

ACR1552 Contactless Smartcard Development Kit



The ACR1552 from ACS is the fourth generation of a very popular NFC Forum-certified, 13.56 MHz USB contactless smartcard reader that supports ISO14443 type A and B cards, MIFARE, FeliCa, and ISO 18092-compliant NFC cards and tags, and now ISO 15693 cards too. Replacing the earlier ACR122 and ACR1252U, this reader is equipped with a 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 ACR1552 SDK is a complete package providing all the components required for application developments that make the most of the ACR1552U readers:

- 1 x ACR1552U NFC Forum certified reader with SAM slot
- 5 x MIFARE 1K contactless smartcards
- 5 x ACOS3 contactless smartcards

- 1 x ACOS6-SAM card
- 1 x SDK download key - to access PC/SC compliant sample codes for device and contactless card programming,

Development kit for the ACR1552U NFC contactless smartcard reader range.

To buy, visit:

<https://www.smartcardfocus.com/shop/ilp/id~1020/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.

Technical Specifications

Product:

Credential type(s): Contactless

NFC modes: Read and Write, Card emulation, Keyboard emulation (using free tool)

Form factor: Portable

Connector: USB Type A

OS support: Windows; Linux; Mac OS; Android; iOS/iPadOS (16 or above)

Contactless Card Interface:

Contactless interface standard: ISO 14443 Type A and B; ISO 18092 NFC; ISO 15693

Contactless credential types: MIFARE Classic, FeliCa

Contactless operating frequency: High (13.56MHz)

Data transmission protocol: T=CL

Contactless operating distance: Up to 70mm (2.76in) depending on tag type

Contactless read/write speed: 106/212/424/848kbps programmable (ISO14443);
26/53kbps (ISO15693)

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: 13.4kbps - 1250kbps

Clock frequency: 5MHz

Host Interface:

Host interface standards: USB CCID

Host data transmission speed (wired): 12 Mbps (USB 2.0 full speed) compatible with
USB 3.0

Other Features:

Status indicator: 1 x programmable LED (blue 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

Security certifications: FIPS 140-2 Level 3

Application approvals: J-LIS (Japan), VCCI (Japan), KC (Korea)

Country of origin: China

Physical:

Dimensions: 98 x 65 x 12.8mm (3.86 x 2.56 x 0.50in)

Weight ($\pm 5\%$): 89g (3.1oz)

Cable length supplied: 1m (39in) captive

Power:

Supply Voltage: 5V DC

Current Consumption: 300mA max

Battery power option: No

Environment:

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

Operating humidity: 90% RH (non-condensing)

Manufacturer's part number: ACR1552U-M1

Country of origin: China

HSF code: 84719000

The ACR1552U SDK is a complete package providing all the components required for application development:

- 1 x ACR1552U-M1 NFC SAM reader
- 5 x MIFARE 1K contactless smartcards
- 5 x ACOS3 contactless smartcards
- 1 x ACOS6-SAM smartcard
- 1 x SDK download key

The SDK download includes:

Supports Windows 11, Windows 10

Utility Tools:

- Advanced Device Programming Tool - 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
- ACS Keyboard Configuration Tool - to act as a keyboard wedge to adjust card read outputs to suit your application

Sample Codes: Demonstrates basic commands used to communicate with the ACR1552U-M1 SAM reader and smartcards. Visual Basic, Visual C++, Visual C# (.NET framework 4.7.2), Java (JDK8)

Reference Manuals: Easy to use reference manuals for the ACR1552U-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

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