

July 8, 2019

Gerhard Schirra
CTC advanced GmbH
Untertuerkheimer Str. 6-10
Saarbruecken, 66117
GERMANY



EMVCo Letter of Accreditation – CTC advanced GmbH

Accreditation Number: CETI.L.0497

Laboratory Name:	CTC advanced GmbH
Facility Name:	CTC advanced GmbH
Facility Address:	Untertuerkheimer Str. 6-10 Saarbruecken, 66117 GERMANY
Scope:	See Appendix
End of validity period:	June 30, 2021

Dear Gerhard Schirra:

EMVCo, LLC ("EMVCo"), a Delaware limited liability company, has received your request for accreditation of the above referenced laboratory facility. After assessing such request, EMVCo has found reasonable evidence that the laboratory facility is capable of executing the type of testing listed above.

EMVCo hereby (a) grants your EMVCo accreditation for your laboratory facility, subject to the conditions set forth herein, and (b) agrees to include your laboratory facility in EMVCo's list of accredited laboratories. Because EMVCo's grant is subject to such limitations, including certain events of termination, you and any third parties should confirm that such accreditation is current and has not been terminated by referring to the list of accredited laboratories published on the EMVCo website (www.emvco.com).

CONDITIONS

EMVCo requires an interim proficiency audit to be successfully completed before the end of the validity period demonstrating the satisfactory resolution of the existing audit observations as an accreditation probation condition.

EMVCo's accreditation granted in this letter only applies to the above referenced laboratory facility accredited by EMVCo.

This issuance of this letter is conditioned upon all necessary agreements having been executed, including without limitation the applicable test document license agreement and relationship agreement with EMVCo, and this accreditation letter shall be effective only if such agreements have been executed contemporaneously with or prior to the issuance of this letter and as long as such agreements continue to be in effect.

EMVCo's accreditation is granted solely in connection with the facility reviewed by EMVCo and to the

submitting laboratory. Such accreditation may not be assigned, transferred or sublicensed, either directly or indirectly, by operation of law or otherwise. Only those laboratories who have a valid letter of accreditation from EMVCo for a facility may claim that they have an accredited laboratory facility.

EMVCo may revoke its accreditation of a laboratory at any time in its sole discretion. Because this accreditation may be revoked at any time, no third party should rely on this accreditation letter at any time without first confirming the continued effectiveness of the accreditation with EMVCo. EMVCo reserves the right to modify the terms or duration of this accreditation at its sole discretion, including without limitation to accommodate business or security requirements. Even though EMVCo has accredited the laboratory facility described in this letter, the laboratory shall be responsible for compliance with all applicable specifications and for all liabilities resulting from the use of the laboratory facility.

You may now communicate that the laboratory facility listed above is EMVCo accredited; provided, however, that (a) you also communicate any of the limitations on EMVCo's qualification described in this letter under the heading Conditions, (b) when identifying that the laboratory facility has been EMVCo accredited, you provide specific details identifying which facility has been accredited and not release a general statement implying that all of the facilities of the laboratory have been accredited, (c) your communication in no way suggests that by using your laboratory for testing or debugging purposes that a vendor will be guaranteed an EMVCo approval of their product, (d) your communication in no way implies that you are a preferred laboratory of EMVCo, and (e) all written communications referring to EMVCo's accreditation shall contain the following legend:

"EMVCo accreditation does not under any circumstances include any endorsement or warranty regarding the functionality, quality or performance of any particular product or service. EMVCo does not warrant any products or services provided by third parties. EMVCo accreditation does not under any circumstances include or imply any product warranties from EMVCo, including, without limitation, any implied warranties of merchantability, fitness for purpose, or non-infringement, all of which are expressly disclaimed by EMVCo. All rights and remedies regarding products and services which have received EMVCo accreditation shall be provided by the party providing such products or services, and not by EMVCo."

This Letter of Accreditation is valid while the laboratory name is posted on the EMVCo website.

EMVCo, LLC, a Delaware limited liability company

By:

Name: Keith Fojtik

Title: EMVCo Card Type Approval Chair

EMVCo, LLC, a Delaware limited liability company

By:

Name: Frédéric Fortin

Title: EMVCo Terminal Type Approval Chair

Appendix

Note: The accreditation is for tests performed in Haus 1 at CTC advanced campus.

Card Type Approval

- Contact
 - o Level 1
 - o CCD Level 2
 - o CPA Level 2
- Contactless
 - o Level 1 (*)

Mobile Type Approval

- Contactless
 - o Level 1
 - o CMP/PPSE

Terminal Type Approval

- Contact
 - o Level 1
 - o Level 2
- Contactless
 - o Level 1 (analogue, digital, interoperability)
 - o C-2

(*) the formal accreditation for Contactless Card Level 1 (Analogue and Digital) is provided by Payment Systems. Refer to them for further information