No. 818 Jin Yu Road, Jin Qiao Export Processing Zone Pudong, Shanghai, China	Grinding, Sawing, Assembly (COB), Warehouse	NSCIB-SS-210064-CR
Tesna Pyeungtaek	TESNA Co., Ltd. No. 450-2 Mogok-Dong, Pyeungtaek-City, Gyeonggi, Korea	Wafer testing, Initialization, Pre-personalization	on-site audit: 06 August 2020
ASE Korea	ASE Korea Inc. Sanupdanjigil 76, Paju, Korea	Grinding, Sawing, Packaging	BSI-DSZ-CC-S-0165-2020
SFA Semicon	SFA Semicon Co. Ltd. Bumping Factory, 30, 2gongdan 7-gil, Seobuk-gu, Cheonan-si, Chungcheongnam-do, Korea 31075	Wafer Bumping	BSI-DSZ-CC-S-0131-2019

Table 1: Relevant development/production sites for the TOE

As a result of the partial ALC re-evaluation, the following sites are integrated per their updated site certificate:

- Samsung Onyang, Site Certification BSI-DSZ-CC-S-0173-2020 with life cycle components from EAL5 package, [8]

- Hana Micron Asan, Site Certification BSI-DSZ-CC-S-0166-2020 with life cycle components from EAL6 package, [9]

- ASE Korea, BSI-DSZ-CC-S-0165-2020 with life cycle components from EAL5 package, [10]

- Inesa Shanghai, NSCIB SS-210064-CR with life cycle components from EAL6 package, [11]

The partial ALC re-evaluation also resulted in an updated STAR for ALC-Reuse for the following site:

- Tesna Pyeungtaek [12] completed a new on-site audit with life cycle components from EAL5 package to cover a physical extension of the site as described in the IAR [2]

The Development Sites of Samsung in Giheung and Hwasung have not been re-audited, only a new location called 'Tera Tower' [3] was audited on-site and added to the scope. For this site, no new STAR was created. The exisiting STAR for Samsung Electronics Development Environment in Giheung and Hwasung [13] is used without modification.

The production site INESA Shanghai was integrated via the STAR [11] from its site certification NSCIB-SS-210064-CR in the Dutch CC scheme.

Conclusion

The maintained change is at the level of life cycle security aspects. The ITSEF has audited sites and evaluated the described changes or integrated existing site certificates to provide an updated ETR [5] which has been approved by the Certification Body of BSI. The ETR for Composition was not updated and remains as included in the Certification Report BSI-DSZ-CC-0882-V2-2019 [4].

The resistance of the TOE to attacks has <u>not</u> been re-assessed in the course of this maintenance process. Therefore, the assurance statement as outlined in the Certification Report BSI-DSZ-CC-0882-V2-2019 dated 11 December 2019 is of relevance and has to be considered when using the product.

Obligations and notes for the usage of the product:

All aspects of assumptions, threats and policies as outlined in the Security Target not covered by the TOE itself need to be fulfilled by the operational environment of the TOE.

The customer or user of the product shall consider the results of the certification within his system risk management process. In order for the evolution of attack methods and techniques to be covered, he should define the period of time until a re-assessment for the TOE is required and thus requested from the sponsor of the certificate.

This report is an addendum to the Certification Report [4].

References

[1]   Common Criteria document "Assurance Continuity: CCRA Requirements", version 2.1, June 2012

[2]   IAR Site Tesna, Version 0.1, 07 January 2020, Samsung Electronics (confidential document)

[3]   IAR Site DSR and Tera Tower, Version 0.1, 08 March 2021, Samsung Electronics (confidential document)

[4]   Certification Report BSI-DSZ-CC-0882-V2-2019 for S3CS9AB 32-Bit RISC Microcontroller for Smart Cards, Revision 0 with specific IC Dedicated Software from Samsung Electronics, 11 December 2019, Bundesamt für Sicherheit in der Informationstechnik

[5]   Evaluation Technical Report Summary (ETR Summary) BSI-DSZ-CC-0882-V2-2019-MA-01, S3CS9AB Revision 0, Version 7, 31 May 2021, TUV Informationstechnik GmbH

[6]   Evaluation Technical Report for Composite Evaluation (ETR COMP) for the S3CS9AB Revision 0, Version 3, 02 December 2019, TUV Informationstechnik GmbH

[7]   Project Kansa Security Target of Samsung S3CS9AB 32-bit RISC Microcontroller for Smart Card with specific IC Dedicated Software, Version 2.2, 14 October 2019, Samsung Electronics (confidential document)

[8]   Site Technical Audit Report, Samsung Electronics, Onyang Factory, BSI-DSZ-CC-S-0173, Version 1, 30 November 2020, TUV Informationstechnik GmbH

[9]   Site Technical Audit Report, HANA Micron Inc. Korea, BSI-DSZ-CC-S-0166, Version 1, 08 September 2020, TUV Informationstechnik GmbH

[10]   Site Technical Audit Report, ASE Korea Co., BSI-DSZ-CC-S-0165, Version 2, 10 October 2020, TUV Informationstechnik GmbH

[11]   Site Technical Audit Report, INESA Shanghai, 19-RPT-582, Revision 2.0, 02 August 2019, TUV Rheinland Nederland B.V.

[12]   Site Technical Audit Report, TESNA Co. Ltd., BSI-DSZ-CC-0882-V2-MA-01, Version 3, 21 May 2021, TUV Informationstechnik GmbH

[13]   Site Technical Audit Report, Samsung Electronics Co. Ltd., Development Environment, BSI-DSZ-CC-0882-V2, Version 2, 23 March 2020, TUV Informationstechnik GmbH