

ACR1252 Contactless Smartcard Development Kit



The ACR1252 from ACS is an NFC Forum-certified, 13.56 MHz USB contactless smartcard reader that supports ISO 14443 type A and B cards, MIFARE, FeliCa, and ISO 18092-compliant NFC cards and tags. Replacing the popular ACR122 and ACR1222U, as well as the ACR1251, this reader is equipped with an optional SAM slot which provides a high-level of security in contactless and NFC transactions, and can also be supplied in various OEM module formats.

The ACR1252 SDK is a complete package providing all the components required for application development:

- 1 x ACR1252U NFC Forum Certified Reader with SAM slot
- 5 x MIFARE 1K Contactless Smart Cards
- 5 x ACOS3 Contactless Smart Cards

- 1 x ACOS6-SAM Cards
- 1 x SDK download key

Development kit for the ACR1252 NFC contactless smartcard reader range.

To buy, visit:

<https://www.smartcardfocus.com/shop/ilp/id~718/p/index.shtml>

This Product Briefing has been produced by Dot Origin Ltd, the smart card experts behind SmartcardFocus.com. If you have a query email sales@smartcardfocus.com or call us on +44 (0)1428 685250.

ACR1252U Technical Specifications

Product:

Credential type(s): Contactless

Read/Write: Read and Write

Form factor: Portable

Connector: USB Type-A

OS support: Windows; Linux; Mac OS; Android

Contactless Card Interface:

Contactless interface standard: ISO 14443 Type A and B; ISO 18092 NFC

Contactless credential types: MIFARE, FeliCa

Contactless operating frequency: High (13.56MHz)

Data transmission protocol: T=CL

Contactless operating distance: Up to 50mm (2.0in) depending on tag type

Contactless read/write speed: 106/212/424kbps programmable

SAM Contact Smartcard Interface:

Contact interface standard: ISO 7816 Class A

Contact card types: Contact chip - SIM sized card

Data transmission protocol: T=0 / T=1

Contact read/write speed: 9.6kbps - 215kbps

Host Interface:

Host interface standards: USB CCID

Host data transmission speed (wired): 12 Mbps (USB 2.0 full speed)

Other Features:

Card detection: Movement detection, Automatic detection of card type, Short circuit and thermal protection

Status indicator: 1 x programmable LED (red and green); 1 x programmable buzzer (monotone)

Firmware in-field upgradeable: Yes

Certifications:

Manufacturer's warranty: 1 year

MTBF: 500 000hrs

Type approvals: CE, UKCA, FCC, RoHS, REACH, WEEE, IEC 62368

Application approvals: NFC Forum Certification Mark, EMV Level 1 (Contact), J-LIS (Japan), VCCI (Japan), TELEC (Japan), KC (Korea), BIS (India)

Country of origin: China

Physical:

Dimensions: 98 x 65 x 12.8mm (3.9 x 2.6 x 0.50in)

Weight ($\pm 5\%$): 81g (2.9oz)

Cable length supplied: 1m (39in)

Power:

Supply voltage: 5V DC

Operating current: 200mA (max)

Battery power option: No

Environment:

Operating temperature: 0 to 60degC (32 to 140degF)

Operating humidity: 10-90% RH (non-condensing)

The ACR1252U SDK is a complete package providing all the components required for application development:

- 1 x ACR1252U-M1 NFC SAM reader
- 5 x MIFARE 1K Contactless Smartcards
- 5 x ACOS3 Contactless Smartcards
- 5 x ACOS6-SAM Smartcards
- 1 x SDK download key

The SDK download includes:

USB driver: Supports Windows 10, 8.1, 7

Utility Tools:

- PC/SC Learning Tool - enables users to perform PC/SC-compliant Windows API smart card functions, with the option of 'Teach mode' to guide you through the standard sequence of commands
- Tools to support reader polling and programming, NFC card programming, PC/SC card polling and simple PC/SC commands
- ACS QuickView - which reads and displays smartcard reader and smartcard details, and polls to test the presence of a card in the reader
- ACS Script Tool - helps to send APDU commands to one or more smartcards or smartcard readers, including passing values between readers

Sample Codes: Demonstrates basic commands used to communicate with the ACR1252U-M1 SAM reader and smartcards. Visual Basic 2013, Visual C++ 2013, Visual C# 2013, Java Version 6 or above

Reference Manuals: Easy to use reference manuals for the ACR1252U-M1 SAM reader, MIFARE Classic 1K, ACOS3 and ACOS6-SAM smartcards to help with the development process

Technical Specifications: Includes detailed technical specifications of all the contained products

Manufacturer's part number: SDK-ACR1252U-M1

Country of origin: China

HSF code: 84719000