



**EMV® General Bulletin No. 57**  
**Third Edition, January 2024**

---

## **EMV Level 3 Framework Implementation Guidelines and Pseudo-Function Definitions for Test Cards Release**

***This EMVCo Level 3 Testing Group (L3TG) Bulletin provides notification to vendors of the release of the Level 3 Framework Implementation Guide version 1.2 and L3 Pseudo-Functions Definitions for Test Cards version 1.6 documents, and qualification readiness timelines.***

---

### **Applicability**

This Bulletin applies primarily to vendors of Level 3 (L3) test tools.

### **Related Documents**

- EMV® L3 Testing Framework – Implementation Guidelines – Version 1.2 (dated March 2023)
- EMV® L3 Testing Framework - Pseudo-Function Definitions for Test Card Images – Version 1.6 (dated March 2023)

### **Effective Date(s)**

- March 2023 – documents released
- September 2023 – readiness to qualify a L3 TSE component for EMV® L3 Testing Framework – Implementation Guidelines version 1.2
- January 2024 – readiness to qualify a L3 TT component for EMV® L3 Testing Framework – Implementation Guidelines version 1.2, and a L3 CS component for EMV® L3 Testing Framework – Implementation Guidelines version 1.2 and L3 Pseudo-Functions Definitions for Test Cards version 1.6

---

### **Description**

The EMVCo Level 3 Testing Group (L3TG) announced, in March 2023, the release of an updated version of the EMV® L3 Testing Framework – Implementation Guidelines (L3 FIG) version 1.2 and the EMV® L3 Testing Framework – Pseudo-Function Definitions for Test Card Images (L3 PF) version 1.6. The documents incorporate clarifications and include support of EMV® Book C-8 and SB 243 (refer to the revision log of the documents for details).

The following table provides a status on the current qualification readiness:

<b>Component</b>	<b>Version</b>	<b>Qualification readiness</b>
<b>L3 Test Selection Engine (L3 TSE)</b>	L3 FIG v1.2	Available: 29 September 2023
	L3 FIG v1.1 and SB 251 (or below)	Retired: 29 September 2023
<b>L3 Test Tool Engine (L3TT)</b>	L3 FIG v1.2	Available: 31 January 2024
	L3 FIG v1.1 and SB 251 (or below)	Retired: 31 January 2024
<b>L3 Card Simulator (L3 CS)</b>	L3 FIG v1.2 L3 PF v1.6	Available: 31 January 2024
	L3 FIG v1.1 and SB 251 (or below) L3 PF v1.5 (or below)	Retired: 31 January 2024

**Note:** Refer to [EMVCo's website](https://www.emvco.com) for details on the L3 Test Tool Qualification process.

For the L3 TT component only, vendors may have the choice between the 2 following options:

Option #	Description	Process
Option 1	Self-qualification	<p>Pre-requisite: the vendor must have previously successfully completed qualification of their L3 TT for SB251.</p> <ol style="list-style-type: none"> <li>1. Contact the L3 Qualification Service Provider (refer to <a href="#">EMVCo's website</a> for QSP list) to initiate the L3 TT self-qualification process</li> <li>2. The QSP will provide the self-qualification package</li> <li>3. Vendor executes the test cases in their own testing environment and sends the report to the L3 Secretariat (l3_secretariat@emvco.com)</li> <li>4. If successfully completed, EMVCo will issue a Letter of Qualification (LoQ) including a note that the L3 TT was self-qualified for L3 FIG v1.2</li> </ol> <p><b>Note:</b> a \$500.00 admin fee will be charged to the vendor by EMVCo to re-issue the LoQ.</p>
Option 2	Full qualification	Perform a full L3 TT qualification following EMVCo's L3 Test Tool Qualification process. Refer to <a href="#">EMVCo's website</a> for details.

For the L3 CS component only, the following requirement in **green** for supporting XDA is for future proofing purposes only. Vendors may choose to implement it. However, it will **not** be tested, **nor** will it be part of the L3 CS qualification for L3 FIG v1.2 and L3 PF v1.6.

