



Mobile and Secure Devices for Payment

ABOUT ABC SMARTCARD

ABC SmartCard is a private limited company registered in France. Products are designed, manufactured and distributed worldwide.

ABC SmartCard develops its own OS, **ABC Core**, which offers the simplest means of integrating EMV specifications.

With over 15 years' experience in smartcards, contact & contactless, RFID and NFC, **ABC SmartCard** is the ideal partner to make your project a success.

CONTACT

The **ABC Core-CT** supports any synchronous and asynchronous (T=0 & T=1) smartcard (ISO 7816).

CONTACTLESS & RFID

The **ABC Core-CL** supports any T=CL contactless smartcard (ISO 14443), including Calypso transport cards and all families of Mifare cards.

It is able to read/write any NFC Forum Tag as well as virtually any RFID chip in the ISO 15693 or ISO 18000-3.

INNOVATING NFC FEATURES

Its NFC peer-to-peer capability (NFCIP1 - ISO 18092) is the basis of innovative new applications using this exciting new technology.

MADE FOR INTEGRATION

ABC SmartCard OEM products are available as:

- Standalone IP
- Hardware chipset pre-loaded with **ABC Core** firmware
- OEM module including PCB
- Ready-to-use products such as Coupler or Complete Reader

ABC Core supports standard applications software libraries and a user configurable I/O line (Serial, USB PC/SC CCID).

ABC Core is the ultimate cost effective hardware and firmware solution to build your universal smart card reader.

TYPICAL APPLICATIONS

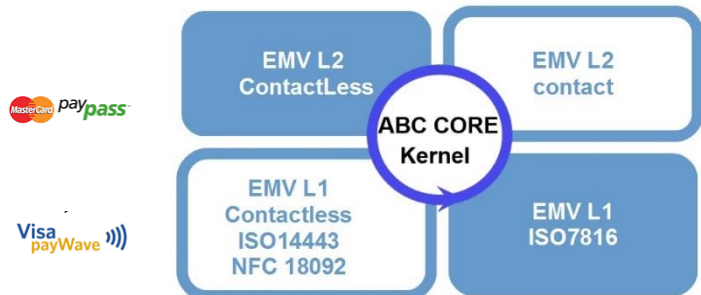
ABC Core is an advanced operating system with fast communication speed.

- m-POS, Smart Phone add-on
- Network Security, USB PC Link Reader, Set-Top-Box
- e-Commerce, Home Banking, Point-Of-Sales (POS)
- Healthcare
- Vending Machines, e-ticketing, m-services
- Access control
- e-ID, User Authentication, Fast boarding, Loyalty



EMV CERTIFICATION

ABC Core-CT is EMV Level1 and Level2 certified



KEY FEATURES

- Host interface : USB 2.0 CCID, UART, SPI, I2C
- Transmission speed : USB 12Mbps, 20Mbps (High Speed SPI)
- Support 5v, 3v and 1,8v Smart Cards ISO 7816 type A, B, C
- Support ISO14443, 15693, 18092, NFC Forum
- Support I²C synchronous cards,
- 2-Wires SLE4432/42 (S=10)
- 3-Wires SLE4418/28 (S=9)
- SLE 44xx, SLE 55xx, SLE 6636
- AT88SC101/102, AT88SC1003, AT88SC153, AT88SC1608
- ST14C01/02/04/08/16/32/64/128/256/1024, ST14C02C/04C
- GFM1K, GFM2K, GFM4K, GFM8K

ABOUT INSIDE SECURE

INSIDE Secure's comprehensive portfolio of Smart Card Reader chips enable customers to obtain secure, high-performance chips for virtually any market segment from a single vendor. Only INSIDE offers standalone hardware platforms as well as integrations with third-party applications. This allows customers to quickly build smart card readers without custom development. Based on 8-bit CISC and 8/16-bit RISC processors, INSIDE's Smart Card Reader solutions deliver outstanding performance and reduced time to market.

A CONTACT VERSION EMV L1 PRE-CERTIFIED

ABC Core-CT1 ver 3.2.x-Based Reader is certified WHQL (Plug & Play and PC/SC) and allows for EMV-compliant developments.

The reader can be used in two different modes:

- Generic operating mode (ISO 7816 & synchronous smart card)
- EMVCo Level1 version 4.3 compliant

COMMUNICATION

ABC Core-CT1 is connecting to the Host interface through USB, as specified in the USB Specification 2.0.

ABC Core-CT1 is working in full speed mode, i.e. 12Mbps and is compliant with CCID class.

Serial, SPI, High Speed SPI and I2C connections are also available.

FIRMWARE VERSION

ABC Core-CT1: rev 3.2.x, rev 3.4.x

MATERIAL

- ABC Core-CT1 Reference manual & User guide
- ABC Core-CT1 Evaluation Kit
- Technical Training
- Certification Support as a Service

SPECIFIC EMV COMMANDS

These commands behave specifically when the EMV-compliant mode is selected

- Power Up – EMV-compliant
- Exchange APDU – EMV-compliant
- Card Status – EMV-compliant



Reference Documentation: ABC Core-CT1 - Base Reader Reference Manual is provided under NDA.

DIFFERENT PACKAGES



AT90SCR	060	075L	075H	200LSD	200LHS	200H
Package	QFN28	QFN32	QFN40	QFN32	QFN32	QFN64
Memory	16kB ROM	48 kB ROM	48 kB ROM	64 KB FLASH	64 KB FLASH	64 KB FLASH
I2C	✗	✓	✓	✓	✓	✓
USB	✓	✓	✓	✓	✓	✓
SPI	✗	High Speed	High Speed	ISP mode	High Speed	High Speed
USART	✓	✓	✓	✓	✓	✓
LEDS	1	✗	✗	4	4	4
Keyboard	✗	✗	✗	✗	✗	✓
GPIO	✗	5	11	✗	✗	✓

- Free samples for Pilot Development
- Technical support for the implementation and for the certification process
- Maintenance & support contract

ABC Core-CT1 is the ultimate cost effective hardware and firmware solution, to build a universal smart card reader.