

SmartCard Technologies

As a leading and independent full service provider for testing and certification of SmartCard, RFID and NFC related solutions, CTC advanced's worldwide operating division SmartCard Technologies offers a wide range of **DEBUG** and **TYPE APPROVAL** services for **BANKING & FINANCE** and **eIDENTIFICATION**.



TEST SCHEMES & ACCREDITATIONS

ePAYMENT

Banking/Mobile Payment/mPOS Solutions/eCommerce

- EMVCo
- American Express
- Discover
- Mastercard
- Visa
- Girocard - Die Deutsche Kreditwirtschaft (GBIC)
- PURE
- NEXO

eHEALTH

- gematik

eIDENTIFICATION

ePassport, (German) eID

- BSI TR-03105
- ISO/IEC 18745-2

eTICKETING

- VDV-KA
- CEN/TS 16794
- BSI TR-03150

BIOMETRICS

- Mastercard, Visa

COMPLIANCE TESTING FOR CONTACTLESS TECHNOLOGIES

- ISO/IEC 10373-6 (based on ISO/IEC 14443)

STANDARDISATION ACTIVITIES

- Member of EMVCo (Technical Associates), DIN, NEXO, CCC (Car Connectivity Consortium)

TESTING SERVICES

- Type Approval and Compliance Testing
- Pretest / Debug Testing
- Consultancy

RFID/NFC

Whether RFID technology is used for ePassport, Contactless or NFC applications, CTC advanced supports customers in setting and evolving the performance, ensuring that products meet the expectations for regulatory, quality, health, environmental and safety standards for almost any market around the world.

SUPPLEMENTARY TESTING SERVICES

CTC advanced offers a broad portfolio of testing and certification services for your device:

- EMC, Electrical Safety, Health (SAR)
- Environmental Simulation
- Battery Testing
- Radio Testing: DECT, LTE/UMTS/GSM, Bluetooth®, Wi-Fi®, SIGFOX, LoRa, LPWAN
- Network Access
- International Type Approval



SmartCard Technologies

Based on various accreditations by international standardisation bodies, CTC advanced offers consulting, testing and certification services for Banking Applications, Mobile Payment and mPOS solutions including analog, protocol and application testing. The following overview shows our accreditations, as well as other services in the respective payment scheme:

EMVCO

Terminals

- EMVCo Contact Terminal Level 1 and 2
- EMVCo Contactless Terminal Level 1 & Level 2
- EMVCo Terminal ESD Evaluation

Cards / Wearables

- EMVCo Contact Card Level 1
- EMVCo Contactless Card Level 1
- EMVCo CCD & CPA Card

Mobile

- EMVCo Mobile Level 1 (Phase II)
- PPSE

3-D Secure **NEW!**

- 3DS Server
- Access Control Server
- Directory Server

COTS EA programme **NEW!**

VISA

Terminals

- Visa Contactless Device and Reader (MSD, qVSDC, VOQOS & Cross Testing)
- Tap to Phone (SoftPOS, COTS)
- Fleet

Cards / Wearables

- VSDC Functional Testing (incl. Level 1)
- Contact & Contactless Testing (VIS & VCPS)
- Prepaid Chip
- VISA Seccos (VCPS) **NEW!**

Mobile

- Visa Mobile Payment (incl. HCE)
- Visa Mobile Payment Application (VMPA incl. UICC/SE)

Biometric Product Testing - Sensor & Algorithm **NEW!**

DK – DIE DEUTSCHE KREDITWIRTSCHAFT / GERMAN BANKING INDUSTRY COMMITTEE (GBIC)

Accreditations for

- GiroCard and Network Components
- GeldKarte & Secoder
- Payment Network Host Systems
- GBIC ATM System (GA 20xx)
- DC-POS 3.x / TA 7.x

CTC advanced Test Tool

- Web based Online Test Tool - "CTC Online Host"

NEXO

- POI Terminal **NEW!**

PURE

Terminals **NEW!**

- PURE Terminal Certification and SoftPOS

MASTERCARD

Terminals

- Acceptance Devices (Contactless Terminal Level 2)
- SoftPOS (Tap on Phone/COTS)

Cards/Wearables

- M/Chip Card
- Contact & Contactless Testing

Mobile

- M/Chip Mobile
- Mastercard Cloud Based Payments (MCCBP)
- Mastercard Mobile Payment (incl. HCE/SE)
- Mastercard Mobile Payment Application (MPA)

Formal Approval Service Provider

- M-TIP
- GICC-TIP
- CPV

Biometric Product Testing - Sensor & Algorithm **NEW!**

AMERICAN EXPRESS (AMEX)

Terminals

- Expresspay Terminal Level 2 Contactless
- AMEX SoftPOS (COTS)

Cards / Wearables

- Level 1 Contact and Contactless (ID1)
- Card Functional (AEIPS & XPAY)

Mobile

- Level 1 Mobile Handset (UICC & HCE)

DISCOVER

Terminals

- Contactless D-PAS Terminal Application
- Contactless D-PAS Terminal Cross Testing

Cards / Wearables

- Contact D-PAS Card Application
- Contactless D-PAS Card Application & Cross Testing

Mobile

- Mobile D-PAS Card Application (SE)

