

Type A Undershoot

This Specification Bulletin clarifies the Type A undershoot requirements.

Applicability

This Specification Bulletin applies to:

- *EMV Level 1 Specifications for Payment Systems, EMV Contactless Interface Specification, Version 3.1 – December 2020.*

Related Document

- *None*
-

Description

This Specification Bulletin clarifies the Type A undershoot requirements following a rising edge.

Specification Changes

Change requirement 3.3.2.2 as follows:

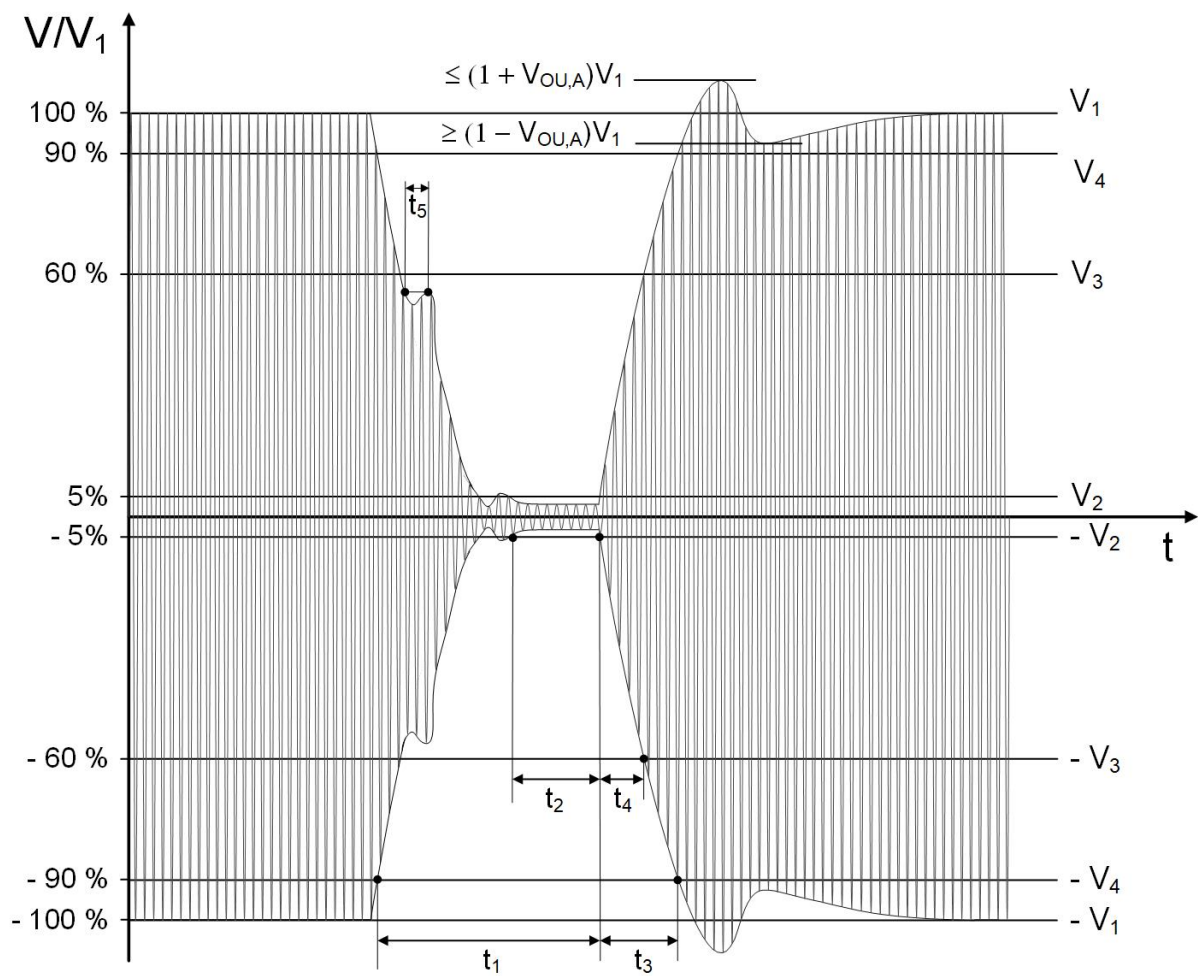
-
- 3.3.2.2 The PCD shall modulate the Operating Field in the Operating Volume in such a way that the signal measured at the output of the pickup coil (J9) of the EMV – TEST PICC has the following characteristics (see also Figure 3.1):
- Ringing following the falling edge shall remain below $V_{OU,A}V_1$.
 - Overshoots and undershoots immediately following the rising edge shall remain within $(1 \pm V_{OU,A})V_1$.

The modulation characteristics shall be measured as described in Table 3.14.

Refer to Annex A.2 for the value of $V_{OU,A}$.

Update Figure 3.1 as follows:

Figure 3.1: Lower Level – Type A



Legal Notice

The EMV® Specifications are provided “AS IS” without warranties of any kind, and EMVCo neither assumes nor accepts any liability for any errors or omissions contained in these Specifications. 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 THESE SPECIFICATIONS.

EMVCo makes no representations or warranties with respect to intellectual property rights of any third parties in or in relation to the Specifications. EMVCo undertakes no responsibility to determine whether any implementation of the EMV® Specifications 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 the EMV® Specifications should consult an intellectual property attorney before any such implementation.

Without limiting the foregoing, the Specifications 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 these Specifications 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 the EMV® Specifications