

End to End Process
For
Smart Card / Microcontroller Module/ Inlay
Testing and Certification

(Issue 5 Dated 06 October 2016)

1.0 PURPOSE:

This procedure provides the requirements and criteria for testing and certification of Smart Cards / Microcontroller Modules / Inlays.

2.0 SCOPE:

For the purpose of certification products (Smartcard/Microcontroller module/Inlays) are covered in the scope. The scheme envisages to demonstrate conformance to SCOSTA/SCOSTA-CL requirements. The scope of certification is limited to smart card compliance certificate of SCOSTA / SCOSTA-CL standard and does not cover the processes and controls required in the complete lifecycle of the smart card like security at card level, personalization etc.

3.0 RESPONSIBILITIES:

Certification Body: To interact with the client for facilitation of certification as governed by the rules and procedures of the Certification Body.

Software Test Laboratory: Director (Smart Card Test and Evaluation) is responsible for planning and managing the testing activity.

Client: is responsible to provide inputs, information and the hardware etc. as outlined in Application Form.

4.0 Criteria for Certification

The supplier (client) of product (Smart Card / Microcontroller Module / Inlay) shall demonstrate the compliance of its product (Smart Card / Microcontroller Module / Inlays) with the following criteria:

- SCOSTA specification V1.2b : March 2002 including latest Errata and addendum or SCOSTA-CL Ver. 1.2, dated 06th July 2007 including all addendums & errata with STK 1.2.

- ISO 9001 Certificate / CMMI Level 3 or above of the manufacturing facility for manufacturing of Smart Card/Microcontroller Module/Inlays (implantation / embedding) and ISO 9001 Certificate / CMMI Level 3 or above of the supplier / client facility. In case of CMMI published appraisal report need to be submitted.
- Certificate/ Declaration of conformity with ISO 7816; Part.-1, 2, 3 or ISO 14443 Part 1, 2, 3 as required.
- Evidence of conformity / Certificate of chip security assurance minimum Common Criterion EAL level 4 (or higher) or EMVCO.
- “Certificate of incorporation” of supplier **in India***.
- “Certificate of registration” for brand name of product submitted.

** For epassport application this requirement is exempted till further notification.*

5.0 Requirements:

5.1 Clients shall submit the application form (SCPC-05-06) to the Director (Smart Card Product Certification), who acts as a contact point, along with the prescribed fee and other inputs.

5.2 Client shall sign “Certification Agreement Document” (SCPC-05-04) indicating agreeing with the rules and the procedures, “Terms and Conditions” of the Certification Body.

5.3 In case of flash based product

5.3.1 “Flash Programming Declaration Certificate” shall be submitted by the supplier/applicant from chip vendor declaring that the Operating System has been loaded in the Flash Memory chip at wafer level in the chip manufacturer’s facility and that it has been locked at that facility in a way that it cannot be altered, modified, erased or deleted either selectively or wholly. The format of the certificate is given in SCSPC-05-10.

5.3.2 The applicant should submit from chip vendor EAL4+(or Higher) Common Criteria Certificate along with Security Target of Evaluation of the Boot loader/Flash Loader/Start Program / Boot Program under the Common Criteria Certificate. The Common Criteria Certificate must display BSI-CC-PP-0035-2007 / BSI-CC-PP-0084-2014 (or newer) Protection Profile.

5.3.3 The supplier/applicant shall provide the Chip ID Tool (hardware and software) to allow identification of the chip in the smart card submitted for certification, in case of flash based product.

5.5 Director (Smart Card Product Certification) after preliminary evaluation of application and inputs, forwards the technical inputs and the product (Smart cards/ Microcontroller Modules / Inlays) to the Director (Smart Card Test & Evaluation), who constitutes the Test Engineering Cell.

5.6 a) It is mandatory that the manufacturing organization carrying out primary stage of manufacturing (implantation/ embedding) shall be ISO 9001 / CMMI Level 3 or above registered with an accredited certification body.

b) If supplier/applicant is involved in other activities as mentioned in 1.3 Definitions of SCPC-05-01 shall demonstrate the Quality Management System by producing ISO 9001 / CMMI Level 3 or above compliance certification with accredited certification body for respective activity.

c) In case of the ISO 9001 / CMMI Level 3 or above Certificate of manufacturer and /or Supplier is expiring during the validity period of SCOSTA/SCOSTA-CL Compliance Certificate, then it will be mandatory on the part of applicant to get them renewed and provide valid ISO 9001 / CMMI Level 3 or above certificate to Certification Body.

5.7 Techno-Admin support cell ensures adequacy and completeness of the information and Hardware through a checklist to further process the case for testing and certification

5.8 Test planning is done in accordance with SCOSTA/SCOSTA-CL Test Script. The Testing of product (Smart Card/ Microcontroller Module / Inlay) is carried out using Test Scripts as the case may be. The Black Box test strategies are used for carrying out testing. The persons involved in the testing will make efforts to understand the capabilities of the product to add value through feedback in the test case design.

5.9 Whenever a defect is found while executing the test, the same is logged.

5.10 A Test Summary Report is prepared that summarizes the test cases and categorize the defects according to their degree of severity in accordance with procedure.

5.11 The following documents shall be delivered to the Certification Body Director (Smart Card Product Certification) after the completion of tests:

- Test Summary Report (including defects found)
- All the inputs received for testing (hardware and software)

5.12 Certification Committee evaluates the outputs of testing along with other inputs

- Technically
- Procedurally
 - a) To ensure the “fitness for use and conforming to specifications.”
 - b) To ensure all the procedures have been followed.
 - c) To ensure criteria defined are fulfilled and in conformance.

5.13 After satisfactory completion of the evaluation, based on the recommendation of Certification Committee. Head (Smart Card Product Certification Body) issues the Certificate of Approval.

5.14 Director (Smart Card Product Certification) updates the database of Current list of certificates (Smart Card/ Microcontroller Module / Inlays), Manufacturer/ Supplier which is available on the public domain <http://scosta.gov.in> for reference.

5.15 Applicant/ Supplier have to maintain the system, which will be ensured through surveillance mechanism and audit/renewal testing.

5.16 Applicant/Supplier is required to submit registration certificate for brand name of their product.

5.17 Applicant/Supplier is required to submit “certificate of incorporation” **in India***.

5.18 The applicants while submitting the hard masked cards for testing and certification, a certificate of ROM Mask / Hard mask part number from chip manufacturer is also required to be submitted. The format of the certificate is given SCPC-05-09.