

**Mastercard**  
2000 Purchase Street  
Purchase, NY 10577  
USA



Mr. Gerhard Schirra  
Managing Director  
CTC advanced GmbH  
Untertuerkheimer Str. 6-10  
66117 – Saarbruecken  
Germany

August 7, 2018

## ***Mastercard Letter of Accreditation***

### ***CTC advanced GmbH***

**Accreditation Number:**           **CET\_ICT – Q4/2011**

Laboratory Name:           CTC advanced GmbH  
Facility Name:               CTC advanced GmbH  
Facility Address:           Untertuerkheimer Str. 6-10, 66117 – Saarbruecken  
**Scope 1:**                    See **Annex 1**  
End of Validity:             August 1, 2020  
**Scope 2:**                    See **Annex 2**  
End of Validity:             February 12, 2019

Dear Mr. Schirra,

Mastercard has received your request for accreditation of the above referenced laboratory facility. After assessing such request, Mastercard has found reasonable evidence that the laboratory facility is capable of executing the type of testing listed above.

Mastercard hereby (a) grants your Mastercard accreditation for your laboratory facility, subject to the conditions set forth herein, and (b) agrees to include your laboratory facility in Mastercard's list of accredited laboratories. Because Mastercard'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 Mastercard website ([www.mastercard.com](http://www.mastercard.com)).

## CONDITIONS

- a) Mastercard requires an interim proficiency audit to be successfully completed within the next 24 months – starting from the last audit date – demonstrating the satisfactory resolution of the existing audit observations as an accreditation probation condition.
- b) Mastercard accreditation granted in this letter only applies to the above referenced laboratory facility accredited by Mastercard.
- c) This issuance of this letter is conditioned upon all necessary agreements having been executed, including without limitation the applicable “Test Tool Agreement” and “Testing Laboratory Accreditation Agreement” with Mastercard, 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.
- d) Mastercard accreditation is granted solely in connection with the facility reviewed by Mastercard 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 Mastercard for a facility may claim that they have an accredited laboratory facility.
- e) Mastercard 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 Mastercard. Mastercard 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 Mastercard 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 Mastercard accredited; provided, however, that (a) you also communicate any of the limitations on Mastercard qualification described in this letter under the heading Conditions, (b) when identifying that the laboratory facility has been Mastercard 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 Mastercard approval of their product, (d) your communication in no way implies that you are a preferred laboratory of Mastercard, and (e) all written communications referring to Mastercard’s accreditation shall contain the following legend:

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

Mastercard accreditation shall be provided by the party providing such products or services, and not by Mastercard."

***This Letter of Accreditation is effective on dispatch from Mastercard.***

Mastercard

By: \_\_\_\_\_

Name: Bruno Parfum

Title: Director, Product Approvals  
EMV & Digital Devices | Enterprise Security  
Solutions

## ANNEX 1

### Cardholder Device Approval Scope:

#### Card product testing

- **M/Chip 4, *PayPass* – M/Chip 4,**
- **M/Chip Advance, 'Non-M/Chip' products**

#### **Contact**

- ✓ Electrical
- ✓ Protocol
- ✓ Application
- ✓ Integration

#### **Contactless**

- ✓ Performance
- ✓ Analog
- ✓ Protocol
- ✓ Application
- ✓ Integration
- ✓ Combination

#### Mobile product testing

#### ➤ **NFC Mobile Device (SWP, eSE, HCE)**

- ✓ Analog
- ✓ Digital
- ✓ Performance
- ✓ Integration
- ✓ Combination

#### ➤ **Secure Element (UICC, eSE)**

- ✓ Performance
- ✓ Application

#### ➤ **Secure Element (FESE)**

- ✓ Analog
- ✓ Digital
- ✓ Performance
- ✓ Application
- ✓ Integration
- ✓ Combination

#### ➤ **Mobile Payment Application (MPA)**

- ✓ Functional

- ✓ Performance
- ✓ Handset Compatibility
- ✓ User Interface

## **Acceptance Device Approval Scope:**

Mastercard Contactless Reader V3.x

### ➤ **Contactless reader Level 2 testing**

- ✓ Application
- ✓ Performance
- ✓ Combination
- ✓ Integration

## **ANNEX 2**

### **Fingerprint Approval Scope**

Biometric cards, Mobile devices and Wearables