Pseudo function Name	TAG	Description
<b>emvcard.sdad</b> ( <i>format</i> )	9F4B	<p>Signed Dynamic Application Data for <b>XDA</b>, DDA, CDA or fDDA.</p> <p><b>GenAC:</b> emvcard.sdad() is used when CDA <b>or</b> <b>XDA</b> supported. The logic is defined as follows:</p> <p style="padding-left: 40px;">if (P1==???1???b) [CDA requested], then Signed Data Format (SDF) value used to generate SDAD = '05'</p> <p style="padding-left: 40px;"><b>else if (P1==???1???b) [XDA requested], then SDF value used to generate SDAD = '15'</b></p> <p style="padding-left: 40px;">else tag '9F26' (AAC cryptogram) returned</p> <p><b>Internal Auth:</b> emcard.sdad() is used when DDA supported. SDF value used to generate SDAD = '05'.</p> <p>Contactless <b>GPO</b> or in <b>READ RECORD:</b> emvcard.sdad() is used when fDDA supported. SDAD is generated as follows:</p> <p style="padding-left: 40px;">if (Card) CID = 'TC', then SDF value used to generate SDAD = '05'</p> <p style="padding-left: 40px;">else if (Card) CID = 'ARQC' and TTQ bit 'ODA for online authorizations supported' = 1b, then SDF value used to generate SDAD = '95'</p> <p><i>format 'A5' SDF may be used by Union Pay.</i></p>

# Legal Notice

This document is subject to change by EMVCo at any time. This document does not create any binding obligations upon EMVCo or any third party regarding the subject matter of this document, which obligations will exist, if at all, only to the extent set forth in separate written agreements executed by EMVCo or such third parties. In the absence of such a written agreement, no product provider, test laboratory or any other third party should rely on this document, and EMVCo shall not be liable for any such reliance.

No product provider, test laboratory or other third party may refer to a product, service or facility as EMVCo approved, in form or in substance, nor otherwise state or imply that EMVCo (or any agent of EMVCo) has in whole or part approved a product provider, test laboratory or other third party or its products, services, or facilities, except to the extent and subject to the terms, conditions and restrictions expressly set forth in a written agreement with EMVCo, or in an approval letter, compliance certificate or similar document issued by EMVCo. All other references to EMVCo approval are strictly prohibited by EMVCo.

Under no circumstances should EMVCo approvals, when granted, be construed to imply any endorsement or warranty regarding the security, functionality, quality, or performance of any particular product or service, and no party shall state or imply anything to the contrary. EMVCo specifically disclaims any and all representations and warranties with respect to products that have received evaluations or approvals, and to the evaluation process generally, including, without limitation, any implied warranties of merchantability, fitness for purpose or non-infringement. All warranties, rights and remedies relating to products and services that have undergone evaluation by EMVCo are provided solely by the parties selling or otherwise providing such products or services, and not by EMVCo, and EMVCo will have no liability whatsoever in connection with such products and services.

This document is provided "AS IS" without warranties of any kind, and EMVCo neither assumes nor accepts any liability for any errors or omissions contained in this document. EMVCO DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT, AS TO THIS DOCUMENT.

EMVCo makes no representations or warranties with respect to intellectual property rights of any third parties in or in relation to this document. EMVCo undertakes no responsibility to determine whether any implementation of this document may violate, infringe, or otherwise exercise the patent, copyright, trademark, trade secret, know-how, or other intellectual property rights of third parties, and thus any person who implements any part of this document should consult an intellectual property attorney before any such implementation.

Without limiting the foregoing, this document may provide for the use of public key encryption and other technology, which may be the subject matter of patents in several countries. Any party seeking to implement this document is solely responsible for determining whether its activities require a license to any such technology, including for patents on public key encryption technology. EMVCo shall not be liable under any theory for any party's infringement of any intellectual property rights in connection with this document.